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Vorwort


Als Herausgeber dieses Bandes hoffen wir, dass diese Reihe auch weiterhin Akademiker und Profesionelle dazu bewegen wird, in Forschung und Beruf die höchsten Standards zu beanspruchen, und dass es weiterhin als Ansporn zu weiteren Formen von Zusammenarbeit unter Teilnehmern dieses Projektes dienen wird.

Prof. Dr. Dražen Barković
Prof. Dr. Bodo Runzheimer
Foreword

It is our pleasure to introduce the book “Interdisziplinäre Managementforschung IX/ Interdisciplinary Management Research IX” to you. The first volume appeared in 2005 as a result of co-operation between the Faculty of Economics in Osijek (Croatia) and Pforzheim University (Germany), particularly through the postgraduate programme “Management”. The co-operation between these partnering institutions has been nurtured, amongst else, through annual scientific colloquia at which interesting topics in various fields of economics and management have been presented and later published in the proceedings. Over the years, the scientific colloquia have drawn the attention of academic scholars from other Croatian universities, as well as from other countries including Australia, Germany, Hungary, Poland, Romania, Slovenia, Montenegro, Bosnia and Herzegovina, Serbia, India, Ireland, Czech Republic, Israel, Italy, South Africa, Belgium, Switzerland, USA, Slovakia, Denmark, Macedonia, and the United Kingdom each making a contribution in academic and professional discussion about contemporary management issues. Actuality and importance of the issues discussed, the international character of the book in terms of authors and topics, the highest standards of research methodology and continuity in publishing have been recognized by the international academic community, resulting in the book now being indexed in world-known data bases such as Thomson ISI, RePEc, EconPapers, and Socionet.

The latest edition, i.e. “Interdisziplinäre Managementforschung IX/ Interdisciplinary Management Research IX” encompasses 75 papers written by 154 authors. The success of former editions has echoed beyond the traditionally participative countries and authors and now includes new authors from Mexico and Cyprus, each providing a valuable contribution to this interdisciplinary management forum.

As editors we hope that this book will continue to encourage academic scholars and professionals to pursue excellence in their work and research, and to provide an incentive for developing various forms of co-operation among all involved in this project.

Prof. Dr. Dražen Barković
Prof. Dr. Bodo Runzheimer
MANAGEMENT
Abstract

Croatia is at the very end of its pre-accession process of joining the European Union, during which many institutions and entities had the opportunity to apply and obtain the pre-accession funds. The aim of these funds was to reduce regional disparities between Member States and candidate countries, to strengthen the public institutions with a focus on integration into the system of the European Union and to prepare them for the use of the Structural and Cohesion Fund after accession.

Tourist Boards in collaboration with local government units, legally defined as carriers of tourism development for specific area were also one of the entities who had the opportunity as a project applicants and / or partners in the project to become the beneficiaries of pre-accession funds. This research shows that during the pre-accession period 2007-2013 there were not so many of such projects. Small number of projects that were financed from pre-accession funds is the result of the shortcomings of the administrative and organizational functioning modes of tourist boards in the Republic of Croatia.

With creation of additional cooperation between larger number of local government units who have the same or similar tourism characteristics on their territory, between tourist boards and development agencies active in this field as well as between other entities in tourism, situation could be changed significantly. Then it comes to merging into “clusters”, which show the great opportunity of devel-
opment with regard to their current funding by the relevant ministries and the European Union in the future. This paper will review the legal options for the development of possible models, and show in a concrete example of Vukovar-Srijem County that theoretical model can find its application in practice in one undeveloped tourist area.

JEL Classification: L83

**Keywords:** competitiveness of the region, structural funds, clusters in tourism, Vukovar-Srijem County

1. The current possibilities for financing projects in tourism in Vukovar-Srijem County

There are various forms of aid for the development of tourism in Croatia, ranging from the Ministry of tourism to other ministries, public agencies and institutions. When we discuss about promoting of tourism development, it is certainly necessary to emphasize grant programs which are being allocated for quality development projects by the relevant ministries, whose tenders are published usually once a year but those are the funds which are directed to projects with smaller value. In addition to the programs at the national level, the entities were able to finance tourism projects through the pre-accession funds of the European Union, namely the Instrument for Pre-Accession Assistance (IPA), which provided funds for the period from 2007 to 2013. IPA program consists of five components: Transition Assistance and Institution Building, Cross-border Cooperation (CBC), Regional Development, Human Resources Development and Rural development. (Central Finance and Contracting Agency official website, 2013.).

Given the possibilities of project financing within the pre-accession programs for projects of importance for tourism development in Vukovar-Srijem County, the following must be pointed out: IPA II CBC Program Croatia-Serbia (promotion of tourism development based on the cross-border regional identity and natural and cultural resources of the cross-border area), IPA II CBC Program Croatia-Bosnia and Herzegovina (promotion of creation of cross-border cooperation and partnership, encouraging the development of joint cross-border activities for revitalization of the economy, nature and environment protection), IPA II CBC Program Croatia-Hungary (sustainable development and tourism development), IPA III c - Regional Competitiveness (business and public tourism infrastructure),

Quantitative research that was conducted among all counties in the Republic of Croatia has showed that there were not so many of such projects during the pre-accession period 2007-2013 and the specific problem, which is also determined in the research, is that the number of employees at the institutional level for the preparation of projects in tourism is not at a satisfactory level, and that only in 1/5 of Croatian counties it can be said that there are more than 30 people who have, up to today, participated in the project preparation and implementation. (Banožić, M. et al, 2012).

Despite the fact that all the counties with existing administrative departments dealing with regional policy and project preparation for EU-financing, according to the Law on Regional Development, were obligated to establish and organize their county development agencies, and despite the fact that some municipalities and cities had voluntarily established their local development agencies, still there is no sufficient number of personnel who are ready to prepare such projects, particularly in tourism. (Law on Regional Development, NN 153/09).

In addition to the current situation, the result of the same research is also worrisome, stating the insufficient number of projects in tourism for which the technical documentation is being prepared, which is necessary preparation for the EU-structural funds. Namely, with entry of the Republic of Croatia into the EU on July 1st 2013 there are new opportunities for project financing within the structural funds, which means that only 5% of tourism projects will get the opportunity for financing in the future, because exactly that percentage of respondents who participated in the survey have reported that they have undisputable property rights and/or prepared technical documentation. Given the fact that structural funds, as a funding possibility for tourism projects, will be accessible up to the end of 2020, such a small number of projects ready for financing can be increased, and for that it is necessary to connect the key stakeholders into partnership. Currently there is insufficient number of partnerships established by the system of tourist boards and the Ministry of tourism regarding the preparation of technical documentation, co-financing and project preparation according to the rules of the European Union.
2. Analysis of possible models for better preparation and implementation of projects financed by the European Union

With respect to the abovementioned role and tasks of the tourist boards system and the fact that it carries good and bad properties of a large administrative system, the solution must not be the establishment of new institutions because the introduction of new entities would only aggravate the current situation. Therefore, it is necessary to take advantage of the current system and use its strengths but exclude its bad properties and to strengthen the existing capacity of the tourist boards. Especially because previous analysis showed that tourist boards, according to the Law, were established in places where it was justified by the sales and tourism revenue, and not where the tourism resources actually exist. So sometimes the resource management and future tourism development was left to be managed by the para-state organizations. (Law on Tourist boards and promotion of Croatian tourism, NN 152/08).

As the figure (Figure 1) shows, tourist boards that operate in Croatia at the regional level establish their cooperation with institutions from the state level which from the top coordinate, fund and monitor the work ( Croatian Tourist Board and the Ministry of Tourism), and with other institutions on the regional and local level, whether it is a local executive authority, companies dealing with communal activities and educational institutions, or with entities who directly participate in the creation of tourism products (service providers in the tourism and cultural sector, founders of entertainment, sports and recreational activities, food and souvenirs manufacturers).

![Figure 1](image_url)

**Figure 1** Tourist board and other entities which create tourism product on regional level

The strengthening of the existing system of tourist boards can be achieved by good coordination of all tourism entities at the level of Vukovar-Srijem County through the signing of the cooperation agreements. Tourist Board of the city and the municipalities that surround the city area should sign a cooperation agreement. According to the agreement the municipalities would participate in the financing and operation of the boards, and in return the tourist board would be responsible for the contracted area to prepare projects in tourism and to develop the tourism product with other institutions in the contracted area. That is an example of joining into the cluster, which shows a great potential in regard to their current funding by the relevant ministries and the European Union in the future. (Guide for information about the European Union, 2013).

Clusters are geographically concentrated, interconnected business entities, specialized suppliers, service providers and connected institutions which in a particular area represent a region or country (Porter, 2000, P 8). Since tourism is an activity that doesn’t operate independently, the tourism cluster must include those entities that manage attractions, develop transport infrastructure as well as all entities that make up the conditions for the sojourn and also all parties interested in tourism development: suppliers, public sector institutions, government and para-state bodies at different levels, actual tourists and many other stakeholders interested in tourism development. (Strategic Marketing Plan of Croatian tourism for the period from 2010. to 2014., 2009. page. 84).

According to Porter, there are five competitive forces which should be influenced by the comparative advantages of the destination, in order to ensure the future of tourism destinations. In other words, the comparative advantages of one destination determine its competitive positioning. (Porter, 1998., page 24).

The model for the creation of institutional support for the development and marketing at the regional level is proposed, and the tourist board, which signs an agreement of cooperation with other tourism entities and local government units represents the principal and carrier of the tourism cluster in a particular geographic area. According to Porter’s approach, we can say that the clusters represent the group of all businesses that make a competitive destination. Together they make a competitive diamond that includes four force groupings, which in their inter-relations determine their competitiveness: demand conditions, tourist entities and their competitors, inputs and sector support. As the image (Figure 2) shows, clusters provide institutional support which brings tourism operators a number of advantages.
in their coordinated work, and they can more easily expand their activities, taking advantage of quick access to market information, lower promotional costs, easier coordination with the owners and managers of tourism resources, larger number of experts in theoretical and operational plans, quality monitoring and evaluation, among many other benefits.

Figure 2: Porter’s competitiveness diamond applied to tourism cluster

Due to the increasing complexity of relationships in society and the individual interests of different social groups, the setting up of an effective institutional support and development model that would respond to the challenges of the future now requires establishment of a Triple Helix concept of cooperation between the private, public and academic sector. In addition to fulfilling their traditional role, each of the institutional elements takes over the role of the other, thus creating a synergy effect. This way of interdisciplinary knowledge creation encourages projects
that involve collaboration in research and initiation of entrepreneurship activities, which is especially important in global competitiveness. (Agency for Investment and Regional Competitiveness of the Republic of Croatia, official website, 2013)

Exactly from this form of cooperation arises balanced relationship between knowledge, social benefits and profit motivation. By linking and cooperation of the public and educational sector will be achieved an efficient system of knowledge transfer, and the linking of educational sector and the private sector results in businesses in the tourism entrepreneurship based on knowledge. The afore-mentioned indicates that the cooperation of private and public sector together with the educational sector is necessary in all aspects of the development process in order to improve the competence of personnel, development and innovation, creation of an entrepreneurial culture as well as to strengthen the innovation capacity of the tourism sector as shown in the figure (Figure 3).

![Figure 3: Cooperation of public, private and educational sector in tourism according to Triple helix model.](source)


Triple helix model would allow easier identification and development of project and business ideas, also there would be an increase of the number of experts in the theoretical and operational roles and quality monitoring and evaluation of the project would be achieved. The mentioned model and its implementation would
contribute to the development of tourism in Vukovar-Srijem County, which would thus be based on knowledge and strong partnership.

3. Clustering of tourist boards at the level of Vukovar-Srijem County

The first step in the development of the tourism product in Vukovar-Srijem County should be the establishment of institutional support for the development of five clusters at the level of the city tourist board. Institutional support includes Vukovar-Srijem County’s administrative departments, scientific institutions, county’s and local development agencies, county’s tourist board. The first task is to create conditions between cities, municipal tourism boards, municipalities and tourism entities for signing of cooperation agreement. The reason for this lies in the already accepted fact that we can obtain the quality tourist offer if all tourism entities are coordinated with each other, especially in those areas where we have the present tourist potential but no revenue or income from tourism. The analysis of the region has shown that currently the best way of clusterization is made by clusterizing of tourist boards through signing of the cooperation agreement for a specific area which will, after the conducted analysis, mute into a legal form of an association and hire a person who will prepare the projects.

Figure 4 Proposed model of the development of institutional support for the development and marketing of tourism in the area of VSC

Source: Prepared by the author
When planning the development of the tourism product and determination of the supply and demand for these products, it is extremely important to make a good analysis of tourism resources. In order to make such analysis valid, it is also necessary to conduct the analysis of the tourism market for whom the tourist product is intended for, and it must be based on the data as well as on opinions of those experts from the scientific community who are well acquainted with the area where the tourism product is being developed.

During the analysis, each cluster should particularly pay attention to its area on the following:

- accommodation capacities and excursions;
- hospitality facilities; analysis of the hospitality facilities
- those offering authentic gastronomic offer should be placed into an offer proposal for the institutional support;
- cultural and historical heritage; revision of the existing state in the cultural and historical heritage, objects in a poor state should be conserved and protected from ruination, preserved objects should be placed into an offer proposal for the institutional support;
- manifestations, financial feasibility analysis of current manifestations;
- other tourism products (wine routes, rural estates, cycling routes ...) should be placed into an offer proposal for the institutional support;

After a detailed analysis of tourism resources and market opportunities, all tourist potentials should be placed in a central system that will be available to clusters and to the institutional support. From these resources, according to predefined criteria (legal regulations, conservatory permit, various research studies of impact on the environment, preservation of cultural heritage, sustainability studies) can be approached towards the creation of thematic routes (itineraries), manifestations development, post-congress routes etc. As priority tourism products should be developed those products that most closely meet the tourism market conditions (transport and tourism infrastructure, location, tourist accessibility, attractiveness ...), i.e. those that can be immediately included in the tourism offer, while for the others who can’t cluster should conduct project preparation.

Institutional support for the development of tourism in VSC should aim to encourage all entities that influence development of the tourism products. Given
that the research has shown that human resources are pointed out as the biggest obstacle, priority should be given to education of workers in tourism for the preparation of projects for EU tenders at the cluster level. Furthermore, the next goal should be to obtain funding for technical documentation and technical assistance for those projects which, according to the analysis, are proved to be a priority but are not ready to be a part of the tourist offer because of their lack in infrastructure.

4. CONCLUSION

VSC has a range of potentials that together might launch a significant tourism development. These include natural beauty, unique Slavonian cuisine, large forest areas for multiple forms of tourism, excellent terrain for outdoor sports such as fishing, cycling, etc., the sources of thermal waters, the tradition of wine production and a significant historical/cultural offer that has its roots in rich history but also in a contemporary tradition. Unused banks of the Danube River are also an important natural resource that should be recognized in the context of a much wider, international tourism offer due to the length of the river. Even though currently at a very low level, the rural tourism could be developed using optimal natural resources.

As an alternative to the current situation, the need to create new organizational models for the development and management of county tourism is evident, in order to make better use of resources available from European funds. With organization of institutional support for the development of tourism at the county level and organization of five tourist clusters at the level of city tourism boards and its surrounding municipalities, the funds could be generated for new employees who would be solely responsible for the analysis of the area and later for preparation of the projects for the tenders of the European Union.

It is necessary to create an offer of designed tourism products based on the rich history, tradition, archaeological remains, sacral heritage, traditional gastronomy, connect them with existing tourism products and offer them primarily for tourists who already visit this destination. Doing so will further stimulate consumption of existing tourists and their longer stay, while word of mouth would create a rich tourism destination image.
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THE IMPACT OF RIGHT-TIME BUSINESS INTELLIGENCE ON ORGANIZATIONAL BEHAVIOR

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Abstract

In today’s business world, speed of decision making is critical to the achievement of excellence and success that is reflected in the standard range of business objectives in terms of increasing the volume of sales, and to retain and increase market share of the company.

As to make quality business decisions it must be based on quality information and knowledge.

The aim of this paper is to show how well placed Right-Time Business Intelligence systems contribute to a good business decision making at all levels of the company. Such Business Intelligence systems affect organizational behavior for all company employees by creating an organization that continuously learns.

Companies set up in a way that business decisions are made on the basis of the positive effects of a continuous process of learning will consequently bring quality business results.

JEL Classification: G02, H32

Keywords: business intelligence, right time business intelligence, decision support system, organizational behavior

Introduction

In order to achieve the planned business objectives it is essential that companies constantly develop their ability to adapt to changing circumstances and market requirements (De Wit & Meyer, 2004). In accordance with this conclusion it is necessary to introduce a constant learning process that could affect the market (Simons, 2000).
The process of learning should come through attempts and mistakes or through experimentation. How would people and organizations passed through the learning process it is necessary to act and subsequently think. This means that organizational learning and insight is the real action that the company should take (Simons, 2000; De Wit & Meyer, 2004). Consequently, those organizations that are taking the action are hoping to create opportunities and affect the market to achieve their business goals. This raises the question of how to create a learning organization (Senge, 1990).

The learning process not always comes from the absolute change of behavior, but also from the shaping of behaviors; by the consecutive improvement to induce desired behaviors (Cooper et al, 2007; Daniels, 1989). The shaping of behaviors is usually something that is required in the learning of new behaviors (Daniels, 1989).

A behavior, which is defined as any observable and measureable act, can only be changed or improved in either two ways; by affect what comes before the behavior, the antecedent, or affect what comes after, by the behavioral consequence (Daniels, 1989; Wilder et al, 2009).

Figure 1 shows the *Three-term contingency model* (Skinner, 1957) in which this principle is explained. It explains how the consequences affect future behaviors and consequently if the behavior is changed learning has been created (Daniels, 1989).

![Figure 1. The three-term contingency model](image)

**Business Intelligence**

The term business intelligence is first used in an article by IBM researcher. He defined intelligence as: *the ability to apprehend the interrelationships of presented facts in such a way as to guide action towards a desired goal* (Luhn, 1958).
Business intelligence evolved from the decision support systems which began in the sixties and developed throughout the mid-eighties. Decision support systems originated in the computer-aided models created to assist with decision making and planning. In 1989 it is clarified that business intelligence is an umbrella term to describe concepts and methods to improve business decision making by using fact-based support systems. Business Intelligence is sometimes used alternately with briefing books, report and query tools and executive information systems. In general, business intelligence systems are data driven decision support systems (Power, 2007).

In today’s business world full of struggle for markets and market competition is immensely important to making sound business decisions based on relevant and quality data. Proper implementation of business intelligence tools puts the company in a position where it is possible to make good business decisions and be confident that these decisions are based on good data. These decisions are consequently easy to be trusted. Business intelligence can also provide information about the details of the company, products, services and customers. For users who have such a tool in the hands through which they can quickly and easily access information to the base of them have taken appropriate action or made a business decision business success is achieved.

Impact of business intelligence technologies

Business intelligence covers a wide range of applications and practices for the collection, integration, analysis, and presentation of business information, with the most important objective to support organizational learning and better business decision making. Most organizations have in placed knowledge management systems to integrate internal information with information acquired from external sources. With the technology progress in groupware and social media organizations can now very fast and more efficiently engage in knowledge sharing and organizational learning. Relevant and timely business information is recognized as being essential for organizations not only to achieve business goals but even to survive in today’s rapidly changing business environment (Lönnqvist & Pirttimäki, 2006).

Competitive advantages have shifted from those with expertise in how to implement new technologies, through those who know how to use technology to improve business processes, to those who know how to use technology to share, manage and increase the level of knowledge (Pisello & Strassmann, 2003).
Constant need for fresh information resulted in changes in corporate decision-making at all levels within the organization. In order to preserve the competitiveness of their companies, managers should not and cannot rely solely on intuition when making decisions. Business decisions must necessarily be supported by high-quality and timely information about events within the company as well as information from the environment of the company. Companies need trusted information systems that provide managers and business analysts as well as officials of all levels adequate access to quality information necessary to make timely and effective business decisions. (Puklavec, 2001).

Regardless of the type and format of data processed by the information system and the way it works, the main goal is to achieve a sufficiently high quality, reliable and accurate information delivered at the right time. The greater the difference between the results of the effect of good and bad business decisions, the greater is the importance of access to high-quality and reliable information (Thomsen, 1997).

There are about 30 conceptual frameworks of information quality that define and categorize quality criteria for information in various application contexts (Burn & Knight, 2005; Eppler, 2006).

In order to ensure quality and adequate evaluation, information may wriggle through the conceptual frameworks that provide useful benchmarks and standards for information systems auditing (Merhout & Havelka, 2008).

To make a business decision was necessary to ensure a quality lightweight information base in terms of converting enormous amounts of structured and unstructured data into quality information. It is the ability to convert the masses of data in real time or as soon as possible, allowing companies to achieve an enviable competitive advantage. In this way, companies that establish business intelligence systems, enables the achievement of excellence in relation to customers and clients (Hall, 2004).

**Benefits of using Business Intelligence systems**

Using business intelligence system provides its users with increased understanding of complex information, which puts them in the position of making faster and better business decisions and thereby effectively achieving business goals. Key benefits of business intelligence systems are reflected in the creation of a basis for increasing the effectiveness and efficiency of the company. Using business intel-
ligence systems based on the aggressive and timely approach leads to reengineering of existing business processes and their changes and optimization, which consequently leads to new business opportunities and opportunities. (Lokken, 2001).

Business analysts and other users of business intelligence stress that firms such systems provide benefits and advantages that it is sometimes difficult to define in a precise way. Due to the large scope of application of business intelligence in both internal as well as external environments, companies can achieve significant and numerous advantages. Advantages of business intelligence can be defined as follows (Thompson 2006):

- **Measurement** - program that creates a hierarchy of performance metrics and benchmarking that informs business leaders about progress towards business goals.

- **Analytics** - program that builds quantitative processes for a business to arrive at optimal decisions and to perform learning and Business Knowledge Discovery.

- **Reporting/Enterprise Reporting** - program that builds infrastructure for Strategic Reporting to serve the Strategic management of a business, NOT Operational Reporting.

- **Collaboration/Collaboration platform** - program that gets different areas both inside and outside the business to work together.

- **Knowledge Management** - program to make the company data driven through strategies and practices to identify, create, represent, distribute, and enable adoption of insights and experiences that are true business knowledge.

Business intelligence systems are excellent for the modern business as it has the capacity to ensure smooth, incessant flow of information without negotiating on security. The duty of the system is to ensure that correct decision is taken with the available data at the appropriate time. It greatly reduces the distribution costs spent on the information as well as handling time. Today’s global competition adds a complex component to markets with increased consolidation and competition in trade, new growth opportunities and sales channels, and critical necessity for efficient supply chain and cost optimization. To compete in this environment, organizations must establish and leverage a powerful combination of technology,
business intelligence and results management and deliver quality and value with every shipment and for every customer.

The movement to right-time is the latest development in Business Intelligence and Data Warehousing. Right-Time Data Warehousing provides the data that is required to implement right-time Business Intelligence. By moving to right-time, firms can use Business Intelligence to affect current decision making and business processes. This capability is especially important for customer-facing applications, such as those found in call centers and check-in processes, and helps firms become more customer-centric. To be successful with right-time Business Intelligence, organizations must overcome both organizational and technical challenges. On the organizational side, there must be executive sponsorship and support, initial and on-going financial support, governance processes put in place, Business Intelligence and Data Warehousing personnel with the requisite skills, changes in business processes and acceptance of use of right-time data by organizational personnel. On the technical side, new hardware and software must be acquired and implemented, processes and procedures for supporting and managing right-time data feeds from source systems must be established, data must be quickly transformed and loaded into the Data Warehouse, and the data must be analyzed and made available to operational systems and personnel.

The Latency and Value of Data

The value of the data in most cases decreases with time. Low latency data has generally greater value than the high latency data. This is the prime reason why it is attractive to Right-Time Business Intelligence. Useful perspective is provided on latency as applied to Data Warehousing (Hackathorn, 2004).

As seen on Figure 2 there are kinds of latency.

• **Data latency** is the length of time between when an event occurs and when the associated data is stored in the Data Warehouse.

• **Analysis latency** is the time between when the data is stored and when it is analyzed and made available to applications and users.

• **Decision latency** is the time from when the information is available until some action is taken on it. These three sources of latency are additive and result in total latency.
Reducing data and analysis latency primarily depends on technical solutions. Recent technologies especially in real-time Data Warehousing provide help in this regard. But, the main thing dealing with decreasing decision latency requires changes in business processes as well as how people use provided information in doing their jobs. Providing real time data does not automatically create business value and quality business decisions unless it is used in a timely manner. Dealing with decision latency is usually more challenging than data and analysis latency.

Figure 2. Types of latency (Hackathorn, 2004)

Figure 3. The Benefit of Reducing Latency (Davis, 2005)
On Figure 3 there is a maturity model for Business Intelligence (Eckerson, 2007). The model is based on the concept of latency. The red line in the model stands for the freshness of the data (indicate how new the data is). The blue line in the model stands for the latency of the decision process.

Figure 4. Maturity model for Business Intelligence (Eckerson, 2007)

In the model, traditional business intelligence corresponds to the *prenatal* and *child* phases. These are phases characterized by high latency in the decision making process and low data freshness. Phase’s *teenager* and *sage* correspond to operational business intelligence. These phases are characterized by low latency in the decision making process and high freshness of data. We can say that a business intelligence system becomes more operational with the age. In conclusion we can identify 4 types of business intelligence.

Table below reviews the differences in the various types of Business Intelligence.
Table 1. Business Intelligence types

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Strategic</th>
<th>Tactical</th>
<th>Operational/Right-Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business objectives</td>
<td>Long term (strategic)</td>
<td>Tactical</td>
<td>Manage and optimize daily business operations</td>
</tr>
<tr>
<td>User type</td>
<td>Top/senior manager, financial analyst</td>
<td>Top/senior manager, financial analyst, operational managers</td>
<td>Top/senior manager, financial analyst, operational managers, operational users (call center, sales agent)</td>
</tr>
<tr>
<td>User population</td>
<td>Tens</td>
<td>Tens-hundreds</td>
<td>Tens-thousands</td>
</tr>
<tr>
<td>Time framework for analysis</td>
<td>Months-years</td>
<td>Days-months</td>
<td>1 day/seconds</td>
</tr>
<tr>
<td>Data type</td>
<td>Historic</td>
<td>Historic</td>
<td>Historic, current (zero latency)</td>
</tr>
<tr>
<td>Query response time</td>
<td>Hours-minutes</td>
<td>Hours-seconds</td>
<td>Minutes-seconds</td>
</tr>
<tr>
<td>Instruments for data access</td>
<td>Excel, Business Intelligence specific tools</td>
<td>Excel, Business Intelligence specific tools</td>
<td>Portals, Dashboards, Scorecards, Alerts</td>
</tr>
<tr>
<td>Data disponibility</td>
<td>Non critical: Tolerant to non-disponibility</td>
<td>Non critical: Tolerant to non-disponibility</td>
<td>Critical: Cannot tolerate non-disponibility</td>
</tr>
<tr>
<td>Latency</td>
<td>High</td>
<td>High-medium</td>
<td>Low</td>
</tr>
<tr>
<td>Data freshness</td>
<td>Old</td>
<td>Old-new</td>
<td>New</td>
</tr>
</tbody>
</table>

Make faster and quality business decisions

Good and quality business decision is one that assures strategic and business goals. It is also right time decision. Bringing faster decision could be a great advantage for the company future. Less time is spent to problem detecting leads to less time spent on reacting to it thus makes bigger probability company answers on time and not late on the market condition.

In that sense information has value only if it is bring to management on right time. Because of inappropriate and late information management often make decisions based on intuition and experience which are of static character. In contrary information are always new and dynamic in character.

Most of industries today are competitive where business opportunities are very time sensitive. Management capable to recognize business opportunities but makes
slow decisions risks losing market game from competition. When considering faster decision making it assumes information transparency inside the company. If the company disables timely information flow in horizontal and vertical way it risks management makes decisions based on obsolete thus inequality information. Consequences of decisions based on obsolete information could be extremely critical for companies for example losing most important client or continuing to produce product not attractive to market, falling stock prices.

According to an author, 80 percent of the time dedicated to decision making is actually spent gathering information, leaving only 20 percent for actual analysis. Linking relevant numeric and textual data can improve this ratio (Liautaud, 2006).

Dynamic and rapidly evolving technology lead to a fact that physical strengths are being replaced by intangible assets such as intellectual property, knowledge, intelligence, brands, R&D teams, and market position, resulting in volume-based advantages being less prominent (Fleisher, 2007).

There is often a large gap between the information required for management decision-making and a myriad of data collected daily in the company. Estimates are shown in the following figure shows the gap in knowledge and decision-making in relation to the available data, and analysis capabilities of the company (Patajac, 2003).

![Figure 5. Gap in knowledge and decision-making (Patajac, 2003)](image)

In order to bridge the gap companies should invest in the development of business intelligence to assure raw data transformation into useful knowledge, and thus...
sustain competitive advantage. Data are systematized or unified and disorganized, and only then become information when they are relevant for a certain decision problem, i.e., the information can be interpreted as fact when there is data that is argued. Information is converted into knowledge when they successfully used to make business decisions. Business intelligence enables all levels of management necessary information in their scope of responsibility, however, for the success of the implementation of this concept is essentially the circulation of information and knowledge from them within the company to management could deal with the causes rather than the consequences.

Table 2. Impact on employee productivity (Poslovni tjednik, 2003)

<table>
<thead>
<tr>
<th>Time employees of the company are used in a single day for:</th>
<th>Without Business Intelligence</th>
<th>With Business Intelligence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gathering data</td>
<td>35%</td>
<td>10%</td>
</tr>
<tr>
<td>Data analysis</td>
<td>35%</td>
<td>15%</td>
</tr>
<tr>
<td>Decision selection</td>
<td>15%</td>
<td>35%</td>
</tr>
<tr>
<td>Planning</td>
<td>10%</td>
<td>20%</td>
</tr>
<tr>
<td>Action according to plan</td>
<td>5%</td>
<td>20%</td>
</tr>
</tbody>
</table>

Application of this concept allows the company greater efficiency and improved employee productivity, the study shows the Gartner Group in 2002, and is shown in Table 2.

Today’s companies characteristics is the existence of a large gap between the existing data and information required. In order to reduce this ratio it is necessary to define the process of the collection and processing of information. Typically, the company analyzes only 10% of the data they collect, while business intelligence allows to analyze 90% (Patajac, 2003).

Use of Business Intelligence to create learning organizations

To make an impact on the market and to achieve business goals it is critical to develop organizational capabilities to absorb knowledge and create organizational learning. Organizational learning comes from the process of changing human behaviors which leads to organizational behavior change. Learning need to come from taking actions and learning will come from the consequences of these actions. It is therefore important how and when information, in the form of consequences,
is delivered. In today’s competitive economy companies currently make use of Business Intelligence to deliver the right information at the right time and thereby facilitate analysis of the organization’s operations.

Business Intelligence has traditionally been used for planning and controlling productivity and efficiency, but today’s Business Intelligence role is rather for strategic purposes – to improve results and operational purposes – to decision support. To achieve business results and make an impact on the market learning needs to be created. For this reason there should be an opportunity to maximize the use of the information in the Business Intelligence and create learning process from the analyzed information.

Positive reinforcement is the major way in which learning is created and for it to be effective it is essential to consider how it is delivered. Thus, the information in the Business Intelligence needs to meet the same demand as positive reinforces if it should be able to participate to the learning process. Consequently, if the information is in compliance with being immediate, specific, personal, certain, sincere and frequent it should enable organizations to change behaviors and take actions (Daniels, 1989; Braksick, 2007; Johnson et al, 2008; Olofsson, 2010). Data about the actions will then be implemented into the Business Intelligence to be the basis for new learning.

![Diagram](image)

**Figure 6.** How learning could be created in a Business Intelligence tool
Conclusion

In today’s economy companies are under enormous pressure to achieve business goals and to survive on the competitive markets. Therefore it is critical to make quality decisions based on reliable, fresh and precise data in right time.

Also, relationships with customers who today are using all possible communication models, ranging from smartphones, social media and other forms, asking the organization quick and timely answers based on sound business decisions. Business decisions must be taken on the basis of timely and reliable information.

To make this process a constant within the organization must establish a continuous learning process based on knowledge.

As shown in the paper, the decision-making process and the learning process, necessarily leads to changes in behavior which consequently leads to a change in the behavior of the entire organization. Lowering the level of decision making, in virtually all levels of organization, automatically switches responsibility but at the same time provide raising the level of knowledge of each individual involved in the process. Making decisions based on intuition is hard to avoid the higher levels of decision-making but at lower levels of the company can be almost completely annulled. Automated right-time decisioning is the next frontier. Its influence in the business world has the potential to be as significant as other major automation efforts have been in some earlier cases (Panian, 2007).

Lower-level employees who are trained in the use of these tools can in a relatively short period of time to realize their own, as well as the goals of the company. Such tools in a simple way, in right-time, can provide information not only about the relationship with customers and suppliers but also the internal values of each individual involved in the process. In this way, the hierarchy can be evaluated almost all of the company’s employees.

Using the tools of predictive analytics as well as statistical and mathematical methods in the framework of business intelligence systems, these systems are slowly but surely entering the field of artificial intelligence, and as such are becoming powerful tools for achieving success in the battle for the customer and the market.
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WASTE MANAGEMENT IN BROD-POSAVINA COUNTY

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Abstract

Waste management is a major challenge for all countries of modern society, mostly because of a sudden increase of waste quantity, local budget constraints due to the high costs of waste management and lack of understanding of many factors that affect waste management. Increasing population and population density, rapid economic development, rapid urbanization and increasing social standards significantly increase the production of waste in households. Local government units have to, in accordance with the existing legal norms and accepted guidelines, provide an environmental friendly and energy-efficient waste management system. Due to a lack of organizational and financial resources, the complexity and interdisciplinarity of problems and lack of awareness of population about the need to solve this problem, it is not easy to conduct this task.

After analyzing the available literature from period of 2005-2012 on waste management projects in developing and developed countries, we conducted a research in 28 rural and urban local government units in Brod-Posavina County and analyzed factors that affect the waste management system. Organizational strengths and weaknesses are determined by SWOT analysis of the waste management system in Brod-Posavina County. Threats and opportunities for effective waste management are identified by analyzing the existing resources and opportunities.

This article proofs that an effective waste management system is not based solely on technological solutions, but also on environmental, socio-cultural, legal, institutional and economic factors that allow the establishment of an efficient system.
Trained staff, adequate infrastructure, the interest of local officials for the problems of waste management and effective financial support of the central government is the necessity of establishing a sustainable modern system.

JEL Classification: Q53

Keywords: waste management, system management, collection, disposal, recycling, separation

1 Introduction

Waste is a problem of modern civilization, and certainly the most visible environmental issue. This problem is present not only in cities and municipalities of the Republic of Croatia, but also in the whole world. Steady increase in volume of generated waste is recorded, due to economic growth and rising consumer spending. The effect of waste can cause emissions to water, air and soil, which can affect human health and the environment. What will the impact be, depends on the quantity and characteristics of waste and the manner in which it is managed. Therefore, it is necessary to monitor the waste streams in order to have an impact on them.

National Waste Management Strategy (Official Gazette 130/05) defines the term waste management as a set of activities, decisions and measures aimed at:

- avoiding and reducing of waste generation,
- encouraging recycling and separate collection of waste
- providing treatment and disposal of residual waste (that cannot be recycled), in accordance with the principles of sustainable development, in an environment friendly manner
- care for landfills that have been closed

Waste is any substance that has properties that cause its owner wants or has to get rid of. Waste emerges as a result of various human activities in households, different economic sectors, especially in industry. Waste is distinguished according to characteristics and place of origin. Every usable item (food, clothing, furniture, equipment, car ...) once we discard and transform into a waste. Waste is not a bunch of useless garbage, and therefore it must be approached as a (still unrecognized) source of raw materials and energy. In case that, in accordance with previous practice, the waste is not separated at the place of origin, its further use becomes
much more expensive (the cost of separation, degradation of raw materials), and is often greatly reduced, even impossible.

2 Waste management

Awareness of the necessity for sustainable development and environmental protection initiated significant trends worldwide. Problems with waste are similar in most countries, but the degree of effective care depends largely on the economic power of a country and the socio-economic level of social development.

Systematic and integrated waste management is very complex matter. As a starting point of waste management (collection, sorting, recycling, treatment, disposal of only used and inert waste) around the world, “4R” principle is accepted. The name comes from the four English words: reduce, reuse, recycle, recover.

2.1 World and European experiences in waste management

The EU has a very important role in creating a global environmental policy. Some EU members are very active in implementing environmental policies, and the enlargement process involved also the candidate countries. It is essential that this process comes to life successfully and very soon. That way a uniform environmental standard will prevail in Europe. There is some skepticism in EU countries that the admission of new members will result in a reduction of environmental standards in favor of economic development. According to waste management hierarchy it is obvious that focus is on the separate collection of waste.

Availability of landfill for certain types of waste directly affects the amount of their separate disposal. According to data on municipal waste collection published by Minghua et al., it is evident that smaller distance between „green islands“ and individual households directly leads to increased share of separately sorted out and collected fractions. A sufficient number of easily accessible separate tanks and their timely discharge, according to Pokherei and Virakaghavan, reduce the problem of arising of illegal landfills. Roughly, it is calculated that “green islands” should be set within a radius of 2-4 km, which means that about 5000-50000 inhabitants gravitate to them. Such determination of number of „islands“ is very doubtful, especially in rural areas. It is proven experientially that separate waste

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collection “door to door” reaches up to 85% of total waste quantity (of total waste quantity that can be recycled), „green islands” ensure separation of about 25% of the waste. In cases when „green islands“ are not existing, about 95% of municipal and non-hazardous waste ends up in landfills!

When separated waste collection is considered, it is important to examine fractions that can be recycled, and from that aspect to highlight the role of national governments in recycling process, because this activity is directly dependent on the recycled materials market and increasing professionalism of the companies involved in recycling. Waste collection is usually associated with low social status\(^2\), which leads to lack of interest of employees and poor personnel structure. Utility companies, however, often lack of managerial and professional knowledge, as a consequence they do not have enough information and resources for a successful and independent problem solving. According to data from the literature\(^3\), quality change in this segment can occur only with greater involvement of public and private sectors in waste disposal problems. It is necessary to raise awareness of greater part of the population on the necessity of systematic waste disposal. This necessarily implies the inclusion of many people in work of environmental non-government organizations, what would help implement active policy and move towards the sustainable management of waste disposal in total population.

2.2 Waste management in Republic of Croatia

Waste Management Strategy of RH from year 2005 and Waste Management Plan are the most important documents for waste management in Croatia. Directive on Waste in European Union (2008/98/EC) is, in the process of adjustment to the acquis communautaire, transferred in our legislation by Waste Law. These documents are congruous when it comes to responsibility for waste management and waste management hierarchy.

Local and regional government units are responsible for waste management. Regional and local plans are, basically, the preparatory phase for quality waste management system at the national level. National framework provides not only the legal framework and institutional guidelines for waste disposal, but it also directs

\(^3\) Ekere et al. (2009) Factors influencing waste separation and utilization among households in the Lake Victoria crescent, Uganda, Journal of Waste Management 29, 3047–3051
all processes from local and regional levels into a generally accepted national waste management system in a sustainable manner. In case of Croatia, although Waste Management Strategy has been around since year 2005, most of the goals have not been achieved yet. According to the obligations under the pre-accession agreements, by the end of this year, Republic of Croatia has to reduce biodegradable component in landfills at the level of 75% of the reference 1997. According to data from the Environmental Protection Agency, the primary waste sorting is hardly implemented. With the exception of special categories of waste, such as packaging and some types of hazardous waste (only about 14% of total waste), most of the waste from industrial and municipal waste continues to be disposed of without any treatment. As Republic of Croatia is on the threshold of joining the EU this year, Directive 1999/31/EC on waste disposal is extremely important for our waste management. With that Directive European Union has further tightened conditions, prohibiting dumping of any waste to landfills after 2018. In other words, by that time we should have a system that will be able to recycle everything that can be recycled; the rest should be energy recovered or, if it so chooses Member State (example Denmark) – it is possible to regenerate energy from most of waste.

2.2.1. Local and regional level waste management in Republic of Croatia

Unsolved problems of waste management are often put in the forefront during the election campaign for local leaders. However, it is wrong to consider waste disposal as a sole responsibility of local and regional authorities, without any personal responsibility of the individual - as it is in our present position. Operationally, effective system is based on both instances, so both have to participate in decisions concerning the waste disposal.

The local level is oriented to waste collection (operational issues of separate collection, frequency of collecting certain factions, fees, location or „green islands“, concessions, etc.). Regional level tasks are utilization of wastes as raw materials-recovery, recycling, mechanical and biological processing, utilization of waste as an energy source and the final disposal of the rest.

When organizing a system of waste collection and processing on local and regional basis it is important to take into account the fact that this process must be based on the principle of cost recovery. However, the burden of investments are extremely high, with low availability of funds in local, regional and national budgets, so it is necessary to raise assets from international funds. It is considered that
the fees for certain basic services, such as waste management or water management, cannot be more than 1% of household income.\textsuperscript{4}

3 Waste management in Brod-Posavina County

The issue of waste collecting and disposing in the County is very large. Based on analysis and causes of actual state of waste management, the Waste management Plan of Brod-Posavina County for period 2008 to 2015 has been adopted. A sustainable integrated waste management system, organized in accordance to the applicable statutory requirements and European standards will be implemented. Waste Law stipulates local governments the obligation of drafting and adopting waste management plans for cities / municipalities, which must be coordinated with regional and national plans. Of the 28 local authorities in the area of Brod-Posavina County, 22 of them adopted waste management plans, two did not, and for 4 of the data are not available.

There are a large number of illegal landfills that do not meet even the basic requirements for such facilities. High cost of remediation of the existing illegal landfills and the lack of financial resources in the budgets are the main reasons for the inability of systematic financing of waste management activities. However, since 2005., with co-financing from the Environmental Protection and Energy Efficiency Fund, the existing landfills has been taken to remedy. Landfill “Baćanska” (Municipality of Davor) is the only one fully rehabilitated so far. In County area, in the surroundings of Nova Gradiska Oriovac, Slavonski Brod and Velika Kopačica the macrolocations for waste collection have been established, while each local government will have to provide a location for the recycling yard and „green islands“. One of the key issues in realization of this plan is a mismatch between the local and the state legislature with the accepted guidelines of the European Union, which in practice results in insufficient and uncoordinated activities in the problems of municipal and other waste disposal and management.

According to data from the Environmental Protection Agency, Croatia produces more than 1.6 million t of non-hazardous municipal waste annually, or about 367 kg / capita, while in the EU the average is about 502 kg / capita. In Brod-Posavina

\textsuperscript{4} Gospodarenje otpadom na lokalnoj razini, Regionalni centar zaštite okoliša za Srednju i Istočnu Europu, Znanje 2009.,39
County, according to available data, this amount is about 310 kg / capita per year\(^5\). For comparison, according to the same source, the amount of municipal waste per capita, in average, in Croatia equals 327 kg / capita per year, and is in the range of 206 to 467 kg / capita per year. The waste quantity varies greatly depending on socio-cultural, economic and other indicators, but is also depends on the development of environmental awareness of the population.

Determining of the amount of municipal waste in Brod-Posavina County, that is collected and disposed to the landfills, was carried out based on the data supplied by the utility companies. There are no records on disposed waste quantity kept on the landfills. Available data on waste quantity are estimated based on number of waste vehicles and their volume- according to data provided by utility companies. Data obtained in this way vary from year to year and show excessive deviation, so such data cannot be used with confidence to determine the actual waste quantity. It is necessary to conduct at least one measuring cycle of waste structure and quantity during winter and summer periods, due to possible fluctuations in quantity and structure of waste.

Organized waste collection covers all of the inhabitants (100% of population) in the County.

![Waste quantity in Brod-Posavina County](image)

**Figure 1:** Quantity of waste collected in Brod-Posavina County

Source: individual work of authors

A downward trend in waste quantity in 2011 is noticeable, but also an upward quantity of separately collected fractions of municipal waste. At this time, the separate collection of waste is conducted in the cities, and the situation in the munici-

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\(^5\) Plan gospodarenja otpadam RH (NN85/07)
palities vary a lot - from a complete lack of separate collection to the establishment of “green islands” and recycling yards.

From a total number of 26 municipalities, separate collection (partly) is implemented only in 5 of them (19,23%).

47301t of municipal waste is collected in 2011, that equals 268kg/capita per year, and that is a big step forward compared to the past years.

Separate collection of glass, plastics, paper and municipal waste from households is carried out in Slavonski Brod, by sorting fractions of waste in plastic bags or containers in residential areas and the business entities, as well as through “green islands”. Furthermore, additional containers for paper are placed in 25 economic and other subjects that are major producers of this type of waste.

Table 1. Quantities of separately collected waste in the town of Slavonski Brod

<table>
<thead>
<tr>
<th>year</th>
<th>waste quantity by type in tons</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>paper</td>
</tr>
<tr>
<td>2007</td>
<td>181</td>
</tr>
<tr>
<td>2008</td>
<td>317</td>
</tr>
<tr>
<td>2009</td>
<td>327</td>
</tr>
<tr>
<td>2010</td>
<td>328</td>
</tr>
<tr>
<td>2011</td>
<td>336,85</td>
</tr>
</tbody>
</table>

Source: Report on the implementation of the Waste Management Plan of Brod-Posavina County for 2009-2011

Measures required by project documentation are implemented during waste disposal at landfill of town of Nova Gradiska. Concluding with the year 2011, total waste quantity of approximately 134.600 m³ (87.526 t) is deposited on the landfill.

Based on the available data, the specific quantity of waste is 0.61 kg / capita / day and it is expected that specific waste quantity increases. The amount of industrial waste disposed in 2011 equals 1604t, and approximated quantity of disposed construction waste is around 1490t. Separate waste collection system in the city is organized through the recycling yard. There are 21 “green islands“ in the city area, that consists of containers for separate collection of paper, glass and plastic.
Table 2. Quantities of separately collected waste in the town of Nova Gradiska

<table>
<thead>
<tr>
<th>year</th>
<th>waste quantity by type in tons</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>paper</td>
</tr>
<tr>
<td>2010.</td>
<td>41.84</td>
</tr>
<tr>
<td>2011.</td>
<td>44</td>
</tr>
</tbody>
</table>

Source: Report on the implementation of the Waste Management Plan of Brod-Posavina County for 2009-2011

“Sorting” of waste, determining its composition, analysis of waste composition, as well as seasonal analysis are not conducted in the area of Brod-Posavina County. There are no data on the composition of municipal waste in Brod-Posavina County. There is no data obtained by direct analysis of the composition of the morphological, structural and other physical and chemical characteristics of municipal solid waste. It is necessary to determine the quantity and composition of waste generated, sources of generation and predictive picture for the next period in order to achieve preconditions for solving waste management problem on local and regional level. Analysis of the existing scheme of waste collection and landfill sites will allow improvement of the system of separate waste collection, disposal of existing landfills and preventing “illegal” sites.

Analysis of the current situation and conditions in waste management in Brod-Posavina County is presented by SWOT analysis, a fundamental tool in making the strategy and planning of individual projects in waste management of Brod-Posavina County.
Table 3: SWOT analysis on waste management status in Brod-Posavina County

<table>
<thead>
<tr>
<th>STRENGTHS</th>
<th>WEAKNESSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>plans for waste management in most of local government units are made</td>
<td>unreliable data on the quantity and composition of waste</td>
</tr>
<tr>
<td>collection of municipal waste in all local government units is organized</td>
<td>lack of environmental awareness</td>
</tr>
<tr>
<td>location for Waste Management Centre is determined</td>
<td>law regulations</td>
</tr>
<tr>
<td>recovery of illegal landfills started</td>
<td>a small number of green islands and recycling yards in municipalities</td>
</tr>
<tr>
<td>human resources (educated management)</td>
<td>small share of separately collected waste</td>
</tr>
<tr>
<td>the existence of positive motivation</td>
<td>the existence of illegal landfills</td>
</tr>
<tr>
<td>experience in attracting funds from IPA</td>
<td>insufficiently entrepreneurial climate</td>
</tr>
<tr>
<td>high unemployment</td>
<td>high degree of social and labor exclusion</td>
</tr>
<tr>
<td>low income population structure</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>OPPORTUNITIES</th>
<th>THREATS</th>
</tr>
</thead>
<tbody>
<tr>
<td>applying for EU funds</td>
<td>the lack of a common strategy at the local level</td>
</tr>
<tr>
<td>energy production from renewable sources</td>
<td>the possibility of environmental contamination</td>
</tr>
<tr>
<td>opening of new jobs</td>
<td>an unfavorable business environment</td>
</tr>
<tr>
<td>implementation of new technologies</td>
<td>poor organization</td>
</tr>
<tr>
<td>human resources (educated management)</td>
<td></td>
</tr>
<tr>
<td>successful development agencies and consultants with experience in attracting available funds</td>
<td></td>
</tr>
</tbody>
</table>

Source: individual work of authors

Strategy governs waste management for different types of waste from its generation to final disposal, with the primary objective of achieving and maintaining an integrated waste management structured in accordance to modern European standards and requirements. Purpose of the integrated waste management system is to maximally avoid or reduce waste generation, minimize adverse influences of waste on human health, the environment and climate, and to achieve that integrated waste management system works in line with the principles of sustainable development.

In order that in Croatia, and therefore in all counties, cities and municipalities already accepted “4R” waste management strategy could be implemented, it is nec-
necessary to carry out communication “3E” program, where 3E stands for Educate, Economize, Enforce.

Educate – to educate on responsible waste management, increase understanding of the importance and possibilities of proper waste management,

Economize – to reduce the costs of waste management, use waste as a raw material

Enforce – to apply the concepts of effective management in law and in practice and to include all interested parties in the planning, decision making and managing.

Waste Law represents a good starting point on taking over the European standards of waste management, but is unworkable in terms of the set target for the introduction of an integrated waste management system until 2018.

Concerning the given objectives of separation of valuable components of municipal waste and timelines for implementation of integrated waste management system, those objectives cannot be realized especially when it comes to biodegradable waste. By the end of 2013, biodegradable waste in landfills should be reduced by 25%, compared to the reference year 1997.

Existing Law highly enables irrational waste management, because it is unclear in defining the role of import / export of waste, the role of local administration and governments, does not implement necessary education for population for the fulfillment of the goals set. It is also unclear in defining criteria for making so called waste management maps, environmental fees are not précised, etc. The law must initiate the economically sustainable waste management systems, because even though (according to valid regulations of EU) waste incineration is allowed, and it is necessary for at least a part of it, waste recycling and reuse can get much better value through a useful raw material and can employ a lot more people in that industry.

From the above, one can see the obvious disparity in waste management in Croatia, but that does not relieve Brod-Posavina County of the responsibility of establishing a sustainable system in their region.
Conclusion

- Brod- Posavina County should actively use the European funds (available funds) to speed up the rehabilitation of existing illegal uncontrolled landfills, and also construction of waste management center.

- The project of separate waste collection must be approached systematically in order to reduce the loss of useful components of waste as a valuable resource. Common approach is essential and therefore it is necessary to involve all participants in the process - concessionaries, utility companies, waste collectors, local governments and development agencies, as well as total population, NGOs and others.

- Organize the separation of biowaste from households.

- Educate people about composting at home (we are mostly rural county), set up at least one composting.

- In terms of rehabilitation of existing landfills it is necessary to determine the possible need and ways of rehabilitation of groundwater beneath the landfill, which gravitate toward existing and planned water well sites, in order to preserve the quality of the drinking water wells.

- We also believe that, with the help of the central government, it is very important to consider the transition from county to regional concept of the waste management centers, because it is a positive step towards a better and more rational management of all waste management procedures.

- Local government units do not have sufficient technical and managerial skills and human resources, so it is necessary at the county level to organize systematic training and professional teams that would be made available to local governments.
Figure 2: The concept of operating the waste management project in Brod- Posavina County

Source: Individual work or authors based on Waste Management Strategy of Republic of Croatia

4 Literature


Gospodarenje otpadom na lokalnoj razini, Regionalni centar zaštite okoliša za Srednju i Istočnu Europu (2009), Znanje, Zagreb

Strategija gospodarenja otpadom RH (NN 130/05)

Plan gospodarenja otpadom RH (NN 85/07)

Plan gospodarenja otpadom Brodsko-posavske županije (SV 15/08)
BARRIERS TO INNOVATION IN AP VOJVODINA: ANALYSIS OF DATA AND RESEARCH FINDINGS FROM THE ASPECT OF AGE AND GENDER

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Abstract

The purpose of this paper is to explore the barriers that inhibit the development of innovation and innovative culture within enterprises in AP Vojvodina as a north part of Republic of Serbia. A study was conducted to explore and define the barriers to innovation perceived by entrepreneurs with special direction on three groups of barriers: organizational, formal and informal. The questionnaire that was created for the purpose of this analysis and research consists of 24 questions covering up three groups of barriers to innovation. The survey was designed to capture information on the perceived barriers from the aspect of age and gender of entrepreneurs. Data collected are processed using the software package for statistical analysis -SPSS. Specifically, independent samples T-test were used to explore differences between these two groups of entrepreneurs.

JEL Classification: L53, O31

Keywords: Barriers, Entrepreneurship, SME’s, Innovation

1. INTRODUCTION

This research is focused on barriers to innovation: organizational, formal and informal, influencing innovation development in enterprises in the region of Autonomous Province of Vojvodina (Republic of Serbia). Organizational barriers refer to the availability of financial assets, marketing, networking, cooperation and quality of the human resources. Formal barriers refer to protection and merchantability of
intellectual property, unpredictable fiscal policy, high rates of inflation etc. Informal barriers include corruption, national attitude toward bribery and lack of transparency. As researches of this kind on barriers to innovation haven’t been done yet in Autonomous province of Vojvodina, this study in its own way contributes to the theory and praxis of entrepreneurship and innovation in this region. During this research authors of this study informed themselves well about the entrepreneurship, innovation and barriers to it, using all available scientific papers and literature in connection with this research area.

In the first part of this study, the authors give a theoretical review on entrepreneurship, innovation, barriers to innovation, and also authors gave a short review on previously conducted researches which were related to this subject. In the second part of this study, the authors give a wide explanation of the methodology used in this research in order to make it more familiar and comprehensive. This part was consisted of detail explain of questionnaire, collected data, data sample and explanation of statistical analysis which were used in this research. In the third part of this study, authors represent the results from statistical analysis. This part also contains result discussion and remarks of authors in order to point out significance of the research taken from the aspect of age and gender.

2. THEORETICAL BACKGROUND

There is no single, unambiguous, universal agreed definition as to what an entrepreneur is (Bobera, 2008, p.65). From an etymological point-of-view, the word entrepreneur (“go-between”) applies to someone who mediates between individuals and groups (Bobera, 2010, p.7). In order to adapt to environmental changes, entrepreneur endeavours to satisfy the identified market needs, on one hand, by using the identified resources on the other hand. Situation analysis is a method entrepreneurs use to analyze economic environment and it contributes to their business success. Some authors consider that entrepreneurship is essential for the continued dynamism of the modern market economy (Klapper, Laeven, and Rajan 2006, p.592). Larger number of startup ventures, entrepreneurial base is expanding, which should result in a larger number of active enterprises. Other group of authors defined entrepreneurship through the relations between following dimensions of entrepreneurial orientation: innovativeness, risk taking and proactiveness (Zahra, 1993). This point of view was confirmed by the research done by Tang et al. (2009.), which showed that the entrepreneur’s behavior is what manages to combine innovation, risk-taking and proactivity.
The basis for the development of entrepreneurial business, among other things, lies in innovation. Some authors define innovation as a specific function of entrepreneurship, it is the means by which the entrepreneur either creates new wealth-producing resources or endows existing resources with enhanced potential for creating wealth (Drucker, 2002, p.5). Many authors investigated importance and impact of innovation on the development of entrepreneurial businesses. According to Mahemba and De Bruijn (2003) innovation can be perceived as a key factor in stimulating small firm development. Fostering innovative culture and creating an environment to effective innovation meet the conditions for strengthening the competitive power of the enterprise. Therefore it has become essential for an organisation to adapt, develop and innovate to achieve a competitive advantage and become successful (Hasanian and Dale, 2012, p.76). Innovation could be considered as a result of a common effort of several participants. If the approach aimed at the innovation environment is considered, not only the entrepreneur is responsible for the innovativeness of a firm but also of a system of institutions that can support them (Salka et al. 2008, p.394). Responsibility of system of institutions lies in creating a stimulating business environment for innovation. On the other hand role of the entrepreneur is to identify the business environment as well as adapting to it.

Enterprise is like a living organism, it cannot be framed nor existed in a vacuum; on the contrary, environment i.e. internal and external factors regulate activities related to innovation. Restrictive factors known as barriers to innovation have negative influence on a process of starting a new project, its implementation and development. Many authors put the barriers to entrepreneurship in focus of their researches. Larsen and Lewis (2007) have done some research on financial issues, marketing skills, management and personal characteristics. In his research Freel (2000) analyzed small manufacturing firms with intention to determine the biggest obstacles to product innovation from the aspect of finance, management, marketing and skill labour. Hadjimanolis (1999) conducted his research over 140 SME’s in Cyprus. His research concentrates on the barriers approach to innovation. Demirbas (2011) conducted his research regarding barriers to innovation in Turkey. Two researches, both taken in Turkey on a sample of 197 and 224. All the barriers were classified in four groups: formal, informal, environmental and skill barriers. Blasco et al (2007) conducted their research on a sample of 2,954 Catalan firms identifying three groups of barriers: cost of innovation projects, lack of knowledge and market conditions.
3. METHODOLOGY

The goal of this study is to analyze the entrepreneurial environment in AP Vojvodina related to barriers to innovation in order to identify and specify the barriers that really slow down the development of innovation and entrepreneurship development itself. The research was driven by idea to identify organizational, formal and informal barriers which were perceived by entrepreneurs as barriers to development of innovation within organization. This research includes the questionnaire, specially created for the purpose of this research, consists of 24 questions covering up 3 groups of barriers. Data were collected within the interviews with entrepreneurs. When responding to a Likert’s questionnaire item, respondents had to specify their level of agreement or disagreement on a symmetric agrees-disagree scale for a series of questions. Options for each determined barrier, presented in Table 1, in business on agree-disagree scale were: 1. Strong significant negative influence, 2. Mostly negative influence, 3. Present, but with no significant influence, 4. Mostly, doesn’t have negative influence, 5. Doesn’t represent barrier at all. The purpose of the questionnaire was to get the answers on how the entrepreneurs deal with barriers and find out if there were differences between them based on criteria of:

a) Age – younger than 40, older than 41
b) Gender – male and female

Data collected sample was analyzed in two consecutive steps by using the software package for statistical analysis – SPSS 17. In the first step, descriptive analysis of data was done in order to create a hierarchy of barriers. In the second step, Independent sample T-tests was done in order to determine existing differences between younger and older entrepreneurs, and between male and female entrepreneurs, in recognizing the barriers to innovation. Statistical analysis Independent sample T-tests as a parametric test, was chosen as a compatible test in order to get relevant data from the total sample of 33 respondents. Summarizing data collected in the sample Bobera and Lekovic came to the following results and groups based on criteria of:

a) Age
   - 20 younger entrepreneurs
   - 13 older entrepreneurs

b) Gender
   - 20 males entrepreneurs
   - 13 females entrepreneurs
Table 1. Barriers to Innovation – Organizational, Formal and Informal barriers

<table>
<thead>
<tr>
<th>ORGANISATIONAL BARRIERS</th>
<th>FORMAL BARRIERS</th>
<th>INFORMAL BARRIERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial assets</td>
<td>Marketing</td>
<td>The ability of networking and cooperation</td>
</tr>
<tr>
<td>- Lack of funding from its own resources</td>
<td>- Developing innovations for use in the market</td>
<td>- Identifying and finding partners for innovation</td>
</tr>
<tr>
<td>- Unfavorable conditions for obtaining funding from other sources</td>
<td>- Assessment of the market potential for innovation</td>
<td>- Cooperation with universities and research centers</td>
</tr>
<tr>
<td>- Testing of marketing readiness for new concepts</td>
<td>- Testing of marketing readiness for new concepts</td>
<td>- Cooperation with competitors</td>
</tr>
<tr>
<td>- Spotting foreign markets for innovation</td>
<td>- Spotting foreign markets for innovation</td>
<td>- Membership in the Clusters</td>
</tr>
</tbody>
</table>

Source: Author’s

In accordance with theoretical background, available literature and questionnaire the authors set up the following hypothesis:

H₀: *There are barriers to innovation related to organizational, formal and informal factors*

H₁: *There are differences between younger and older entrepreneurs related to organizational barriers in the field of financial assets.*

H₂: *There are differences based on gender related to formal barriers.*

4. RESULTS OF ANALYSIS

Results from the descriptive analyses showed that respondents have recognized the barriers with strong, negative influence, in following order: *lack of funding from its own resources* (2.30), *high costs of innovation* (2.39), *corruption* (2.55), and *high inflation and interest rates* (2.64). Barriers such as *the ability to manage “open innovation”* (M=3.55), *cooperation with universities* (M=3.48) and *membership in the Clusters* are not recognized as a barrier which do not have negative influence.
Table 2. The Hierarchy of barriers to innovation, top 10 (N=33)

<table>
<thead>
<tr>
<th>Descriptive statistics</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of funding from its own resources</td>
<td>2.30</td>
<td>1.262</td>
</tr>
<tr>
<td>High costs of innovation</td>
<td>2.39</td>
<td>1.223</td>
</tr>
<tr>
<td>Corruption</td>
<td>2.55</td>
<td>1.325</td>
</tr>
<tr>
<td>High inflation and interest rates</td>
<td>2.64</td>
<td>1.055</td>
</tr>
<tr>
<td>Lack of government support directed at R &amp; D activities</td>
<td>2.70</td>
<td>,951</td>
</tr>
<tr>
<td>Lack of qualified staff</td>
<td>2.76</td>
<td>1.146</td>
</tr>
<tr>
<td>Lack of transparency</td>
<td>2.79</td>
<td>1.244</td>
</tr>
<tr>
<td>Unfavorable conditions for obtaining funding from other sources</td>
<td>2.79</td>
<td>1.244</td>
</tr>
<tr>
<td>Instability of tax policy</td>
<td>2.79</td>
<td>1.053</td>
</tr>
<tr>
<td>The possibility of selling intellectual property</td>
<td>2.85</td>
<td>1.253</td>
</tr>
</tbody>
</table>

Source: Author’s calculation

Results from the independent samples T-test unambiguously showed that differences between male and female as well as younger and older entrepreneurs in recognizing the barriers in business were not just existing but significant. Barrier which is perceived differently by male and female entrepreneurs is the possibility of intellectual property rights, while on the basis of age only difference was noticeable in the case of unfavorable conditions for obtaining funding from other sources.

Table 3 Independent sample T test (N=33, grouping variable: gender)

<table>
<thead>
<tr>
<th>Equal variances assumed</th>
<th>Levene's Test for Equality of Variances</th>
<th>t-test for Equality of Means</th>
<th>95% Confidence Interval of the Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>Sig.</td>
<td>t</td>
</tr>
<tr>
<td>The possibility of intellectual property rights</td>
<td>,898</td>
<td>,351</td>
<td>2.425</td>
</tr>
</tbody>
</table>

Source: Author’s calculation

T-test for independent samples was used to analyze the results of the possibility of intellectual property rights as barriers to innovation. There was found a sig-
significant difference between male respondents (M = 3.60, SD = 1.273) and female entrepreneurs (M = 2.62, SD = 1.044), t (31) = 2.425, p < (0.022) two-tailed. The difference between the mean values of the characteristics of the groups (mean difference = 0.985, 95% CI 0.95%: 0.154 to 1.815) was of great influence (eta squared =0.163).

### Table 4 Independent sample T test (N=33, grouping variable: age)

<table>
<thead>
<tr>
<th>Equal variances assumed</th>
<th>Levene’s Test for Equality of Variances</th>
<th>t-test for Equality of Means</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>Sig.</td>
<td>t</td>
</tr>
<tr>
<td>Unfavorable conditions for obtaining funding from other sources</td>
<td>,040</td>
<td>,842</td>
<td>2,194</td>
</tr>
</tbody>
</table>

Source: Author’s analysis

T-test for independent samples was used to analyze the results of the *unfavorable conditions for obtaining funding from other sources* as barriers to innovation. There was found a significant difference between younger respondents (M = 3.15, SD = 1.137) and older entrepreneurs (M = 2.23, SD = 1.235), t (31) = 2.194, p < (0.036) two-tailed. The difference between the mean values of the characteristics of the groups (mean difference = 0.919, 95% CI 0.95%: 0.065 to 1.774) was of great influence (eta squared =0.134).

### 5. DISCUSSION

After analysis made for exploration of entrepreneurial barriers, it is important to discuss findings and the relations with the proposed hypotheses. Results of descriptive analysis show that main hypothesis H0 is confirmed. The hierarchy of barriers in Table 2 shows that presented 10 barriers, especially top three barriers, come from all of three sections: organisational, formal and informal.

Results of independent samples T-test show that hypothesis H1 is confirmed. Even though younger and older respondents find important the influence of certain barriers to their business, they however differ in defining which those exact barriers are. The most obvious differences is in the field of *unfavorable conditions for obtaining funding from other sources*. Older entrepreneurs identify this barrier as a
greater obstacle for their innovation projects than younger entrepreneurs. Entrepreneurs have at their disposal a variety of institutions that provide funding. What distinguishes them is exactly the advantage of funding resources. The attractiveness of these services is reflected in the interest rates and repayment terms of borrowed funds. According to the claims of entrepreneurs, the most unfavorable conditions for financial loans are in commercial banks. However, not necessarily. Conditions of financial loans are influenced by the entrepreneurs themselves. High-quality long-term cooperation between the entrepreneurs and commercial banks may also produce favorable conditions for funding. These are conditions which are below the rates of the bank. These conditions are available on the basis of previous cooperation with commercial banks, based on its balance sheet for the previous period of operations, based on the creditworthiness on the basis of evidence that the company was not blocked etc. Preferential terms are available to entrepreneurs for business domestic and international payments service through short-term and long-term loans and guarantees for the tender procedure in the home country and abroad, advance payment, for a re-export and so on. In addition to commercial banks, entrepreneurs have the opportunity to seek funding at development banks, the Serbian government funds through various funds such as the Fund for the Development of the Republic of Serbia, which is wholly owned by the state, regional agencies for the development of small and medium enterprises which funds are directed to the form of start-up loans, and various pre-accession funds and EU funds intended for development of entrepreneurship (Entrepreneurship Innovation Programme).

Results of independent samples T-test show that hypothesis $H2$ is confirmed. Even though male and female respondents find important the influence of certain barriers to their business, they however differ in defining which those exact barriers are. The most obvious differences is in the field of the possibility of intellectual property rights. In this case, female entrepreneurs see this barrier as a bigger obstacle than male entrepreneurs. In order to help entrepreneurs, Intellectual Property Office of Republic of Serbia found Education and Information Centre. This centre provides a range of services in the field of intellectual property and helps strengthen the innovation capacity of the Republic of Serbia. Education and Information Centre was established with the aim of raising awareness on the issue of property rights in order to improve knowledge and skills in the field of intellectual property, as well as to increase the competitiveness of the economy in terms of intellectual property rights. The goals are achieved through the organization of numerous seminars, trainings, workshops oriented to business organizations, research institutes, universities and
other stakeholders of innovation environment. The authors of this paper have had the opportunity to organize a workshop on the protection of property rights under the IPA project titled “Cross-border Network for Innovative Development and Knowledge Transfer”, which was assigned to entrepreneurs in North Backa district.

6. CONCLUSION

The goal of this study was to determine the barriers to innovation in AP Vojvodina by questioning entrepreneurs on how they perceive the same. Using statistical analysis, the authors Bobera Leković and proved the hypothesis in their research. Hypothesis H0 was confirmed by using descriptive statistics which indicated the presence of barriers in all of three research areas. The use of independent samples t-test confirmed the hypothesis H1 and H2, and also there were significant differences based on age and on the issue of barriers to unfavorable conditions for obtaining funding from other sources. Differences between entrepreneurs based on gender are significant evident in terms of the possibility of intellectual property rights. A limitation of the study was the relatively small sample size and the fact that the group of respondents consists only of entrepreneurs, disregarding the opinion of other stakeholders also affected by barriers to innovation. Identifying specific barriers by entrepreneurs do not necessarily imply the existence of these barriers. This primarily refers to the formal and informal barriers, which impact comes from the external environment. Identifying barriers from the external environment is the perception of the business environment by entrepreneurs, not at all the facts. Quality assessment of the situation analysis of the business environment is largely determined by the level of previously acquired knowledge of relevant importance for the assessment of the economic environment. This is why the possibility of incorrect assessment of the business environment by entrepreneurs is a realistic assumption. Identifying organizational barriers can be seen as a process of identifying internal strengths and weaknesses of the company, both at company and at individual level. The successful implementation of innovation projects primarily depends on creative ability of employees and company support to innovation activities. Identification of obstacles in the field of organizational barriers are primarily a reflection of a lack of competence in the field of business, such as financial management, marketing, human resources and so on. What is the major obstacle to business entrepreneurs is the lack of a clear vision and mission of the company, as well as a lack of ideas and projects aimed at achieving long-term goals of the enterprise.
7. LITERATURE


Hadjimanolis, A., (1999), “Barriers to innovation for SMEs in a small less developed country (Cyprus)”, Technovation Vol.19, p. 561–570


ESSENTIAL CONDITIONS FOR ETHICALLY GROUNDED ENTREPRENEURIAL DECISIONS

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Abstract

In order to accept entrepreneurial decisions as ethically grounded and to make them feasible in practice, certain ethical values and norms must be met as essential conditions. The concepts of morals, morality, value, norm and ethics need to be differentiated. The essential conditions for ethically grounded entrepreneurial decisions are primarily trust, responsibility, ethical rationale, viability of values, affirmation of duties i.e. obligations, and the impact of values in the sense of ethics of responsibility. Trust and responsibility are two fundamental values, “which are inextricable from entrepreneurial decision making in an ethically grounded economy” (Schweitzer, M., 2011(I), p. 77). Trust and responsibility are cornerstones of market economy, and thus bring clear advantages not only to economic operators, but also to the society as a whole. Entrepreneurial ethics implies voluntary arrangements and aims for self-commitment of the parties involved; it represents “a necessary complement and a corrective to the market and the law, and thus also to the entrepreneurial order” (Gerum, E. /Mölls, S., p. 303).

Ethical codes have proved to be valuable instruments in practical implementation of ethically grounded entrepreneurial decisions; contemporary ethical codes of large and medium companies are quite modern with binding statements on Corporate Governance and Corporate Compliance.

Depending on the number and weight of the fulfilled conditions in ethically grounded entrepreneurial decision making the following differentiation can be made: in case of a large number (large weight) of conditions one can speak of strongly ethically grounded (ethically perfect) decisions, or, in case of a small number (small weight) of conditions one speaks of weakly ethically grounded (ethically defect) decisions. The idea of strongly ethically grounded entrepreneurial decisions discussed here should be observed by companies, associations and legislators alike.
Einleitung


2 Vertrauen als fundamentale Bedingung

Die Ethik analysiert zahlreiche Werte, die für eine ethische Begründung unternehmerischer Entscheidungen grundlegend sind. Das Vertrauen, die Verantwortung, die ethische Begründung des Handelns, die Realisierbarkeit der Werte, die Wirkung von Werten, die Bekräftigung von Pflichten und die Professionalität sind Werte, die die ethische Begründung von Entscheidungen als Bedingungen voraussetzt.


Eng verbunden mit dem „Vertrauen ist die soziale und ebenfalls informelle Norm der Reziprozität. Sie besagt, dass man denjenigen helfen soll, die einem selbst einmal geholfen haben, und dass man denjenigen, die einem geholfen haben, keinen Schaden zufügen soll. Der Volksmund bringt diese Fassung sozialen Kapitals bekanntlich auf die Kurzformel ‚Vertrauen gegen Vertrauen‘“ (Franke, S. F., S. 25).

3 Verantwortung als fundamentale Bedingung

Neben dem Vertrauen ist die Verantwortung eine grundlegende Bedingung für eine ethisch begründete Entscheidung. „Mit der Freiheit untrennbar verbunden ist die Verantwortung. Wenn wir den Menschen als vernunftbegabtes, moralfähiges Wesen in die Freiheit ‚entlassen‘, dann müssen wir ihm auch die Folgen seines Handelns zurechnen. Man könnte hier mit dem Philosophen Nicolai Hartmann (1882-1950) formulieren, dass der Mensch ‚sich in seiner Menschenwürde verletzt fühlt, wenn ihm die Zurechnung seiner Taten versagt wird‘. Doch die Verantwortung ist häufig eine Bürde, und daher führt die Furcht vor der Verantwortung vielfach zur ‚Furcht vor der Freiheit‘“ (Noll, B., 2010(I), S. 246; vgl. auch Reese-Schäfer, W., S. 396 f.).

„Philosophisch gesehen ist Verantwortung die Verpflichtung, bestimmte negative Konsequenzen des eigenen Handelns zu vermeiden oder umgekehrt erwünschte Konsequenzen zu garantieren und bei Zuwiderhandeln dafür gerade zu stehen“ (Clausen, A., S. 92). Wirtschaftliche Entscheidungen lösen Folgen aus, die Menschen (und/oder die Umwelt) betreffen. Die Folgen der Entscheidungen können gewollt oder ungewollt, sicher oder unsicher, nützlich oder schädlich sein. „Entscheidungsträger müssen daher nicht nur die Freiheit (Recht der Selbstbestimmung), die Qualifikation (Fähigkeit) und Kompetenz (Zuständigkeit) haben, Entscheidungen zu treffen, sondern auch die Pflicht eingehen, über die Folgen eigener … Entscheidungen Rechenschaft abzulegen, d.h. Verantwortung zu übernehmen“ (Schweitzer, M., 2011(I), S. 75). Zu unterscheiden ist zwischen moralischer und rechtlicher Verantwortung. Die moralische Verantwortung ist es, die im angloamerikanischen Begriff „Corporate Social Responsibility (CSR)“ zum Ausdruck kommt. „Im Bereich der Corporate Social Responsibility (CSR) geht es … um Handlungen, die zwar wünschenswert sind, zu denen ein Unternehmen je-
ESSENTIAL CONDITIONS FOR ETHICALLY GROUNDED ENTREPRENEURIAL DECISIONS

... doch auch aus Sicht einer kritischen Öffentlichkeit kaum als verpflichtet angesehen werden kann“ (Clausen, A., S. 92).


4 **Begründung als fundamentale Bedingung**


5 Realisierbarkeit von Werten als fundamentale Bedingung

Die **Realisierbarkeit von Werten** ist eine praktische Bedingung moralisch richtigen Entscheidens. **Sollen** setzt **Können** voraus, wie **Immanuel Kant** betont (vgl. Clausen, A., S. 27). Die Prüfung der Realisierbarkeit umfasst die Analyse der Beziehungen zwischen den einzelnen Werten hinsichtlich Verträglichkeit. So können Ziele als verträglich oder als unverträglich sich erweisen. „Bei unverträglichen Zielen handelt es sich um konkurrierende (konfliktäre), im Extremfall um antinomische (unvereinbare, sich ausschließende) Ziele. Unter wirtschaftlich-technischem
Aspekt der Realisierbarkeit ist herauszufinden, ob die vorgesehene Zielausprägung (der Grad der Zielerreichung, das Anspruchsniveau) bei gegebenen Bedingungen der Stakeholder, Märkte, Kapazitäten, Kapitalausstattung usw. realistisch gewählt wurde“ (Schweitzer, M., 2011(I), S. 75; vgl. auch Bruns, M., S. 39).


6 Pflichten und Verpflichtungen als fundamentale Bedingungen

In einem Entscheidungssystem, das „auf Rationalität, Wettbewerb, Rivalität, Vorteilssuche, Existenzsicherung, Machterweiterung und Gewinnstreben beruht und in dem Habgier, ruinöses Verhalten und Kriminalität nicht abwesend sind, genügt es nicht, zur Analyse der Durchsetzbarkeit ethisch fundierter wirtschaftlicher Entscheidungen das Lob des guten Menschen zu reflektieren, sondern es müssen schärfere Instrumente (Standards, Maßnahmen und Regeln) untersucht werden, die über die freiwillige Akzeptanz hinausgehen und im Zweifel auch Kontrollen ermöglichen“

7 Wirkung von Werten als fundamentale Bedingung


8 Zur Durchsetzung unternehmensethischer Werte

Es ist wichtig, die einzelnen Bedingungen für ethisch begründete Entscheidungen durch Treu und Glauben zu schützen und Bedingungsverletzungen angemes-
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PUBLIC MANAGEMENT AND ORGANIZATIONAL VALUES IN PUBLIC ADMINISTRATION OF EASTERN SLAVONIA

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Abstract

For decades public administration has been considered a public issue in its own right, or even a causal factor of public issues. It is perceived as an inert and inflexible system that operates in a way that neither its practices nor its effects are transparent. With the aim of enhancing the effectiveness of public administration attempts have been made to redefine the role of the state and reform public administration and public management in accordance with that new role of the state, which needs to be efficient, proactive and inexpensive. This paper focuses on organizational values as an important tool used by public management in achieving public administration goals. We investigated organizational values in the public administration of Eastern Slavonia, in particular, in the Vukovar-Syrmia County and Osijek-Baranja County. The actual organizational values that were identified and classified into categories constitute the results of our research. The classification of values proposed in this paper can serve as a tool for public managers in improving the effectiveness of public administration of their respective counties.

JEL Classification: H83

Keywords: public management, organizational values, public administration, organizational effectiveness.
1. Introduction

Public administration is generally understood as an administrative body that has political authority as well as the means for fulfilling common interests. Taking into consideration that public administration is funded by the government, the question of its effectiveness has been gaining importance. With the aim of enhancing the effectiveness of their public administration, some countries are attempting to redefine the role of the state and reform the public administration and public management in accordance with that new role of the state, which needs to be efficient, proactive and inexpensive. A state that manifests those attributes can be achieved by the managerial conception of activity, which primarily implies a vision, mission, goals and strategy that encompass the government itself, as well as the smallest administration organizations or another form of public administration bodies.

Management is the process of obtaining desired results through efficient use of human and material resources (Bedeian & Glueck; 1983, 6). Public management represents the orientation of public administration toward effectiveness in accordance with criteria similar to those in business organizations that include: constant reconsideration of the mission, vision, goals and strategy on the one hand, and orientedness toward the result rather than toward the procedure on the other. In concrete terms, this means that the execution of public jobs needs to be governed by professionalism, predefi ned standards and performance criteria, monitoring of results (rather than of the procedure), organizing work in smaller organizational units focused on concrete goals, developed competitive approach between organizational units within public administration, management practices typically found in the private sector as well as by work discipline and frugality.

Public administration is responsible for performing public affairs in society. The mission of public administration is most commonly defined by laws, codes and regulations. The duty of public managers (i.e. persons in charge at all levels of public jobs) is to translate the organizational mission of a concrete public body into various jobs that provide services to citizens. These jobs need to be strictly focused on the goals to be attained by a concrete service, so that all the employees in that service can recognize their contribution to achieving that goal. In such circumstances the satisfaction of users of public services will increase, and organizational values of public administration gain recognisability (Brčić & Vuković; 2008).

In striving to realize the predefined goals, each organization will be guided by certain fundamental beliefs in its operations. It is those beliefs, translated into a
relatively constant business practice, that can be termed organizational values (Papadaki; 2000). Organizational values provide a rationale for the primary reasons of existence of every organization, define the relationship between the organization and its environment, facilitate the execution of tasks and generally contribute to the attainment of the organization’s predefined goals. Within the research in this paper we examined the issue of representation of organizational values in the public administration system on the example of public administration of Eastern Slavonia, in particular, in the Vukovar-Syrmia County and Osijek-Baranja County.

2. Some perspectives on organizational values

In the Merriam-Webster dictionary, value is defined as a principle or quality that is intrinsically valuable or desirable (Parker; 2008). The English word ‘value’ originates from the Latin word ‘valor’, which means strength. Jaffe & Scott (2009) suggest that values are a source of strength since they empower people to move in the right direction; they are deep and emotionally driven and are often extremely hard to change. Such values, which are called personal values, are not static and are susceptible to change over time in the same way in which organizational values need to change. The values of the organization that determine its business success are: mission, vision, goals and strategy. Organizational values are not rules that dictate what we are allowed to do or forbidden to do; on the contrary, values have an energizing and motivating effect and act as inspiration for the individual. Indeed, breakthroughs are most likely to occur when organizations and individuals are inspired to attain a goal that is in accordance with their personal values (Jaffe & Scott; 2009).

Rokeach (1973), who initiated the scientific approach to investigating the organizational values concept, suggested that the following two sets of values need to be differentiated: terminal values, which refer to the goal to be attained by the organization and as such serve as the basis for defining the organization’s mission and vision, and instrumental values, which provide guidance in development and implementation of the defined goals, which means that they determine the way in which the organization desires its members to behave. On the other hand, Barrett (2006) distinguishes core values from operational values. Core values are the ones of vital importance for the organization and its success that also have a major impact on the organization’s identity. Collins and Porras (1996, 66) claim that such values are so clear that they are self-evident. Unlike core values, which are
long-term and hard to change, operational values are interpreted as a manner in which employees get along with other persons, which is also relevant for business and should be constantly taken into consideration (Barret, 2006). Although any healthy organization will not disregard operational values, each of them will still pay a much greater attention to nourishing and developing its core values. Ebener (2005, 4) maintains that core values direct the organization and allow for the right priorities to be set. As such they provide a source of inspiration for all employees. Core organizational values are the basis for proper implementation of the vision, mission and strategy as well as for the establishment of the organizational structure (Jaffe & Scott; 2009).

2.1. Values as the basis for organizational success

Some managers find instrumental (‘soft’) values to be of utmost importance and therefore give them priority over all the other aspects of activity. In situations in which organizations have not developed some key values that they would support and strive to promote, confidence, that is, connectedness between the individual and the organization is likely to be gradually diminished. In such circumstances the individual will not feel motivated for additional efforts that would help the organization to achieve significant improvements. Therefore recently an increasing tendency in organizations to approach values as a core that acts as unifying force for employees has been noted. Organizational values can thus become a cornerstone that will lead to the enhancement of organizational performance and motivate the employees (Jaffe & Scott; 2009).

Having clearly defined values is of pivotal importance for an organization. Dedication to common values will naturally emerge in a context in which humans cooperate in order to reach an agreement on their life and work priorities (Jaffe & Scott; 2009).

Every organization (both profit and non-profit) needs to engage itself in determining a vision of their own future as well as its mission, that is, a formal statement of its reason for existence. However, a vision and a mission are not sufficient in their own right since they strictly determine only the most important external task focus. In addition to its mission and vision, every organization therefore needs to define rules on the mode of cooperation and interaction as well as inherent mutual inter-relationships. It is not uncommon for conflicts to arise in a group that has agreed on the mission and vision, owing to differences in values concerning the realization of the defined mission and vision that are maintained by group members (Jaffe &
Scott; 2009). In such cases organizational values serve as guidance for directing employees’ behavior. They represent a collective understanding of the mode of cooperation and treatment of associates on the one hand, and the organization’s priorities on the other. In the organization, values substitute various rules and procedures. Major organizational changes cannot be executed without a reconsideration of key values since they form the basis for all organizational processes, behaviours and structures. When organizational values are not related to the employees’ personal values, only minor progress is possible. The alignment between personal and organizational values is therefore an important determinant of organizational success. In order to attain the planned business success, it is indispensable to constantly reconsider organizational values and employees’ commitment.

3. Methodology

The key instrument used in this research was a survey questionnaire that consists of a general section (respondents’ information) and a specific section. The specific section of the questionnaire was designed to measure the respondents’ perception of organizational values by means of 43 items or statements that represent respondents’ beliefs regarding particular value dimensions of the public administration system. The respondents were required to assess the degree of agreement with a particular item in the questionnaire using a five-degree Likert scale (1 = I absolutely disagree; 2 = I mostly disagree; 3 = I neither agree nor disagree; 4 = I mostly agree; 5 = I completely agree). To avoid unidirectional phrasing of items, certain items in the questionnaire were inverted that subsequently needed to be re-coded in data processing. The following methods were used in the processing of data: analysis, synthesis, descriptive statistical methods and factor analysis.

4. Results

4.1. Distribution of respondents by several criteria

The research was conducted on a sample of employees in the public administration system in the Vukovar-Syrmia County and Osijek-Baranja County. All respondents were provided with the explanation of the purpose of the research and were given instructions for completing the questionnaire as well as the assurance of confidentiality. A total of 256 respondents participated in the survey, 233 of whom completed the entire questionnaire correctly (control questions were used to check the validity of respondents’ answers). In further data processing and analysis
only those questionnaires were taken into consideration. 174 (74.7%) of the respondents were female, and 59 (25.3%) male. The distribution of respondents by gender indicates the prevalence of women over men, which on the whole reflects the actual gender distribution in public administration. However, for correct interpretation of research results distribution of respondents according to some other criteria needs to be presented, including the distribution of respondents by age (Figure 1), by total seniority as well as by seniority in public administration (Figure 2), and by qualifications (Figure 3).

Figure 1. Distribution of respondents by age

![Figure 1](image1.png)

Figure 2. Distribution of respondents by seniority

![Figure 2](image2.png)
Figure 3. Distribution of respondents by acquired qualifications

From the distribution of respondents by age it is evident that the majority of respondents are middle-aged and elderly. In comparing total seniority and seniority in public administration it has to be noted that the employees have adequate work experience in public administration, which speaks in favour of their thorough understanding of specific issues investigated by the survey. In terms of distribution by qualifications, two-year post-secondary school qualifications and university qualifications are predominant (60.1%).

4.2. Determining key groups of organizational values

In order to identify key value orientations in the selected sample the method of exploratory factor analysis was used. The main purpose of that method is the reduction of the number of initial variables and determination of key dimensions, that is, factors, in a particular area (Mejovšek; 2008, 231). Tests that had been performed prior to conducting main steps in factor analysis (i.e. analysis of correlation matrix of source variables, calculation of the Keiser-Meyer-Olkin measure and Bartlett’s sphericity test) confirmed that using factor analysis in this research would be adequate.

By analyzing the data gathered in the special section of the questionnaire that refers to organizational values using factor analysis we determined six basic value orientations that were labeled as follows: (a) leadership and management (target orientation), (b) customer satisfaction, (c) transparency of practices, (d) evaluation and rewarding of employees, (e) organizational climate, and (f) professionalism. The inter-
nal consistency coefficient (Cronbach alpha) was acceptable for all the six extracted value orientations, ranging from (in most cases) good to very good internal consistency (0.909; 0.862; 0.857; 0.831; 0.743), with only one value orientation for which a barely acceptable internal consistency was obtained (0.641).

Having identified value dimensions in the public administration of Eastern Slavonia, we determined the actual representation of the organizational values pertaining to each of those value dimensions. For that purpose we used a procedure that included the following stages:

a) for each item (statement) in the questionnaire that refers to a single concrete organizational value the mean value was determined;

b) for each factor (value dimension) extracted by factor analysis the mean values of the items pertaining to each factor that were obtained in the previous step were added up;

c) the total sum for each extracted factor that was obtained in the previous step was divided with the total number of items (questions) that constitute each extracted factor.

The three-step procedure described above did not only result in the identification of key organizational values dimensions, but also enabled their ranking by representation in the selected set of organizations. The representation of organizational values grouped in corresponding value dimensions along with their ranking by representation in the public administration of Eastern Slavonia, is shown in Table 1.

Table 1. Organizational values in the public administration of Eastern Slavonia ordered by rank of representation (on a 1-5 scale)

<table>
<thead>
<tr>
<th>Value dimension</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer satisfaction</td>
<td>3.939</td>
</tr>
<tr>
<td>Transparency of practices</td>
<td>3.726</td>
</tr>
<tr>
<td>Leadership and management</td>
<td>3.560</td>
</tr>
<tr>
<td>Organizational climate</td>
<td>3.313</td>
</tr>
<tr>
<td>Professionalism</td>
<td>2.843</td>
</tr>
<tr>
<td>Evaluation and rewarding of employees</td>
<td>2.778</td>
</tr>
</tbody>
</table>
In Table 1, it is evident that customer satisfaction is the highest-ranked value dimension. This implies that citizens as well as business organizations acting as public services users are satisfied with the provided services, helpfulness and communication of public administration employees. Transparency of practices comes second in the ranking order. Variables that determine this value dimension are: clear vertical and horizontal communication in problem-solving, organizational competence of superiors, and the knowledge about the allocation of duties. The third highest-ranked value dimension is leadership and management in public administration. This value dimension is determined by the following variables: strategy, goals, plans, competence of those to whom employees are directly subordinate to and the availability of in- and out-service professional training. Organizational climate is the fourth-ranked value orientation, as shown in Table 1. Variables that determine this value dimension are: conflicts in organization, comradeship and mutual respect among employees. The fifth-ranked value dimension is professionalism. This value dimension does not concern reconsideration of the acquired (formal) professionalism of employees, but instead comprises the need for professional competences, initiative and organizational changes (in a professional sense), along with the impact of politics on the functioning and decision-making in a concrete service. The lowest-ranked value dimension is evaluation and rewarding of employees, which occupies the sixth rank. Variables that determine this value dimension are: rewarding the best public administration officers by assigning them to new positions, proportionality in salary and commitment to work as well as the possibility of professional promotion.

5. Conclusions

Considering the qualitative structure of respondents, we believe that our research into public management and organizational values in public administration of Eastern Slavonia is highly relevant. Namely, the respondents have adequate work experience in the public administration system as well as adequate qualifications (60% of them acquired two-year post-secondary school or university qualifications), which makes them equipped with the knowledge of the specificity of public administration functioning.

Results generally indicate that there is great managerial and value potential for the improvement of work and efficiency in the public administration system that has not been sufficiently exploited.
In the value dimension of functioning of the observed public administration the employees’ high perception of satisfaction of users of their services on the one hand and transparency of practices on the other is noteworthy. However, the acknowledged transparency primarily refers to the understanding of public administration jobs and the way they are executed, rather than to the citizens’ insight into the public administration officers’ actual work and decisions.

Leadership and management (public management) obtained fairly adequate rating (3.5 on a 1-5 scale). When organizational climate as a value dimension that to a great extent ensues from the implementation of a particular management style is concerned, it should be concluded that untapped potential exists for the improvement of public management in the public administration of Eastern Slavonia.

Professionalism and employee promotion in particular are the two lowest-ranked value dimensions in the observed list of values. Previous research into professionalism and rewarding of employees in public administration (Brčić, 2002) yielded almost identical results. They can be interpreted as a severe neglect of the human dimension in the public administration system. The impact of politics diminishes the need for professional execution of jobs so in practice the employees often demonstrate higher professionalism than that required from them by their organization. Such circumstances result in a totally inappropriate evaluation and assessment of employees, which generally characterizes public administration in the Republic of Croatia.

On the whole, the present research, in correspondence with the previous studies on this topic, demonstrates that opportunities exist for significant improvements of managerial practice in terms of exploiting organizational values, which may lead to rationalization or reduction of budgetary funds allocated for the functioning of public administration of Eastern Slavonia.
Literature:


Abstract

Along with the entire economy, the wood industry in the Republic of Croatia also has to face strong and numerous competitors, both in the home and foreign markets. Solutions for survival and future development should be sought in market competition. Modern marketing increasingly uses branding as the means to increase sales and profit. Advertising as a part of the branding process is an unavoidable step toward creating a strong brand.

To optimise the decision making process when selecting an appropriate media combination for advertising, in the paper linear programming is used, particularly a special case of linear programming – integer linear programming. One possibility is to use the technique for distribution of a fixed or limited budget across various media – radio or TV commercials, newspaper adverts, direct mail, etc. The other possibility is to use advertising space (and type of advertising) based on the greatest possible number of potential users that can be reached by the advertising message.

JEL Classification: M31, M37

Keywords: decision making, linear programming model, integer programming model, branding, advertising, wood industry

1. Introduction to advertising and elements of programming

Quantitative methods and models can be applied in many fields of marketing decision making. Selection of an optimal strategy for advertising of products/companies is one of the problems that marketing management often faces.
As consumers make purchase decisions under significant influence of the media, advertising issues should be carefully considered.

The term advertising refers to a form of promotion, a creative communication process aligned with interests and needs of consumers, producers and society as a whole (Sudar & Keller; 1991, 60). The key objective of advertising is to reduce the distance between the producer and the consumer, that is, to enable targeting, accelerating and quantitative increase of product transfer from producer to consumer. To consumers it provides better insight into a growing offer of products in the market. Advertising makes it easier for buyers/consumers to make an alternative choice, obtain information on new products or improved quality of products and it also improves selective demand (Meler; 2005, 266-267).

There are many classifications of advertising. One of them is carried out according to the type of the media used. This classification includes the following media (Meler; 2005, 269):

- a) Newspapers
- b) Weekly magazines, reviews and other publications,
- c) Radio,
- d) Television,
- e) Public address system,
- f) New media, etc.

Any information directed at product consumers through the media is called an advertising message. As remembering the advertising message significantly depends on the number of repetitions of the advertising message as well as on the time period between the repetitions, increased number of repetitions of advertising messages along with simultaneous concentration significantly increases the level of effectiveness of the advertising message. Cumulative effect occurring in remembering the advertising message is the fact that should be taken into account when planning an advertising campaign, that is, when choosing the media.

The task of marketing management is to choose the types of advertising that will ensure the best balance between the cost of investment and expected effects.

Linear programming models are used in the field of advertising as an aid in making a decision about choosing an appropriate combination of media for advertising. These techniques can sometimes be used for distribution of a fixed or limited
ADVERTISING WITHIN THE BRANDING PROCESS OF THE CROATIAN WOOD INDUSTRY

budget across different media – radio or TV commercials, newspaper adverts, direct mail, etc. The other possibility is using the advertising space (and advertising type) based on the largest possible number of potential users that can be reached with advertising message.

Linear programming methods are the most important instrument in operations research, and one of the disciplines in mathematical optimizing.

Each linear programming method consists of the following:

a) LINEAR GOAL FUNCTION – The goal of optimizing comes to the foreground here. It can be maximizing profits, but also minimizing costs. The goal is chosen depending on the problem structure. The goal function is a set that should meet the requirements of the decision-maker.

b) LINEAR RESTRICTIONS – They come from the environment of the decision-maker and impose certain restrictions / conditions in terms of achieving the goal. The restrictions are always specified in the form of equations or inequations.

c) CONDITIONS FOR VARIABLE NON-NEGATIVITY – for example, negative quantities of products cannot be produced, and it is impossible to broadcast a negative number of advertising messages in a medium.

THE GENERAL MATHEMATICAL FORMULA FOR LINEAR PROGRAMMING IS AS FOLLOWS (Barković; 2002, 58):

\[
\begin{align*}
\text{max } Z &= c_1x_1 + c_2x_2 + \ldots + c_nx_n \\
\sum_{i=1}^{m} \sum_{j=1}^{n} a_{ij}x_j &\leq b_i \\
\sum_{j=1}^{n} a_{ij}x_j &\leq b_i \\
\vdots &\vdots \vdots \\
\sum_{j=1}^{n} a_{mj}x_j &\leq b_m \\
x_1 &\geq 0, x_2 \geq 0, \ldots, x_n \geq 0
\end{align*}
\]

where :

m – is the number of restrictions,
n – is the volume of particular activities,
x_j – is the unknown activity j (structural variable),
a_{ij} – are technical coefficients which indicate how many units of a resource (restriction) are being spent for producing a unit x_{j},

b_i – is the size of the restricting factor,

c_j – is the profit per unit j.

However, in many real problems structural variables make sense only if they acquire some integer values. If requiring integer values is the only way in which a problem deviates from a linear programming formulation, then it is an integer programming (IP) problem.

The mathematical model for integer programming is the linear programming model with the one additional restriction that the variables must have integer values (Hillier & Lieberman; 2001, 576). If it is required that only some of the variables have integer values, then such problem is called Mixed Integer Programming. In addition to problems with integer variables, linear programming can be also used to solve problems where decisions of Yes/No type are required. Such variables can acquire only two values (0 or 1). They are called binary (dummy) variables, and problems consisting of binary variables only are called Binary programming problems.

Most methods of integer programming involve the simplex method, applying it to a linear programme that corresponds to the set integer programme, i.e. the problem where requests that variables are integer/binary are omitted. Such a linear programme (that corresponds to the initial integer programme, but without integer variables) is called a linear programming relaxation.

Therefore integer linear programming involves well-researched optimisation problems, and numerous techniques for finding an optimal solution have been developed. Two of these techniques include a cutting plane method (Gomory; 1960) and a branch and bound method (Land & Doig; 1960). Cutting plane methods rely on the algorithm derived by Gomory where the number of possible solutions is iteratively reduced by introducing hyperplanes with the goal to achieve the optimal solution – an integer – in an increasingly narrowing group. Branch and bound method consists of consecutive solving of a relaxation problem where new constraints are added in each step and these constraints force individual integer variables to acquire integer values.
A single integer programming problem requires finding a solution to a whole range of linear programming problems, which makes integer programming complex in more than one way.


Application of integer programming (IP) on the problems in the field of marketing decision making will be shown in this paper. Solutions will be calculated by means of the POM – QM software for Windows.

2. EXAMPLE OF FORMULATING AND SOLVING A MARKETING DECISION MAKING MODEL

To present the proposed model to a greater number of decision makers in the field of marketing management, the procedure of its formation and solution will be presented on the example from the Croatian wood industry in which company management is going to implement a comprehensive advertising campaign within a one-month period.

It is assumed that the marketing department within the Croatian wood industry company is considering several possibilities of advertising:

- A 10-second TV commercial on NOVA TV in the prime time (period from 19:30 to 23:30)
- Advertisement in daily newspaper, Jutarnji list in this example; a full page colour advert in Saturday edition
- A 20-second radio commercial aired on Narodni radio in the period from 06:00 to 21:00
- Internet advertising on the sites Net.hr, Indeks.hr, Jutarnji.hr, Večernji.hr and contextual media – Google and Facebook

The objective of the Croatian wood industry company is to reach the greatest possible number of potential consumers of its products through various types of advertising.

A research was conducted to obtain information about the number of potential consumers of company’s products that would be reached by the advertising message through advertising in a particular type of the media and to obtain information
about costs per one advertising message. The average values of the required data calculated on the basis of data gathered in the above research are given in Table 1.

**Table 1: Number of potential consumers and unit price of the message in particular media**

<table>
<thead>
<tr>
<th>MEDIA</th>
<th>Number of potential consumers</th>
<th>Price of the message (HRK)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TV commercial (10 seconds) - NOVA TV in the period 19:30 - 23:30</td>
<td>128,210</td>
<td>4,016.430</td>
</tr>
<tr>
<td>Daily newspaper (1 page) - Jutarnji list, Saturday, 1/1 colour</td>
<td>245,304</td>
<td>20,799.890</td>
</tr>
<tr>
<td>Radio commercial (20 seconds) - Narodni radio in the period 6:00 - 21:00</td>
<td>32,003</td>
<td>406.280</td>
</tr>
<tr>
<td>Internet advertising</td>
<td>0.680</td>
<td>0.013</td>
</tr>
</tbody>
</table>

As can be seen from the table above, advertising in daily newspaper has the highest price per unit (HRK 20,799.89) and one message can reach maximum 245,304 potential consumers – also through advertising in daily newspaper.

However, if the number of potential consumers and the unit price of the message are put into a relation, it is possible to obtain data on the number of potential consumers per kuna invested into a particular form of advertising. This information shows that there are only 11.79 potential consumers per kuna invested into advertising in daily newspaper, whereas advertising on the radio results in 78.77 potential consumers per invested kuna.

**Table 2: Number of potential consumers per kuna invested into a particular form of advertising**

<table>
<thead>
<tr>
<th>MEDIA</th>
<th>Number of potential consumers</th>
</tr>
</thead>
<tbody>
<tr>
<td>TV commercial (10 seconds) - NOVA TV in the period 19:30 - 23:30</td>
<td>31.92</td>
</tr>
<tr>
<td>Daily newspaper (1 page) - Jutarnji list, Saturday, 1/1 colour</td>
<td>11.79</td>
</tr>
<tr>
<td>Radio commercial (20 seconds) - Narodni radio in the period 6:00 - 21:00</td>
<td>78.77</td>
</tr>
<tr>
<td>Internet advertising</td>
<td>52.31</td>
</tr>
</tbody>
</table>
The amount of budget allocated by the Croatian wood industry company for that purpose – 200,000.00 kuna, and the requirements of the company regarding the maximum number of advertising messages that the company wishes to order within a month are taken as a constraint to the observed problem:

Table 3: Requirements of the wood industry company regarding the maximum number of advertising messages that the company wishes to order within a month

<table>
<thead>
<tr>
<th>MEDIA</th>
<th>Maximum number of adverts (per month)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TV commercial (10 seconds) - NOVA TV in the period 19:30 – 23:30</td>
<td>30</td>
</tr>
<tr>
<td>Daily newspaper (1 page) - Jutarnji list, Saturday, 1/1 colour</td>
<td>4</td>
</tr>
<tr>
<td>Radio commercial (20 seconds) - Narodni radio in the period 6:00 - 21:00</td>
<td>84</td>
</tr>
<tr>
<td>Internet advertising</td>
<td>3,500,000</td>
</tr>
</tbody>
</table>

Based on the data from the Tables 1 and 3 it is possible to formulate the problem mathematically as follows:

Assuming:

\[ x_1 \] - The number of 10-second TV commercials per month
\[ x_2 \] - The number of full page adverts in daily newspaper per month
\[ x_3 \] - The number of 20-second radio commercials per month
\[ x_4 \] - The number of advertising messages on the Internet per month

The function of the objective that should be maximised is the coverage with listeners, readers, viewers, and that is

\[
\max Z = 128,210x_1 + 245,304x_2 + 32,003x_3 + 0.68x_4
\]

with constraints

\[
4,016.43x_1 + 20,799.89x_2 + 406.28x_3 + 0.013x_4 \leq 200,000.00
\]
\[ x_1 \leq 30 \]
\[ x_2 \leq 4 \]
\[ x_3 \leq 84 \]
\[ x_4 \leq 3,500,000 \]
and non-negativity condition:
\[ x_1 \geq 0, x_2 \geq 0, x_3 \geq 0, x_4 \geq 0 \]

Input data along with corresponding output data in the software POM – QM for Windows are given in the Figure 1.

Figure 1: Input data of the mathematical problem, together with the corresponding output data in POM – QM for Windows

The obtained solution is consistent with Table 2. The planned budget is allocated among the media with better ratio between the invested amount and the number of potential consumers.

TV and radio advertising has reached the limit of the company’s requirement in terms of the maximum number of advertising messages that the company wishes to order within a month; 3,490,737 advertising messages will be published on the Internet, whereas no advertising messages will be published in daily newspaper. Therefore the optimum solution is:

\[ x_1^* = 30, x_2^* = 0, x_3^* = 84, x_4^* = 3,490,737 \]

at maximum coverage level (the number of people noticing the given advertising message) of 8,908,253.

However, if the Croatian wood industry company would also require the following:

• 4 adverts to be published in daily newspapers within the observed period
• At least 40 commercials to be aired on the radio within the observed period
• At least HRK 10,000.00 to be invested into advertising messages on the Internet, but not exceeding HRK 20,000.00
• The cost of adverts in daily newspapers and advertising on the radio not to exceed HRK 100,000.00

the problem would be mathematically formulated as follows:
\[
\max Z = 128,210x_1 + 245,304x_2 + 32,003x_3 + 0.68x_4
\]

with constraints
\[
4,016.43x_1 + 20,799.89x_2 + 406.28x_3 + 0.013x_4 \leq 200,000.00
\]
\[
x_1 \leq 30
\]
\[
x_2 = 4
\]
\[
x_3 \leq 84
\]
\[
x_3 \geq 40
\]
\[
x_4 \leq 3,500,000
\]
\[
0.013x_4 \leq 20,000
\]
\[
0.013x_4 \geq 10,000
\]
\[
406.28x_3 + 0.013x_4 \leq 50,000
\]
\[
20,799.89x_2 + 406.28x_3 \leq 100,000
\]

and non-negativity condition:
\[
x_1 \geq 0, x_2 \geq 0, x_3 \geq 0, x_4 \geq 0
\]

Optimum solution of the observed problem would be (also calculated by means of the POM – QM software for Windows):
\[
x^*_1 = 20 \text{ (number of TV commercials)},
\]
\[
x^*_2 = 4 \text{ (number of newspaper adverts)},
\]
\[
x^*_3 = 41 \text{ (number of radio commercials)},
\]
\[
x^*_4 = 1,524,181 \text{ (number of advertising messages on the Internet)},
\]
at maximum coverage level (people noticing the given advertising message) of 5,893,983.
The other possibility for using the integer programming model in the field of advertising is to use it as an aid when making a decision about appropriate combination of the media for advertising in order to achieve the desired coverage level, while maintaining the costs of advertising at the lowest possible level.

For example, if the Croatian wood industry company’s management would be satisfied with the coverage level of 3,000,000 of potential consumers, then the number of advertising messages for a particular medium should be determined so that minimal advertising costs are achieved.

With the above information about the number of potential consumers, unit prices of messages and constraints, the new problem can be mathematically formulated as follows:

\[ \min Z = 4,016.43x_1 + 20,799.89x_2 + 406.28x_3 + 0.013x_4 \]

with constraints

\[ 4,016.43x_1 + 20,799.89x_2 + 406.28x_3 + 0.013x_4 \leq 200,000.00 \]
\[ x_1 \leq 30 \]
\[ x_2 = 4 \]
\[ x_3 \leq 84 \]
\[ x_4 \geq 40 \]
\[ x_4 \leq 3,500,000 \]
\[ 0.013x_4 \leq 20,000 \]
\[ 0.013x_4 \geq 10,000 \]
\[ 406.28x_3 + 0.013x_4 \leq 50,000 \]
\[ 20,799.89x_2 + 406.28x_3 \leq 100,000 \]
\[ 128,210x_1 + 245,304x_2 + 32,003x_3 + 0.68x_4 \geq 3,000,000 \]

and non-negativity condition:

\[ x_1 \geq 0, x_2 \geq 0, x_3 \geq 0, x_4 \geq 0 \]

The optimal solution to this problem would be calculated by means of the POM – QM software for Windows:


\( x_1^* = 0 \) (number of TV commercials),
\( x_2^* = 4 \) (number of newspaper adverts),
\( x_3^* = 41 \) (number of radio commercials),
\( x_4^* = 1,039,207 \) (number of advertising messages on the Internet).

at minimal costs in amount of HRK 113,366.70.

However, if there is an additional requirement by the Croatian wood industry company’s management in terms of the number of commercials – at least 15 TV commercials to be broadcasted within a month, then the problem will be mathematically formulated as in the Figure 2, and optimal solution will be:

\( x_1^* = 15 \) (number of TV commercials),
\( x_2^* = 4 \) (number of newspaper adverts),
\( x_3^* = 40 \) (number of radio commercials),
\( x_4^* = 769,231 \) (number of advertising messages on the Internet).

at minimal costs in the amount of HRK 169,697.20 kn.

Figure 2: Input data of the mathematical problem, together with the corresponding output data in POM – QM for Windows

3. CONCLUSION

The paper provides a presentation of a support system to marketing decision making, both theoretically and on an example from the Croatian wood industry.
The support system is based on linear programming models, particularly on a special case of linear programming – integer linear programming.

Marketing management of the company from the Croatian wood industry can use the system to choose the types of advertising that will provide the best balance between investment costs and expected effects, thus determining the optimal advertising strategy in given circumstances.

Information technology is of key importance for the proposed model. Its importance is particularly visible in the field of model solution. That aspect of computers and software implementation is pointed out in the analysis. As most marketing managers have only basic knowledge and skills in the field of information technologies and quantitative methods, this approach was used to present the support system to decision making to a greater number of users. Therefore the software used in the analysis is the software known for its availability and ease of use.

REFERENCES
CONSTRUCTIVE CONFLICT IN TEAMWORK

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Abstract:
Conflict is a necessary part of teamwork. Without it, team synergy and creativity cannot be maximized. In fact, there would be no advantage to working together at all. Conflict can have both positive and negative outcomes. Negative outcomes from conflict that has not been properly managed can be very disruptive to teaming activities and possibly quite devastating to individual team members. The three most important principles behind the realization of the benefits of conflict are open communication, the respect of differences and involvement by all team members affected.

Conflict expression is one of the most important and powerful tools for effective and productive teamwork. The reasons for encouraging conflict are many. During conflict expression critical thinking is stimulated, innovation and creativity are sparked, group stagnation is minimized and healthy debate and discussion is energizing. How well conflict is managed will determine whether the positive or negative results are achieved. The key is to create an environment where diversity is viewed as an opportunity, rather than a threat. Learning to manage conflict effectively will enable teams to take advantage of the team’s diversity while still working together towards common organizational and personal goals.

JEL Classification:D74

Keywords: conflict, teamwork constructive conflict, destructive conflict, managing conflict

1. INTRODUCTION

In order to manage conflict, it is first important to understand what it is. What comes to mind when one says the word conflict? Most of the thoughts that come
to mind are negative and that is a typical reaction. There are many different definitions of conflict. The word in its simplest form means difference. Conflicts, or differences, are not good or bad. Depending how they are handled, conflicts can produce constructive behavior and positive outcomes or destructive behavior and negative outcomes.

According to Alden and Blankenburg (1995, 5-2) there are two fundamental bases of conflict. The first is information. One person has information that another doesn't have, or two individuals have completely different sets of information. The second is perception. People simply see things differently based on their unique paradigms and mental filters.

Differences in information and perception create conflict in four basic categories: facts, methods, goals and values (Alden & Blankenburg; 1995, 5-2). People have access to a different set of facts or they see the same facts from distinctly different viewpoints. Probably no two individuals will do the same thing in exactly the same manner. Goals the people work toward can often be quite different, even in the same environment. Based on unique backgrounds and experiences people differ in their basic value systems. Differences in four categories can be attributed to individual personalities, attitudes, and expectations as varied and as common as people themselves. Jelled teams learn how to deal with such concerns through frank and open communication. They do not avoid, repress, or deny conflict, but rather see to it as an opportunity. Only when the whole team views conflict in this light can they put aside their combative tact and take a creative stance. The team members no longer feel threatened, they feel challenged.

Conflict is natural and, therefore, inevitable. We don't often see a group of individuals integrate their unique experiences, perspectives, values, and expectations into a common purpose, set of performance goals, and approach without encountering significant conflict. The most challenging risk associated with conflict relate to making it constructive for the team instead of simply enduring it. Unmanaged conflict can lead to less- than-adequate performance, resentments, and lack of motivation. When differences surface, the must be addressed in a healthy way in order to take advantage of their benefits and the synergistic effect of teamwork.

2. CONSTRUCTIVE CONFLICT BEHAVIOR

Although conflict is most often thought of as negative, changes in organizations would never occur without it. Conflict can have a positive impact on all teams if
it is viewed as a potential change agent. Only when someone opens up a conflict and when, at the same time, one or more other people respond constructively, can individual differences and concerns be discussed and molded into common goals. Only then does the team give itself the chance to move ahead.

Conflict expression is one of the most important and powerful tools for effective and productive teamwork. The reasons for encouraging it are many. The most valuable ones are listed below (Kayser; 1990, 146-147):

- Critical thinking is stimulated – When an individual challenges the direction of the team or takes exceptions to an offered proposal, the team is re-examine its own beliefs in some detail and to reconsider previously ignored aspects of the issue.

- Innovation and creativity are sparked – When people are in conflict over acceptable alternatives, the diversity can motivate the team members to work out new and creative alternatives that can be supported by everyone.

- Group stagnation is minimized – Contrary opinions and ideas among team members increase the breadth and depth of each member’s understanding of the subject and of each other.

- Healthy debate and discussion is energized – The excitement and energy that springs from interpersonal differences can increase the motivation and involvement of team members in tackling the task or issue at hand.

This doesn’t mean any of this is easy to manage. It requires hard work and time, and is not void of barriers and their associated risks.

3. OBSTACLES TO CONSTRUCTIVE CONFLICT BEHAVIOR

Most people have learned to speak carefully and within accepted boundaries. The conditioned response emphasizes impressing and respecting your leaders, not letting your peers see your weaknesses, supporting the party line to avoid appearing disloyal or rebellious, and offering main line ideas without advancing wild ideas. These behaviors make constructive conflict difficult and risky.

Certain cultural backgrounds and certain personal behavior styles are not conductive to the expression of differences. It may be considered inappropriate, it may be uncomfortable, or the necessary skills may have never been learned and developed.
Fear is probably number one barrier to constructive conflict behavior. Our fears may have been bred in our cultural upbringing or socialization, or they may simply be inherent. We fear hurting other people’s feelings, we fear getting our own feelings hurt, we fear something unpleasant will happen, or, at the very best, we fear the unknown. Since most of us have had negative experience in the past and have had limited training in how to use constructive conflict, the risk is often viewed as too great.

4. THE REASONS OF CONFLICT BEHAVIOR

The fears mentioned are not unfounded. If mishandled, conflicts can be very destructive. They can produce animosities, hurt feelings, misunderstandings, and disappointments.

Disagreements and differences are destructive when they paralyze the team’s ability to realize its desires outcomes. This can happen for the following reasons (Kayser; 1990, 147-148):

- **Winners are produced at the expense of losers** – People’s energies are directed toward each other in an atmosphere of total victory versus total defeat. Implementation of the winning decision is a constant struggle because of the active or passive resistance that the looser demonstrate.

- **Polarization is fostered** – In a destructive mode, diversity does not produce faithful interactions. Instead, opposing opinions cause members to defend their ideas rather that modify them. Getting *my own way* becomes more important than discovering the best solution for the team’s current dilemma.

- **Energy is consumed unproductively** – Preparing for battle takes time and effort. The team’s energy is drained by the internal *we-they* fight rather that harnessed in a cooperative undertaking of *us* against the problem. Excessive time is consumed and relevant information does not get shared.

- **A short-term orientation takes hold** – At the destructive level, team members become conflict-focused by stressing the here-and-now differences as opposed to being relationship-focused but accepting the long-term consequences and potential benefits of their differences.
• Unpleasant emotional encounters are experienced – Dysfunctional personal interactions can create stress and poor working relationships among the team members. Chances of taking risks are even smaller for future interactions.

The ability to manage conflict will determine whether the team will achieve positive or negative results. The most important is to create an environment where differences in opinions, values and beliefs are viewed as an opportunity and not a threat.

5. CONFLICT MANAGEMENT STYLES

Learning to manage conflict effectively will enable teams to take advantage of the team’s diversity while still working towards common organizational and personal goals (Alden & Blankenburg; 1995, 5-5, 5-6). In order to manage conflict effectively, it is crucial to know and understand how each individual reacts to conflict.

One of the most useful models of conflict management was designed by Thomas and Kilmann in 1974. They separate two dimensions of conflict-handling behavior: cooperativeness – the attempt to satisfy the other party’s needs and assertiveness – the attempt to satisfy one’s own needs. These two dimensions define five styles of dealing with conflict (Pfeiffer; 1991, 215):

• Avoidance reflects a desire to evade the matter at hand. The individual who uses this style neglects his own needs as well as those of other party by not raising or addressing the conflict issue. This approach is neither assertive nor cooperative.

• Accommodation indicates a willingness to meet the needs of the other people involved at the expense of the one’s own needs. Cooperation is the primary behavior manifested with this style. Unlike the competitor and the collaborator, the individual who accommodates does not behave assertively.

• Competition indicates a desire to meet one’s own needs and the lack of concern for the needs of others involved in the conflict. In employing this style, the competitor uses some form of power, which may be connected with their position, rank, expertise, or ability to persuade.

• Compromise reflects a desire to find a solution that will partially meet the needs of everyone involved. The individual who approaches conflict with compromise in mind expects the outcome to be mutually acceptable and
somewhat satisfying to all of the parties. They also expect to give up something in order to achieve a solution that everyone can live with. This style is both assertive and cooperative, but to a lesser degree than is collaboration.

- **Collaboration** reflects a desire to meet the needs of all people involved in the conflict. The collaborator is highly assertive, as is the competitor, however, unlike the competitor, the collaborator cooperates with everyone involved so that all needs are acknowledged as important, alternative solutions and their consequences are identified, and the alternative that meets person’s needs is chosen and implemented.

Among these styles there are no better or worse ones, but each style of conflict management is useful in certain situations. Most people have the tendency to use one or two of these styles, but everyone can learn how to use all five of them. The ability to choose the appropriate style in a certain conflict situation will help increase the chances of the positive outcome of the conflict.

6. **CONSTRUCTIVE CONFLICT IN TEAMWORK**

There are two aspects in managing conflict in teamwork. One is to choose the appropriate conflict management style to obtain the desired positive outcomes. The other is to repair the damage caused from negative outcomes by using appropriate communication skills. Both of these require a cooperative mindset, as well as a set of interpersonal tools (Alden & Blankenburg; 1995, 5-10).

In order to encourage each team member to actively participate in team’s session it is important to create an environment where each team member feels that his/her thoughts, opinions, ideas, and proposals are needed by the team and where everyone feels comfortable in putting viewpoints to the table. Feeling comfortable is not a result of participating in agreeable, superficial, flattering, frictionless meetings that lean toward group-think. Rather, it is a result of knowing one’s ideas and opinions will be given a fair hearing, above all, knowing that the issues will be challenged, not the people (Alden & Blankenburg; 1995, 5-10).

It is a great challenge for all team members to resolve difficult problems that can occur in a team. Resolving such problems require constructive criticism among members, disagreement and in-depth exploration of the pros and cons. Losing any one person’s contribution can be unproductive for everyone. But being patient and using facilitating behaviors and effective communication skills, the team can solicit
information and opinions from all team members. The more mature the team be-
comes in sharing the responsibility for earnestly seeking out what other team mem-
bers have to say, the more the chances of missing valuable and key contributions
will be reduced. (Alden & Blankenburg; 1995, 5-10)

7. MANAGING DESTRUCTIVE CONFLICT BEHAVIORS

Destructive conflict behaviors can be harmful and disruptive for the team. Such
behaviors are minimized if the group spends enough time and effort in developing
itself as a team: developing a common mission, getting to know each other, estab-
lishing norms, practicing facilitating behavior and using constructive conflict man-
agement techniques. Very often a group of people blame an individual for causing
a certain problem. According to Sholters (1992, 6-36 – 6-45) there is a list of more
common disruptive behaviors in teamwork:

- **Floundering** – The team is unclear or overwhelmed by its task. Members
  wonder what actions to take.
- **Overbearing participants** – They seem to hold on to a disproportionate
  amount of influence to the team, often because of their authority or expertise.
- **Dominating participants** – They talk too much, the like to hear themselves
  talk and they rarely give others a chance to contribute.
- **Reluctant participants** – they feel shy or unsure of themselves in the team,
  rarely speak and must be encouraged to contribute.
- **Unquestioned acceptance of opinions as facts** – Some team members ex-
  press personal beliefs and assumptions with such confidence that listeners
  assume they are hearing a presentation of facts.
- **Rush of accomplishment** – This is common to teams being pushed by one or
  more members who are impatient for results and unwilling to work through
  the necessary steps of the systematic approach.
- **Attribution** – This is a tendency to assume what people’s motives are when
  we disagree with or don’t understand their opinion or behavior.
- **Discount and “plops”** – Everyone has certain values or perspectives that are
  important to them. Discounting is ignoring or ridiculing those values and
  perspectives. A plop is when no one acknowledges a statement made by a
team member, and the discussion picks up on a subject totally irrelevant to the statement.

- **Wanderlust: digression and tangents** – Team members lose track of the meeting’s purpose or want to avoid a sensitive topic. Discussions then wander off from the subject.

- **Feuding team members** – Sometimes a team becomes a battlefield for members who are at odds with each other. Usually, the problem is not the subject they are arguing about rather the contest itself. Other team members may get swept up in the battle or feel like spectators at the sporting match.

Some of these behaviors are not as disruptive as others. Some are just fleeting disruptions that come as a needed break. However, some are chronic, very disruptive and occurring over and over again. The team should recognize the seriousness of the disruptive behavior and reach accordingly.

Sholters (1992, 6-33 – 6-35) believes there are five strategies for confronting disruptive behavior, each with an increased level of intervention:

1. **Do nothing (non-intervention)** – ignore the offensive behavior, particularly if it is not a chronic problem or doesn’t seem to inhibit the team.

2. **Off-line conversation (minimal intervention)** – talk to the disruptive member outside the team session, asking them what would increase their satisfaction with the team. Give constructive feedback.

3. **Impersonal group time** – at the start of the meeting, talk about general team process concerns without pointing out individuals. Include the disruptive behavior to the list.

4. **Off-line confrontation (medium intervention)** – off-line confrontation is the same as off-line conversation except whoever does it is more assertive. It is used when other attempts have failed.

5. **In-group confrontation (high intervention)** – as a last resort, after other approaches have failed, the leader may deal with the offending behavior in the presence of the team. This disrupts the team’s other business and exposes an individual’s behavior to open critique in the team. This tactic can be effective, but it can also be a disaster. The team must prepare carefully on how to word
the confrontation, what reactions to anticipate, how to avoid defensiveness or hostilities in the offending member.

Expulsion from the team is not recommended because it can create a stigma that remains with the team and the expelled member for a long time.

8. CONCLUSION

Anyone who participates in a team will be dealing with diversity. If all member’s approaches, opinions, values and perspectives were the same, there would be little need for team decisions at all. The very idea of teamwork assumes that there will be different ideas and proposals for solving a common problem, reaching a goal, or making a decision.

Getting the most of the team requires all team members to understand that conflict is neither good nor bad. The challenge is to encourage diversity without encouraging interpersonal tension, to take the constructive power of differences without igniting their destructive power.

REFERENCE

INTERNET BASED LEARNING AS A PART OF PERMANENT EDUCATION – THE IMPACT ON THE SUSTAINABLE DEVELOPMENT OF ENTERPRISES

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ABSTRACT

Today, due to more rapid and significant changes in business environment, both, in profit and nonprofit sector, market subjects seek to reduce development cycles and commercial exploitation of products, improve services to final users and promote the quality of products and services in accordance with the principles of sustainable development. Influencing quickly to the limitation of the knowledge, to the continuous production of new insights which are necessary for qualitative shifts in all business areas, creating new needs for specific knowledges and its application, technological development causes intense orientation to permanent education and ongoing development of human capital as a foundation for the strategic orientation of the company. Herein, the special role is the role of information and communication technology (ICT), especially Internet, which today appears as a fundamental industry of the future and basic infrastructure of society, the generator of economic success and instrument of connection with the international community. Internet is easily accessible, interactive, diverse and experimental. Using its advantages, due to growing information communication and digital literacy, instead of people ideas travel, and costs are significantly reduced. In that context, this paper will present the impact of benefits of the Internet as a tool of education on the sustainable development of enterprises.

JEL Classification: I25

Keywords: Permanent education, Internet, Internet based learning, sustainable development.
1. The importance of permanent education in the modern market economy

The concept of education we meet in everyday conversation, in educational and social circles. As a historical and social category it is directly related with the needs of production of material goods, with the development of science and technology, and with the ideology which is incorporated into a variety of targets in accordance with the political system of the society. Today, in a knowledge society its role is crucial in creating competitive advantage of an enterprise and national wealth of a country (Vidulin - Orbanic; 2007, 57). Today, permanent education is becoming one of the most important forms of management of human resources. Modern companies use more of their resources into the education and training of employees. Permanent education and training of employees is increasingly understood by the management as one of the most effective ways of achieving competitive advantage and as the fundamental assumption of entering to the market competition. This knowledge is a result of large and rapid change in the external and internal environment of modern companies, which knowledge, constant innovation and learning a new one puts in the forefront of economic development (Bahtijarević - Šiber; 1999, 717). Dynamic changes which happen in the society and in the economy of Euorpan Union determine the need for constant innovation and acquiring of new job skills. Modern companies increasingly dedicate resources to the education and continuous training, and the investments in education are becoming a key indicator of understanding what is happening in modern global business and competition. Formal education that one acquires in the educational system is only a basis for further specialization and experiential learning. Globalization of competition creates new business conditions that requires fast and efficient adjustment of business subjects. Employers can no longer secure permanent employment, but instead of that they can ensure permanent education and upgrading of knowledge and skills so employees can look for a job either in their company or elsewhere. In that context, the concept of employment appears, which for individuals means the obligation for continuous learning and development, monitoring changes in knowledge according to the needs of the labour market. Educational process of human resources has a complex character considering it contains variety of activities starting from identification of educational need up to evaluation. Different methods are implemented in accordance with placed targets, levels and educational programmes. Instructions, rotation, professional practice, mentoring, lecturers, conferences, case methods are some of the numerous methods that can be implemented in the training and development of employees. Special attention
should be given to the choice of the most appropriate method, trainer, and the responsible person for the success of its implementation (Poslovni forum; 2010).

Permanent education is generally accepted as a learning activity throughout life with the aim of improving knowledges, skills and abilities within personal, civil and business perspective. The concept was adopted in 1971. by the Council of Europe, but in some societies it is differently defined and implemented. It includes the following forms of learning activities (Maravić; 2003, 34):

- **formal education** - based on programmes approved by the Ministry of Science, Education and Sport for the acquisition of knowledges, skills and abilities in order to acquire publicly recognized educational level;

- **non-formal education** - it consists of structured programmes oriented at training to work, of different social activities and personal development. It is performed independently from formal education in different institutions (institutions for adult education, in enterprises, NGOs, syndicates, etc.), and usually does not lead towards the acquisition publicly recognized diploma;

- **informal education** - person learns from experiences and resources which are founded in its environment that may not be conscious process. It is accomplished by the increased accessibility of books, magazines, newspapers, movies, and especially through the Internet and communication technologies and media (Tadin; 2007, 145).

1.1. **Permanent education in enterprise**

In the past, the training for the work position in the working world has not been so much attentioned, so the scientists faced the fact that continuous improvement and the maintenance of competence of existing employees is necessary. Through the history of the business employers in some way introduced the employees into the business process, whether they were giving them directions by themselves, or used more experienced employees as educators and/or coaches. Rapid pace of technological development forced employers to provide organized care for its employees, which in larger organization led to the construction of various training models. Over time, those systems extracted less or greater results, which in the long run gave effects to the financial standings, so organizations understood the benefits of describing the educational system. Education in the enterprise is the area of its activity which is closely connected and positioned in the personnel services/departments of Human Resources, departments of training, etc. General Conference of UNESCO 1976th
accepted the following definition of concept of adult education: it denotes entire body of organized educational processes in all of its contents, levels and methods (formal or otherwise), regardless of whether the adult continue or replace its education or apprenticeship, whether the person develop its skills, expand its knowledge, improve its technical or professional qualifications, or divert it and lead to the changes in attitudes or behavior in the perspective of full personal development in a condition of participation in balanced and independent social, economic and cultural development (Žiljak; 2002, 116). In the Republic of Croatia, the present content of adult education should be analyzed in the context of previous development trends. Primarily, in the framework of former Yugoslavia which was part of the educational system of adults institutional network (workers’ and people’s universities, training centers for education of staff in enterprises, institutions of educational system, andragogy schools, etc.). The programme was performed in surpassing mode by seminars and other forms of adult education which exclusively had compensatory function (catching up negligence in education, retraining, requirements for higher level of professional training, etc.). After 1991., the restructuring of the economy leads to the extinction of many enterprises and the developed systems of adult education in enterprise’s educational centers. Private initiatives and privatization in setting up small businesses required new profiles of job qualifications for which there was no willingness of investment in education because of high level of unemployment and low living standard. Existing network of adult education has changed significantly in terms of developing some organizations that have been transformed into a different forms of formal, non-formal and informal education of adults. Yet, 2001., when the strategy of development was adopted, it came to the significant changes in which adult education has an important place as a part of conception of lifelong education. In that context, adult education takes on a new dimension of lifelong learning (further development and training). Table 1. presents the percentage of employees who are educated for work before 2000.

Table 1. Education while working

<table>
<thead>
<tr>
<th>3Education</th>
<th>at %</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>51,1%</td>
</tr>
<tr>
<td>Yes</td>
<td>48,1%</td>
</tr>
<tr>
<td>Without the answer</td>
<td>0,2%</td>
</tr>
<tr>
<td>Total</td>
<td>898</td>
</tr>
</tbody>
</table>

Source: (Marušić; 2006, 235)
In 1975, 48.1% surveyed employees are educated to work, and from work, in different ways (seminars, courses, formal education…) which led to the dramatic drop to 11.1% in 1987. In the nineties the situation is improving, but far behind the situation in 1975.

According to the research of recruitment portal My Job, called “educational needs and offers of professional education in Croatia 2009th”, in Croatia 40% of the companies organized training and education of its employees, while 20% organized training of managers. Needs for additional training of employees are twice as bigger compared to their practical implementation. Also, 70% surveyed employees attended some form of additional education mainly financed by themselves (Moj Posao; 2009). According to an analysis of an Institute of Public Finances from 2010., called “The analyze of educational needs of small and medium enterprises and craftsmen with special emphasis on entrepreneurial skills”, in relation to the educational needs of small and medium enterprises, the following can be seen: the process of formal education is lasting and it takes a long time to make significant changes in the current structure of employees. Any changes in this sense could be seen in a several years if the company has a high rate of employee turnover taking into account employment the ones who are more competent and educated than the previous, or if the company or employees invest in themselves in order to achieve higher levels of formal education. However, it seems that insignificant number of people in total population invest in formal education after employment, but they are more dedicated to invest in training through courses, workshops, seminars, etc.

Internet shows as a very important communication tool as it is on every question about it’s use in business in various forms the 39% of respondents answered affirmatively. The largest percentage of companies, 99%, use electronic mail in ordinary business. After it, e-banking follows, e-presentations, etc. The main reasons for not using the Internet are reflected in the lack of need (51%). All other options are relatively small, so only a small percentage (10%) is related to the lack of development of information skills, and about 11% claims that there are no resources for computer equipment or the acquisition of information knowledges or skills (6.5%). Some respondents indicated that they plan to improve the use of the Internet, some externalized certain activities, while some said that individual services are too expensive and because of that they don't use it (hgk; 2010, 28-29). In the Republic of Croatia systematic and continuous investment in business education is mainly associated with the large and medium-sized companies, while some of them we can freely call the champions of organizational learning (such as Ericsson Nikola
Tesla, Podravka, Kraš, Ina, Pliva, etc.), because in educational trends they are next to the side of West. They provide to their employees/trainees multidisciplinary knowledge of finance, sales, “soft skills” such as employee motivation, leadership skills, etc., to the external MBA (Master of Business Administration) programmes of manager development in order to keep pace with specialistic knowledges. Medium - sized and smaller companies which do not have a separate department or a professional for conducting a training and education rely on the services of other organizations (Svan Consulting; 2008). The main sources of business education are: consulting firms, educational and training centers (in companies), business institutes, business schools, universities (colleges). The most important role in the process of education has managers, which, except participation in educational process as a participants of some programmes, appears in the role of internal coaches. In smaller enterprises this way of education is cheaper technique where resources are used from more experienced employees who transfer their knowledge to other employees (Bogdanović; 2009).

2. Sustainable development as an uncontroversial fact of modern business philosophy

In today’s turbulent period, individuals, companies, and everyone involved in the development of global economy, have to be aware more than ever, about the consequences of its actions because irrelevant details that we neglect in everyday life can have far-reaching consequences. In the spirit of such philosophy organizations have to raise awareness of the necessity of corporate social responsibility, in accordance with the principles of sustainable development. The idea of sustainable development was created by connecting different impacts of the development with an inevitable impact on widely understood environment, and begins on the balance between economic growth, social progress and environmental concern. Purpose of sustainable development is meeting the needs of the present without jeopardizing ability of future generations to meet their own needs. In their business policy, in order to be successful and competitive, along the financial and environmental responsibility, companies have to implement and responsibility to the social community. In the past 20 years, the concept of sustainable development is involved in almost all fields of human life considering the limitations of the Earth where we live (increased population, limited natural resources, unequal development of various countries, etc.). The most quoted definition of sustainable development is certainly the one from the Brundtland’s report from 1987. which described it as: the pro-
cess of changes in which the exploitation of resources, direction of investments, the orientation of technical development and institutional changes in its mutual harmony allow meeting the needs and expectations of present and future, which is acceptable from a philosophical view. During the years, interests of international financial institutions, especially the World Bank, the idea of sustainable development bring closer to the economists, which stands for an approach that sees sustainability as a general ability for creating a wealth and integrates economical, ecological and social dimension, as three, seemingly, aspects of sustainability (Kordej-De Villa et al.; 2009, 17):

- **economic sustainability** - based on healthy and effective development which includes optimal management resources in a way that they can be used by future generations. It principle value natural capital (deficient resources; water, forests and other natural resources) in which protection must participate all commercial entities. In this sense, special attention is given to immaterial resources and investment in their quality on which is possible to establish competitiveness and long-term development;

- **ecological sustainability** - covers taking responsibility for the negative consequences of actions which includes optimal management of natural resources and waste. Although this is a low-key, accepting the principles of environmental management means taking care about the human health (ebookbrowse; 2010);

- **social responsibility** - in the widest sense, it refers to the whole range of company’s activities and all the relationships which establish that. Therefore; what company produce, how it affects on environment, how employs, trains and influences on the competences of their own employees, how invests in the community, how respects human and labor rights, how buys and sells on the market, it determines the total impact of that company on the society. A very important segment of sustainable development refers to employees and their work satisfaction, so as a possibility of lifelong education (podravka; 2005, 46).

3. Learning via the Internet

In today’s dynamic business environment market participants seek to improve quality of products and services to final users. Meeting these challenges, many subjects developed a closer concepts with their consumers by using ICT. Expanding new trends in distribution, the new models of information exchange are developed
Modern way of doing business and life in general, among the most important human’s resources, primarily exhaust space and time. Modern education is more meaningful and organizational confronted with these, and the need for new approaches and forms of education is undisputed. Each new need for educational activity, whether created by the user of educational sector, either by the service providers, leads to a series organizational problems which are originally related to the problem of lack of time and space. Therefore, there are various and powerful reasons for education transfer, at least partially, from conventional to more appropriate reality. This doesn’t mean that the existing forms of educational communication “face to face” should be completely abandoned, especially those highly effectives, but along with them, the preconditions for education based on new educational technologies should be created, which can respond to the educational needs of modern man. Traditional approach to education won’t be able to meet the growing needs. Today, it is safe to predict that in the next ten years the application of ICT (Information and Communication Technology) in educational process will fundamentally change the processes of acquiring knowledge. The use of ICT in the process of education is a strategic option which will greatly affect the future of the economy and society in general, and especially on the status of educational institutions. Speaking about ICT in education, it is used acronym ITLET (Information Technology for Learning, Education and Training), which is a key element in all forms and models of distance learning (Breslauer; 2011, 27).

A staple of the Internet today is achieving immediate and open access to informations worldwide. Internet is:

- **easily accessible** - it is not technically limited to a narrow circle of specialists from the field of information technology, it is not exclusive in the sense of restricting access to informations, it is financially accessible to a wide range of users;

- **interactive** - it doesn’t filter communication through the political or economic mediators, but quite the opposite, it enables direct communication of individuals, individuals and groups, and groups themselves;

- **diverse** - in the context of easy accessibility, opinions, ideas and attitudes can be expressed by individuals and groups of diverse views. It is connected with modern culture, but it is not its substitute, it allows creation of new cultural forms merging the modern culture and information technology;
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• experimental - open for new ideas, purposes and processes, determined by its cultural, social and political benefit, not just on commercial basis (Forresta et al.; 2003, 2). Today, its educational potentials are highly visible and its application is quite logical in the area of education.

Basic advantages of Internet learning compared to traditional education reflects in the following:

• in the individualization of educational process for users to progress in line with their psychological and perceptual skills, as well as their prior knowledges;

• in combination with other electronic information sources (encyclopedias, magazines, libraries,www) it secures the most current research facilities;

• in permanent or occasional interaction with sources of informations it increases the activity of users, develops critical thinking, the ability to analyze and conclude;

• interaction isn’t only with the providers, but with the users of other institutions, in which the level of knowledges and experiences is shared and equalized;

• it provides fluctuation of informations instead of people which significantly reduces costs;

• educational software provides periodic evaluation, so besides evaluating knowledge in interaction with the provider or other users, it performs self-evaluation;

• it is provided an engagement of top experts from certain areas which raise the quality of educational process on the higher level and equalize the knowledge level on national and international level (Ružić; 2012, 899-900).

4. Modern trends in education

In a condition of changing markets, the rapid development and expansion of technology, multiplying competition and product obsolescence overnight, successful companies becoming the one which constantly create a new knowledge, disseminate it through organization and quickly incorporate it into the new technologies and products. Education is no longer obligation and privilege the ones in higher positions and professional jobs, but becomes obligation of all. Those activities determine the company as an organization which creates knowledge and which only business is innovation. These are organizations that have realized that learning and new knowledge is a key of success and the education is crucial for future wealth.
As the organization is larger, it spend more money for education and give its members larger and more diverse opportunities for education and development. In that sense, a new concept appears, the concept of learning enterprise whose employees constantly learn new things and apply lessons in improving the quality. Besides managerial and leadership's skills, education in computer skills is often applied, also the communication and professional skills. Because space and time in business today are significantly reduced, a major role in the operations has a successful implementation of new technologies, especially ICT. Here, the Internet leads, which has many advantages that manifests through saving time, space and overall costs and through the contribution of creating virtual organizations, combining the elements of sustainable developments. This paper has presented the importance of implementation of learning organization for its survival in modern market conditions and provided a systematic review of knowledges and skills that are used today and will be looking for with emphasis on modern technologies that should be increasingly used because they contribute to the effects of economy of scale.

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INTERNET BASED LEARNING AS A PART OF PERMANENT EDUCATION – THE IMPACT ...
CONTROL OF CASH PAYMENT SYSTEM BASED ON THE SOFTWARE AS A SERVICE

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Abstract
Small and medium enterprises have a growing role and influence on the increase of production, and therefore on greater economic growth. By the Law of fiscalization enterprises which receive cash money for their products and services shall embed systems for fiscalization.

According to Law of fiscalization in circulation of cash, fiscalization represents a set of measures implemented by the tax payers, in order to enable effective monitoring of realized turnover in cash.

Although, the Law provides system components for the implementation of fiscalization such as unique account identifier, elements of accounts, protective code of the issuer, etc., it leaves enough space to upgrade the system to provide services and assistance to small and medium sized enterprises.

Systems that are offered on the market, represent an additional workload on enterprises as an economic as well as technological. The authors explore the possibility of a new model of a system based on Cloud Computing, SaaS model. The model in this manner, hardware and software infrastructure is provided as a service. Accordingly, companies will not have the need for a large initial investment in ICT infrastructure, and later maintenance requirements. Service would be paid by the model pay as you go.

Also, the paper will present a comparative analysis of the system for implementation of fiscalization based on technological and cost components.

JEL Classification: D24, E42

Keywords: SME, Fiscalization, ICT, Cloud Computing, Costs
1. INTRODUCTION

By entering into force the Law of fiscalization, the taxpayers of fiscalization are introduced with additional requirements related to information systems. Taxpayers are forced to adapt existing or in worse case, get a new ICT infrastructure. Acquisition and adaptation of infrastructure carries additional start-up costs in the business.

Guided by the above-mentioned problems, the paper presents a model of conducting fiscalization which helps in taxpayers adaptation, particularly relating to micro, small and medium enterprises.

The goal of the paper is to present the system model which supports fiscalization based on SaaS and points to the savings by using such services.

In this paper, the hypotheses are:

H1 Fiscalization reduces the gray economy

H2 In comparison with countries that have introduced fiscalization Croatian law of fiscalization simplifies the introduction of end-users

H3 System model for fiscalization based on SaaS is more favorable compared to systems that are based on our own infrastructure.

In this paper are used methods of analysis and synthesis, abstraction and generalization and comparative methods.

2. INFORMATION SYSTEMS

The knowledge and information are the two basic resources for a successful business. To make informed decisions it is necessary to own various information about the business enterprise and its surroundings. Some of the most significant trends within the change mode in a business organization are working in a group, the possibility to work outside the office, not a hierarchical organization and entrusting, partially, work to the external organizations. The information system represents the set of all resources in providing necessary information needed to make business decisions in order to improve the functioning of the organizational system.

Information technology with fast communication and the possibility of using a distributed database and centralized data warehouse, thus locally distributed tools for decision making supports, also, non-hierarchical work organization, in which, due to rapid changes in the business surroundings, individuals and work groups in
the realization of a task, are to a large extent independent and can quickly adapt to change and respond to new challenges.

“E-business leads to management optimization, reduces the need for paper, reduces transport costs, makes faster and better decision-making opportunities, integrates the supply chain, and thereby, increases the businesses competitiveness in the market.” (Ćerić & Varga, 2004, 33)

3. FISCALIZATION

The country’s successful economic development is in a great extent based on a well-designed tax model. It is important to emphasize that those are particularly successful tax models that stimulate the economy, while at the same time suppress the grey or black economy. The introduction of the tax laws with this goal for each country is a step forward in its development.

According to the final draft of the Fiscalization Law-October/November 2012., 01.01.2013. begins the implementation of fiscalization.

The Fiscalization is a set of measures which are going to be applied by fiscalization taxpayers in order to achieve effective supervision over records in cash turnover. The introduction of fiscalization means to bring order, by establishing a system of recording the output of each account, and the recording inputs of goods and services that create new values, recording each cost in the entrepreneur business.

The reason for introducing fiscalization is a high level of tax evasion, and low turnover record (only 15% cash turnover). Fiscalization objectives are prevention of tax evasion in the cash operations, improvement in the tax inspection procedures, raising customer awareness of the importance of taking receipts and the unfair competition suppression. The path that Croatia has chosen decentralizes control and it switches to the end user, with certain stimulation if they find undeclared transaction.

3.1. TAX SYSTEM

Until the day 01 January 2013 the only way of checking the taxpayer was field work of tax inspectors by order of superiors and invoices books review. As it is above mentioned, tax inspectors have not been able to find out whether the taxpayer has fully performed his obligations to the state or not. By reviewing accounts and business records irregularities could be observed, but not to the extent that it is allowed

3.2. THE PROCESS OF IMPLEMENTING FISCALIZATION

The process of implementing fiscalization is carried out by many European countries, starting with Italy, Poland, the Czech Republic, Slovakia, Hungary, Serbia, etc. All of them had successfully implemented fiscalization. Countries that have not implemented fiscalization are in the process implementation, for example, Germany. Croatia carries out the process of the Law on fiscalization implementation on transparent rules. The existence of the monopoly is disabled from fiscal solutions providers, because each trader is free to choose whatever fiscal solution that best fits their surroundings and needs. In most cases, it is required the usage of fiscal cash or printers that contain fiscal memory which stores items and applicable taxes. Apart from the laws, that precisely specify the fiscal device to be used, fiscal law often determines the level of customer service that the seller is obligated to buy, and is related to the fiscal cash or a printer maintenance. “The legislator, as the next regulation in certain countries prescribes which driver should be used to control and communicate with the fiscal device, and often fiscal law touches on POS application and stipulates which application is allowed and which is not. All provisions of the Fiscal Law are represent technical requirements and include financial expenses during the implementation, apropos constant costs when using the product. “(Tax Administration, 2013)

The changes in business is what affects traders, almost all countries prohibit the negative items on the fiscal account, prohibit products with zero cost, limit possible discounts, abatements and others. When we are talking about the Croatian fiscal law, it is discussed about the law that prescribes only one thing, and that is the application of the fiscal slot at the state server. In fiscal policy direct comparison it may be said that with the business side and the technical side, the Croatian law is the simplest, and yet the most effective and it is shown in Table 1.
Table 1 Fiscalization implementation comparison in the countries bordering with the Republic of Croatian

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>FISCALIZATION TYPE</th>
<th>MAINTAINANCE</th>
<th>CHANGES IN MERCHANTS BUSINESS PROCESSES</th>
<th>THE CERTIFICATION PROCESS CUSTOM POS SOLUTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOSNIA AND HERCEGOVINA</td>
<td>Compulsory usage of fiscal equipment by certain manufacturers</td>
<td>Contractually obligated to maintain the fiscal device</td>
<td>Large-scale</td>
<td>Not necessary</td>
</tr>
<tr>
<td>CROATIA</td>
<td>Software exclusively</td>
<td>Not obligatory</td>
<td>Almost non-existent</td>
<td>Not necessary</td>
</tr>
<tr>
<td>HUNGARY</td>
<td>Compulsory usage of fiscal equipment by certain manufacturers</td>
<td>Contractually obligated to maintain the fiscal device</td>
<td>Large-scale</td>
<td>Very expensive</td>
</tr>
<tr>
<td>SERBIA</td>
<td>Compulsory usage of fiscal equipment by certain manufacturers</td>
<td>Contractually obligated to maintain the fiscal device</td>
<td>Large-scale</td>
<td>Not necessary</td>
</tr>
</tbody>
</table>

Source: Žališevskij, R; 2012, 18

4. UPGRADING POSSIBILITIES OF THE FISCALISATION MODEL

By entering into force the Law of fiscalization, the taxpayers are forced to adapt existing or in worse case, get a new ICT infrastructure. The implementation of the Cloud Computing business changes habits of ICT using. Computing power, storage space for data and applications required for usage are used as a service. With this strategy, ICT is accessible to businesses and customers. Also, Cloud Computing is used in other commercial and scientific sectors such as marketing, organization of conferences, sharing of biomedical materials and others.

4.1. CLOUD COMPUTING

“Cloud Computing is a set of online services designed to provide a variety of computer services. The providing of these services is characterized by features: on-demand self-service, network access, resource virtualization, rapid elasticity and scalability, pay as you go.” (Brumec, 2011., 25)
Cloud computing consists of three service models: SaaS (Software as a Service), PaaS (Platform as a Service) and IaaS (Infrastructure as a Service). Services are accessible through standard interfaces such as Internet browsers, SOA (Service-Oriented Architecture) or REST (Representational State Transfer Services).

For the fiscalization implementation, acceptable model is SaaS. Software as a Service, which is sometimes referred to as the Application as a Service (AaaS), and in that version offers multiple user interface and ready-made software. Applications can be offered to one or more users simultaneously.

According to the approach the Cloud Computing is categorized on: Public Clouds, Private Clouds, Hybrid Clouds and Academic Clouds.

For the fiscalization purposes Public Cloud is suitable, where it is possible to install the necessary applications for the proper execution of their obligations.

5. FISCALIZATION MODEL BASED ON SAAS

Fiscalization model relying on SaaS is designed as an application that is applicable to any device that has a permanent connection to the Internet. Fiscalization taxpayer is obliged to provide a computer, tablet or thin client to input and view data, a device for printing it on paper and a permanent connection to the Internet. The number of sets depends on the company size, number of branches and number of workers.

The software to manage business data and the process of signing and generation data are maintained in the system of Cloud Computing. Fiscalization taxpayer selects those modules as needed and by enterprise functions and pays them by usage.

Fiscalization taxpayer by the above mentioned does not have a large initial investment for the purchase of a server, upgrade of the client’s computers, the complex network infrastructure and adequate software. There is also no maintenance costs and investments in infrastructure renewal.

Fiscalization taxpayer, in this case, is properly required to fill out the application, sign it and send it to be approved on signing and verification by the tax administration, and after approval to print out the receipt.

Given that the data is already entered on the remote servers, the Tax Authority, with the certain approvals of fiscal payers and certain fiscal adjustment of legislation
would have access to the transaction. Using agents to search for Tax Administration could sort, filter, and compare data fiscalization of taxpayers, assigning the appropriate JIR and return it signed to taxpayer to allow issuance. The access to survey data, is also possible to use any input-output device that has a permanent connection to the Internet, while to check it by the Tax Authority, a major computer server performance is needed.

The buyer can validate account by using a web or application on a mobile device using JIR. The JIR would be shown in the form of a numeric display and by the QR code to reduce verification time, and the error possibility.

The system is shown in Figure 1

**Figure 1** Fiscalisation model relying on SaaS

Source: Made by authors (based on our own research)

Level of rights, security and data confidentiality in the Cloud Computing is defined by SLA (service-level agreements) contracts. The access to applications is possible only through a registered device (MAC address or IMEI) and correspondingly fiscalization taxpayers username and password or the tax administration employees. Protocols that are used to exchange data are SSL, SOAP/HTTPS.
5.1. COST COMPARISON MODEL

Most computers in general, private or business, have a total utilization of between 5% and 20%, but the applications running on these systems sometimes require the maximum that the computer can achieve. In the procurement of hardware, one has to take into account precisely these maximums that applications require. Then, administrators are faced with a situation in which that purchased hardware, in most of the time is not fully used, but it is necessary to obtain it due to working conditions.

The optimal procurement according to the above can be defined as the engagement of computing resources necessary to be paid for its use, without a major capital investment in its own, not enough used resources. Furthermore, in this paper, it will be shown the calculation costs for three different models. For research purposes, authors collected the data from the small and medium enterprises. According to the data, authors selected a system from one computer server, computer network and personal computer. The prices from computer network and computer users will not be considered because of the assumption that all systems need the same number of computers with the same characteristics. All prices are without VAT and are prone to change.

The average price per server is 8,000.00. The computer servers characteristics are one four core CPU, disk space of 500 GB and 4 GB of RAM, with an additional UPS power safety. The average electricity price is 0.65 kn/kWh, and the actual consumption (the server and cooling) is 0.6 kWh. The costs of buying and preparing servers are calculated based on 20 hours of administrator work, administrator hourly cost by average is 250,00 kn. The system operating costs amounts to 6,500.00 kn.

The applications required for business information systems and systems fiscalization that would include commodity-material accounting, warehouse management, wholesale and retail trade, and a one year warranty and maintenance by the three offerings is by average 10,500.00 kn. The maintenance after one year is paid by flat, on average, 200.00 kn/monthly. The bidders offer application, also, through monthly rent in the amount of 500.00 kn/monthly. With the application, it is needed to obtain additional licensed databases that by average value amounted to 4,000.00 kn for a pack of 4 licenses.

The Cloud Computing infrastructure costs are elastic, which is a great advantage to the business. The service is not required to be paid at the time when it not in use.
The applications required for business information systems and systems fiscalization would consist of commodity-material accounting, warehousing, wholesale and retail. According to the analysis of parts in the existing system that relies on SaaS, it is amounted to 300,00 kn/monthly for the workplace. Given that in the first case and in the second one 4 licenses were selected, in this case will be selected 4 jobs to be worked on in two shifts.

In order to get the total cost it is required to examine 10 categories of infrastructure costs. Categories of costs are: Cost Of Hardware For Intended Useful Life Of 4 Years; Cost Of Electricity For Operation And Cooling; Cost Of Purchasing And Preparing Servers; The Costs Of Administering The Server; Cost Of The OS. Excluded Costs; Cost Of Application; Cost Of Renting Applications; Applications Maintenance; System Renting.

Based on the data, Table 2 is created, where costs are summarized by category in the period of 4 years.

**Table 2** Costs of ICT infrastructure in the period of 4 years were analyzed in 10 categories in kuna

<table>
<thead>
<tr>
<th>Costs Categories</th>
<th>ICT Infrastructure</th>
<th>ICT Infrastructure With Rented App</th>
<th>Saas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Written Off Server Costs</td>
<td>8.000,00</td>
<td>8.000,00</td>
<td>0,00</td>
</tr>
<tr>
<td>Electric Energy Costs</td>
<td>13.665,60</td>
<td>13.665,60</td>
<td>0,00</td>
</tr>
<tr>
<td>Cost Of Buying And Preparing Servers</td>
<td>5.000,00</td>
<td>5.000,00</td>
<td>0,00</td>
</tr>
<tr>
<td>OS Costs</td>
<td>6.500,00</td>
<td>6.500,00</td>
<td>0,00</td>
</tr>
<tr>
<td>Excluded Costs</td>
<td>14.400,00</td>
<td>14.400,00</td>
<td>0,00</td>
</tr>
<tr>
<td>Application Costs</td>
<td>14.050,00</td>
<td>4.000,00</td>
<td>0,00</td>
</tr>
<tr>
<td>Application Renting Costs</td>
<td>0,00</td>
<td>24.000,00</td>
<td>0,00</td>
</tr>
<tr>
<td>Application Maintenance</td>
<td>9.600,00</td>
<td>0,00</td>
<td>0,00</td>
</tr>
<tr>
<td>System Renting</td>
<td>0,00</td>
<td>0,00</td>
<td>56.000,00</td>
</tr>
<tr>
<td>Total Costs</td>
<td>71.215,60</td>
<td>88.953.60</td>
<td>56.000,00</td>
</tr>
</tbody>
</table>

Source: Made by authors (based on our own research)

In Table 3 and Figure 1 are shown comparative costs through four years of using the system.
According to the data provided in Tables 2 and 3 and Figure 1 it can be concluded that the use of SaaS in the first four years would reduce operating costs for at least 15,000.00 kn and achieve savings of 21.3%. Also, one can see that the biggest savings is made through the first two years, while in the other two years the savings is made by using their own ICT infrastructure. Therefore it could be concluded that the further use of SaaS will not generate more savings. However, one must take into account that the ICT infrastructure after four years is technologically outdated and needs to be renewed, which would require new investment of the users themselves.

6. CONCLUSION

In this paper is presented a system model to support fiscalization completely adapted with the needs of taxpayers. The characteristics of the existing system are given and deployment capabilities of existing systems. The hypothesis H1 which is stating that the implementation of fiscalization process generally reduces the gray economy, is proven. Also, in comparison with other countries that have introduced fiscalization, Croatia is introduced with a simplified system that reduces the problems around implementation of fiscalization and thus proves the hypothesis H2.
Furthermore, the paper presents a model for the implementation of fiscalization based on SaaS with basic characteristics. On the basis of characteristics a comparative analysis is made with other existing models. The analysis shows that the model based on SaaS reduces the cost to end users and thus proves the hypothesis H3.

It can be concluded that the use of SaaS reduces the cost of micro, small and medium-sized enterprises in fiscalization implementation, but also in other processes that require the data processing by using ICT.

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CRM AS A KEY TO BUSINESS SUCCESS OF E-COMMERCE

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Abstract
Survival of business entities in conditions defined by the information society depends on successful e-commerce. Success of the modern e-commerce is based on relationship marketing, i.e. CRM. Accordingly, the transition from the classic into e-commerce implies, among other, selection of an appropriate CRM strategy, including reengineering of business processes, many organisational changes as well as entirely modified corporate culture of a business entity. Therefore it is not strange in modern times that significant emphasis is put on customer relationship management within the e-commerce system (eCCRM). Modern marketing studies specific properties of CRM application in e-commerce, taking into account the current development level of ICT and e-commerce, both in the Republic of Croatia and worldwide. The research conducted by means of an in-depth interview with experts in the above area has provided key information about the level to which CRM is used by business entities in the Republic of Croatia. The research has also provided information about the level of knowledge and understanding of relationship marketing and CRM concept by the key people who make decisions in business entities. The key question answered by this research refers to the causality between successful application of CRM and the achieved company performance within the e-commerce system.

JEL Classification: L81, M31

Keywords: e-commerce, CRM, management, ICT, marketing
1. Introduction

One of the key factors of survival of any business system in modern business environment is Customer Relationship Management. Customer Relationship Management (CRM) can be explained as a continuous process during which business entities communicate with their customers. The process of communication with customers takes place through ICT, and communications within the system, both physical and e-commerce, are made possible by special software applications which are used for gathering, processing and analysing data on customers. The obtained information plays a key role not only in making the timely and correct decisions, but also in developing partner relationships with customers, especially through improved quality of service for customers. Customer relationship management within the e-commerce system (eCCRM) is not only an issue of implementing a CRM software system through a corresponding software application, but it is also of crucial importance for its successful implementation, understanding of the principles of its functioning as well as advantages offered by such a system. Therefore potential reasons for absence of relationship marketing application, i.e. CRM as well as for lack of success in its implementation should be primarily found in limited knowledge and abilities of the existing management of business entities. Namely, survival is the primary responsibility of the management of a business entity, and survival in modern business conditions is threatened by a lack of a customer relationship application, i.e. CRM as well as by its unsuccessful application.

2. Research Methodology

Although CRM is the key factor of survival in conditions of existence of the global market at the level of a logical model, the fact is that in the world and also in the Republic of Croatia there are many cases of unsuccessful implementation of CRM. This research explores problems and reasons for absence of implementation as well as for unsuccessful implementation of relationship marketing through the CRM system. Regarding the identified problem, the following hypothesis has been set.

H1: There is a proportional causal relationship between successful application of CRM and achieved business results, as it enables communication with customers, which is of key importance for their keeping by means of improved quality of service provided to customers and creation of products tailored according to customers.
H2: The potential of CRM use by business entities in the Republic of Croatia is insufficiently used, especially due to poor knowledge and lack of understanding of customer relationship, and CRM concept by the key people who make decisions about business of business entities.

Based on the presented research problem, the following research objectives have been defined and should be achieved through in-depth interviews with experts from the field of CRM, e-commerce, marketing and management.

- Explore whether the potential of CRM is sufficiently used by business entities in the Republic of Croatia and, if this is not the case, determine to what extent this is caused by poor knowledge and lack of understanding of customer relationship marketing, i.e. CRM concept by the key people making decisions about business of economic operators.

- Determine whether there is a proportional causal connection between success of the CRM application and the achieved business results, based on results obtained from the primary and secondary research.

The research was carried out deductively. In addition to a set of standard research and scientific methods, the method of in-depth interviewing was also applied in the primary research. Research results were obtained through causal interviewing based on the available data obtained both through the primary and secondary research.

3. Theoretical review of e-Commerce and CRM

As relationships in the society evolve being driven by ICT development, the forms and principles of business also change. One of the most significant changes among many changes taking place these days, which can be compared to changes introduced by transition of people from nomadic to settled life and emerging of the civilisation, is the change that refers to transition of business from physical to the Internet – virtual environment. Therefore it is of no wonder that adaptation has become the key factor of survival in today's business environment, that is, transition of business from physical to the Internet – virtual environment. Development of the World Wide Web service was of greatest importance for emergence and development of virtual business. It is this service that has made it possible for business entities to become as close to potential and existing consumers/clients as possible and to achieve better and more loyal relationship between them. Not so long ago many business entities invested in e-commerce technology for the purpose of busi-
ness automation and rationalisation, believing that, compared to physical forms of trade, cost reduction will result in increased efficiency of overall business. However, the new form of trade was cold and inhospitable for consumers, as communication with consumers/clients was eliminated. Opposite to this, e-commerce along with CRM (eCCRM) is the tool that has been designed to communicate with consumers/clients, to find out more about the needs, possibilities and preferences of consumers/clients. In addition to providing better information on consumers/clients to a business entity, this tool also offers an array of advantages for consumers/clients. Being the constituent part of the e-commerce model, CRM makes it possible for business entities (companies or sellers) to create a more complete and better offer because it provides the possibility for better understanding of consumer needs, which establishes a connection between a consumer and a business entity and transforms a consumer into a client. It is the strategy for keeping the consumers that nowadays makes it possible for business entities to build their own competitiveness and to survive. The reason could be found in a high level of competitiveness that exists in the global environment. Gaining a new consumer requires significantly greater effort and the means than it used to. For this reason the effort is focused on keeping consumers rather than gaining new ones.

3.1 E-Commerce

The term e-business is often confused with the term e-commerce, mostly owing to some influential business circles in the USA where the dominant belief is that any business, regardless of how it is realised, in the end is reduced to buying/selling of something, i.e. trading in something. However, such a position is quite superficial and very simplified, because between the mentioned terms there are certain, although relatively subtle, but clearly distinctive differences (Panian; 2002, p.71).

The strongest argument for eliminating uncertainties in terms of semantics of the given terms may be found in the statement that electronic commerce involves exchange of goods and services among buyers, business partners and sellers. For example, a supplier interacts with a producer, a buyer with a seller, and a forwarding agent with a distributor. Electronic business includes all of these elements, but also operations carried out within the company itself (Bartels; 2000, p.41). These operations include, for example, production, development, corporate infrastructure and product management. Therefore e-commerce presents a wide array of online business activities for all products and services (Rosen; 2000, p.5), and it refers to
any form of business transaction in which parties interact and they rather exchange goods electronically than physically, i.e. through direct physical contact.

E-commerce is usually associated with buying and selling via the Internet or performing of any transactions that include transfer of ownership or rights to use goods or services via computer networks (Lallana; 1997, p.2). Although popular, this definition is not sufficiently comprehensive to include all recent events in this new and revolutionary business phenomenon. A more complete definition would be that e-commerce involves using ICT in business for creating, converting and redefining of relationships to create value among organisations as well as between organisations and individuals (Lallana; 1997, p.2).

Based on the nature of transactions carried out through e-commerce, most of the Internet-based trade activities can be divided in two basic categories: B2B (trade among businesses) and B2C (trade directed at the end consumer market) (Ružić et al.; 2009, p.262).

Although continuous communication with a buyer is limited in a traditional business, e-business provides great opportunities in this field that mostly remain unused. If a company has an online shop, the data left by buyers on the company’s site are a great starting point for building of a good CRM strategy (Ružić et al.; 2009, p.288).

If the aim is to increase sales, there are three possible solutions: 1. To increase the buyer (customer) base – intensive marketing efforts directed at a new market; 2. To increase the value of individual orders – monitoring of buyers’ (consumers’) habits on the Internet and personalising offers according to individual affinities; 3. To increase loyalty of buyers (consumers) – turning a buyer (consumer) into a client and motivating him or her to repurchase.

Use of e-commerce leads to increased business efficiency and improved relationship with clients/consumers/buyers. Therefore CRM system is an inevitable part of e-commerce, representing the philosophy according to which the consumer is the king, i.e. consumer takes the central position.

3.2 Customer Relationship Management – CRM

The Customer Relationship Management (CRM) concept was developed and has become widely used within a short period of time and now it is regularly used in the field of e-commerce. To put it simply, the CRM system is based on the cen-
ential storage (database) where all gathered data that point to the behaviour of a consumer/client are stored. In modern times people from different departments within a company, in accordance with the chain of value, increasingly have the need for direct interaction with their consumers/clients. Unlike past times when the process of buying and selling was characterised by single and lonely transactions and the focus of interest of a company was only in the domain of sale management, the focus of a company nowadays is on development and implementation of a communication process with a consumer/client that takes place before, during and after the sale act itself.

CRM (Customer Relationship Management) has been defined in different ways in works by foreign and Croatian authors, primarily due to translation of the term customer that is translated as buyer according to some authors (Grbac and Lončarić, 2010), whereas some use the term consumer (Meler & Dukić; 2007), and some other use the term client (Panian; 2002., Muller & Srića; 2005). For example, Panian defines CRM as an approach used by a company in an attempt to increase its competitive ability and strengthen its market position, and it is based on understanding the behaviour of clients and influencing them through meaningful communication, all with the aim of attracting and keeping clients, developing their loyalty and increasing profitability of a business (Panian; 2002, p.232). It is also used to define the process of establishing and maintaining relationships with business users. CRM is a holistic process of identification, attracting, differentiating and keeping buyers (Strauss & Frost; 1999, p.285).

CRM is a business strategy that includes selection and management of a relationship with clients for the purpose of adjusting their long-term value for the company, and a philosophy focused on a client (Muller & Srića; 2005, p.101.). Pepers provided a simple explanation of CRM: Treat different customers differently (Peppers & Rogers; 2011, p.7). CRM is therefore a strategy used to find out more about the needs and behaviour of consumers, aimed at developing stronger relationship with them, because good relationships are of key importance for business success (Meler & Dukić; 2007, p.103). It is also understood as the managing approach through which businesses create, direct and maintain relationships with corporate buyers, thus actually realising control over total marketing activities, from marketing to providing post-sale services (Bull; 2003, p.592-602).

The backbone of CRM is strategic planning, where ICT is an important component, but only as a support. Establishing of the CRM system requires an infor-
CRM AS A KEY TO BUSINESS SUCCESS OF E-COMMERCE

CRM is a technological solution that consists of three main parts: collaborative, operative and analytical part, where each of them has its separate function, and functions in the first place refer to gathering and processing of data and analysis of the information obtained from data processing. The structure of the CRM system is shown in Figure 1.

**Figure 1. Structure of the CRM system**

![Diagram of CRM system]

Some of the important objectives of customer relationship management are to provide better service, achieve higher sales of other products, help sales personnel to work faster, simplify marketing processes, find new consumers, increase income from consumers, etc. (Meler & Dukić, 2007, p.103).

Finally, after all of the above mentioned about CRM, it can be stated that CRM represents a business philosophy that has emerged from the relationship marketing and that it places an individual consumer to the centre of its interest. Consumer’s behaviour and needs are followed for the purpose of satisfying the need of that consumer in a better way, all with the aim of developing a partner relationship with the consumer and in order to keep and use him or her in the best possible way. Also, CRM is an application of the modern marketing strategy and its implementation refers to the use of adequate software solution that ensures collaboration with consumers, but also systematically gathers data on the consumer’s needs and behaviour.
Based on the gathered data, it provides key information to the management to create the best possible business as well as marketing strategies. Finally, CRM is not only building competitiveness in the circle of gathering data from consumers, but also in the circle of giving information to consumers it presents a base for creating competitiveness as the task of CRM is to build information superiority both in the field of gathering and giving information to consumers.

4. Introduction and explanation of research

In-depth interviewing is a very suitable and rewarding research method, primarily because this is a personal interview where each respondent answers the questions of the interviewer (questioner) to discover motives, beliefs, attitudes and feelings closely related to the research subject (Finnegan & Willcocks; 2007, p. 69). The research subject in this case is the understanding of the importance of CRM and e-Commerce. In-depth interview is not highly structured and it is based on open questions that allow “informal” conversation, where knowledge of the respondent about the field of research is gained simply and easily. (Finnegan & Willcocks; 2007, p. 69). In accordance with the principles of conducting an in-depth interview, also in this research respondents come from different fields of activity (production, sales, service …), and each individual has a different and more specific story related to CRM and e-Commerce. It is exactly for its lack of structure and possibility for a free flow that in-depth interview has showed as ideal research method in conducting a research in the Republic of Croatia on how companies use the potential of CRM and to what extent the gained knowledge can be explained with low level of knowledge and lack of understanding of relationship marketing, i.e. CRM concept by key people who make decisions about business.

In-depth interviews were conducted in December 2012 and January 2013 and respondents were experts in the field of CRM, management, marketing and e-commerce who are at the same time directors/managers of the companies they work for. Purposive sampling of experts was used, 14 of them, and research instrument consisted of prepared essay questions (15) which were presented to respondents before the very meeting and in-depth interview. Interviews were arranged by e-mail/phone and carried out in person in places that respondents found most suitable.

Conversation with respondents in the first part of the interview started informally. With the aim of creating a comfortable and relaxed atmosphere that could contribute to the overall flow of the interview, respondents were first asked to intro-
duce themselves and say something about them and their professional life. This was followed by questions about general understanding of marketing and relationship marketing, differentiation between the terms buyer/consumer/client, and definition of the terms e-Commerce and CRM. The third part of the interview was aimed at obtaining as much information as possible on subjects and events taking place within the company of the respondent, and on their individual experience with application, implementation, potential problems, difficulties and development of both e-commerce and CRM system within it. At the very end of the interview respondents stated some of their opinions and predictions about future, and they suggested at the concept level how relationship marketing should be organised, e-Commerce and CRM improved and how the omnipresent potential of social network should be best used.

5. In-depth interview results

In order to determine the level of understanding marketing and relationship marketing and terms such as buyer/consumer/client, respondents were asked to explain their view of these terms. Most respondents stated that there was a clear distinction between the terms buyer/consumer/client, and they explained it very simply. However, a small number of respondents (two) said that the terms buyer/consumer are synonyms, but considerably different than the term client, and only one respondent said that all three terms are synonyms.

When asked about the difference between a physical and a virtual buyer/consumer, the conclusion was made that is in the domain of offline and online world. In offline world there is a traditional, classic buyer or consumer, and if buying/selling was completed via the Internet, then it is a virtual buyer behind whom there is again an end-consumer, that is, a physically “tangible” person.

When asked about marketing and relationship marketing, everybody provided a clear explanation of each term and answers were similar to a great extent, but their implementation, importance and understanding was different with each respondent, according to their functions within their company.

Most respondents work in small or medium-sized companies and, accordingly, they use simple CRM tools with limited number of functions, which are most frequently used due to a relatively low price (some of them even free). Some of the examples of CRM include MS Office package (or, more precisely, Excel with its advanced functions for monitoring what a consumer/client does from the begin-
ning to an end), Diglas CRM, Google Analytics, AdWords, MAILChimp (http://mailchimp.com/), customer support over FAQ (frequently asked questions) or user support through phone, e-mail, surveys and similar. Respondents using these more simple CRM systems hope to use more advanced solutions in the near future. Many more complex CRM information systems are intended for large business systems, and their development and implementation can cost a lot. Lesser number of respondents has detailed and fully implemented CRM systems in their business (Siebel – CRoM and SAP – Integra).

The situation with e-Commerce is similar. Almost all respondents (except one) have some of the forms (B2B, B2C) of e-Commerce, if only as a “display” presented on the web site of a company where potential buyers/consumers/clients can have insight into information they are interested in about products/services, and continue further conversation/purchase/information gathering via e-mail/phone/fax. The company without a web site is in the production sector (factory), and the executive director currently does not see the reasons to introduce it because he does not want the company to be reached by end buyers (he does only B2B), and he selects and contacts companies that he might do business with due to specific characteristics of production. The company’s production range can be found on the web site of its general distributor and he thinks that they, being a factory, do not need to have an e-commerce system.

When asked to predict the possibilities of development of e-commerce and CRM for an average company, respondents mostly estimated that the share of income from e-commerce will grow. However, respondents did not dare to comment on the amount of share of income coming from constant consumers/clients in the total income. Only some of them expressed their wishes about the percentage they would consider satisfying for their company. The predicted and desired percentages range from 10 to 30%. All respondents agree that e-commerce will exponentially grow in future and that the share in the total income will grow, but not to such an extent as expected. Physical trade in relation to e-commerce will be still stronger in the following 10 years, but these great differences will decrease over years.

All respondents were absolutely sure that in ten years from now such products like computer hardware and software and various similar information applications will be sold only online, i.e. via e-Commerce. Also, most of them think that there is a very small number of people in the world who can afford transactions in amount of several hundred thousand euro to buy a car, boat, or some other expensive prod-
uct via Internet. Respondents mostly think that most people have to go to a bank, ask for a loan, then verify papers at the office of a public notary and make a purchase. Therefore, according to respondents, purchase of expensive products will not come to life in e-commerce unless some drastic changes occur.

From the results of the conducted research it can be easily concluded that top management itself accepts responsibility for the situation in which their company currently is in terms of the level of (non)implementation of the CRM system and e-commerce within it. Development of ICT in the Republic of Croatia is at a high level. However, e-Commerce is still underutilised. In-depth interview has confirmed the premise that Croatian companies insufficiently utilise the potential of CRM, especially due to a low level of knowledge and lack of understanding of relationship marketing and CRM concept by key people who make business-related decisions. Although in some cases respondents gave correct answers, their conservative perspective thinking about future points to certain limitations that are in front of implementation of the concepts of CRM and e-Commerce.

Respondents who are experts in the field of CRM, but do not have this sort of activities in their organisation, explained the absence of CRM stating that implementation of the CRM system is extremely demanding and that it requires participation of all levels within the company. Integration of the CRM system with existing IT systems within a company is a very large problem as it requires education of all employees, because CRM also brings great changes in the work of human factors. The first thing that should be done prior to introduction of the CRM system is to make effort to gain good understanding of the business, branch, industry or field of activity in which the company operates and tend to develop a solution tailored to characteristics of its field of activity.

It is important to mention that CRM is a strategy, not only a software (Strauss & Frost; 1999, Muller & Srića; 2005, Panian; 2007, Meler & Dukić; 2007, Hughes; 2006, Peppers & Rodgers; 1999, Johnson; 2000, Grbac & Lončarić; 2010, Tumbas; 2006, Stojković; 2007). The first association of the respondents from the field of management and marketing who do not fully understand relationship marketing is a software solution and they associate it with complexity and very high costs of implementation. One of the respondents gave a simple description of use of CRM in Croatia, “Everybody is talking about it and knows something, but only few implement it correctly”. With e-Commerce there is a similar situation. Being unfamiliar with relationship marketing, most respondents think that e-Commerce
is actually an online shop on the Web through which buying/paying takes place and currently it is fashionable having it on the web site of your company. They do not understand the full concept of e-commerce that is used for management of all buying and selling activities, including building of long-term relationships with consumers. In line with this, the failure to understand the causality between business success and CRM use, i.e. e-commerce and lack of understanding of the moment in which the world is now are key factors in absence of implementing CRM and e-Commerce at the level required by the current moment. The greatest responsibility for this is within people who make decisions and who were not able to evaluate from the legacy/heritage from industrial age. They were not able to distance themselves from the way of thinking established at the age when physical transactions were the only way of doing business and trade and when activities were limited to the local, maybe regional market.

6. Conclusion

Due to global transparency, growing uniformity of product quality and small differences in price of products, future competitiveness will be built in the area of giving and taking adequate information to customers. As a product of a permanent market research and means of permanent provision of information, it can be a key to achieving partner relationship with customer, i.e. as means for creating permanent loyalty of customers. As CRM is the key component of e-commerce, these two concepts are nowadays mutually interwoven and they are increasingly less able to exist without each other.

Reason for this should be found in the fact that it is necessary to have control over all data and information to provide coherent and relevant experience on several points of contact of the entire business of organisations (Walker, 2010). E-Commerce is a big market that is growing on a yearly basis and therefore it is no longer sufficient that e-commerce works as an independent system. Accordingly, if business entities wish to be competitive in a global market, in the first place they need to develop strong infrastructure for e-commerce as soon as possible, oriented toward constant improvement of services and seeking innovation in business.

Finally, it can be said that one of the more important factors that will define the value of CRM for the modern e-commerce is the change in the way of behaviour of a modern consumer who is increasingly leaving mass production products behind and is looking for products tailored according to his or her needs and require-
ments. Such products can be offered only if knowing consumer needs, which is the
task of the CRM system. Therefore it is fundamental for modern e-commerce to
focus attention to management of relationships with consumers/clients, primarily
through keeping the existing consumers and increasing their profitability. How-
ever, problems in business occur and will increasingly occur for those companies
that neglect this fact. This is especially pronounced in the Republic of Croatia
because companies in Croatia use the potentials of CRM and e-commerce insuf-
ficiently. The reason for this may be found in a low level of knowledge and lack of
understanding of the relationship marketing on one hand, and actual moment in
social development on the other hand, by key people making decisions in Croatian
companies. According to the above stated facts and accepting the method of causal
conclusion and based on the conducted research, it can be concluded that there is
a proportional causal relationship between successfulness of CRM application and
realised business result in a modern company.

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Abstract

Warehouse management makes a whole in a series of tasks that are one of the activities that are regularly repeated in which are engaged all employees in the warehouse.

The purpose is to formalize the tasks and to bring in some clear rules to which the employees of the warehouse must stick to. During the organization, it is very important to explain every step of the process, from the moment the goods enters the warehouse, the discharge, making of the input documents, placing of goods on the positions in the warehouse and issuance of received goods. The central (main) warehouse is consisted of spatially united warehouses in one location, that is a warehouse for groups of goods which are going to defined and were primarily intended for the parent company, but in exceptional cases for external customers too, if that is in the interest of the company.

When organizing, one of the main goals was to rationally speed up the flow of the goods, in order to shorten the business process and, therefore, to accelerate the activity ratio of the means associated with the supplies and to affect the increase of the work organization’s competitive abilities.

This paper demonstrates organizational methodologies, problems and solutions for organization of central warehouse in Belje d.d. PC Remont.

JEL Classification: C61

Keywords: central warehouse, organization, problems, rules
1. INTRODUCTION

When organizing storage service, it is important to determine its place in the organizational structure of the company in accordance with the firm’s size, location, assortment and level of information technology, as well as the appropriate form of its internal organization in order to perform all tasks quickly, efficiently and rationally at the lowest cost. Larger companies can arrange storage function as a standalone service. In commercial enterprises important decisions are related to the degree of centralization of the storage service. Centralized storage organization unites all warehousing activities in one place. By internal organization of storage service, optimal security for storing goods has to be ensured, which has been presented in the paper on the example of Belje d.d. PC Remont. The central warehouse of PC Remont holds spare parts of agricultural machinery, tires, oils, lubricants and other consumable materials. The main reason why the storage was reorganized was to gain better control over the group of goods stored there, as well as to make saving on the number of employees and stock. The goal of this paper is to present the structure of PC Remont’s central warehouse, problems that can occur and the way they are solved.

2. ORGANIZATIONAL FORMS OF A WAREHOUSE

Storage is a point in the logistic network where the object of storing is either accepted or forwarded in another direction within the network (Habek, 2002, p.1). There are several phases when designing a warehouse or improving one: defining initial data, forming warehousing zones, solutions for each zone, sizing technical solutions, costs and specifications and value analysis (Oluić, 1997., p. 23).

Common forms of internal organization of the storage service are functional, commodity, territorial and combined. The functional form carries out the analysis based on the tasks of the storage service which are conducted by minor organizational units or individuals who specialize in these types of jobs. However, if only one person or a part of the organization fails, it has a negative impact on the entire warehouse management system. In the storage service organized into commodity groups, each stockman or an individual organizational unit performs all tasks, concerning storing, related to a particular group of similar goods. The advantage is a greater specialization in certain commodity groups, but the efficiency of warehousing in whole is reduced and it is harder to apply it in companies with a wider selection. The territorial form divides the storage service into regions, depending on
where the warehouses are located. This type of organization requires more staff, but also fulfills the needs of storing on certain territory in a much better way. In reality, in most cases combined forms of organization of the storage service are applied, based on the functions and commodity groups. This form is also used in Belje d.d. PC Remont.

Commercial company strives to create an optimal development programme on the basis of the information about the internal (subjective) and external (objective) factors. Therefore, according to factors within and outside the company, the information can be divided into external and internal (Segetlija, Lamza-Maronić, 1995., p. 111).

3. PROCEDURAL DETAILS ON THE MANAGEMENT OF PC REMONT’S WAREHOUSE

Based on the purchase order, the supplier is obliged to load the transport vehicle of the carrier with ordered goods, which have to be expertly packed in the appropriate containers. Supervision should be done by a person in charge of the shipping and storing or a connoisseur from the technical control, while the warehouse personnel packing the commodity must be familiar with their type and quality, since it is a significant contributor to proper handling with the purpose of preserving the quality and quantity of the goods transported. Certain documentation, which the carrier hands over at the warehouse, must be enclosed with the merchandise (dispatch/receipt or an invoice by the supplier, etc.).

Receiving the commodity in the warehouse consists of:

- commercial control of receiving merchandise and materials (quantitative reception) is under the jurisdiction of the central department in charge of the purchase in Belje d.d.,
- technical control of the goods and materials (qualitative reception) is the responsibility of the person who ordered the merchandise and/or of the Quality management system,
- taking over of the ordered or contracted goods from the supplier into the warehouse, if it qualitatively or quantitatively matches the order of the company or the contract; the process of purchase is informally completed, while the process of warehousing begins,
- the central department for purchase in Belje d.d., when ordering, is obliged to submit a copy of the purchase order if the commodity is intended to be unloaded in the central warehouse of PC Remont, and if the goods are ordered for the purposes of Belje d.d., a requisition or an order to the purchase department should also be submitted, along with the purchase order, but in case the merchandise is bought for companies within the concern or for external clients, it should be delivered with the purchase form from the customer and the supplier’s offer as well, so the stockman could put the goods in order according to those documents and submit the attachments with the shipping list,

- the purchasing officer’s duty is to familiarize the stockman with information about the time of arrival, name of the supplier, type of transport and type of the commodity or material (based on the purchase order or contract),

- if, for any reason, the stockman is not familiar with the shipment, when accepting the delivery documentation (dispatch/receipt; invoice; waybill and the like), he must establish whether the supplier alludes to the number of our order, because it is a legal document related to the transaction and it determines the content of the package that should be taken over and can be withdrawn only in case of justified reasons.

The supervision should be done by a stockman whose job is to compare the purchase order with the dispatch. He is obliged to compare the number, name and quantity (weight) of the delivered goods with the information written on the shipping list (dispatch or an invoice by the supplier).

If needed, the stockman weighs, measures and counts the delivered merchandise.

He can conduct the control inside the transport vehicle or when the goods are unloaded. He chooses the option that will be quicker and more efficient when determining the quantity of the supplied goods.

The stockman follows the standard procedure while examining the objects and is, according to Treaty on the economy, article 25 of the Law on obligations, obliged to report the shortage to the purchasing officer immediately or not later than eight days after he had noticed it, and the warehouse manager must also be familiarized with the situation.

The purchasing officer acts according to the procedures of Reclamation (reclamation record).
The stockman examines the goods, depending on the type, either immediately after the unloading in the reception area in the warehouse or turns to the service responsible for controlling the quality.

If the stockman, during the first examination, had not noticed a fault on the object but has determined it later on, he must inform the purchasing officer about it by sending him an e-mail and tagging the warehouse manager in the attachment.

The purchasing officer is obliged to inform the seller about the fault within eight days since the stockman noticed it and not later than 6 (six) months since the object was bought.

The stockman has to, during the six-month period, pay attention to the occurrence of hidden faults and, right after they have been spotted, determine their content, along with the warehouse manager, because the right to reclamation is related to those eight days, unless it has been agreed otherwise.

The documentation for returning goods is filled up by the stockman, based on the reclamation record on the faults of received goods, that is shortage or surplus, in four copies.

4. RECEIVING THE GOODS

If all conditions for taking over the shipment are satisfied, the stockman, based on the dispatch and/or a receipt, writes out all relevant elements of delivered/received goods on a receipt.

After that, the stockman transports and puts the merchandise in order in the appropriate place in the warehouse, if they are intended to be stored.

What the stockman has to take into account while stacking the goods:

- the merchandise has to be put in the appropriate place
- every product has to have its card with its code number (password)
- products have to be specifically placed on shelves so that it is easy to read the necessary data from their packagings
- goods with shelf-life or objects that can obsolete should be arranged using the FIFO method (first in, first out) so there would not be any accumulation
If the merchandise is not intended to be stored but redistributed, the stockman has to put the goods in order according to the purchase form or requisitions from the purchase department.

After the order picking to different distribution centers, the stockman is obliged to inform the purchasing officer by e-mail about that group of goods (he must tag the warehouse manager in the attachment) and that it is, according to the document, prepared to be taken over from the warehouse.

The stockman must not make a dispatch or a transfer note for the merchandise if the warehouse manager had not already given his approval.

By putting the commodity in the appropriate place in the warehouse, writing out and sending the receipt, the process of receiving or entering the goods into the warehouse is over.

5. GOODS ISSUE FROM THE WAREHOUSE

The stockman issues goods based on the requisition or an order to the purchase department, if the commodity is to be issued to another warehouse within Belje d.d., and writes out a transfer note.

The transfer note is an accompanying document used when transferring different objects from one warehouse to another within the company, so called inter-warehouse transfer.

The transfer note can be signed by any person authorized by PC for writing off objects from the central warehouse.

The stockman writes out the transfer note into two copies, legibly signed in printed letters with initials by both him and the person authorized by PC for writing off objects from the central warehouse.

The stockman is not allowed to send off an item from his warehouse to another one without being given the requisition by the verified person from PC to do so, and is obliged to also hand over, along with his copy, the requisition from PC.

The transfer note contains: the name and label of the input and output storage, date, number of the transfer note, name and code of the product, unit of issue and the quantity that is supplied.
The stockman issues the goods based on the received purchase form, if the goods are to be issued to other companies within Agrokor concern or to external clients, and writes out the dispatch.

A dispatch is a document on the basis of which the stockman issues the material (commodity) to the client. It follows the merchandise when changing the owner and is preceded by the purchase form from the buyer, which can be delivered by both the sales and the purchasing department.

The stockman issues goods based on an open work order, that is, on the needs recorded in the work order put together by a manager of the particular service within PC Remont.

Delivery note is a combined document that serves as a warrant for issuance of stored items and justification for exit within the central warehouse, when charging home production (per work order) and overhead spending, but based on it, it is also possible to issue material that is supposed to be, according to an open work order and cost center, within Belje d.d., while the same is, when closing, generated as transfer note and RMO or is, according to the open work order for companies within Agrokor concern or for external clients, generated into a dispatch and a receipt. That is why it can contain columns for ordered and issued items, if the delivery note is written by hand, because in PC Remont work order presents the quantity that has been ordered and the delivery note the quantity that has been issued.

The stockman, based on the open work order, that is the needs recorded, writes out the delivery note per work order.

6. ORDER PISKING OF GOODS

Issuance of the merchandise starts when the stockman begins order picking it, that is, arranging it according to the purchase form from the client.

The warehouse manager determines the time of order picking, based on the buyer’s priorities and needs, taking into account the estimated amount of work that has to be done and regular issuance and receiving.

The order picking process begins the stockman when he singles out the goods, based on the type and quantity, from the storage space (shelves or floor), and puts it in the reception/issuing area - on the basis of the purchase form, requisition or
work order. The merchandise is put in order onto a pallet, a box and the like, depending on the type and quality of the goods, as well as the transport vehicle. The goods must be additionally protected by binding it with a protective film or closing the box (duct tape etc.) - it all depends on the type and quality of the merchandise.

The approval to make a shipping document in advance is given to the stockman by the warehouse manager only if the client has confirmed that they have arrived to pick up the merchandise in writing or if it is arranged for the goods to be transported to the buyer by his own vehicle. The stockman controls the order picking before the goods are loaded into the client’s vehicle by checking the compatibility of the merchandise with the issued documentation (a transfer or a delivery note) one more time.

After receiving the goods by writing out a receipt, the stockman must put the items on shelves, in case they do not have to be used right away.

He puts the goods in order based on the type and places them on the shelves and is obliged to enter positioned products into the information system.

7. EFFECTS OF CENTRALIZATION

This method of organizing the schedule of tasks and responsibilities contributes to indirect savings for the entire company.

This mainly refers to the reduction in the number of employees in profit centers related to work in the warehouse. Ordering goods is much easier, because the number of order is lower when including bulk orders. Thus you get higher rebates and need less people working in the purchase department.

When cancelling warehouses in profit centers, it is necessary to maintain only one plants where savings on overheads can be achieved. Also, by investing into the automation, that is, by introducing modern techniques into just one warehouse, the overall costs are reduced. When cancelling the warehouses in profit centers, keeping track of the inventory is more efficient, since it is in one place now, as well as keeping track of activity ratio and stock turnover, and it is much easier to introduce minimax lists. All of the above ultimately leads to a reduction in the number of positions at the central warehouse in regard to distant warehouses. Also, it should not be forgotten that former increased costs of sending off goods to different locations could be easily compensated by cutting down the price of purchase because of the delivery of the merchandise to one place.
8. CONCLUSION

All the procedures, responsibilities and powers that have been listed in the paper have significantly contributed to better organization and, ultimately, faster handling the goods in the central warehouse. Moreover, when every employee of the warehouse is familiar with the duties listed in his job description, type of merchandise under his responsibility and the range of his jurisdiction, mistakes in the paperwork have been remarkably reduced. With these procedures, the work in the warehouse is not finished, procedures are a “living” matter that need constant improvement, according to the needs of the system for which the central warehouse exists.

9. LITERATURE


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PROJECT BENCHMARKING
PROJECT EXCELLENCE AWARD IN CROATIA IN 2013

IMPLEMENTATION ACCORDING TO THE
IPMA PROJECT EXCELLENCE MODELL

(INTernational PROJECT MANAGEMENT
ASSOCIATION Award)

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Abstract:

Many organizations who deal with a variety of projects have the problem to compare the efficiency and effectiveness of all the projects in the organization and to learn from this experience. The PEM (Project Excellence Model) from IPMA (International Project Management Association) is an open, very flexible model for assessing different projects. It is used by IPMA each year to find the best project of the year. This model is being adopted for the Croatian PM Award. The model itself and the project for implementing it in Croatia are described as well as the benefits from this kind of benchmarking projects for the project teams as well as for the other involved parties.

JEL classification: L16, P17

Keywords: Project Management, Project Excellence, Benchmarking, Project Management Award, HUUP, IPMA

1 Introduction

For the last few years the number of projects has been increased constantly. Most of the companies generate higher rate for revenues and profits due to the implementation of projects. In many cases, the revenue from projects exceeds the revenue that is achieved through the implementation of routine processes. Predic-
tions for the future indicate that this trend will continue. This leads to the fact that significantly more importance is attached to the implementation of projects than was done in the past (cf. GRAU & GRAU, 2010, 86). The increasing number and diversity of projects of an organization make it necessary to compare the efficiency and effectiveness of all the projects in the organization and to learn from this experience. In such a situation, benchmarking could be an effective method.

2 Benchmarking and project management

At first glance it appears to be quite difficult to compare projects with each other, because they are unique endeavors by definition. On the other hand, there is a project as a complex system made up of elements that can be compared with each other very well. Here the model for evaluation of projects is presented, which is used by the IPMA (International Project Management Association) to evaluate projects and to find worldwide the best project of the year. The project team gets the IPMA Project Management Award. The model is related to the model of EFQM (European Foundation for Quality Management), a model in the field of TQM (Total Quality Management).

The two areas that are seen to be largely equal in the evaluation are the areas of the project results and project processes. In each of the two areas more criteria and sub-criteria are identified (see chapter 3). Originally the model was developed in Germany by the GPM (Deutsche Gesellschaft für Projektmanagement e.V. - German Association for Project Management) (cf. GRAU & HUTTERER, 1999) and was handed over the IPMA on occasion of the World Congress in Berlin in 2002. Since, it has been used each year to determine the best projects. In the last ten years, the model has been adopted partially in modified form by several national MAs (Member Association), as the basis for national benchmarking projects (see fig. 1).
3 The project of implementing a benchmarking process in Croatia

Once in 2012 the decision was made to implement a Croatian Award for Project Excellence a small team was formed, which performs the adaptation of the method, which is used by IPMA. It was very helpful that all the documents were made available by IPMA. The essential elements have been presented to the Croatian team by an experienced project manager, who knows the process from its beginnings in Germany as well as the international level. After that the model and the process have been slimmed down as far as it seems to be useful in the national context. The project of implementation will have the following phases:

3.1 Translation of documents

During the translation of documents there were always decisions to be made, which documents are absolutely necessary. We noticed that the translation from English into Croatian is actually a translation of the previously translated German documents into English. After several reviews, it is ensured that the philosophy of the model and the process has been conserved.

3.2 Training of trainers and assessors

Parallel to the translation of the documents Croatian coaches were sought, who will train the first team of Croatian assessors together with an experienced IPMA
trainer as a lead trainer. With the Croatian trainer and the core team a “train the trainer” event will be implemented. Then the Croatian training staff will train Croatian assessors in the following years.

The training of the Croatian assessors will take place over two days and deal with all elements that are represented in the Croatian model.

As a result there will be a group of trainers and assessors that will be active not only in the Croatian national award but also to spread the idea of benchmarking in companies and other organizations that work on projects. Thus, the project teams of these organizations are enabled to identify the success factors of their respective project.

A key element of the model is the continuous improvement during the project. The application of the model for self-assessment will also support this aspect. In addition, the model requires a reasonable (not bureaucratic nonsense) documentation of the processes. This documentation can be also used during the project to benchmark individual elements and with very little additional effort for learning in the learning organization.

3.3 Implementation of the evaluation of projects

The evaluation of the projects for the first Croatian project management award is conducted in accordance with the IPMA standard. In doing so the application forms, which are in form of a self-assessment, will be evaluated by a team of experienced assessors, who in the first step evaluate independently. Afterwards, results are compared and in a consensus meeting a consensual evaluation is found in the assessor team. After these assessment steps there is site visit where the project members are interviewed and any further documents be consulted.

3.4 Benchmarking report

Once the review is done, applicants will receive a detailed benchmarking report from the assessors. This report, prepared by experienced assessors, represents the value of several days of consulting from senior level consultants in the field of project management. It encompasses both the strengths and the potential for improvement of the project and can be used both for training of project staff as well as to back up the experience for the learning organization (cf. OTTMANN&SCHELLE, 2011).
3.5 Benefits for project teams and their organizations who participate in the benchmarking process

Apart from the above benefits, both for the project and for the organization, there are other potential benefits from participation in this benchmarking.

All finalists will have the opportunity to receive attention at a gala ceremony and in 2013 as part of the IMPA world congress on project management to present their experience, exchange ideas with colleagues and get opportunities for networking with members of other excellent teams. It is suggested to find an organizational format that corresponds to the “IPMA winners club”.

The organizations, whose project teams have achieved the status of a finalist, receive the permission to point out their project excellence in their writings and other marketing materials. In addition they will get public attention at the award presentation (press release, IPMA and HUUP home page, invitations to give presentations in the professional community, etc.

Past experience on both the IPMA level and in the implementation of national benchmarking shows that participation in such a benchmarking usually attracts the attention of senior management in the company. This facilitates access to important resources and motivates the project team already during the project. Participation in the award process (including the gala dinner and the congress) is used by some organizations as an additional incentive for the project team.
4 The Croatian benchmarking model

The IPMA model for Excellence was adjusted accordingly as a model for the Croatian Award. Five out of nine elements were adopted (see fig2).

Figure 2: Croatian Project Excellence Model

Reasons for the adaptation were that the model should be kept as simple as possible to encourage a wide distribution. The following considerations should help:

1. For applicants the lean award process seems to be a manageable effort. In any case, the idea is to avoid too much bureaucracy.

2. During a pilot project in 2013 there is a good opportunity for the assessors to get to know the essential elements of the model and the process.

3. For the organizer HUUP (Hrvatsko Udruženje za Upravljanje Projektima – Croatian Association for Project Management) there is a good chance with the simplified model to start making this benchmarking model popular.
It was ensured that the contents of the individual elements were not changed. Thus Croatian projects can either perform a benchmarking with international projects only based on the presented criteria or they can the work on the four missing criteria if they want to go for an international benchmarking.

The selected five criteria cover more than 70% of all points to be awarded according to the IPMA model. This ensures that the main focal points are covered and the consideration of the remaining four criteria would only contribute to a refinement.

An example (criterion No. 1 “Project Objectives”) will be shown here as one of the five criteria for assessing the project, applies.

It has to be proved „How the project formulates, develops, checks and realizes its objectives based on extensive information about the demands of the stakeholders involved

1.1 It has to demonstrate how the expectations and demands of parties involved are identified.

1.2 It has to demonstrate how the project objectives are developed, as well as how competing interests are integrated on the basis of extensive and relevant information.

Each subcriterion has a a check list with examples of expected questions to ask. Here is the checklist for the subcriterion 1.1.

“The checklist could include how the project:

• guarantees to identify systematically all stakeholders involved (e.g. interviews);
• gathers, analyses, condenses and systematically uses necessary and sufficient information;
• uses the following sources to gather information;
  - initiator, users, sponsors and suppliers of the members of the project team;
  - associations and other external organisations;
  - internal achievement indicators;
  - benchmarking-studies (internal/external);
  - achievements of competitors and “best in class:
- projects/competitions with other projects;
- studies and information about specific social, legal and environmental aspects;
- economic and demographic indicators;
- new technologies.

- How is/was the procedure for identifying stakeholders defined, i.e. to find out about groups that are potentially interested or concerned with the project?
- Which stakeholders were determined?
- What is/was the procedure for defining interests, requests, needs and fears of these stakeholders?
- What is/was the result of this analysis—what needs etc. were determined?
- Has it been observed if the stakeholders’ interests have changed during the project?
- Which changes have been noticed?

- (cf. different IPMA promotion materials, partly changed by the author).
- The expression “could include” makes sure that nobody should think that this is the only right way to manage projects.

The benchmark model of IPMA is an open model (cf. GRAU, 2013, p.16ff), which means that only the basic structure, criteria and sub criteria are given by the model. The evaluation of used methods and processes will be done by the team of experienced assessors. This is the reason why it is possible to compare projects from different types (internal and external projects, product development projects, investment projects, organization projects, etc.) with this model.

The model can also be used in various industries and also for projects of different size and complexity. Even projects in the social or the “non profit” area can be compared with this model.

5 Conclusions

The importance to benchmark projects seems to be self-evident. In 2012 the Croatian Association for Project Management decided to start a project of implementing a benchmarking procedure at the national level. As a MA (member Association of IPMA it was clear that IPMA standard model for project excellence and
the corresponding standard process will be the basis for this national benchmarking tool. In this paper it was important to show that it is possible to start such a national process with a limited amount of resources by adapting the very mature IPMA model and process to the national needs in this first beginning. For this reason the model and the process were described and the project for implementation was explained. It is important too to start this pilot project quickly not to lose the momentum. On the other side it is important to show that care was taken of possibilities for future improvement and refinement. The Croatian National Award will be introduced to the international audience during the IPMA World congress in Dubrovnik/Croatia in October 2013.

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ROADMAPPING VS. S-CURVES: HOW TO SWITCH TO THE NEXT S-CURVE

Analyzed using the example of the semiconductor industry

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Abstract

There are two very important tools in managing technology: roadmapping and s-curves. Roadmapping can be a very effective tool to evolutionarily advance an existing technology. Conversely the idea of s-curves aids managers in the decision to make a revolutionary change to a new technology. The semiconductor industry is a prime example of a very successful roadmapping exercise. However, with continued scaling traditional microfabrication based on top-down lithography techniques becomes exceedingly expensive and complex. Many academic and industrial researchers work on alternative technologies to switch to the next s-curve. This work examines a first order approach to analyze such new technologies. The case of bottom-up nano-assembly is used as an illustration. Its merits are contrasted with current technology to come to a first assessment of its viability as the next s-curve. However, this is only a starting step to guide managers and technologists into the right direction when investigating new technologies.

JEL Classification: C44, D81, G11

Keywords: decision theory, managing technology

1 Introduction

Over the last decades the semiconductor industry has been one of the most successful industries to ever undertake a roadmapping exercise. It has been able to maintain Moore’s Law (the exponential increase of chip performance over time (Moore 1965)) despite of many technological challenges that had to be overcome.
It has been predicted many times in the past that this trend will come to an end; however, so far the industry has always managed to overcome these roadblocks. The International Technology Roadmap for Semiconductors (“International Technology Roadmap for Semiconductors (ITRS) 2011 Edition” 2012) has given researchers and managers goals to strive for and security that the industry as a whole, including equipment suppliers, would move in the same forward direction. The ITRS has been crucial in shaping the way the semiconductor industry has become a 226 billion dollar sales industry in 2009 (Semiconductor Industry Association 2010).

An alternate view of looking at technological advancement is by considering s-curves. S-curves describe the effect that the performance of a technology often starts to improve slowly before some rapid improvement, which will eventually level off (see Figure 1). It is important to identify when a technology has reached the point at which its development starts to level off and one has to consider alternate technologies even if their initial performance is worse.

Figure 1: S-curves for different lithography technologies in semiconductor processing (Bowden 2004)

The most successful manager of technology has to be able to work with both tools: roadmapping and s-curves. Roadmapping is a crucial tool in achieving the high growth at the center of the s-curve and in maintaining this growth for as long a time as possible to maximize the return on initial investments. But strategic
thinking in terms of s-curves is just as crucial in the long term to ensure that new trends are not overlooked, which could ultimately lead to losing one’s competitive advantage to other companies.

2 Bottom-up as the potential next s-curve

As device dimensions shrink further and further, classical microfabrication becomes increasingly challenging, complex and costly. The classical approach to microfabrication uses top-down techniques to deposit and etch materials and to define critical feature dimensions. The dominant patterning technique in the past and nowadays is photolithography. Photolithography has the great advantage of exposing whole wafers at once offering unparalleled throughput. However, the resolution of optical lithography is fundamentally limited by the wavelength of the light that is being used. Tricks such as phase-shifting masks have extended the use of optical lithography way past what was thought possible in the past and it is unclear at which point a hard limit will be reached. The other problem with photolithography is the cost of masks increasing rapidly with decreasing feature size. There are other top-down patterning techniques that try to tackle these problems differently such as electron beam lithography or even single atom manipulation using scanning tunneling microscopy (STM). These techniques offer higher resolution and don’t require expensive mask sets. However, there is a general trade-off between resolution and throughput. These high resolution techniques suffer from very limited throughput. Since throughput translates directly into cost per wafer, no other top-down technique has yet been able to replace photolithography.

This is one of the main motivations for many researchers to pursue a different paradigm of microfabrication: bottom-up nanotechnology – the potential next s-curve. In contrast to top-down manufacturing critical dimensions are now not defined explicitly with direct patterning techniques such as photolithography anymore. Instead nanostructures assemble themselves into the desired geometry. Mechanisms such as surface, electrostatic or chemical forces are utilized to guide components to their desired location. This requires a detailed understanding of the forces at play. Especially complex structures with many degrees of freedom will be very difficult to design because there is no direct way of manipulating the structure. This is the reason why it is projected that the first bottom-up structures that make it into production are likely going to be simple two-dimensional arrays of nanowires (NW) (Lu and Lieber 2007).
These nanowires can be based on a range of different materials including carbon nanotubes (Chen et al. 2003) (Rueckes 2000), silicon nanowires (Dong et al. 2008) (Cui 2001) or more exotic materials such as Ge$_2$Sb$_2$Te$_5$ (Jung et al. 2006) or GeTe (Lee et al. 2006). The actual memory element can be based on various different working principles including resistance switching (Chen et al. 2003), field effect transistors (Huang 2001) or even mechanical switching (Rueckes 2000). Such crossbar structures are of limited complexity for the case of regular memory arrays. More complex arrays such as logic circuits will require a considerably larger amount of effort to make the process controllable. But even simple memory arrays will suffer from problems with yield. Because the fabrication, placement and alignment of nano-components will rely on very small forces that cannot be controlled directly, there will be more statistical fluctuations reducing device and system yield. (A. DeHon, Lincoln, and Savage 2003) This will require more sophisticated error correction techniques and redundancy built into the system than in current circuits to keep chip yields up even if a number of devices on any chip are faulty. This, however, will impact the density of the system, which of course is one of the main reasons to pursue bottom-up nanotechnology in the first place. Another factor that might limit the density of nano-circuits is the interfacing with higher level circuits and the outside world. At some point nano-devices and interconnects will have to interface with metal lines whose dimensions are defined by classical photolithography. As the understanding of bottom-up assembly gets better, more and more of the interconnects will also be manufactured using bottom-up techniques. How-
ever, at least for the first generation of bottom-up systems it is very likely that only the most critical active dimensions will be fabricated bottom-up and all interfacing and interconnects will be manufactured top-down. For instance first generation nanowire memory arrays would have metal interconnects right up to the edge of the nanowire array with no nanoscale interconnects. This will reduce the effective bit density that can be achieved with such systems. However, it is unclear whether these two factors – redundancy due to limited yield and interfacing with classical metal lines – will limit the density and thus usefulness of bottom-up manufactured systems.

3 First order analysis of simplest bottom-up memory array case

3.1 Introduction to analysis

When switching to the next s-curve the first generation of the new technology will usually be the simplest possible case before more complex versions will be available, which will lead to rapid improvements later. It is demonstrated here how managers can perform a simple first-order analysis to investigate the implications of moving to the new technology without going into too much of the technical details. These details will of course be crucial when finalizing plans. However, it is often important to have a simple model to guide efforts at the early stage.

One can assume a generic nanowire crossbar memory array. The actual device working principle is secondary because the geometrical considerations that go into the analysis are universal for all crossbar arrays.

The aim is to relate the effective bit density of a nanowire memory array to yield, nanowire dimensions and the size of addressing lines. The impact of individual devices and of whole nanowires failing is taken into account. Due to the fact that longer nanowires will be more likely to have a defect somewhere along their length the memory array is split up into smaller blocks, which improves yield but also increases the number of addressing lines needed (see Figure 3). This leads to a trade-off.
In order to study the effect of yield on density the simplest error correction method possible is used as a limiting case. It is assumed that after fabrication all devices and nanowires are tested to detect non-functioning devices and wires. These memory locations are stored and simply not used during operation as a memory array. This reduces effective bit density simply because the number of functioning bits per unit area is smaller than the nominal number of crossbar nodes. More sophisticated error correction codes could of course be used. For instance if there is a break in a wire in this model, it will be disregarded completely. A more sophisticated system could potentially route signals around such a fault. But since it is unclear how large the overhead for such a system would be and how great the gains would be, it will not be considered here where the simplest case is taken as the limiting case.

The second factor reducing effective bit density is the overhead due to address wires. The pitch of address wires will be considerably larger than that of the nanowire array because metal address wires are patterned by standard photolithography. The redundancy necessary to achieve a set of unique nanowire codes also contributes to the addressing overhead. Because it is assumed that whole nanowires are more likely to be faulty with increasing length, the large memory array is split up into a number of smaller sub-arrays or blocks. This increases the overall yield. How-
ever, the overhead due to metal addressing wires also increases. This leads to the conclusion that there will be an optimal sub-array size for a given nanowire yield, nanowire pitch and metal pitch that will balance nanowire yield versus addressing overhead.

### 3.2 Results of analysis

It is clear that the effective bit density will increase both with wire and device yield. The effective cell pitch will converge to the nanowire pitch as yield gets close to 100%. As one shrinks the nanowire pitch, the yield per device will become a less important factor giving only relatively small gains compared to the density gains that can be achieved from shrinking nanowire pitch. Physical nanowire pitch will have a much larger effect on overall density than metal address line pitch simply because the address lines make up a smaller portion of the total memory array than the nanowires, which actually provide the active devices. The main benefit from scaling metal lines will be that smaller sub-arrays become favourable further reducing the need for long, high yield nanowires.

One can perform a simple calculation to see that even a device yield of 75% and a total nanowire yield of 78% (for an optimized block size of 545 devices per nanowire with nanowire pitch 10nm and metal pitch 50nm) are sufficient to achieve an effective memory cell pitch of less than 2.5 times the nanowire pitch. These yield numbers are reasonable for nanowire arrays (Andre DeHon and Wilson 2004) and still very far low compared to what can be achieved in modern top-down microfabrication. It should also be noted that this calculation is a limiting case in terms of worst case performance. The metal pitch was assumed to be 50nm, which might be lower with state-of-the-art lithography tools. Also more sophisticated error correction codes and re-routing techniques might be implemented in a real system to save some of the devices if only part of a nanowire is corrupted and the rest can be used by re-routing around the broken parts.

The more critical factor than yield seems to be actual physical nanowire density and to a lesser extent metal addressing lines density. Scaling of the metal lines mainly affects the dependency on length dependent yield due to the reduced addressing overhead for smaller arrays. Scaling of the nanowire pitch sets the floor for minimum cell pitch or maximum bit density that can be achieved even with perfect yield and highly scaled address lines. The Langmuir-Blodgett technique can indeed give a very small nanowire pitch on the order of 6nm (Acharya et al. 2006).
This shows that it might be possible to get to very high density memory arrays that are not critically dependent on yield if other problems such as misalignment or abruptness of dopant modulation during growth can be controlled. This could be a new paradigm of micro/nanofabrication based on high density, low yield and very simple error correction.

### 3.3 Comparing the results with the incumbent technology

After analyzing the potential for a new technology the next step is a comparison with the incumbent technology. In this case one of the main competitors of any new nano-memory technology will be Flash as the currently leading technology. The first question that can be asked regarding Flash is whether the scheme outlined above – low yield, high density and simple error correction – could also work for Flash. This is very likely to be uneconomical. As explained above this scheme relies heavily on scaling of the physical cell pitch. This is achieved relatively easily using bottom-up techniques. However, Flash being a top-down technique requires very high resolution photolithography to get down to 10nm or below. Since every Flash chip requires a sizable number of masks, cost would explode if one were to try to implement a high density, low yield strategy. Instead it seems most likely that the scaling of Flash will continue as before at a steady pace focusing on high yield.

The two strengths that any bottom-up technique will have are fabrication cost and density. The simple fabrication using self-assembly should always outperform classical microfabrication in terms of cost even if additional effort is required for error correction. However, the advantage in terms of density is not quite so clear. According to the 2011 ITRS multi-level cell (MLC) Flash will have a density of about $10^{12}$ bits/cm$^2$ in 2020 (“International Technology Roadmap for Semiconductors (ITRS) 2011 Edition” 2012). This is equivalent to a cell pitch of 10nm and thus very close to what might be achievable with bottom-up techniques. It will thus be a very close race between bottom-up techniques and Flash. A potential scenario could be that Flash hits a technological or economic brick wall and will be abandoned at some point. Or alternatively scaling of Flash will go on for quite some while before alternative technologies are considered. It will be interesting to see which technology will win. Due to the inertia of the industry and past investment it seems most likely, though, that the scaling of Flash will continue as long as possible. But depending on what type of nanowire array is used, it might have
other beneficial properties for certain applications such as retention time, speed, mechanical flexibility or cost.

4 Conclusions

This work highlights the importance of both roadmapping and s-curve analysis as tools for the management of technology. The example of bottom-up nanowire memories is taken to illustrate the first order process in determining whether a new technology has the potential of taking over from the current technology, which is equivalent to switching to the next s-curve and creating a new roadmap or incorporating it into a new version of the current roadmap (e.g. ITRS). It is hypothesized that bottom-up nano memories could lead to a new paradigm of high density, low yield nanofabrication. Whether this shift will really occur depends on the severity of the problems that will be encountered with top-down traditional microfabrication in the future and whether bottom-up technology will really be able to live up to the expectations. However, such a first order technology analysis can be the first step in guiding both managers and technologists to look into the right direction for a new technology and to ask the right questions.

5 Appendix

References


LEARNING ORGANIZATION IN NEW ECONOMY

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ABSTRACT

Environment is nowadays characterized by permanent change and growing complexity. Flexibility and lifelong learning are required for success in such environment for individuals and for organizations as well. Learning organization is defined as organizations that have implemented structure, processes and organizational culture that continuously foster individual, team and organizational learning and which results with permanent changes in behaviour and organizational processes.

Learning organization is not new subject of research and it is not unknown to managers. In order to enable development of learning organization, many authors have developed concepts and defined specific activities that can help management in achieving the goal of creating and measuring learning organization in their companies. In this paper we describe several of these constructs with emphasis on Building Blocks of Learning Organization, created by David A. Garvin, Amy C. Edmondson and Francesca Gino. Based on this construction we wanted to test if Croatian companies are dedicated to implementation and development of learning organizations. We have conducted a research on a convenient sample and it showed that Croatian companies fall behind on implementation of learning organization. The results of this research may serve as guidelines for decision makers who want to improve learning processes within their organization.

JEL Classification: D83

Keywords: learning organization, new economy, strategic management
INTRODUCTION

If contemporary business environment is to be described with one word, it would be change. Complex and turbulent environment impact business organizations in many ways: product lifecycles are shorter, competition on global level is more intensive, sustainable competitive advantage is hard to build and maintain, customers are more demanding, new technologies are emerging almost daily, market conditions are unstable, intellectual capital is becoming more important than ever, etc. Organizations are confronted with New Economy and achievement of fundamental organizational goals, survival and development; as a consequence flexibility and lifelong learning are required.

Being flexible and able to adapt to changes, if not creating them, is required from specific characteristics organization. These are characteristics of Learning Organization. Learning Organizations have implemented structure, processes and organizational culture which fosters continuous individual, team and organizational learning. Learning results with permanent changes in behaviour and organizational processes; these changes cause improvement in all aspects of business, they ensure creation of sustainable competitive advantage on the market and achievement of organizational goals. In order to enable the development of Learning Organization, many authors and scientists have developed concepts and defined specific activities that can help management in achieving the goal of creating the Learning Organization culture in their organizations. The complexity of this concept disables the oneness in all its dimensions. However, most of these concepts include many aspects like organizational culture, mental models, common vision, leadership, openness to new ideas, communication, system thinking, learning process, team work, empowerment and many more. If management wants to manage the process of the development of Learning Organization, they also need to measure this process. This work presents several concepts of the Learning Organization constructed with emphasis on Building Blocks of Learning Organization, created by David A. Garvin, Amy C. Edmondson and Francesca Gino. Their assessment tool and benchmark scores were used to conduct a research in Croatian organizations.

The basic aim was to assess how well Croatian organizations learn and how they learn in relation to others. Learning Organization was examined in two waves. The first wave was conducted in September 2006 with the questionnaire that was sent via e-mail together with the instructions. In first wave, data was collected from 52 participants. The second wave was conducted in December 2012 with the same
questionnaire. Participants were students taking part in Strategic management class on the 4th year of Effectus College. All 33 participants had working experience and they had been working in different organizations at the moment of research.

The sample method does not allow the generalization of results, but it provides important indicator of Learning Organization culture in Croatian organizations. Also these results implicate which activities are to be taken if management wants to ensure organization’s sustainable competitive advantage through benefits of lifelong learning in New economy.

1. LEARNING ORGANIZATION

During the development of Learning Organization many concepts and definitions have occurred. They are product of diverse approaches and thoughts of this concept. This is the reason why it is difficult to identify one generally accepted definition. Knowledge about the content of this concept is necessary if we want to operationalize Learning Organization in everyday business. Mayo and Lank say that the label used to describe learning organization is less important than the understanding of the notion itself: namely that survival in a rapidly changing world is dependent on adaptability; adaptability depends on the capability to learn; and that capability depends on the motivation for continuous learning of everybody in an organization within a supportive learning environment (Mayo & Lank, 1997, vii).

The academic definition of the Learning Organization states that the Learning Organization covers individual, group and organizational learning with the simultaneous proceeding effort for organizational and individual learning. It is a type of collective activity to reach organization-shared vision (Cang & Lee, 2007, 159).

Peter Senge is, undoubtedly, the author who gave the biggest contribution to the popularization of Learning Organization concept. He defines Learning Organization as organizations where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning how to learn together (Senge, 2006, 3).

Garvin (1993, str.) says that Learning Organization is an organization skilled at creating, acquiring, and transferring knowledge, and at modifying its behaviour to reflect new knowledge and insights. Learning Organization is not brought about by
simply training individuals; it can only happen as a result of learning on the whole organizational level, therefore for Pedler et al. (1991) it is a vision of what might be possible. Learning Organization can be defined as one that is characterized by continuous learning for continuous improvement, and by the capacity to transform itself (Marsick & Watkins, 1999, 10).

Drew & Smith (1995) have adopted definition that claims that the Learning Organization is a social system whose members have learned conscious communal processes for continually:

- generating, retaining and leveraging individual and collective learning to improve performance of the organizational system in ways important to all stakeholders; and
- monitoring and improving performance.

According to this definition, coping with surprise and ensuring long-term survival are both important aspects of performance (Drew & Smith, 1995, 5).

There are many more definitions of Learning Organization, but in essence we can say that this is an organization that has found a workable and meaningful way of systemizing organizational learning and all its component parts, as presented in Figure 1 (Teare & Deltry, 1998, 57).

As it is stated above, one can conclude that Learning Organization is not a condition, structure or set of rules and procedures. It is a very complex concept and process in the continuous change, development and modelling. Like knowledge, this concept is dynamic and requires ongoing action of adjustment. Its final goal is to establish learning as basis for organizational development through individual learning and changes in behaviour of employees. In this sense, human resource is the key component of Learning Organization.
Figure 1: Systemized organizational learning

Different elements of Learning Organization definitions can be systemized in the following categories:

- learning (continuous individual, team and organizational learning on all organizational levels)
- change and modification of behaviour (transformation)
- knowledge (creation, acquisition and distribution of information and knowledge)
- continuous improvement, development, advancement
- mental models (new, open; experimenting)
- values (corporate values, beliefs, vision, mission)
- change (facing, accepting and managing)

This short overview indicates previously mentioned complexity of Learning Organization concepts. In the following chapter few constructions that have operationalized the Learning Organization phenomena will be presented.
2. THE CONSTRUCTION OF LEARNING ORGANIZATION

There are many of authors who have tried to operationalize the construction of Learning Organization. The aim was to create basis for practical implementation. Knowledge about different concepts contributes to understanding and increases the ability to implement Learning Organization in practice.

2.1. PEDLER, BURGOYNE & BOYDELL: THE LEARNING COMPANY

In their effort to answer the question “What does Learning Company look like?” authors have defined 11 characteristics of the Learning Company (Pedler et al, 1991, 15):

1. Learning Approach to Strategy
2. Participative Policy Making
3. Informing
4. Formative Accounting and Control
5. Internal Exchange
6. Reward Flexibility
7. Enabling Structures
8. Boundary Workers as Environmental Scanners
9. Inter-company Learning
10. Learning Climate
11. Self-development Opportunities for All.

Based on these 11 characteristics organizations can measure their profile and compare it with desired future. Each characteristic is operationalized with 5 items, and can be assessed on a scale from 1 to 10. Assessors can evaluate current position, but also how they would like the future to look like. By comparing these two scores, companies can calculate the dissatisfaction index, given by (Pedler et al., 1991, 33):

\[
\text{Dissatisfaction index} = 100 \times \frac{\text{how it should be} - \text{how it is}}{\text{how it should be}}
\]

Also, based on the rank of each characteristic, management can easily define areas which need to be improved and priorities among these areas.
2.2. WATKINS & MARSICK: DIMENSIONS OF THE LEARNING ORGANIZATION QUESTIONNAIRE

The Learning Organization Questionnaire is multidimensional, integrative measure of the Learning Organization which consists of 7 dimensions:

1. Continuous Learning
2. Inquiry and dialogue
3. Team learning
4. Embedded system
5. Empowerment
6. System connection
7. Provide leadership

Each dimension is described with several items and respondents rate each item on a six-point Likert-type scale. Additionally, there are two dimensions: organizational knowledge and financial performance. They represent measures of organizational performances and show the relations between learning behaviours in organization and achieved results (Watkins & Marsick, 2004, 37).

Figure 2: Nomological Network of the Dimensions of Learning Organization and Performance Outcomes

Figure 2 shows the relationship between Learning Organization dimensions defined by the Dimensions of the Learning Organization Questionnaire. It is important to emphasize that this instrument is validated and therefore can be recommended for usage in organizational practice and research.

2.3. MOILANEN: THE LEARNING ORGANIZATION DIAMOND TOOL

This model is based on Learning Organization definition that says that Learning Organization is a consciously managed organization with „learning“ as a vital component in its values, visions and goals, as well as in its everyday operations and their assessment. The Learning Organization eliminates structural obstacles of learning, creates enabling structures and takes care of assessing its learning and development. It invests in leadership to assist individuals in finding the purpose, in eliminating personal obstacles and in facilitating structures for personal learning and getting feedback and benefits from learning outcomes (Moilanen, 2001, 11). The model is presented in Figure 3, and shows its different dimensions.

Figure 3: The Learning Organization Diamond

This tool is composed of 40 statements. The statements in the instrument used ten-point Likert scale. It offers a framework for analysing Learning Organizations making it possible to see the whole, but also to identify the elements of this whole (Moilanen, 2005, 75).

2.4. GARVIN, EDMONDSON & GINO: BUILDING BLOCKS OF THE LEARNING ORGANIZATION

In their article „Is Yours a Learning Organization“ published in Harvard Business Review in March 2008, authors presented an interesting and useful assessment tool for Learning Organization that can be used at any level of organization. The model is based on three broad factors that are essential for organizational learning and adaptability: (1) a supportive learning environment, (2) concrete learning processes and practises, and (3) leadership behaviour that provides reinforcement (Garvin et al., 2008, 110). These are the three building blocks of the learning organization. Each of these blocks has subcomponents and these are described with several items. Items are assessed on a seven-point Likert scale in first and second block, and on five-point scale for the third block. This tool has also provided benchmark data, derived from surveys conducted by the authors. It is, therefore, possible to compare results from one organization (or part of the organization) with benchmark data. This is the reason why we have used this tool for assessment of Learning Organization implementation in Croatian companies. The methodology of this research is presented in next chapter.

3. LEARNING ORGANIZATION IN CROATIAN COMPANIES

A simple research has been made in order to see if Croatian companies are dedicated to and successful in implementing and maintaining Learning Organization within the scope of their work. For that purpose a questionnaire consisting of three parts has been created. In the first part respondents gave information about their company (number of employees, ownership structure, legal status, size, etc.) and information about themselves (educational qualification and current organizational level). Second part of the questionnaire is previously explained, „Three blocks of learning organization questionnaire. The third part consists of some general questions about Learning Organizations (knowledge about the concept, importance, commitment of their organizations to knowledge creating, etc.). The questionnaire comes with written instructions, since it has been sent via e-mail, and doing the
questionnaire takes about 10-15 minutes. Results were compared to published benchmark data (derived from a survey conducted in autumn 2006 among 125 senior executives in USA) (Garvin et al., 2008, 114).

The sample was convenient and included employees at all organizational levels. We believe that this information is very important, because it shows not only how management perceives their organization, but also the perception of learning within the organization from all members. The results were analyzed with Excel-based software application. The study was conducted in two waves.

The first wave was conducted in September 2006 with the previously described questionnaire. It was sent via e-mail together with the instructions and respondents had to return it via e-mail or via post (mostly via e-mail). We received 63 questionnaires, but 11 were not complete, so we had to exclude them from results. Almost 30% of companies included in the survey are small companies with 1-10 employees, and 62% have 50 employees or less. It is interesting that 63% of respondents have a university degree. The results of the Learning Organization Survey are shown in Table 1. It is clear that on almost all blocks and subcomponents results are below the medium, with the exception of two subcomponents: (1) appreciation of differences and (2) time for reflection.

In December 2012 we used the same questionnaire for a short survey. Our participants were students taking part in Strategic management class on the 4th year of Effectus College. All 33 participants had working experience and they had been working in different organizations at the moment of research. The structure of the companies was similar to the structure from previous research wave, but this time all our participants had a Bachelor’s degree. The results are shown on the Table 1. We can notice minor decrease in almost all subcomponents.
Table 1: The results of survey conducted in September 2006 and benchmark

<table>
<thead>
<tr>
<th>Building Blocks and Their Subcomponents</th>
<th>Dec 2012 survey results</th>
<th>Sep 2006 survey results</th>
<th>Bottom quartile</th>
<th>Second quartile</th>
<th>Median</th>
<th>Third quartile</th>
<th>Top quartile</th>
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<tr>
<td><strong>Supportive Learning Environment</strong></td>
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<tr>
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<td>87-100</td>
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<tr>
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<td>14-56</td>
<td>57-63</td>
<td>64</td>
<td>65-79</td>
<td>80-100</td>
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<tr>
<td>Openess to new ideas</td>
<td>72</td>
<td>66</td>
<td>38-80</td>
<td>81-89</td>
<td>90</td>
<td>91-95</td>
<td>96-100</td>
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<tr>
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<td>51-64</td>
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<td>72-79</td>
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<td><strong>Concrete Learning Processes and Practises</strong></td>
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<tr>
<td>Education and training</td>
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<td>69-79</td>
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<tr>
<td>Information transfer</td>
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<td>34-60</td>
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<td>72-84</td>
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<td>Learning processes composite</td>
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<td>83-97</td>
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<td>Composite for this block</td>
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Authors’ illustration, Data analysis

The above stated results show that Croatian organizations have failed to implement the Learning Organization within their organizations. For managers in these organizations these results can be a starting point for identifying goals and activities necessary for implementation of learning.

CONCLUSION

Aware of all methodological constraints in this survey we can conclude that its results indicate low level of Learning Organization characteristics in Croatian companies. In New Economy, where knowledge creation and implementation produces competitive advantage, this is unacceptable. Contemporary environment faces organizations with challenges that cannot be faced without flexibility and knowledge. It is often highlighted by Croatian businessmen in the media that competitive product is necessary if Croatia wants to achieve high level of quality in the global market. There can be no competitive product without new knowledge and
skill application of all the employees and Learning Organization is a mechanism which enables implementation of knowledge at all organizational segments. Vision, mission, organizational culture, strategy, goals, activities, and all the other elements of business operation have to be permeated by education. If the importance of continuous learning, improving and development of skills and abilities is globally recognized and unquestionably important for the company’s success, that the manager or the leader should think about how to apply those activities and processes in everyday business. Managers are promoters of learning. They are students and teachers at the same time (Horvat et al., 2012, 18). The process of transformation starts with vision and decision to transform the existing organization into Learning Organization. The final result is reflected by market position strengthening, sustainable competitive advantage achievement and successful business in general. Time in which Learning Organization concept was not well known and insufficiently defined has passed and this can no longer be an excuse for inability to develop and implement Learning Organization. All of this is possible because of the instruments, models and tools available for each organization. Being on the threshold of becoming a member of European Union, it should be the priority to Croatian companies.

References:
THE BIGGEST FAILURES IN MANAGING STRATEGY IMPLEMENTATION

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Abstract

The strategic management process implies the management staff has at least three engagements: define, conduct and evaluate applied strategy. However, the most common reasons of firm bankruptcy are linked to wrong implementation and that’s why implementation is often defined as the Achills heel of the strategic management process (Roney, 2004, p. 233). Unfortunately, most strategic planning efforts fail during this crucial phase and firms wast significant resources already invested.

This paper examines the literature of strategy implementation and post a link between some critical points important to reduce errors in strategy implementation and improve firm performance.

JEL Classification: L21, L 22, L25

Keywords: implementation obstacles, critical implementation factors, key performance indicators

Introduction

Alexander argued the key reason why implementatin fails is that practicing executives, managers and supervisors do not have practical models to guide their actions during implementation. Without adequate models, they try to implement strategies without a good understanding of the multiple factors that must be addressed, often simultaneously, to make implementation work (Okumus, 2003, p. 871).

Various studies support this view, for example:

- Popular Fortune research noted that less then 10% of well formulated strategies are effectively executed and conclude it is better to have a less excellent strategy which is fully implemented than to formulate an excellent strategy which is never or only partially executed (Rumelt, 2011);
- In another study in The Times 1000, 80% of directors said they had the right strategies but only 14% of them thought the strategies were implemented well (Cobbold I., Lawrie G., 2001), downloaded from http://www.slideshare.net/Petrilau/how-to-create-sustainable-competitive-advantage-using-strategy-mechanism, accessed 11-12-2012)

The strategy of an organization consists of the moves and approaches made by management to produce successful performance. Management develops strategies to guide how an organization conducts its business and how it will achieve its target objectives. Good management is exhibited by good strategy and good implementation. The standards for judging whether an organization is well managed are based on good strategy-making combined with good strategy execution (Chaneta I., Strategic Management Process, Journal of Comprehensive Research, Volume 5, p. 17, available at http://jupapadoc.startlogic.com/compresearch/papers/JCR11-4.pdf, accessed 07-11-2012)

The strategic management process

To be able to identify difficulties in the implementation phase it is important to understand the entire process of strategic management. According to Wheelen and Hunger (2002), firm strategy passes four stages: environmental scanning, strategy formulation, strategy implementation and strategy evaluation. Investigating why even the best designed strategies are questionable opens a doubt about inconsistencies between formulation and implementation at first and later inconsistencies between strategy implementation and performance measurement. Formulation phase includes mission, goals and business policy determination while implementation includes activities, budgeting and procedures.

Figure 1. Components of Strategic Management Process

Components of Strategic Management Process
Source: adapted according to Wheelen T.L., Hunger D., 2002
Between these phases emerges several confusions: who carry out the strategic plan, what must be done and how to work.

**Strategy Implementation obstacles**

Unfortunately, most managers know more about developing strategy than they know about executing it. Formulating strategy is difficult. Making strategy work, executing or implementing throughout the organization, is even more difficult. Without effective implementation, no business strategy can succeed (Hrebiniak, 2006, p. 12).

The strategy implementation function consists in seeing what it will take to make the strategy work and to reach the targeted performance. It should be noted that in the strategic management literature there are more contributions on strategy making than strategy execution. In this chapter it will be discussed which are the potential implementation obstacles. Authors often in their research repeated factors or call them with different names but intend very similar thing.

For example, Alexander L. (1985) mentioned 15 problems, Miller S. (1997) mentioned 10 critical factors, Al-Ghamdi S. (1998) 10 problems, Beer M. & Eisenstat R.A. (2000) identified six killers of strategy implementation, Kalali N.S., et al. (2011) mentioned 16 factors in four categories, while other authors have suggested more general categories. For example, some authors mention organizational structure as a critical factor while others mention communication, coordination, motivational and reward system separately.

It is necessary to mention two extensive studies about the problems in the implementation strategy:

- Noble C.H. (1999): The Eclectic Roots of Strategy Implementation Research. Noble as a conclusion of the literature review says this field is too little explored and that’s why is required a deeper reflection on the meaning of critical factors and certain aspects to define a useful implementation framework for practitioners. To start, he suggests there are two general dimensions in strategy implementation: the structural view (firm structure and control mechanisms) and the interpersonal process view (strategic consensus, behaviours, organizational climate, communication and interaction processes). In another article: Building the strategy implementation network, the same author suggests several managerial levers (goals, organizational structure, leadership, communica-
tions and incentives) essential in carrying out the implementation across the next implementation stages: preimplementation, organizing the implementation efforts, managing the implementation process and maximizing cross-functional performance.

- Research in the article Making strategy work- A literature review on the factors influencing the implementation strategy wrote by Y. Li, Guohui S., Eppler MJ (2008) yielded the following conclusions. Individual factors that influence strategy implementation are divided into: soft factors (people oriented factors: communications, consensus and commitment), hard factors (institutional factors: organizational structure and administrative system) and mixed factors (strategy formulation, SBU relationship among different hierarchical levels and strategy etc.).

Spontaneously, emerges the first hypothesis.

**H1. The identification of implementation failures allows to set up a list of critical factors in managing strategy implementation.**

The following table chronologically shows which problems arise from different surveys on strategy implementation from 1980s to nowadays.
### Table 1. Highlighted problems in strategy implementation

<table>
<thead>
<tr>
<th>Authors and work (chronological order)</th>
<th>Time</th>
<th>Organization structure</th>
<th>Organization culture</th>
<th>Resources</th>
<th>Leadership</th>
<th>Uncontrollable external factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wernham R (1984): Bridging the Awful Gap between Strategy and Action</td>
<td></td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Wessel J. (1993): The strategic human resource management process in practice</td>
<td></td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Schmidt J. (1994): The case of the sales-driven company</td>
<td></td>
<td>●</td>
<td>●</td>
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<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Sandelands E. (1994): All talk and no action? Perish the thought</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Miller S (1997): Implementing Strategic Decisions: Four key Success Factors</td>
<td></td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Al-Ghamdi, S. (1998): Obstacles to successful implementation of strategic decisions</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Hrebinjak L.G. (2006): Obstacles to effective strategy implementation</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Kalali, N.S., et al. (2011): Why does strategic plans implementation fail? A study in the health service sector of Iran</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
</tbody>
</table>

**Source:** author own work
All of these factors suggest an inconsistency between planning and implementation. Probably, in the planning phase these factors were not sufficiently explored and clarified. It is necessary to study each category separately in order to set up an adequate roadmap of targets for strategy executors. More frequently mentioned problems are related to organizational structure, the lack of resources and leadership problems. The first five categories mentioned in the table above refers to internal factors, while the sixth category illustrates the impact of external factors. The following table shows how factors are sorted and grouped in each category. Besides these factors, some of the mentioned authors (Alexander, Wessel, AlGhamdi, Kalali and Allio) noted the impact of an additional factor which they called “distractors” indicating a deviation from the original plan objectives. Referring to this category, usually, are mentioned short term competing activities that distracted attention from planned implementation targets.

Table 2. The most mentioned aspects of each critical implementation factor

<table>
<thead>
<tr>
<th>Critical factors</th>
<th>Aspects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>Took more time than originally allocated</td>
</tr>
<tr>
<td></td>
<td>Took more time than the formulation phase</td>
</tr>
<tr>
<td></td>
<td>Inconsistencies in translating long range plans into short term objectives (changes not introduced in daily routines)</td>
</tr>
<tr>
<td>Organization structure</td>
<td>Means improper organizational design which includes: lack in communication, coordination, monitoring and incentive systems.</td>
</tr>
<tr>
<td></td>
<td>Improper coordination:</td>
</tr>
<tr>
<td></td>
<td>Activities and tasks not sufficiently defined (inefficient operation planning)</td>
</tr>
<tr>
<td></td>
<td>Poor coordination across functions or divisions</td>
</tr>
<tr>
<td></td>
<td>Inadequate alignment between process phases</td>
</tr>
<tr>
<td></td>
<td>Improper communication:</td>
</tr>
<tr>
<td></td>
<td>Poor vertical and horizontal communication (between different hierarchical levels and functions)</td>
</tr>
<tr>
<td></td>
<td>Poor information and knowledge transfer (MIS)</td>
</tr>
<tr>
<td></td>
<td>Improper monitoring and incentive system:</td>
</tr>
<tr>
<td></td>
<td>Poor responsibilities determination</td>
</tr>
<tr>
<td></td>
<td>Inefficient incentive programs</td>
</tr>
<tr>
<td></td>
<td>Lack in measuring performance</td>
</tr>
<tr>
<td>Organization culture</td>
<td>Poor implemented beliefs and values system</td>
</tr>
<tr>
<td></td>
<td>Conflicting strategy principles</td>
</tr>
<tr>
<td></td>
<td>Inability to overcome resistance to change</td>
</tr>
</tbody>
</table>
### Resources
This category includes tangible and intangible resources. But most authors relate to human resources:
- **Quantitative indicators:**
  - Too few people involved in implementation
- **Qualitative indicators:**
  - Inadequate employee skills and capabilities
  - Inadequate training and instructions
  - Goals and target not well understood
  - Responsibilities not clearly defined
  - Lack of employee commitment
  - Not exist or inadequate measures of employee engagement
  - Not exist or inadequate reward system
  - On physical resources referred only Alexander, Wernham and Miller (research from the ‘80s-90s probably influenced by the RBV theory).

### Leadership
Authors refer to the knowledge and leadership skills. The most mentioned problems are:
- Vague strategy formulation
- Leaders consider their job is done when they finished with the planning
- Left the organization during the implementation
- Implementation tasks and activities not defined enough detailed
- Top and middle management conflicting goals and priorities - middle management tasks modification
- Inadequate leadership style: top down or laissez fair senior management, not collaborative management

### Uncontrollable external factors
Alexander, AlGhamdi and Kalali in their studies emphasize the impact of external factors on business operations.
- Firms should adapt to the environment and with its strenghts take what is good and avoid what is negative. The most mentioned factors belongs to: political, economic, social and technological environment

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Source: author own work

Still important to note that internal factors have a direct impact on strategy implementation while the impact of environmental factors usually have a moderating or mediating effect on strategy performance which implies the following hypothesis:

**H2.** *A comprehensive view of the impact of critical implementation factors on firm performance must be examined from two aspects: endogenous (internal) and exogenous (external)*
Strategy-making and strategy-implementation do not guarantee superior organizational performance continuously. Even well managed organization can sometimes hit the skills for short periods because of adverse conditions beyond management’s ability to foresee and react to the environment changes. It is management’s responsibility to adjust negative conditions by undertaking strategic defenses and managerial approaches that can overcome adversity. However, the essence of good strategy-making is to build a strong and flexible position to provide successful performance despite the impact of unforeseeable and unexpected external factors. The task of strategizing is always an ongoing exercise. “The whats” of an organization’s mission and long-term objectives, once chosen, may remain unaltered for several years. But the “hows” of strategy evolve constantly, partly in response to an ever-changing. Strategic management process depend partly from the managers’ efforts to create new opportunities, and partly from fresh ideas about how to make the strategy work better (Chaneta I., Strategic Management Process, Journal of Comprehensive Research, Volume 5, p. 18-19).

**The impact of critical implementation factors on the firm performance**

Strategy evaluation is the final step of strategy management process. The key strategy evaluation activities are: appraising internal and external factors that are the root of present strategies, measuring performance, and corrective actions when necessary. Evaluation makes sure that the organizational strategy as well as it’s implementation meets the organizational objectives. Any successful evaluation begins with defining the parameters that must be measured. These parameters should match the goals set in the strategy formulation and the activities in the execution phase. Many researchers discussed about the metrics coherent with strategy formulation and implementation principles. One of the most mentioned concept is the balanced scorecard proposed by Kaplan and Norton in the 1990s. Every firm adopts a specific set of key performance indicators. These indicators measure whether driving activities led to the expected results. Performance indicators must follow critical implementation factors what include: 1. measuring necessary time for strategy execution, 2. organizational structure adequacy, 3. organizational culture adequacy, 4. resource planning and 5. leadership. For external factors, it is important to set up a detailed assessment of their occurrence and impact.

It is also important to apply quantitative and qualitative indicators. Detailed studies of critical factors will result in a series of indicators important to monitor the improvement of related activities, crucial for successful implementation.
To develop an implementation framework, I propose the last two hypotheses.

**H3.** Critical implementation factors allow to define a hypothetical framework for effective and efficient strategy implementation;

**H4.** A hypothetical framework for strategy implementation is important to fix who, what, where and when undertake activities related to implementation.

The following model summarizes critical implementation factors important to propose a framework for efficient strategy implementation. Without guidelines, execution becomes a labyrinth. Without guidance, individuals do the things they think are important, often resulting in uncoordinated and divergent outcomes. Without the benefit of a logical approach, execution suffers or fails because managers don’t know what steps to take and when to take them.

**Figure 1. Basic framework for strategy implementation**

Environment uncontrollable factors

Framework for efficient strategy implementation must contain:

<table>
<thead>
<tr>
<th>Detailed guidelines for:</th>
<th>Metrics</th>
<th>Evaluation of:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organizational structure</td>
<td>Quantitative KPI</td>
<td>External opportunities</td>
</tr>
<tr>
<td>Organizational culture</td>
<td>Qualitative KPI</td>
<td>External threats</td>
</tr>
</tbody>
</table>

Source: author own work
Having a roadmap positively affects execution success, but not having it leads to execution failure and frustration.

**Conclusion**

Strategic management process is a very complex and long term process which requires to define, conduct and evaluate applied strategy.

The article started with the identification of implementation critical factors and ended with an implementation framework all strategy executors must understand and be able to apply in own work in order to reduce unexpected and unexplained effects. Critical factors can be grouped into several categories, and it is necessary to analyze the specificity of each category in order to determine whether the error refers to the planning stage or the implementation phase and if there are installed correct monitoring mechanisms. So, next studies should elaborate what is essential in each category and how to measure that. Besides quantitative data, for deep analysis, it is important to include qualitative data, too.

It is possible to conclude the implementation phase predicts to analyze the following key factors: leadership, organizational structure, organizational culture, resources, time and the impact of environmental variables.

**Literature**

**Books**


**Articles in journals**


Sandelands E. (1994): All talk and no action? Perish the thought, Management Decision, ISSN 0025-1747.


APPLICABILITY OF EUROPEAN DEVELOPMENT PROGRAMMES TO MANAGEMENT OF ISTRIAN RESOURCES

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³Operations Manager at Banco Popolare Croatia JSC, Republic of Croatia

ABSTRACT

The authors have vividly demonstrated the management of Istrian resources emphasizing current conditions and development prospects. Building on a hypothesis: if the resources management is organized, can positive synergy effects be expected. Although Istria boasts reputation of a region with positive potentials, one must emphasize there are still undeveloped areas, a high number of uneducated population, shortage of staff in educational institutions, all which requires a more professional approach to the issue of management. This research, first of its kind in the County of Istria, has attempted to gain a realistic insight into the condition of the Istrian County territory. The research has been conducted by means of the Delphi method in two intervals, the theory analysis method, observation and interview on a sample consisting of 34 local self-government units (municipalities and cities). Questions were replied by heads and municipal prefects of local self-government units and others in charge of management. The research objective was to determine the type of help and who provided it as well as the type of management required for a more quality development and management.

JEL Classification: I25

Keywords: management, resources, education, programme, Istria

1. INTRODUCTION

Starting from the basic definition of a ‘management being a process of shaping and maintaining the environment in which individuals, working together in groups, efficiently achieve selected goals’ (Werrhich, Koontz, 1998, page 4), we
have reached the conclusion that quality resources management depends on many factors, ranging from the type of a resource, operational organization to managers and their capabilities and qualifications. Istrian territory has long been characterized by various issues which have resulted in its delayed development, including the loss of human resources, insufficient staff education and unsystematic management of various natural, cultural and historic resources which has had a direct impact on the development of the economy itself as well as social activities (education). In terms of social resources, development of secondary education and the quality of colleges, faculties and the University are important for the total County development. Development plan for the university is important for furthering university level education system which should stimulate the use of the latest knowledge and professional specialization. Improvement of scientific-research centres represents an important potential as well as lifelong learning programmes (androgenic forms e.g. Open University in Umag and Poreč) which encourages excellence and contributes to establishing the economy based on knowledge and innovation. ‘Please note that certain measures for the development of rural area were planned under the Programme of the Croatian Government for the term 2008-2011, which included various Implementation Measures’ (Programme of the Croatian Government for the term 2008-2011, p.48-57), some of which are given below:

- Income and employment diversification measures
- Development projects: ‘Top-down’ projects will be conducted by a competent ministry i.e. its institutions and agencies. ‘Bottom-up’ projects will be initiated and conducted by the local community aided by LAGs and the network of rural engineers.
- Lifelong learning by manufacturers

2. MODEL OF DEVELOPMENT THROUGH IMPROVING EDUCATION AND NEW PRODUCTS

Resource management in general is an extremely important link in the entire development of a region. The profession (knowledge) and not the politics is the only possible champion of management and development of this or any other region. The research has given insight into the presence of management in the delivery of the Istrian rural area development programme, and the findings have shown the insufficient number of expert staff. Due to insufficient funds, unresolved property issues and weak motivation as well as insufficient state incentives (loans),
most raw materials are imported and of questionable quality. Forests, which can serve as a base for development of hunting tourism or educational area, are choked with vegetation and lacking control. For example, the law stipulates that agrotourism can be operated and served only by household members. However, in view of families today not being as huge in number as they used to be some 50 years ago, workforce deficit in agrotourism poses a legitimate question. ‘Economic activities so dependant on human factor as tourism is, are rare’ (Pirjevec, 1998, p. 95.). Insufficient engagement of utility services, lacking road infrastructure, bad traffic signalling system, weak sign posts. In view of agriculture as the main business activity in rural areas, farmers have not been permitted to sell their products to their guests legally and on their own premises, but they were forced to transport their products to larger touristic towns to be sold. Rural tourism development associations are still emerging in Croatia lacking professional employees. Schools in many villages are relatively badly equipped. We believe that a large chain in this process has been determined by human resources as a carrier of Istrian development towards a rich and respectable region. Cooperation between individual administrative bodies in the County is not satisfactory nor systematically organized. It depends on affinities of individual heads and other employees in administrative bodies. On the level of the County, its representatives also do not cooperate in proposing, development and implementation of all the initiatives, plans and other strategic documents. In terms of education, there is an insufficient number of employees with university degrees in regional self-government bodies as well as a very low number of the employed with the master’s degree (M.Sc/M.A.) and a doctorate (Ph.D/D.Sc) (Tables 2 and 3). However, recent years have shown a positive trend in terms of professional improvement of those employees dealing with management in the County.

Table 2. Age of respondents

<table>
<thead>
<tr>
<th>Age</th>
<th>Number of respondents</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>25 - 30</td>
<td>7</td>
<td>20.58</td>
</tr>
<tr>
<td>31 - 40</td>
<td>8</td>
<td>23.52</td>
</tr>
<tr>
<td>41 - 50</td>
<td>11</td>
<td>32.35</td>
</tr>
<tr>
<td>51 - 60</td>
<td>8</td>
<td>23.52</td>
</tr>
</tbody>
</table>

Source: own research data processing, 2010
Table 3. Level of respondents’ education

<table>
<thead>
<tr>
<th>Level of education</th>
<th>Number of respondents</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Secondary school</td>
<td>5</td>
<td>14.70</td>
</tr>
<tr>
<td>Non-university degree</td>
<td>9</td>
<td>26.47</td>
</tr>
<tr>
<td>University degree</td>
<td>18</td>
<td>52.94</td>
</tr>
<tr>
<td>Master’s degree</td>
<td>1</td>
<td>2.94</td>
</tr>
<tr>
<td>Doctorate</td>
<td>1</td>
<td>2.94</td>
</tr>
</tbody>
</table>

Source: own research data processing, 2010

One of key tasks of the new development model must be evaluation and recognition of products and services for each ‘microlevel’. In this light, such programme development must include all interested parties i.e. local development carriers from private, public or civil sectors in the County of Istria. Without a well differentiated and strong economic and social network, primary activities cannot guarantee by themselves a harmonious and balanced development of the territory. Activity diversification and improved service activities are required for population in rural areas. Thus, local and regional programming is of extreme importance because it is the only way for determining real local needs. It is also important to propose a compromise when faced with choosing between local needs and available resources.

2.1. Leader Programme principles and their implementation in rural area development

In its major part, principles of the Leader Programme encompass staff development and improvement, new, old and the existing product upgrade as well as the entire integration of the traditional and the new experience in rural area management. The Leader encompasses seven principles: area-based approach, bottom-up approach, LAG-based partnership, innovation, integrated development, networking and cooperation, and local financing (EC, 2008, p.2-3):

1. “Area-based approach” means a development policy which defines development based on specific characteristics of the area with its own conditions, weaknesses and strengths. The development policy focuses on the area with a specific situation. The area is a homogenous rural surrounding characterized by social cohesion, common history and tradition. One recognizes own resources for sustainable development.
2. “Bottom-up approach” fosters participation in making decisions locally in terms of engaging the entire community, economic and social groups as well as representatives from private and public institutions. This approach applies to two activities – animation (facilitating activities) and local community training.

3. “Partnership approach” and local action groups (LAG) as a body of public and private stakeholders. Leader+ is a specific programme due to LAGs being an organizational model which ensures political and institutional support and balance. They are mechanisms for participation, raising awareness and organizing stakeholders in rural development. They include professional organizations, associations, citizens, women’s organizations and young people. Population from the area of their business operations must be between 5,000 and 100,000 people.

4. “Innovation” researches new methods, ways and approaches to the rural area issue. This can include a new way of resource promotion; activities needed for local development as a new response to weaknesses and problems of the rural area; creating a new product, process, organizational method or a new market; networking and knowledge transfer to all interested or new partners.

5. “Integrated approach”: demands the connection between activities and projects on the local action plan which should function as a unity. All the activities, specific activities, economic, social, cultural and other groups can be integrated.

6. “Networking and cooperation” implies easier information exchange on rural development, sharing positive experiences, expansion of innovative strategies and activities i.e. creation of informal networks and data exchange. Networking includes local, regional, national and international levels.

7. “Local financing and management” means to delegate responsibilities in making decisions regarding fund allocation and the method of LAG management. The autonomy level depends on provisions separately adopted by each member state.

Funds per project amount to EUR 65,000, and exceptionally up to EUR 100,000. Setting up innovative rural enterprises and crafts is encouraged as well as development of agricultural, fishery and forest products; education; improvement of natural, social, cultural environment and environmentally friendly initiatives (EC, 2008). Therefore, under the programme of the Croatian Government for the term 2008-2011 measures for rural area development have been planned including the following implementation measures: incentives for agricultural production, fishery, land policy, regulation of agricultural produce market, increased competi-
tiveness of domestic agriculture and food industry, income and employment diversification measures (www.vlada.hr, of 12th November 2011). The LEADER champion is the Croatian network for rural development. Following years of informal work, in January 2006 it was registered aiming at gathering and representing civil society organizations engaged in rural development of Croatia (www.odraz.hr, of 23rd October 2011). In the city of Karlovac on 12th April 2012, the founding meeting of the LEADER network Croatia was held gathering to date 20 out of 31 established and registered LAGs together with the mentioned institutions. It will represent an important partner to the Ministry of Agriculture in promoting rural development measures and the LEADER approach in the IPARD Programme as well as the post-accession programme within the European Agricultural Fund for Rural Development (EAFRD) (www.agroklub.com/pretraga/poljoprivredni-fakultet/8383, of 23rd December, 2012)

3. FINANCING LOCAL SELF-GOVERNMENTS

In order to succeed in delivery of necessary activities in rural areas, one must invest certain efforts and means, and above all have a clear vision and goal. Without clear planning, development is given to disorganization and lacks a desired direction. Such development is mostly manifested in poor economic development, bad economic coordination, incompatibility of economic entities, poor social policy, destruction and pollution of environment as the most valuable resource of an area. For avoiding such a sequence of events, protecting the environment and at the same time enabling a quality economic development which will provide a high living standard and a pleasant life to its citizens, it is necessary to review the needs and considerations of all entities in a society constructively. In developed countries, such form of development has become normal practice as well as an obligation. In undeveloped or poorly developed countries, drafting such plans has still not become a rule. Due to insufficient funds, state, regional or local governments would often neglect planned development. Planning is not and it must not be a dilemma. Questions of how and in which way development must be planned and delivered must be considered. Significantly larger funds are needed for correcting mistakes done in unplanned, disorganized development compared to those spent in planning and organizing development of an area. Competence and responsibility for infrastructural development in local government and self-government areas lie on municipalities and cities. Projects such as local roads, sporting, water-supply and sewage infrastructure as well as other projects, their construction and maintenance
represent a significant financial cost. In light of such a pressure, local self-government bodies are forced to seek alternative funding and management mechanism to pursue infrastructural work aware that efficient service provision will represent the key in bridging future insufficiencies in infrastructural funding. The search is mostly focused on including private sector and its funds for providing services connected with local self-government infrastructure (public-private partnership). There is a possibility of funding such projects by granting loans to local self-governments in Croatia. The market represented by local self-government units is still relatively new and poorly represented in financial institutions. However, it has been developing fast. Commercial loans are becoming more competitive, capital financing more available by an increasing number of state and international financial institutions in increasingly higher amounts, while local self-governments start utilizing new forms of financing including publicly quoted bonds and leasing. Local self-government units are currently funded by:

1. Personal income tax
2. Communal rate (by house, flat or office m²)
3. Real property transfer tax (charged 5%, while 3% is allocated to municipality or city)
4. Corporate tax
5. Communal contribution (when constructing)
6. Consumption tax
7. Vacation home tax
8. Other income

(First seven are main taxes, others depend on individual municipality)

Key local self-government leadership today have new funding possibilities at their disposal including: international financial institutions and state funds granting subsidies and direct loans to local self-governments such as the European Bank for Reconstruction and Development, the European Investment Bank, the Regional Development Fund and the Croatian Bank for Reconstruction and Development (HBOR). These institutions and their programmes are based on established processes through which they acquaint local self-governments with the method of loan request submission and financing terms. Local self-governments today also use the method of leasing as a financing mechanism. However, this type of financing is limited to means of transportation. Leasing companies claim that the major part of
leasing by local self-governments is under the public bidding threshold. Currently, leasing does not represent a significant factor in financing local self-governments in terms of intangible assets, although this might change in the future as local self-governments start understanding this financing method even better. There are five other basic financing sources for local self-government units:

1. loans granted by business banks
2. financing using leasing (operating and financial leasing)
3. bond issue (possible only for certain local self-government units that meet the criteria)
4. loans and supports by state financial institutions (HBOR, Regional Development Fund, Fund for Development and Employment, Fund for Environmental Protection and Energy Efficiency, Fund for Reconstruction and Development of the City of Vukovar, Hrvatske vode and Croatian ministries)
5. loans and supports by international financial institutions (World Bank, European Bank for Reconstruction and Development, European Investment Bank, EU Funds, Embassies and foreign associations).

One can conclude that municipalities in the Istrian inland are still insufficiently developed, lacking human resources and financial capacity for removing existing development restrictions. This is followed by a continuous outflow of young people to other parts of Istria and increased share of old population. Thus, it is necessary to create development programmes and ensure additional support, development of utility infrastructure and all forms of andragogic and professional education. The inclusion of underdeveloped areas in county programmes and their implementation with additional support is also required.

4. CONCLUSION

Data obtained in this research provide a good direction and a base for forming a single management and development strategy emphasizing the education of the existing and new management staff, focused on individual growth as well as comprehensive development. Although oriented to the Istrian Region, conclusions can be transferred to other Croatian territories. If one wishes to have efficient management in the Istrian Region, one should establish a system of quality communication, systematic monitoring and provide as much financial support to the
entire development as well as to educate new people and work on increased education of the entire population. This system implies the establishment of institutions which come with costs, which can be non-profit ones, while funds needed for their operation can be found in various incentives and other self-governing measures. Although Istria boasts reputation of a region with positive potentials, one must emphasize there are still undeveloped areas demanding a more professional approach to the issue of management. Correct solutions require pursuing professional management modules, which will demand certain reorganization as well as modern education in the area of management.

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WEB 2.0 TECHNOLOGIES SUPPORTING PROJECT MANAGEMENT NEEDS

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Abstract

With the rising number and importance of projects in different business and other areas, the need to support persons in charge of or working on projects is becoming more and more topical. Accurate and timely data about project plans, actual progress and costs, proposed solutions etc. are of vital importance for project managers and consequently for assuring the project’s success. Appropriate information systems and technologies need to be at hand for project managers and project team members. While special solutions, developed for project oriented environments in the past, offered a great support for project managers, some new and still insufficiently recognized opportunities for improving projects’ efficiency arise from web 2.0 technologies. The paper presents some of the functions deriving from different web 2.0 products usable for project management needs, as well as some of the web 2.0 technologies that can be useful for project management.

JEL Classification: D83, L86

Keywords: projects, project management, project management information systems (PMIS), web 2.0 technologies
1. INTRODUCTION

The World Bank’s 2008 data indicate that investments (i.e., investment projects) account for 21% of the world’s gross domestic product. In addition, numerous other projects are being carried out that do not have investment significance, but are vital for the survival and further development of business and other systems as well as people’s social environments. This has resulted in multiple projects that, according to some estimates, represent close to one third of the world’s business and business-related activities. The number of projects is increasing, and a very complex multi-project environment is being established in all social and business arenas, as well as in other environments.

As projects grow and diversify, questions about what a successful project actually is, are becoming more and more topical. Research into the efficiency of project implementation has questioned whether resources are used and distributed rationally in order to achieve success in reaching project goals. According to Standish Group (2009), almost 25% of all implemented projects are never finished, while 45% are finished but with aberrations from their original goals; only 30% can be described as efficiently implemented.

Reasons for relatively meager project implementation efficiency results are numerous, among which we can also detect insufficient use of appropriate IT equipment when dealing with projects.

Information systems to support project management needs and work (the so-called Project Management Information Systems - PMIS) are relatively expensive and organizations often choose not to introduce them until the scope of project work is almost unmanageable without adequate IT support. Since project processes in organizations are often perceived and treated as a “closed system” - as some kind of parallel or additional processes to the fundamental processes of the organization, introduced PMIS usually lack sufficient integration with the organization’s Business Information System (BIS). The absence of appropriate PMIS on the one hand and the need for IT support to help managing projects on the other, force project managers and project team members to use different information systems, whose primary purpose is not to support project management needs, but are developed for other functionality (for example, using excel sheets for preparing and presenting project plans, etc.).

The development of IT technology and software has been extremely rapid in the last decade. With the recent emergence of web 2.0 technologies new solutions are
arising, applicable also in the field of project management. These opportunities are still quite unrecognized and currently used primarily by experts. Potentials of the existing and soon to follow solutions enabled by web 2.0 technologies, represent an important potential to increase the efficiency of project management and with that, the success of the projects themselves.

In the paper’s following sections information needs of project managers are analyzed and possibilities of using some existing web 2.0 products in the field of project management are presented.

2. PROJECTS AND PROJECT MANAGEMENT

All creation processes performed in contemporary organizations can be divided into (Hauc, 2007:18):

- processes of continuing creation – ongoing operations,
- processes of unique creation – projects

The typical representative of continuing creation processes is mass production in high- or low-rate series performed in various profit organizations, and similarly, but with some specifics, in non-profit organizations – such as public administration, institutes, hospitals, schools, social services, etc. (Hauc, 2007:18).

On the other hand, a project is “a time and cost constrained operation to realize a set of defined deliverables (the scope to fulfill the project’s objectives) up to quality standards and requirements”, (IPMA, 2006:13). It is a venture that creates a unique product, service or result (PMI, 2011:5). According to Radujković (2012:17), a project is every single human endeavor with a clearly defined goal, performed in stages at any given time, using (up) a large number of diverse and limited available resources. Kerzner (2001:2) defines a project as any series of activities and tasks that have clear objectives, defined beginning and end, limited funding, use limited material, human and other resources and are implemented through several functional lines.

Many other definitions of a project can be found, mostly emphasizing similar characteristics; together with the above mentioned definitions, they can be summarized into the following: a project is a goal oriented, time limited and unique process, always introducing something new, having particular complexity, limited budget, certain legal and organizational status, content which is determined by the product or the result of the project, its own structure and temporarily available resources.
Project management is part of the organization’s general management and is responsible for the execution of projects deriving from business strategies or external project orders, guiding their implementation until their completion. Project management is also responsible, depending on the project, for achieving planned direct, indirect or other economic effects, which will be ensured with the use of project results (Hauc, 2007:180). Omazić and Baljkas (2005:43-44) state that project management indicates applied knowledge, skills, tools and techniques in project activities in order to achieve the objectives and requirements set before the project by influential interest-groups. The core of project management includes planning, organizing, monitoring and controlling all aspects of the project as well as motivating all the people involved in achieving project objectives in a safe manner, within planned budget, time and other parameters of the performance. Taking into account the nature of projects, it is possible to derive another definition of project management: it is management that deals exclusively with managing exceptions, since all the activities in a project are exceptions because, as such, they never happened before.

3. INFORMATION SUPPORT FOR PROJECT MANAGEMENT

Project management as a dynamic and complex process in today’s business naturally requires the use of an appropriate information system, which will assist in project management in all the phases of its life cycle.

Project Management Information System (PMIS) is a system of tools and techniques used in project management to deliver information. A project manager uses these tools and techniques for collecting, storing, processing and distribution of information by electronic and manual means (PMI, 2011:431; Archibald, 2010 by Buble 2010: 174).

PMIS as a central system for managing projects is the key place for storing information about projects. The main beneficiaries of this system are the immediate members of the project team, led by project managers and planners who are the biggest beneficiaries. In comparison to other IT systems, PMIS is characterized by the need for constant adaptation and change; since projects are distinctive and unique, PMIS system must keep pace with the organization’s development and abilities to carry out its projects (Radujković et al, 2012:349-350).

Today, project management information systems are designed trying to fulfill the following objectives and functionality (Radujković et al, 349): project plan
management, resource management, scope management, case management, document management, risk management, quality management, communications management, metrics management, work in multiuser environment, work in multiproject environment, collaboration, data security, web access (internet or intranet), integration with other business systems, etc.

The existing commercial solutions developed for needs of project managers offer best-in-class capabilities focused on projects, programs and portfolios for different industries like engineering & construction, discrete and process manufacturing, public administration, financial services and others. They enable enterprise agility, team productivity, portfolio predictability and overall project management efficiency, minimizing costs and risks and delivering results to key stakeholders.

Here we speak about solutions such as MS Project, Primavera, CA super project and many others.

4. WEB 2.0 TECHNOLOGIES AS SUPPORT FOR PROJECT MANAGEMENT

Web 2.0 is the network as platform, spanning all connected devices; web 2.0 applications are those that make the most of the intrinsic advantages of that platform delivering software as a continually-updated service that gets better the more people use it, consuming and remixing data from multiple sources, including individual users, while providing their own data and services in a form that allows remixing by others, creating network effects through an “architecture of participation,” and going beyond the page metaphor of Web 1.0 to deliver better user experiences (O’Reilly, 2005).

The emergence of new web concepts and technologies has led to changing trends in personal and business plans. Among different opportunities that web 2.0 products enable for project management needs, we can define the following functions (Orehovački et al, 2010):

- Searching - intranet as a business platform has to enable efficient searching of key information and documents as well as web browsers
- Linking - the emphasis is placed on creating a connection between the information and documents on the business platform in order to classify them according to importance
• Authoring - one of the most important aspects of Web 2.0, where employees through the exchange of information and experience contribute to the creation of new knowledge

• Tagging - give employees the possibility of categorizing information, documents and sites of special interest

• Extending - automation categorization and pattern matching interests of employees, all with the purpose to access content that is aligned with these interests

• Signaling - technology that notifies employees when there is new or changed content on the site which is the subject of their interest

The basic advantages of many web 2.0 technologies (in the project management field) are to increase project’s effectiveness and efficiency.

When we talk about web 2.0 and open source solutions for project management support, there are many free tools as alternatives to mentioned commercial softwares. Some of them are: ProjectPier, ProjectHQ, Collabtive, eGroupWare etc.

Web 2.0 is the term used to describe a variety of web sites and applications that allow anyone to create and share online information or material they have created. The key element of the technology is that it allows people to create, share, collaborate & communicate. Web 2.0 differs from other types of websites as it does not require any web design or publishing skills to participate, making it easy for people to create and publish or communicate their work to the world. There are numbers of different types of web 2.0 applications including wikis, blogs, social networking, podcasting & content hosting services. Many of the most popular websites are Web 2.0 sites such as Wikipedia, YouTube, Facebook, MySpace, Flickr (University of Melbourne, 2013).

Some of the web 2.0 technologies that can be useful for project management are:

- **RSS – Really Simple Syndication** is a family of web feed formats used to publish frequently updated works such as blog entries, news headlines, audio, and video in a standardized format. An RSS document (which is called a “feed”, “web feed”, or “channel”) includes full or summarized text, plus metadata such as publishing dates and authorship. Main feature of RSS is decartelization of content, way of connecting web content using feed of content that is consistent of XML document.
- **SOCIAL BOOKMARKING** allows users to storage, classification, search and share websites that interest them. Tools allow registered users on a remote computer to save bookmarks, tagging whole or only parts of the website, add notes, share them with other users in the network and view bookmarks saved by other users.

- **PODCASTING**; basic purpose of podcasting is creating your own multimedia files, which can be easily published on the web. Using podcasting in business makes possible to convert business meeting, professional conference or job offer into multimedia format, which can be accessed by each employee or business partner.

- **DOCUMENT MANAGEMENT SYSTEM**; organizations are leaving a paper form manipulation of documents and transferring to a digital control system. In this way, it reduces the risk of data loss, reduce the need for space, facilitating the management of documents and finding them because system uses its mechanisms for navigation and research of indexed documents that are centrally available.

- **SOCIAL NETWORK**; a social networking service is an online service, platform, or site that focuses on facilitating the building of social networks or social relations among people who, for example, share interests, activities, backgrounds, or real-life connections. Project teams can establish quality communication through social network service that will connect them and create a better working environment. SME can through these services create their own profile and present their business offer to potential clients or business partners.

- **MIND MAPS** are diagrams created by the radial reflections that are used for the presentation of generated ideas. Mind maps can be used in all areas of business planning, organization, negotiation, project management etc. The basic advantages of these types of diagrams are the development of new knowledge, saving resources, and effective problem solving.

- **E-PORTFOLIO** is a digital database on the web in which employees store their knowledge and experience in the form of multimedia data, with the goal of sharing this information with others. In this way, companies can better take advantage of a complete inventory of knowledge and experience of their em-
ployees and present themselves in a much better way to potential customers, business partners and investors.

5. CONCLUSION

Web 2.0 has a major role in the project environment where the information is of great importance. Of course, not all Web 2.0 technologies are applicable in all aspects of each project. We must carefully define and plan their implementation in the project environment, so the whole process of implementation would not result in failure. Web 2.0 technologies provide great benefits to business and great usability, bringing greater connectivity to employees, making it easier to create new knowledge, etc., but the great advantage of Web 2.0 technologies and applications based on Web 2.0 technologies is that they are free or cost little.

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QUALITY MANAGEMENT IN HEALTHCARE INDUSTRY

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ABSTRACT

Quality healthcare is the subject of research and controversy for many years. On one side, it is seen as unreal and undefined and on the other it is seen as a term that is measurable and in some respects elusive. In any case, the existence of vast literature in the field of quality in healthcare is primarily related to clinical research. There are relatively few papers that relate to the development of public health programs, particularly primary health care.

The process of improving healthcare is one of the basic elements of well-organized healthcare institutions. Patients, as well as end-users of health services, have a very important role in the implementation of healthcare, particularly in primary healthcare.

How errors in healthcare are, primarily specific, cumbersome or inadequate processes, it is very important to, in time, adapt to different processes and techniques to improve these relationships in order to identify inefficient and inadequate health services and help to avoid the mistakes that have been associated with such the healthcare system defined.

Therefore, patient safety is in the center of the imperative of healthcare quality. To determine their satisfaction or dissatisfaction, we conducted primary research on the experiences of patients to healthcare services on the primary healthcare level.

Results of the survey will serve as a recommendation for the effective management of health care facilities, greater involvement of patients in decision-making, and the development of healthcare quality, with clear responsibilities and mutual reporting.

JEL Classification: H51, H75, I15, I18

Keywords: primary healthcare, quality management, patient safety, safety management, satisfaction with healthcare services
1. INTRODUCTION

The improvement of quality in the field of health care, as an integrated part of everyday regular activities of healthcare providers in the healthcare system, represents a continuous process who’s primary goal is to accomplish a higher level of effectiveness and success on one hand and on the other greater satisfaction of the consumer of healthcare services (Ljubičić „et al.“, 2006, 5).

In the Declaration of the World health organization (WHO Regional Office for Europe, 1990, 1-4), it is stressed that people have the right and obligation to participate, individually or in groups, in the planning and implementation of their own healthcare. (Kovačić, 2012, 2). That way, from a passive receiver, the patient becomes an active participant – a partner in healthcare and shares the responsibility for his own health with the other sections in healthcare (Leavey, „at al.“, 1997, 53-57).

The evaluation of the satisfaction of the patients with the healthcare services rendered represents one of the basic factors in the improvement of healthcare in terms of the views of the patients about the physicians, nurses, as well as the other sections of the healthcare system (Leavey, „at al.“, 1997, 55-7). The initiative to collect such information came from the Academic council of the healthcare centre (Kovačić, 2012, 3). The satisfaction or the dissatisfaction of patients, is not only reflected in healthcare services rendered, but also in the characteristics of the patients, their expectations, as well as the possibility to give suggestions and criticize, the functioning of the healthcare system. Sometimes, the expectation of the
realization of a healthcare service has an emotional and social category, and very often that kind of satisfaction of a healthcare receiver has a cultural background.

Accordingly, the satisfaction of patients with a certain healthcare service is very often determined by his willingness to follow the prescribed therapy, which is very relevant and has a huge influence on the outcome of the treatment, his health condition and thereby on the effectiveness of healthcare in general. The questioning of the satisfaction of users of healthcare services has the goal to increase the quality of effectiveness of healthcare services and individual medical procedures, information’s, the behavior towards a person, as well as reverence of the primary principles of rendering healthcare services (universality, accessibility, continuity and specialized approach in rendering healthcare services).

For conducting this research we used a standardized questionnaire which was created by a EUROPEP work group (European Task Force on Patient Evaluations of General Practice Care) and that has been used in several international researches (Denmark, Italy, Netherlands, Germany, Slovenia, Switzerland) (Wensing, 2006, 5). The structural concept of the questionnaire refers to the evaluation of the satisfaction of users with the healthcare protection through five dimensions of quality evaluation, which should be in focus for the management of healthcare facilities, with the goal to improve the quality of healthcare. The first dimension refers to the socio-economic characteristics of the examinee, the second to the accessibility to healthcare, the third to the perception and satisfaction of the patient with the expertise and behavior of the healthcare provider, fourth to the organization and equippedness of the healthcare center with the necessary medical instruments and medical equipment, and finally, the fifth dimension refers to the functioning specialist-consultative healthcare (Kovačić, 2012, 4).

2. MANAGEMENT OF QUALITY IN HEALTHCARE

The improvement of the quality in many countries has a major role in reforming healthcare and rendering healthcare services. All countries have to face the challenges with the available resources to ensure access, equity, safety, participation of patients and to develop skills, technologies and healthcare based on proof (Shaw, 2003, 9).

Public, political and professional dissatisfaction with the rendered services in healthcare show an existing consensus on the global level (Kovačić, 2011, 4-5). The problems especially relate to a continuous approach to healthcare, clinical effec-
tiveness, security of patients, values for money, satisfaction of patients and public responsibility. Because of this, the developed world has started to focus on preventive healthcare, primary health protection, inclusion of patients and a clearer role in management of healthcare, and the healthcare system as a whole. (Schweiger, 2003, 3-4).

In many European countries, USA and Australia, tracking satisfaction with healthcare and different levels of healthcare, its common practice (WHO, 1993, 1-2). Researches are usually conducted for following goals related to improvement of healthcare:

- The right of patients to information;
- Increasement of the quality of healthcare and providing care;
- Increasement of individuality and humane medical treatments;
- Decreasement of inequality in using healthcare;
- Getting comparative information which allows certain comparisons and similar

The degree of satisfaction of patients with healthcare can serve as an indicator of the quality of healthcare (Donabedian, 1966, 166-06). The point of development of healthcare should not only be a measurement for clinical and economic efficiency, but a measurement for social acceptability. Social acceptability includes the point of view of the community or public about health and especially the point of view of the public about different aspects of the process of healthcare. (Ljubičić, 2006, 6). For this reason it is important to measure the satisfaction of patients, and their satisfaction has impact on their health and the therapeutic outcome.

The satisfaction changes as time goes by. Not only do people define it in different ways, but the same person can at different times have different opinions. The reason for this is that sources of dissatisfaction vary so much (Carr-Hill, 1992, 236-49). As satisfaction has no basic units, it is not right to consolidate characteristics for satisfaction with different dimensions of healthcare into one indicator of satisfaction (Ljubičić, 2006, 6).

The satisfaction of patients represents a complex relationship between his observed needs, expectations of the provider of health services and the experience with the received services (Lochman, 1983, 2).
A very important element of improvement of healthcare centers is a subjective evaluation of the satisfaction of patients with the health services which are available at the primary level of healthcare.

3. METHODOLOGY OF RESEARCH

The satisfaction of patients with a certain health service very often asserts itself with his readiness to follow the prescribed therapy, which is very significant and has huge impact on the results of treatment, his state of health and with that the efficiency of healthcare in the whole. The questioning of the satisfaction of healthcare users has the goal to increase the quality of healthcare services and individual medical procedures, information, attitude towards people as well as reverence of the basic principles in providing healthcare services (comprehensiveness, accessibility, continuity and specialized approach in providing healthcare services).

As an instrument of research for the evaluation of subjective satisfaction with the quality of healthcare services rendered in the region of Eastern Slavonia, an adapted standardized anonymous questionnaire is used that a EUROPEP work group has prepared, which operates at the World health organization (European Task Force on Patient Evaluations of General Practice Care). The modified anonymous questionnaire is composed in a way that it offers answers in five the dimensions of points of interest which should be in focus of the healthcare center management, with the goal to improve the quality of healthcare. The first dimension refers to the socio-economic characteristics of the examinee, the second to the accessibility to healthcare, the third to the perception and satisfaction of the patient with the expertise and behavior of the healthcare provider, fourth to the organization and equippedness of the healthcare center with the necessary medical instruments and medical equipment, and finally, the fifth dimension refers to the functioning of specialist-consultative healthcare (Kovačić, 2012, 3).

In the research family medicine teams were included, as well as dental medicine teams, health protection teams for children and infants and health protection teams for women and pregnant women regardless of the fact that they are part of the healthcare facility or in concession.

The research was conducted by anonymous questionnaires, which each patient became when visiting an ordination of primary healthcare level. With the mentioned questionnaire, every examinee became a concomitant letter from the research organizer, in which the point, purpose and goal of the research was stated.
The examinees were enabled to put the questionnaires in a specially labeled box, which was placed in the object where the individual ordinations of primary level healthcare are situated.

A total of 2,200 questionnaires were distributed, and the research was conducted throughout the months of September and October 2012. The questionnaire contained 38 questions, which were divided in five entireties, socio-economic characteristics of the examinee, accessibility to healthcare, the professional behavior of the healthcare providers, equippedness of the healthcare center with medical equipment and the accessibility to specialized - consular healthcare.

For the statistical analysis of the collected information descriptive and inferential statistic methods were used. For the statistical processing of information we used standard computer programs: Microsoft excel and SPSS Statistic 17.0., for graphical and tabular display of data.

4. GOAL AND RESEARCH PROBLEM

This paper shows only part of the extensive research. The primary purpose of the conducted research was to determine the patients’ subjective satisfaction with the rendered healthcare services on the primary level of healthcare. Within a wider research, five research components were encompassed that basic determinants in improving the providing of healthcare services on the primary level of healthcare.

The research problem was analyzed considering the existing situation and the perspective of development of researches conducted until now, on a national level as well as on a primary level of healthcare of individual countries of the European Union (Economist Intelligence Unit, 2011). The basic goals of the aforementioned research are:

- To perceive the determinants that effect the improvement of quality of rendering health services on a primary level of healthcare;
- To determine modalities of communication between the provider and receiver of healthcare services;
- To examine the accessibility to healthcare, and
- To determine the need for individual forms of specialized-consultative healthcare.
With the aforementioned research we enabled patients to express their views of individual forms of primary healthcare that should be in the near future a guide-post, for healthcare center management as well as for the carrier teams of primary healthcare, to which level should they improve their behavior, attitudes and specialized knowledge, with the goal to fulfill the expectation of the level of the patients satisfaction with the healthcare services rendered.

5. RESEARCH RESULTS

5.1. Socioeconomic characteristic of the examinees

The primary research about the subjective satisfaction of patients with the services on a level of primary healthcare was conducted in the area of five Eastern-croatian counties through the months of August and October 2012. A total of 2,200 questionnaires were distributed and 1,590 returned, with an average rate answers of 72,27%. In the structure of the examinees most of them come from the Osječko-baranjska county 46,98% (747), then Brodsko-posavska16,04% (255), from Vukovarsko-srijemska 15,85% (252), Požeško-slavonska 8,68%(138), Virovitičko-podravska 7,74% (123), and from other parts of Croatia 4,72% (75). Females were represented with 60, 57% (963), males with 39, 43% (627). The youngest examinee was 18 years old and the oldest 93. The gross number of examinees were between 18 and 40 years old35,47% (564), the age group 51-65 years of age24,15% (384), the age group 41-50 with 21,32% (339), while the group of over 65 was represented by 16,98% (270), as is shown in these charts(1,2).

Chart 1: Affiliation of the examinees according to the counties
In the end we also analyzed the status of the insured person within the pension system of the Republic of Croatia. Most of the examinees belonged to the category retired person 29,06% (462), in the category of indefinitely employed 28,87% (459), the category unemployed 17,74% (282), family member 6,98% (111), registered with unemployment office 6,23% (99), employed on a undefined basis 5,09% (81), the category pupil/student 3,96% (63), and other categories 2,08% (33), as is shown in chart 3:

5.2. Accessibility of healthcare protection

The accessibility to healthcare protection is a very important aspect of a satisfactorily meeting the needs of the population (Canady, Means & Wazyne, 1997, 443-6). Thus an increase of satisfaction by the patients is expected, recognize problems in providing their healthcare needs, lowering the percentage of hospitalization
and number of laboratory tests, which affects the decrease of cost in implementing health protection (Eriksson & Mattsson, 1983, 858-75). Based on the conducted research an indisputable fact is that most of the examinees 87.74% (1,395), need less than 30 minutes to accomplish their healthcare needs, 10.94% (174) need between 30 and 60 minutes, and only 1.32% (21), needs more than 60 minutes. Most of the examinees 59.62% (948) used the services of general/family medicine, 24.72% (393), the services of polyvalent tooth care protection 10.57% (168), the services of women and pregnant women health protection, 2.45% (39), healthcare services for children and infants, and 3.64% (42) other health services as is shown in chart 4:

![Chart 4: Structure of healthcare services on primary healthcare level](image)

### 5.3 Professionalism and behavior of healthcare providers

Professionalism and behavior of healthcare providers indicates general satisfaction of patients with the rendered healthcare services (Biderman & Carmel, 1994). Examinees who had participated in the questionnaire research rated the professional expertise of doctors and nurses/technicians that implies knowledge and ability to make decisions concerning the patients’ health. On arrival at a healthcare facility, most of the examinees were received by a nurse or technician, 8, 87% (141) by a doctor, and 2, 26% (36) by another healthcare employee. The satisfaction of patients with the healthcare services rendered on the primary healthcare level is highly
affected by the waiting time for reception in the ordination; patients that wait less are more satisfied. Most of the examinees 42,64% (678) waited 15 - 30 minutes, 27,55% (438) waited up to 15 minutes, 23,08% (367) waited 30 - 45 minutes, 6,98% (111) waited from 45-60 minutes, 4,34% (69) waited more than an hour, while 1,70% (27) didn’t wait at all for reception into the ordination on primary healthcare level. One of the indicators of the quality of healthcare protection is the time spent in ordinations on the primary healthcare level. Most of the examinees 56,04%(891) spent 5-10 minutes in ordinations while getting healthcare services.

5.4. Organization and equippedness of healthcare facilities

An important element when evaluating the quality of healthcare services is the organization and equippedness with medical equipment of the healthcare facilities. 45,66% (726) of the examinees rated the organization of work in facilities of primary healthcare level as excellent, 39,81% (633) as very good, 10,94% (174) as good and 2,83% (45) as satisfactory, while 0,75% (12) is not satisfied with the organization of work in facilities of primary healthcare protection level. Overall, the examinees are satisfied with the work in primary healthcare level with an average evaluation of 4,27. We got similar results on the patients’ satisfaction with the equippedness with medical equipment. 35,09% (558) rated it very good, 7,74% (123) as relatively satisfying while 3,40% (54) examinees find that the facility is badly equipped with medical equipment. Overall, an average evaluation note of 3,83, we can be satisfied with the subjective evaluation of the quality of the equippedness healthcare facilities even though there is plenty of room for quality improvement of healthcare.

5.5. The accessibility of specialized-consultative healthcare protection

Finally, as a dimension of the quality of healthcare protection on the primary healthcare level, we observed the accessibility of specialized-consultative healthcare. One of the indicators of quality, which we observed in the research, was the time spent waiting for a specialized examination. Most of the examinees 33,58% (534) waited up to 15 days, 28,30% (450) waited 15 -30 days, 19,43% (309) waited more than 30 days, while 18,68 (297), waited less than 15 days for a specialized examination on the primary level of healthcare protection. In the structure of specialized examinations, most of all internist examinations were represented with 19,81% (315), radiology examination s with 19,25% (306), specialized examinations in
physical medicine and rehabilitation with 16.23% (258), ophthalmologic examinations with 10.00% (159), and other examinations with 34.72% (552). An interesting answer of the examinees was, with a total of 62.83% (999), that they would use specialized examinations in the facilities on the primary level of healthcare if these were on the same level as examinations in hospitals, and 29.81% (474) would use services on a lower level. 7.36% (117) of the examinees would only use specialized examination in hospitals.

As an indicator of quality, we also observed the outcome of the health condition of the patients after a specialized examination. Most of the examinees, 77.36% (1,230) felt better after a specialized treatment, 21.89% (348) the same, and 0.75% (12) felt worse after the specialized examination and treatment.

6. CONCLUSIVE CONSIDERATIONS AND RECOMMENDATIONS

With the statistical analysis of the five dimensions of the quality of healthcare that were analyzed in this paper, the accessibility and continuous access to healthcare, professionalism of the healthcare providers, the organization of work in the healthcare facilities, equippedness of the healthcare facilities with medical equipment and the accessibility to specialized – consultative healthcare, effect the meeting of patients needs on a primary level of healthcare.

The results of this research show us that a very high level of patients satisfaction with work of healthcare providers, organization of work and equippedness of healthcare facilities on a primary level of healthcare. With an average evaluation of 4.23, the examinees have rated the quality of work in healthcare facilities on a primary level of healthcare.

After processing the results of the research, we can determine that the human potential in healthcare is the most valuable and irreplaceable resource in managing the quality of the primary healthcare level. 98.87% (1,572) of the examinees finds that the attitude of doctors is extremely kind and correct while treating patients and 99.43% (1,581) of the examinees find that the attitude of the nurses and technicians is kind and correct when handling patients. The influence that the healthcare providers have on the patients is very big, considering the sensitivity of patients during the treatment process. Because of this, a fundamental accent needs to be the continuous education of healthcare providers, noticing and meeting the healthcare needs of patients. One of the forms is to continually question public opinion of the users of healthcare services on the primary level of healthcare.
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BUSINESS INTELLIGENCE IN INDUSTRY

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ABSTRACT

Business intelligence is making decisions based on the data collected and processed in the selected information. Though the term business intelligence has been used for a number of years, it was not established in practice until the mid-1990s. The reason for this was the development of the Internet and easier access to exponentially increasing amounts of available data. This paper deals with the method of collecting data, transforming it into information, and making decisions based on it in purchasing, sales, and financial operations, the most important segments of the industry.

JEL Classification: C6, D81

Keywords: information, data, decision-making, and intelligent.

1. INTRODUCTION

Business Intelligence (BI) is a set of methods, processes, and reports designed to understand the competitive environment of each business segment. It entails the systematic collection of information and its transformation into knowledge in order to promptly recognize changes in the environment, and decision-making based on information rather than intuition. For the system to be effective, the following conditions are required:

- BI must have clear guidelines and an established goal. BI is valuable only if it is incorporated into a company’s business strategy, which requires a strategy as such and prepared medium-term and operational plans.

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1 Business Intelligence Competency Centers, Miller; Brautigam, Gerlach.
- BI should have the unreserved support of the senior management structures, executive or ownership, to obtain all required information from the company itself and occasionally to use employees for what they need without fear that the information will be inaccurate or that their requests will be refused.

- a BI team must be a combination of IT staff and people from the operational business who select and evaluate data, while IT shapes the required data into a form that is understandable and accessible to everyone.

2. THE SEQUENCE OF BUSINESS INTELLIGENCE

An interactive BI system is divided into the following phases;

- Data mining
- Transforming the collected data into information
- Analysis of information
- Decision-making based on information

This is the chronological sequence of BI, having previously defined what type of information is desired.

2.1. Data mining

Research in 2006 conducted by IBM, then the leading IT company in the world, established the amount of information in the world to be one exabyte, and that there is 20 times that amount of information on various media (CD, DVD and digital tapes)², and social networks, which publish a multitude of information, only began their intense development after this research. Such an amount of available data implies a risk of becoming overburdened by it and raises questions about its reliability. Reliable sources of information include official state institutions that control payment transactions (in Croatia FINA), judicial institutions, national institutes of statistics, audit reports for legal entities by statutory auditors required by law to review the annual reports of public corporations; non-governmental organizations whose polling and research are made with a thoroughly described and known scientific methodology and empirical data; and specialized home and business networks. Using reliable sources also reduces the amount of data.

2.2. Transforming collected data into information – Data warehousing

The collected data, diverse in both content and in form, must be filtered and irrelevant content must be rejected, and shaped into a form that will be useful in the decision-making process, and included in the database. This process is mostly done by computer, and the best tools and applications for this have been developed by PeopleSoft, Oracle, and Siebel Systems, the global vanguard in this field. The essence of these applications, and the databases that store all of the collected data so that subsequent users have the ability to review it, is to select those data that are directly related to their field of work.

2.3. Analysis of information and methodology of decision-making

Once collected and processed, the information and data should be available to anyone involved in the decision-making process. The information that will be used depends primarily on what the decision is being made. In chronological order, decision-making based on an information set is the third step, but it largely determines the first step, data mining.

The decisions in intelligent companies will always be based on information and its analysis. Consequently, the decision process is:

Diagram 1: Structure of BI

Source: Author.
Given the diversity of their business processes and functions, each of them will use different data and procedures. A somewhat unified process of information analysis and its common purpose can be detected in:

- Procurement
- Sales
- Financial operations

These phases of the business process are the most important in industry since, along with labour, they represent the largest expense and in these stages it is especially important to decide intelligently on the basis of information to increase competitiveness and market share, to reduce costs, and generally to improve the business.

3. INFORMATION ANALYSIS AND DECISION–MAKING METHODOLOGY IN PROCUREMENT

Supply is the acquisition of materials or services of adequate quality from appropriate sources and their timely delivery to the appropriate place at an appropriate price. (Knezević, 2012)\(^3\), and with regard to the subject, it is divided into:

- Operational procurement: acquisition of materials or services necessary for the business cycle,

- Capital procurement: acquisition of fixed assets, the construction of new buildings, and the purchase of machinery or tools.

According to this classification, the information to be analyzed and decided upon is different.

3.1. Information analysis and decision–making methodology in operational procurement

In operational procurement intelligent companies determine the optimal supplier correlating four crucial elements: price, quality, quantity, and delivery time. Price is definitely the most important element, but not the only one. If the quality does not match what was requested, the goods or services are pointless. Likewise, if

\(^3\) Available at web.efzg.hr/dok//trg/.../mnab2012sem01kc.pdf access on 13.11.2013.
the provider is unable to supply the required amount, consistency and continuity is certainly not optimal.

The equation for calculating optimal suppliers is as follows:

Equation 1. Calculation for an optimal supplier

\[ O_1 = \left( \frac{C_{\text{min}}}{C_1} \right) \times 10 \times p + Q \times p + N \times p + T \times p \]

Source: Author.

Where

<table>
<thead>
<tr>
<th>( O_1 )</th>
<th>value of offer 1</th>
<th>( C_1 )</th>
<th>price of offer</th>
</tr>
</thead>
<tbody>
<tr>
<td>( C_{\text{min}} )</td>
<td>lowest price offered</td>
<td>( Q )</td>
<td>Quality</td>
</tr>
<tr>
<td>( N )</td>
<td>Quantity</td>
<td>( T )</td>
<td>delivery time</td>
</tr>
</tbody>
</table>

Weights range from 1 to 10, similar to the Lickerts method. For each set a variable is determined as follows:

- Price - on the basis of an offer with the same parity as Incoterms 2012.

- Quality - the basic criterion is the International Standard on Quality Control (ISQC)\(^4\). If this does not exist, then the national quality standard applies, and if that does not exist then testing by a certified laboratory or empirical testing of quality.

- Quantity - it is necessary to determine the capacity of suppliers and properly evaluate or weight them. If all other variables in the supply company have the highest value, one can also anticipate the ability of other suppliers to supplement the amount required if they do not have sufficient capacity.

- Delivery time - vendors accept the requested delivery times or provide their dates, but how they will meet them can only be determined empirically. Since there are two elements, they must be expressed by the following equation:

Equation 2. Calculation of the factor for delivery time

\[ T = \left( T_t \times p + T_r \times p \right) / 2 \]

Source: Author.

Where

T_i is the offered delivery date, and T_r is the actual delivery date in practice.

The optimal supplier is the one whose result in the equation is closest to 40. The primary purpose of evaluating suppliers in this way is to create a catalogue of suppliers that very precisely define all their advantages and disadvantages. This view enables the goals to be achieved during negotiations with suppliers to be clearly defined.

3.2. **Information analysis and decision-making methodology in capital procurement**

During capital procurement, the above equation is also used, but since the financial resources needed to carry out capital purchases are substantially greater than they are for operational procurement, prior to the selection of suppliers it is necessary to conduct a thorough analysis of the viability of the capital investment project, and to conduct an economic and market appraisal of the project, including the following indicators and analysis:

*Static project efficiency evaluation* - this analysis shows whether the company will maintain stability if the investment fails to produce any positive effects.

*Dynamic evaluation of the project* - shows how business operations should be if the investments achieve the expected results.

*The period of return on investment method* – this method is used to establish the time required for net receipts, increased by revenues and reduced for increased costs, balance with the amount of financial resources.

*Net current value method* (NPV) - this method, discount factors, all future receipts that investment should yield down to the present time. If the resulting value is more than zero, the project is profitable.

*Relative current value method* (APV) - net current value of the difference between the benefits and costs of the project, i.e. the current value of the excess proceeds over the current value of the expenditure.

*The internal rate of return method* - the internal rate of return is the highest interest rate that the project can bear and remain profitable. This rate must be higher than the interest rate charged by a bank.

*Sensitivity analysis* - this method predicts business if there is a disruption in the market, i.e. a decline in the sales.
4. THE ANALYSIS OF INFORMATION AND DECISION-MAKING METHODOLOGY IN THE SALES PHASE

Every product or service that the company offers is intended for a homogeneous group, called the target group. The target group is a dynamic category and is constantly changing. Each change means a change in the situation on the market. Intelligent companies constantly monitor what is happening with their target group and modify their actions and tasks accordingly to maintain or increase market share. If the entry on a new market is planned, during the definition of the sales strategy it will be necessary for operational management to quantify the target group and their spending and to define a realistic market share. In regard to the population, this will mean analysis of the demographic structure, broken down by household income, detecting the propensity to consume, determining the overall cost of a product or service, and on the basis of that data defining a market share.

Since no one in the market has an exclusive monopoly, a company should also obtain information about its competitors, their products, their market shares, and the terms that they offer. Most importantly, it must determine with what the people who purchase from these companies are dissatisfied. Based on this information a company can define its comparative advantage over its competitors. If the company is already present in the market, it must constantly monitor the actions of competitors because nothing guarantees that a comparative advantage of the moment will remain so in the future. It must also collect data on distribution channels, which respond to the subject goods and services, who makes that response, and how the goods and services are distributed. It is particularly important, especially in transition countries, and more recently countries hit hardest by the current economic crisis, to analyze data about a distributor’s financial strength, its liquidity and capitalization. The result of the analysis of this information in the sales process must be a clearly defined goal on the market, but it must also be defined as an instrument to achieve this goal.

5. THE ANALYSIS OF INFORMATION AND DECISION-MAKING METHODOLOGY IN FINANCIAL OPERATIONS

The cost of financial operations can be divided into the cost for payment transactions and interest and fees for collateral. Their share in overall business operations is highly divergent. The level of these fees is different for each bank, therefore an intelligent company does not neglect the other costs of financial operations only
for the sake of a favourable one. Instead, it will calculate the above items with the following equation:

**Equation 3. Calculating the optimal bank**

\[ \text{OB}_1 = \left( \frac{K_{\text{min}}}{K_1 \times 10} \right) / \Pi + \left( \frac{\Phi_{\text{min}}}{F_n \times 10} \right) / \Pi + \left( \frac{R_{\text{min}}}{R_n \times 10} \right) \]

Source: Author.

<table>
<thead>
<tr>
<th>B_n</th>
<th>bank service provider</th>
</tr>
</thead>
<tbody>
<tr>
<td>K_n</td>
<td>bank rate to be compared</td>
</tr>
<tr>
<td>F_n</td>
<td>transaction fee to be compared</td>
</tr>
<tr>
<td>R_n</td>
<td>costs to be compared</td>
</tr>
<tr>
<td>K_{min}</td>
<td>lowest interest rate offered</td>
</tr>
<tr>
<td>F_{min}</td>
<td>lowest payment transactions fee</td>
</tr>
<tr>
<td>R_{min}</td>
<td>lowest collateral cost</td>
</tr>
<tr>
<td>\Pi</td>
<td>percentage of bank operations in total costs</td>
</tr>
</tbody>
</table>

The bank with lowest equation result is the optimal one.

The purpose of this equation is to correlate the level of individual costs and their share of total costs.

**6. CONCLUSION**

Steady growth, increasing the number of employees, increasing capitalization of the company and increased profit is the goal of every company. BI as the foundation of making good, intelligent decisions is used every day, but the basic advantage of intelligent companies is in strategic planning based on real data and realistic assessments of their own abilities. Achieving these goals is influenced by internal factors that management can influence by direct measures that will increase productivity, reduce costs, and streamline staff. But there are also external factors that management cannot control but can amortize or whose negative effects on business operations it can even completely eliminate if promptly and analytically identifies expected problems. To make this possible, management must have information that is based on accurate and reliable data, analyses, and assessments. At the same time, management must have the information about the competition and their actions since a comparative advantage on which a company holds a certain market share is not constant. Competition works effortlessly in order to get to that comparative advantage, and consumer preferences are constantly changing. Intelligent management will always work to improve products or services to achieve a new competitive advantage that will be a guarantee of preserving or increasing market
share at a time when the current comparative advantage ceases to exist because of improvements by the competition or because consumer preferences change. It will also always monitor competitors, especially their weak points to achieve a comparative advantage in a particular segment.

Under the current conditions of the global crisis, only those companies that have adopted strategic plans based on realistic parameters and have well-designed plans for all, or almost all, scenarios will survive and strengthen. BI will also improve the operations of the suppliers of these companies since it applies pressure on them to be more competitive. As addressed in this paper, business intelligence, BI, has been shown to be a basis for a win-win relationship in business, and precisely this relationship is the foundation of a modern economy that is slowly developing as a result of the global economic crisis.

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THE ROLLE OF MANAGEMENT IN INCREASING OF FISCAL CAPACITIES OF LOCAL SELF GOVERNMENT UNITS IN BROD-POSAVINA COUNTY AND MAKING PRECONDITIONS FOR ECONOMIC DEVELOPMENT

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Abstract

Republic of Croatia belongs in group of significantly centralized countries. That means authority to make public decisions including financing system of local self government units (LSGU) is in the hands of the central government. Decentralization process began in year 2001 but central government still procures majority of state revenue and spends the most of the public expenditure.

Various aspect research and analysis of fiscal capacities produces data pointing out the problem of inadequate fiscal capacity for providing equal level of public services in all of the local communities as lay down by law. Planning process in LSGU is hampered by absence of legal acts regulating practical role of the local government and administration. Unstable affluence of finance resources presents significant bottleneck in successful management while uncertainty of financial assets availability prevents many of local governments in detailed planning and execution of any of development measures, within medium-term plan. Within many local units basis of local revenue is too weak for local government to independently carry out development measures.

JEL classification: H72, O23

Keywords: fiscal capacity, decentralization, local management, local economic development (LED)
1. Opening discussion

In the situation of strong centralization of the budget in which local government (all municipalities, cities and counties) participates with somewhat more than 10 percent in revenue and expenditure of consolidated state or with around 6 percent in gross domestic product which is inadequate for providing of quality local services in local units, critical significance is given to local management. Local management role is to establish conditions for economic development through strategic planning of local economic development, promotion of entrepreneurship and public private partnerships, creating of favorable entrepreneurship environment, attracting of foreign investments and inclusion of public. With implementation of measures in specific organizational forms\(^1\) defined by strategic planning of local economic development together with application of modern information technology competent management can contribute in increase of fiscal capacity of local units with aim of efficient management of public financial assets and effective fulfillment of public requirements creating conditions for economic growth.

2. Local unit financing system in European countries

Lower level of local government during socialism had negligible or small number of competencies over their expenditure while budget was created and approved by central government. Economic reforms in central and east European countries after their independence at the beginning of 1990 influenced adoption of relevant legislation in the sphere of local government finances but not yet at desired level.

Most of those laws are based on European Charter of Local Self-Government\(^2\) ratified by the republic of Croatia\(^3\) in September of 1997. Fundamental feature of those laws was decentralization, release of certain levels of authorities to lower levels of local self government for them to govern their expenditures. Decentralization means transfer of responsibilities from central government and their institutions to lower organizations such as local and regional self governments.

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2. European Charter of Local Government potpisana u Strasbourgu 15. listopada 1985. godine u izvorniku na engleskom i francuskom jeziku
3. Narodne novine – međunarodni zakoni br. 14/97 Odluka o proglašenju Zakona o potvrđivanju Europske povelje o lokalnoj samoupravi
“Decentralization in transition countries is shown to be one of the key institutional steps toward market economy and establishing of democratic political system.”

Level of decentralization is measured by various financial indicators such as; proportion of income and expenditure of central government i.e. Unit of Local and regional self government (ULRSG), in total income and expenditure of consolidated budget of central state, proportion of central state in gross domestic product (GDP); proportion of transfers from central state in ULRGS total revenue; proportion tax and non tax generated income in total revenue of local community, it is in direct correlation with achieved level of decentralization.

In our analysis we will measure level of decentralization using first two financial indicators listed.

Increased level of revenue (expenditure) of the central state in consolidated budget of general state or in GDP indicate increased level of attained decentralization in observed country. Degree of decentralization has direct influence on efficiency of public sector, quality of public services and fulfilling of public needs of the local unit population.

Analysis of conditions in transition countries given hereafter will show achieved level of fiscal decentralization which is not optimal even in highly developed countries (Denmark, Sweden), notably in transition countries.

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Table 1. Total revenue and expenditure of units of local and regional self-government in countries of central and Eastern Europe. (in % GDP)

<table>
<thead>
<tr>
<th>Country</th>
<th>Proportion of total revenue in 2005</th>
<th>Proportion of total expenditure in 2005</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>in % GDP</td>
<td>in consolidated budget of general state</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>5.7</td>
<td>13.6</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>10.9</td>
<td>27.3</td>
</tr>
<tr>
<td>Hungary</td>
<td>12.5</td>
<td>29.3</td>
</tr>
<tr>
<td>Slovakia</td>
<td>6.7</td>
<td>18.5</td>
</tr>
<tr>
<td>Slovenia</td>
<td>8.9</td>
<td>19.3</td>
</tr>
<tr>
<td>Poland</td>
<td>12.6</td>
<td>31.2</td>
</tr>
<tr>
<td>Average</td>
<td>9.5</td>
<td>22.8</td>
</tr>
</tbody>
</table>

Source: Bratić, V., based on IMF-a (2006a i 2006b) u dtto 3)

From the data in table 1 it is visible that by the percentage GDP in 2005 Romania (4.4) and Bulgaria (5.7) were the countries with lowest degree of decentralization. On the other end Poland (12.6) and Hungary (12.5) has the greatest percentage of revenue in GDP which indicates much higher level of fiscal decentralization in those countries.

Average degree of fiscal decentralization measurable by percentage of revenue and expenditure of units of local and regional self-government in consolidated budget of general state in 2005 in countries of eastern and central Europe of 22.8 (revenue) and 20.3 (expenditure) compared with data for the Republic of Croatia where percentage of revenue was 11.8 and expenditure (11.7) confirms statement about Croatia as significantly centralized country.

Comparing the Republic of Croatia with countries from the table the following data are drawn:

Table 2. Total revenue and expenditure of units of local and regional self-government in the Republic of Croatia (in % GDP)

<table>
<thead>
<tr>
<th>Country/Year</th>
<th>Proportion of total revenue in 2005</th>
<th>Proportion of total expenditure in 2005</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>in % GDP</td>
<td>in % GDP</td>
</tr>
<tr>
<td>Croatia</td>
<td>5.3</td>
<td>11.8</td>
</tr>
</tbody>
</table>

Source: Authors’ calculations based on data from the Ministry of Finance
Data listed in table 2 point out the fact that Croatia with percentage of total revenue in GDP in 2005 (5.3) and percentage of total expenditure in GDP (7.7) is relatively low decentralized systems. According to the data provided by Central Bureau of Statistics\(^5\) GDP of Republic of Croatia in 2009 was 328,672,00 kuna and total revenue of ULRSG 16,062,945,000 kuna, percentage of local units in GDP is 4.9% which points out the negative trend comparing to year 2005.

This fact will be confirmed with data in Table 3 which gives us allotment of total revenue and expenditures of units of local and regional self-government in GDP of western European countries in 2005. Out of data shown is visible that in countries with most developed degrees of democracy or decentralization that allotment is several times higher than in Croatia: Denmark (32.6) and Sweden (25.4) while still relatively low in Austria (8.1) but on average allotment of those countries is still almost 2.7 times greater than allotment of revenue and expenditures in GPD of the Republic of Croatia.

Table 3. Total revenue and expenditure of units of local and regional self-government in western European countries (in % GPD) in 2005

<table>
<thead>
<tr>
<th>Country/Year</th>
<th>Proportion of total revenue in GDP of 2005</th>
<th>Proportion of total expenditures in GDP of 2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>8,1</td>
<td>8,0</td>
</tr>
<tr>
<td>Belgium</td>
<td>21,2</td>
<td>21,0</td>
</tr>
<tr>
<td>Denmark</td>
<td>32,6</td>
<td>33,3</td>
</tr>
<tr>
<td>France</td>
<td>10,9</td>
<td>10,2</td>
</tr>
<tr>
<td>Italy</td>
<td>14,7</td>
<td>14,7</td>
</tr>
<tr>
<td>Netherlands</td>
<td>15,8</td>
<td>15,9</td>
</tr>
<tr>
<td>Norway</td>
<td>15,6</td>
<td>15,3</td>
</tr>
<tr>
<td>Germany</td>
<td>19,1</td>
<td>20,4</td>
</tr>
<tr>
<td>Spain</td>
<td>20,1</td>
<td>19,0</td>
</tr>
<tr>
<td>Sweden</td>
<td>25,5</td>
<td>23,9</td>
</tr>
<tr>
<td>Great Britain</td>
<td>12,9</td>
<td>12,3</td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td><strong>17,9</strong></td>
<td><strong>17,6</strong></td>
</tr>
</tbody>
</table>

Source: International Monetary Fund, (2006a i 2006b)

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Transformation process of the finance system of local and regional self-govern-ernment in European countries did not go uniformly especially in the transition countries where, after 1989, communist regimes were overthrown and established democratic systems. All the countries ratified European Charter of Local Self-Govern-ment but arranged systems of financing of their local units which is visible from the conducted analysis. Common in financing systems of all the countries is that local units were or still are greatly dependable on centralized level of government that is providing most of the public revenue and spends greatest part of the public expenditures. That way it greatly influences the size of the fiscal capacity of the local units and the providing of inadequate level of public services as lay down by law.

3. Fundamental attributes of financial system of ULRSG in the Republic of Croatia

The Republic of Croatia is, as previously mentioned, on 19th September 1997 passed Law on Ratification of the European Charter of Local Self-Government and in the September 2008 Law on Amendments to the Law on Ratification of the European Charter which entered into force on 1st October 2008. Although with this changed law and regarding the Article 9 of the Charter – Financial sources of the local units, paragraphs 4 to 8 initially not ratified, were accepted, from today’s perspective it is absolutely clear that those are not yet applied in practice. That is especially applied to the legal provision regulating protection of the financially weaker units, seeking opinion on how to distribute allocated financial sources, free decision making in area responsibility of the local units etc.

6 Narodne novine – međunarodni ugovori br. 5/2008
### Table 4. Swot analysis of financing system of ULRSG on the area of the Republic of Croatia and Brod-Posavina County BPC)

<table>
<thead>
<tr>
<th></th>
<th>REPUBLIC OF CROATIA</th>
<th>BROD-POSAVINA COUNTY</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>S – STRENGTHS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Legal legislation (Act on financing of ULRSG, Finance act, VAT Act);</td>
<td>- existence of the program for assistance to weaker units in BPC;</td>
<td></td>
</tr>
<tr>
<td>- establishing the size of GDP per capita, value that determines fiscal power of the local unit;</td>
<td>- support of the local and county development agency to the local units during preparing and submitting programs for the EU funds;</td>
<td></td>
</tr>
<tr>
<td>- developed tax system comparable and compatible with tax systems in EU countries;</td>
<td>- experienced and capable local management;</td>
<td></td>
</tr>
<tr>
<td>- commitment to decentralize financial system;</td>
<td>- introduction of the unique treasury account;</td>
<td></td>
</tr>
<tr>
<td>- categorization of units of local self-government to Areas of special state care, the mountainous regions and islands;</td>
<td>- significant number of local units with special financing status (Areas of special state care);</td>
<td></td>
</tr>
<tr>
<td>- help from the government budget for financially weaker units;</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>W – WEAKNESSES</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- numerous and frequent changes in law regulations;</td>
<td>- very modest own funding sources;</td>
<td></td>
</tr>
<tr>
<td>- the complexity of the current tax revenues distribution system (so called common taxes);</td>
<td>- constant imposing of new obligations on the part of the legislator;</td>
<td></td>
</tr>
<tr>
<td>- complicated manner and methods of calculating the size of the fiscal capacity due to the different concepts</td>
<td>- new financial obligations of the ULRSG not followed by new adequate financing sources;</td>
<td></td>
</tr>
<tr>
<td>- large disparities in the GDP per capita in different areas;</td>
<td>- inability or limited ability to participate in EU projects (due to co-financing);</td>
<td></td>
</tr>
<tr>
<td>- high degree of centralization of public revenues by the central government (about 90%);</td>
<td>- reduced ability of credit borrowing for capital projects due to rigorous legal requirements;</td>
<td></td>
</tr>
<tr>
<td>- excessive dependence of regional units on the State budget funds;</td>
<td>- a large number of municipalities with low fiscal capacity;</td>
<td></td>
</tr>
<tr>
<td>- low degree of decentralization;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- to large number of local units with special funding status;</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>O – OPPORTUNITIES</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


- the introduction of transparent and more equitable model for allocation of subventions;
- introduction of so called gradual solidarity among local
- continuation of the process of fiscal decentralization;
- redefinition of the role of local management through the promotion of accountability for results;
- the achievement of greater degree of efficiency and accountability of local management;
- consolidation and interconnection of local self-governments;
- Participation in the Structural and Cohesion Funds of the EU;
- financing of development projects with common interest over multiple local units;
- assistance from the state budget to local units in the joint provision of public services;
- reduction of the para-fiscal levies which are an important source of financing for local budgets;

**T – THREATS**

- large “fiscal tension” between the central and lower levels of government because of the weak concept of resource allocation;
- failure or incomplete execution of tasks specified by regulations ULRSG;
- irregular fulfillment of financial obligations;
- increased level of indebtedness, particularly for capital investments;
- jeopardizing the execution of tasks within Self-governmental scope due to poor fiscal capacity;
- abolition of local government units that will not be able to carry out its self-government jurisdiction due to weak fiscal capacity;
- steady growth in public expenditure and a growing scarcity of funding for their financing;
- losing the current special financing status (Areas of special state care);
- economic impoverishment of the local community;

Source: the authors

Conditions in the financing system of ULRSG in Croatia shown in Table 4 has a direct reflection on their fiscal capacity and their ability to finance their obligations with available funds (Table 5)..

The data in Table 5 (Index2) indicate a much differentiated status of inhabitants in some of the Croatian counties.

Specifically, the data shows that only one third of the counties (7 in total) has an overall per capita income higher than the Croatian average of the 2011th amounted to 3,583 kuna, while two counties (Pozega-Slavonia, and Brod-Posavina) barely reach half the average.

Only one county (Istria) achieved more than 80% higher total revenue per capita than the national average and the City of Zagreb over 2, 2 times.
Should the review included a total income per capita of Zagreb (7.928 kuna) even more disturbing data would emerge, because in this framework Croatian average was 4,384 kuna, and would have been exceeded only in three counties (Istria, Primorje-Gorski Kotar and Dubrovnik Neretva).

Table 5 Comparative presentation of the fiscal capacities of Croatian counties 2011

<table>
<thead>
<tr>
<th>County</th>
<th>Total revenue in 2011</th>
<th>Population in 2011</th>
<th>Per capita income</th>
<th>Index 1</th>
<th>Index 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zagreb</td>
<td>1.158.344.825</td>
<td>317.606</td>
<td>3.647</td>
<td>83,2</td>
<td>101,8</td>
</tr>
<tr>
<td>Krapina-Zagorje</td>
<td>289.221.368</td>
<td>132.892</td>
<td>2.176</td>
<td>49,6</td>
<td>60,7</td>
</tr>
<tr>
<td>Sisak-Moslavina</td>
<td>565.997.553</td>
<td>172.439</td>
<td>3.282</td>
<td>74,9</td>
<td>91,6</td>
</tr>
<tr>
<td>Karlovac</td>
<td>364.122.022</td>
<td>128.899</td>
<td>2.825</td>
<td>64,4</td>
<td>78,8</td>
</tr>
<tr>
<td>Varaždin</td>
<td>477.227.923</td>
<td>175.951</td>
<td>2.172</td>
<td>61,9</td>
<td>75,7</td>
</tr>
<tr>
<td>Koprivnica-Križevci</td>
<td>369.055.481</td>
<td>115.584</td>
<td>3.193</td>
<td>72,8</td>
<td>89,1</td>
</tr>
<tr>
<td>Bjelovar-Bilogora</td>
<td>253.293.603</td>
<td>119.764</td>
<td>2.115</td>
<td>48,2</td>
<td>59,0</td>
</tr>
<tr>
<td>Primorje-Gorski Kotar County</td>
<td>1.825.045.685</td>
<td>296.195</td>
<td>6.162</td>
<td>140,5</td>
<td>172,0</td>
</tr>
<tr>
<td>Lika-Senj</td>
<td>203.287.248</td>
<td>50.927</td>
<td>3.992</td>
<td>91,0</td>
<td>111,4</td>
</tr>
<tr>
<td>Virovitica-Podravina</td>
<td>180.449.842</td>
<td>84.836</td>
<td>2.127</td>
<td>48,5</td>
<td>59,4</td>
</tr>
<tr>
<td>Požega-Slavonia</td>
<td>150.338.547</td>
<td>78.034</td>
<td>1.927</td>
<td>43,9</td>
<td>53,8</td>
</tr>
<tr>
<td>Brod-Posavina</td>
<td>308.831.447</td>
<td>158.575</td>
<td>1.947</td>
<td>44,4</td>
<td>54,3</td>
</tr>
<tr>
<td>Zadar</td>
<td>765.442.407</td>
<td>170.0174</td>
<td>4.502</td>
<td>102,7</td>
<td>125,6</td>
</tr>
<tr>
<td>Osjek-Baranja</td>
<td>886.544.001</td>
<td>305.032</td>
<td>2.906</td>
<td>66,3</td>
<td>81,1</td>
</tr>
<tr>
<td>Šibenik-Knin</td>
<td>351.800.836</td>
<td>109.375</td>
<td>3.216</td>
<td>73,4</td>
<td>89,8</td>
</tr>
<tr>
<td>Vukovar-Srijem</td>
<td>397.370.273</td>
<td>179.521</td>
<td>2.213</td>
<td>50,5</td>
<td>61,8</td>
</tr>
<tr>
<td>Split-Dalmatia</td>
<td>1.818.704.199</td>
<td>454.798</td>
<td>3.999</td>
<td>91,2</td>
<td>111,6</td>
</tr>
<tr>
<td>Istra</td>
<td>1.354.078.205</td>
<td>208.055</td>
<td>6.508</td>
<td>148,5</td>
<td>181,6</td>
</tr>
<tr>
<td>Dubrovnik-Neretva</td>
<td>548.719.151</td>
<td>122.568</td>
<td>4.477</td>
<td>102,1</td>
<td>124,9</td>
</tr>
<tr>
<td>Međimurje</td>
<td>254.291.210</td>
<td>113.804</td>
<td>2.234</td>
<td>51,0</td>
<td>62,4</td>
</tr>
<tr>
<td>Zagreb district</td>
<td>790.017</td>
<td>6.263.416.405</td>
<td>7.928</td>
<td>180,8</td>
<td>221,3</td>
</tr>
<tr>
<td><strong>Total Croatia</strong></td>
<td><strong>18.785.582.231</strong></td>
<td><strong>4.284.488.9</strong></td>
<td><strong>4.384</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Croatia excluding Zagreb district</td>
<td>12.522.165.826</td>
<td>3.494.872</td>
<td>3.583</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Authors’ calculations based on data from the Ministry of Finance
From the data presented in Table 5 there is a big disparity in the sizes of the fiscal capacities of some Croatian counties which are then reflected in the average income per capita. All local units in the RH achieved in 2011 total of 18.8 billion in revenues out of which the the City of Zagreb alone 6.2 billion or 33.3%. Due to the large fiscal capacity of the City of Zagreb when calculating average income per capita, we’ve excluded it from the calculation and got devastating data about significant differences. It is evident that the average income of inhabitants of Croatia is 3,583 kuna, while the highest is in Istria with 6,508 kuna or 181% of the Croatian average. Average income of residents of the City of Zagreb is, for the majority of Croatian citizens, elusive 7,928 kuna. The lowest per capita income has Pozega-Slavonia County with the amount of 1,927 kuna, or 53.7% of Croatian average, very close is Brod-Posavina County with only 1,947 kuna, or slightly more than 54% of the Croatian average. The greatest paradox of this data is the fact that a considerable number of local units with above-average income per capita are the areas with special status of financing (PPDS, BPP, Islands).

4. Results of the research of the fiscal capacities sizes in the units of local self-government in Brod-Posavina County.

The 2012th an analysis of the local government units in Brod-Posavina County (BPC) which was based on a survey of local authorities according to the data from 2011 year in the form of descriptive statistics, as well as internal documentation the Administrative Department for Budget and Finance BPC.

Brod-Posavina County is composed of a total of 28 local Self-government units (of which 2 cities and 26 municipalities), with 15 local government has granted the status of a special area of state concern (ASSC).

Results and conclusions of the study can be summarized as follows:

Total budget revenues and receipts of all 26 municipalities in the area BPC in 2011 amounted to 122,607,811 kuna, and the revenues of the two cities 177 335 598 kuna. Taking into account the County budget, which amounted to 160,451,326 kuna finds that the total realized on area of the BPC was 460,394,735 kuna of which to the municipality refers 26.6%, the the budgets of cities 38.5%, and the remaining 34.9 on a budget county (Graph 1)
Local government units budget size (municipalities and cities) varies from the lowest of 1.7 million which was in 2011 on disposal of municipalities Sikirevci, to the highest 141.0 million of the city of Slavonski Brod. The average municipal budget was 4.7 million kuna and the average budget of cities 88.6 million kuna. The largest number of municipalities (11) or 42.3% have a budget of between 5-10 million kuna and only one municipality below 2 million (Graph 2).

If we consider the population of a local self-government units, and the per capita income we can conclude that of a total of 158,575 inhabitants according to the 2011 census the municipalities lives 85,205 inhabitants or 53.7%, and in the cities total of 73,370 or 46.3%.

Average revenue per capita in municipalities was approximately 974 kuna, or only 50% of the county average, and per capita revenue in the cities was 2,098 kuna or 106% of the county average. Compared to the Croatian average which in 2011 (not including the city) was 3,583 kuna we come to devastating results. A resident of the municipality in the BPC has only 27% of the average Croatian residents income and resident of a city in the BPC about 58% of the Croatian average. For illustration, the average per capita income in city of Zagreb in 2011 was 7,928 kuna. It is evident that the average resident of a city in the BPC has only 26% of income compared to the inhabitant of the City of Zagreb.
5. Local unit Management in function of increase of the fiscal capacity and creation of conditions for economic development the BPC

Persons monitor the activities of others, and which are responsible for achieving the objectives in the organization are managers. Robert Katz found that successful managers need to have three basic skills: technical (expertise), interpersonal (ability to collaborate) and conceptual (rationality).

Unlike entrepreneurial management, which measures the degree of success with the profit, success of management in local communities is primarily measured by fulfillment of the general and common needs of individuals and the community as a whole. Local management and process of management in local communities is divided into strategic level (county prefect, mayor, head of the Municipality and their deputies), tactical level (heads, assistants) and operational level (heads of departments, sectors, clerks) who perform all the functions of planning, organization, control and management of human resources, depending on their level in the hierarchy. One of the primary roles of the management of regional local self-government is strategic planning.

According to Denona Bogović the role of regional and local authorities (regional and local management) in the context of local economic development consists in the following:
- recognizing and encouragement of development initiatives;
- stimulating of local entrepreneurship;
- encouraging various forms of association and networking of businesses such as clusters and free industrial zones, etc.;
- encouraging the development of the service sector in function of increase of the competitiveness of the region;
- encourage the development of activities that contribute to the development of human resources and technology;

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7 Robins, Stephen P. & Judge, Timothy A.: Organizacijsko ponašanje, 12. Izdanje, Mate d.o.o. Zagreb, 2009. str.4
9 Denona Bogović, N: Menadžment u javnom sektoru, Kolegij: Lokalni ekonomski razvoj (Odabrane teme), Ekonomski fakultet Rijeka, 2008., str.25
These management activities have the task to increase the economic growth which direct impact is production sector revenue increase, the increase in GDP and increase budget revenues and fiscal capacity of local and regional self-government. In conditions of increased fiscal capacity it is possible achieve all the planned activities and strategic objectives.

County development strategy of Brod-Posavina County in 2011-2013 established strategic development goals:

1. Strengthening of the economy in a way that leads to a significant and continuous increase in employment and quality jobs
2. Environmental protection as a basis for sustainable development and economic activities
3. The continued development of the education system in line with the needs of the economy
4. Improving the quality of life, development of social infrastructure and improvement of the position of vulnerable groups

After increasing the fiscal capacity which is a priority objective of management activities can be planned towards goals 2 through 4 of the Development Strategy of Brod-Posavina County.

Local management of BPŽ through County and city development agencies, Chamber of commerce and Chamber of Trades and Crafts systematically works to support the development of entrepreneurship:

- maintaining regular contact with entrepreneurs
- by finding and preparing of locations and facilities for entrepreneurs
- assistance to entrepreneurs in obtaining various permits and approvals
- providing technical advice and professional support to entrepreneurs
- creating a positive business climate for attracting foreign companies through subsidies (cheap land, tax breaks, infrastructure construction)
- planning, preparation and execution of projects for EU funds

All these activities taken by local management are focused to increase fiscal opportunities and creating conditions for the development of the economy of the whole area of the County which, according to numerous financial and other indicators occupies infamous on the list of the Croatian counties.
In the context of the forthcoming Croatian accession to full membership of the EU countries, local management placed ahead new challenges and should focus, in addition to strategic planning and the promotion of competition on the projects such as:

1. Public-Private Partnership (PPP)

2. public involvement (community members)

Strategic planning is primarily necessary to focus on issues of employment, attracting domestic and foreign investors, access to capital, construction of the necessary infrastructure for the development of the economy.

PPP that increasingly, in Croatia, becomes a model of local community development, and involves collaboration between local government bodies with the private sector, in BPŽ, has not yet taken hold in practice.

Administrative (regional) management in the Brod-Posavina County has made the first steps related to public participation through the project of establishing Local Action Group (LAG) in the county with the main goal to motivate the civil sector on nomination and development of projects that will drive the development of local government units.

It is clear that the primary responsibility for project managers lies in the planning, integration and execution of the plan. Such a complex tasks requires capable, educated and motivated management which is asserted by SWOT analysis.

6. Conclusion

Fiscal capacity of local and regional self-government is a major determinant of its economic and developmental abilities. Conducted SWOT analysis of the financing system of local and regional self-governments at the state level and at the level of local self-government units in the example of BPŽ, established the legal and other strengths and weaknesses. Qualitative and quantitative analysis collected data that show significant negative trends of and increasing discrepancy between the local units and the growing differentiation and the gap in the ability to cover public expenditure in performing of public authority from their self-governmental scope and fulfillment of public needs of citizens.

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\(^{10}\) Barković, D: Uvod u operacijski management, Osijek, 1999. Str. 133
The planning process in local self-government units hampers the lack legal acts governing the practical operation of local government and administration. Unsteady influx of financial resources is a significant bottleneck for successful leadership, and uncertainty in the availability of financial resources prevents local managers in the detailed planning and implementation of any of development measures, in line with medium-term programs. In many local government units local revenue base is too weak to allow the local authorities to implement independent development measures.

In the circumstances of the strong centralization of budgetary resources and low fiscal capacities of local budgets, crucial importance is given to local management with their activities in strategic planning of local economic development, promotion of entrepreneurship, public-private partnerships, creation of positive business climate, attracting of foreign investors, incentives, using modern information technology and the involvement of the public creates the preconditions for economic development.

The question is whether the local government function efficiently in a centralized state, in conditions of the monopoly of central government in the legislative and executive power in the system of bureaucratic relations of the state towards the private and public sectors of the economy, public services and citizens in all spheres of economic, educational, health care and social life.\(^{11}\)

In the circumstances of the strong centralization of budgetary resources critical importance is given to local management that with their activities creates the preconditions for economic development. Only the implementation of the measures established by the strategic planning of local economic development with the use of modern information technology and its permanent education of local management can contribute the increase of the fiscal capacity of local government units in order to more effectively manage public funds and efficient fulfillment of public needs of its residents.

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\(^{11}\) Hanžek, J: Napomene o lokalnoj i regionalnoj samoupravi u Hrvatskoj, Hrvatska javna uprava, god.9.(2009.), str.999-1010.
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THE ROLE AND IMPORTANCE OF LOCAL SELF-GOVERNMENTS IN FINANCING INFORMAL EDUCATION

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Abstract

The paper discusses the role and importance of local self-governments in financing adult education system, from the perspective of informal education. Starting from deliberation of the new European education strategy, and taking a stand that education and skill development represent the foundation for 21\textsuperscript{st} century society development, as well as the necessity of stimulating open and flexible learning, by organizing various forms of informal adult education, one perceives the importance of local self-governments in realizing the objectives of life-long education and professional development. Contemporary understanding of informal education starts from the viewpoint that it is a part of the modern education concept, and that it is a necessary part of the formal education, regardless whether it serves as a “second chance for gaining education” or as a complement to the formal education based on personal or society requirements. From these stems the whole complexity of organizing and financing such way of education. The peculiarity of informal education is reflected on the fact that it pervades various requirements and parts of society, therefore the sole financial planning, in the part for which the state has been lawfully obligated, is uneven when compared to formal education, which is regulated and even at the state-level. The paper considers this problem within the perspective of the 2013 City of Novi Sad (Serbia) budget, in which the informal education at various budgetary positions (education, culture, environment protection, social welfare, etc.) participates with 2.637 % of the entire budget. The unevenness in financing is not reflected on the various positions of a single budget, but also on the development level of local self-governments. The question this paper submits is
how to organize management of such system, in order to function as optimally as possible, i.e. how to emphasize the requirements for establishing systemic mechanisms which would ensure the minimum of financing of this highly important part of educational system.

JEL Classification: H52, H75, I28

Keywords: local self-government, financing, adult education system, informal education

1. INTRODUCTION

The traditional role of education in the process of one’s acquisition of knowledge and skill development is gaining new features, conditioning the readiness of the whole educational system for quick transformation and adjustment to the requirements and changes. Simultaneously, requirements put forward by the society are more diverse. In numerous European Union strategic documents within the last two decades, the emphasis is on a society development based on knowledge, evenness of educational processes, as well as realization of life-long education objectives and professional development, not only by means of formal adult education, but by organizing various means of informal education, regardless whether it serves as a “second chance for gaining education” or as a complement to the formal education based on personal or society requirements. Europe is facing huge challenges of the modern age, which mainly consist of change of the economic concept, but also of changes within the society, which is often multiethnic in many European countries. An unavoidable consequence of these changes is the change of the educational concept, which becomes the modern educational concept of “life-long learning”. Europe expresses its belief that formal education is no longer capable of meeting these challenges by using exclusively its own strength and values, and that it requires “strengthening by means of informal educational praxis” (Marković 2006:23). Contemporary understanding of informal education starts from the opinion that it is a part of the modern educational concept, as well as a necessary complement to formal education. Along with this attitude, the attitude of the Council of Europe is, following the principles of equal opportunities, that informal education should have an important role in offering additional knowledge for threatened minorities who are unable to attend formal education.
2. INFORMAL EDUCATION IN EUROPEAN EDUCATIONAL AREA

European educational area, organized at national and regional level, is highly diversified for cultural, educational, social, economic and political properties, but also because for heterogeneous organization, management, employment conditions, etc. Equalization, and therefore the setting up of European educational area, has opened a large number of questions, and every answer generates even newer questions regarding the setup of educational system. The fact that the educational system requires good arrangement does not solely come from the fact the needs of society have increased, but also from the international binding documents. According to the Hamburg Adult Education Declaration (UNSECO international conference on adult education, Hamburg 1997, Article 2), education of adults becomes more than a right; it becomes the key for the 21st century. It is also the consequence of the active civil rights, and a state of complete participation in the society. It is a powerful concept for nurturing an important environment concept, for improvement of democracy, justice, gender equality, as well as for scientific, social and economic development, for creating the world in which violent confrontations will be replaced with dialogues and peaceful cultures, founded on justice. Education of adults can shape the identity of life and give it meaning. Learning throughout the entire life means reconsideration of contents dealing with age, gender equality, incapability, language, culture and economic inequality. This highly important document for the adult education system development emphasizes the meaning of informal education within the process of life-long education. Memorandum of the Life-long Europe of Learning (2000) points out that education of active civil society and development of professional civil development are of equal importance, and that for development of basic competence within adults it is necessary to strengthen the adult education system by changing the structure and modernizing the educational system, with the emphasis on importance and possibilities of informal education. The Lisbon process awards the importance to the adult education, and all forms of learning (formal, informal and unformal) become important for realization of primary strategic objectives:

- increase of quality and efficiency of the educational system and training in accordance with new requirements of the society based on knowledge and changes of forms of teaching and learning;
• accessibility of education and training in accordance with the principles of life-long learning, more expedient employment, career development, equal opportunities and social cohesion;

• making education more open and professional training towards the broadest population strata, with respect to better connection of labor and society, and responses to challenges arising in the process of globalization.

The importance of adult education system development and, within it, the informal education, is reflected in the recommendations of the Council of EU Copenhagen Process (2002), and is related to acknowledging non-institutional and informal learning, as a part of the life-long learning system and professional development (Babić-Kekez 2013:84). One of the primary tasks stemming from the Lisbon Strategy objectives (2002:8), and which represents the basic development objective in changes of the area of education, economy, and society in the EU countries, is the Increase of the education quality and professional development in accordance with the requirements of a society based on knowledge, modernization of the teaching process, as well as the process of learning. Realization of this objective requires modernization and improvement of quality of the entire educational system, starting with equalization of the quality standard system.

These developmental processes are characterized by, among other things, expansion of the learning area from formal education to the area of informal and unformal education, although still with a prevailing understanding of other learning forms as complements and compensations to the vocational adult education. It is particularly with the advent of Lisbon process that education appears from the margin into the focus as one of the key instruments for the EU development, and all this within the concept of life-long learning having a particularly important role (Vrcelj et al, 2009:58). Recommendation about the policy of life-long learning (2002) is the result of a series of adopted conventions, declarations and recommendations of the Council of Europe on the educational policy. Within it, life-long learning is defined as a continuous process of learning which enables all individuals, from early childhood till the old age, to accept and renew their knowledge, skills and competencies in the various stages of their lives, as well as in multitudes of learning environments, both formal and informal, in order to improve and increase their personal development, employment opportunities, and encouraging active participation in democratic societies.
For the adult educational system renaissance, of great importance is the Bologna process document 2020 (Leuven, 2009). Life-long learning presumes that qualifications can be obtained by flexible means of learning, which consist of part-time studying or studying-while-working. Successful policies of for life-long learning contain fundamental principles and procedures for recognizing earlier learning results on the basis of previous learning achievements, regardless of whether the knowledge, skills or competencies were achieved by the means of formal or informal learning (Babić-Kekez, 2013:85).

The above mentioned documents represent the starting point for adopting the Serbia Adult Education Strategy (Official Gazette of the Republic of Serbia no. 1/2007) which calls upon to create the culture of learning, social and economic organization based on knowledge, as well as skill and achievement improvement of adults. Adult education is the basic tool for socio-economic transformation and development. It should provide for the following:

1. to meet the labor market and individuals requirements for knowledge and skills;
2. to increase the values of human capital and to create basic support for a sustainable socio-economic development of the country and its integration into the global, particularly European economy;
3. to enable individuals a full social participation and offer a possibility of more successful employment, as well as the ability to be more active and competitive at the labor market;
4. to increase professional mobility and flexibility of the actively working population (the mobility through the world of labor, profession and qualification);
5. to prevent social exclusion and marginalization, to strengthen social cohesion and the feeling of belonging and of identity;
6. to encourage individual development as well as self-fulfillment

The Strategy (Ibid, 9) emphasizes the necessity of institutional and program diversity in educational opportunities, and within the means of adult education, i.e. creating a network of institutions and organizations for adult education in order to expand real possibilities for adult learning and education; to create a well-organized market of educational programs and trainings under same circumstances and con-
ditions, as well as adopted standards; to satisfy the needs of labor markets and individuals for skills and knowledge. The adult education system in Serbia, for the last several decades, has been unobserved and untouched by the professional public or general public interest, although its proper setup is of vital importance, not only for the system of life-long learning, but for development of the society in general. If the primary cause of life-long learning is a happy individual within the society, and by that a happy society in whole, there is no doubt that the mission of the adult education, in all its forms of formal, informal and unformal education, is of utmost importance. By no means can we discuss efficient means of education unless one its part, in this case the adult education part, is not incorporated within the whole.

3. INFORMAL EDUCATION FINANCING – A LOCAL SELF-GOVERNMENT EXAMPLE

Starting from the elementary premises, voluntariness, flexibility, and accessibility, informal education adheres to social, as well as to personal requirements. Differentiated goals and contents of the adult education need not necessarily be set so they stem from only current or “promising” needs of the socio-economic conditions and development, even in case when offering numerous models of diverse education. Goals and contents must start from the motives and requirements of individuals or groups through which their creative potentials can be set free (Klapan, A; 2001:85). It is precisely where a new role of local self-governments lies – to assist the employees to adapt to new requirements and challenges, and gain new competencies. The question is in which way to arrange this system, primarily within the domain of finances, in order for its management be as simple as possible and in order to have the results as optimal as possible.

Various forms of informal education imply various ways of financing. The paper only discusses financing based on the budget of local self-government, more particularly, the resources allocated from the City of Novi Sad budget (Serbia) in 2013. Planned budgetary amounts for the current year equal to 16 000 000 000,00 RSD.
Informal education financing is projected on various positions: allocations for education, culture, social welfare, NGO program activities, professional training of the employees. Most of the funds is projected for financing programs of the NGO (0.839%). Isolatedness of the funds within the system points out to the fact that a more functional planning is required, founded on strategic documents and well-ahead planned certain secretariats’ program activities. In relation to the entire budget, the total allocation of funds predicted at the level of 2.673%, which indicates an insufficient utilization of informal education as an important resource of local self-government development.

### 4. CONCLUSION

Modern understanding of informal education starts from the point of view that it is a part of the contemporary education concept, and that it is a necessary complement to the formal education, with the objective of realizing goals aimed at, above all, gaining necessary skills, which, in turn, is one of the tasks of the European educational area. In these processes, the role of local self-government is highly important in creating the scenery for 21st century skills and knowledge improvement,
in securing the necessary conditions for life-long education, professional training, transfer of knowledge, and, in general, strengthening of science, economy, culture, civil values, their more qualitative interaction, realization of common goals, not only by means of formal education within the adult education system, but by means of informal education, as a means of still insufficiently utilized development resource. The questions that remain to be answered relate to the criteria and standards for informal education financing, within the larger framework of adult education system, in order to establish an unobstructed and optimal functioning.

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ABSTRACT
Considering that transportation is one of the most sensitive passenger services (passenger safety, punctuality of departures) which are mostly subsidized by the taxpayers, a key role is played by a quality management system that every common carrier should be implemented, and thus to secure the same level of services for each passenger in Croatia. The paper will show the importance of the theoretical model and the importance of quality management in the public transport of passengers, and through research via questionnaire shown how the representation of the quality management system, Implementation of International standards, as well as knowledge management with concepts of quality management in public passenger transport in Croatia in terms of the service provider.

JEL Classification: L15, M31

Keywords: quality management, public transport passengers, standards

1. EINFÜHRUNG
Die Qualität spielt im Unternehmensprozess eine wesentliche Rolle, die immer mehr an Bedeutung auf dem Global Market gewinnt und zur starken Waffe im Kampf um den internationalen Markt wird. Wenn wir die Rolle der Qualität zergliedern, müssen wir eine Reise in die Vergangenheit unternehmen wo sich die Auffassung der Qualität ausschließlich auf die Produktionsphasen bezog, während man heute unter Qualität die allumfassende Vorzüglichkeit versteht (Skoko; 2000, 6). Mit der Entwicklung der Gesellschaft und damit auch der Ökonomie kommt es

2. QUALITÄTSLENKUNG IM BUSVERKEHR

In fernen Linien-Straßenverkehr der Passagiere sind die Menschen die unmittelbare Nutzer der Verkehrsleistungen, da sie wegen unterschiedlichsten Reisebedürfnissen mit Bus transportiert werden, in Diapason von Vollzeitarbeit zu gelegentlichen Privatbesuchen (Malić; 1999, 15). Die Orientation der Firma auf Passagieren oder Leistungsnutzer nimmt die wichtigste Rolle in die Schaffung der Vision eines jeden Transportunternehmens an, und deshalb ist es wichtig, Anforderungen der Leistungsnutzer und der Leistungslieferer hinsichtlich der Qualität gemeinsam zu planen (Lazibat; 2005, 107). Qualität aus Aspekt des Leistungslieferers kann man als allumfassende Vorzüglichkeit definieren, beziehungsweise als einen bestimmten Grad der Vorzüglichkeit (Skoko; 2000, 6), und für den Passagieren bedeutet die

Alles Wichtigeres wird das umfassende Qualitätsmanagement (Total Quality Management, TQM), als Hauptvoraussetzung des Managements bei Schaffung, Organisation und Leitung der Organisation (Lazibat&Kolaković; 2004, 156).
Transportunternehmen, die Systemen für Qualitätsmanagement besitzen, schaffen einen zufriedenen Passagieren, der seine Zufriedenheit mündlich weiteren potenziellen Passagieren überliefert und auf diese Weise die Profitabilität, die von Profit von anderen neuen Käufer generiert wird, beeinflusst (Rust & Chung; 2006, 571). Qualität von Empfehlung wird wenigstens genauso wichtig als der Preis in die Eroberung der Käufer (Parasuraman; 2006, 592). In Kroatien ist das Nummer der registrierten Busen und Organisationen, die sich mit Passagiertransport beschäftigen, im ständigen Abstieg, was natürlich, gemeinsam mit Nummer von gefahrenen Kilometer im öffentlichen Verkehr, ein Indikator davon ist, dass es sich um eine Tätigkeit handelt, die Tendenz zu Abstieg im Nummer der Passagiere hat.

Graf 1: Zahl der registrierten Busse

Aus dem Graf 2 kann man die Senkung der Fahrgästezahl bemerken und besonders die Fahrgastesenkung in öffentlichen Verkehr. Immer mehr Menschen drehen sich zu eigenen Transport- und den Wagenkauf, der heut zu Tage die Sache des Prestige ist, ohne auf dem hohen Einkaufspreis zu achten, teure Wartung und hohe Stufe der Umweltverschmutzung.

3. IMPLEMENTIERENDES QUALITÄTSLEITUNGSYSTEM IN BUSVERKEHR

und deshalb brauchen sie maximale Bemühungen, damit sie Qualitätsmanagement implementiert können (Dumičić et al.; 2005, 631). Aus Graf 3 und Graf 4 kann man bemerken, dass seit 2003 bis 2011 Nummer von ISO 9001 Zertifikaten für Qualitätsmanagement in Kroatien sich vervierfacht hat, und Zertifikaten 14001 für Management von Umwelt verzehnfacht hat, was bedeutet, dass die Situation und Bewusstsein in Kroatien sich langsam ändert.

Graf 3: Anzahl der ISO 9001-Zertifizierungen in Kroatien

![ISO 9001 Kroatien](image)

Quelle: (2) – Grafische Gestaltung von Urheberrechtsinhaber

Graf 4: Anzahl der ISO 14001-Zertifizierungen in Kroatien

![ISO 14001 Kroatien](image)

Quelle: (3) – Grafische Gestaltung von Urheberrechtsinhaber
4. FORSCHUNGSMETODOLOGIE

Die Forschung wurde mit Hilfe der Meinungsumfrage durchgeführt und die Angaben sind mit der Methode des Telefoninterviews gesammelt. Die Meinungsumfrage wurde in März und April 2013 an Muster von 32 Unternehmen durchgeführt, die sich mit öffentlichem Bustransport der Fahrgäste beschäftigen. In Kroatien gibt es 72 Busunternehmen, die Konzession für das öffentliche Linienverkehr (HGK) haben. So macht das ausgewählte Muster 44%. Der Fragebogen beinhaltete unter allgemein gestellten Fragen auch elf Fragen die wichtig für Ausarbeitung dieser Arbeit waren.

Tabelle 1. Die Struktur der Unternehmen in der Stichprobe nach Bezirk

<table>
<thead>
<tr>
<th>Bezirk</th>
<th>Struktur</th>
</tr>
</thead>
<tbody>
<tr>
<td>Istarska</td>
<td>12,50%</td>
</tr>
<tr>
<td>Zagreb</td>
<td>9,38%</td>
</tr>
<tr>
<td>Karlovačka</td>
<td>9,38%</td>
</tr>
<tr>
<td>Splitsko-dalmatinska</td>
<td>9,38%</td>
</tr>
<tr>
<td>Osječko-baranjska</td>
<td>9,38%</td>
</tr>
<tr>
<td>Zagrebačka</td>
<td>9,38%</td>
</tr>
<tr>
<td>Ličko-senjska</td>
<td>9,38%</td>
</tr>
<tr>
<td>Dubrovačko-neretvansa</td>
<td>6,25%</td>
</tr>
<tr>
<td>Požeško-slavonska</td>
<td>3,13%</td>
</tr>
<tr>
<td>Brodsko-posavska</td>
<td>3,13%</td>
</tr>
<tr>
<td>Žadarska</td>
<td>3,13%</td>
</tr>
<tr>
<td>Sisačko-moslavačka</td>
<td>3,13%</td>
</tr>
<tr>
<td>Bjelovarsko-bilogorska</td>
<td>3,13%</td>
</tr>
<tr>
<td>Krapinsko-zagorska</td>
<td>3,13%</td>
</tr>
<tr>
<td>Međimurska</td>
<td>3,13%</td>
</tr>
<tr>
<td>Varaždinska</td>
<td>3,13%</td>
</tr>
</tbody>
</table>

Tabelle 2. Die Struktur der Unternehmen in der Stichprobe nach Größe

<table>
<thead>
<tr>
<th>Anzahl der Mitarbeiter</th>
<th>Struktur</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mehr als 250 (Großunternehmen)</td>
<td>4</td>
</tr>
<tr>
<td>51-250 (Mittlere Unternehmen)</td>
<td>13</td>
</tr>
<tr>
<td>Bis 50 (Kleine Unternehmen)</td>
<td>15</td>
</tr>
</tbody>
</table>
5. FORSCHUNGS RESULTATEN

In der Forschung sollten man zeigen in wie fern die Manager in öffentlichen Personenbusverkehr dem Begriff Qualitätslenkungsystem können, welche Wichtigkeit sie der Qualität des gelieferten Dienstes geben und was haben sie am Ende konkret dafür untergenommen. Dass die Implementierung des Qualitätslenkungssystem ein wichtiger System für ein erfolgreiches Organisation benehmen ist, stimmt vollständig 53,13% befragten zu und 46,87% stimmt teilweise zu und die Mehrheit der befragten (18,75% sehr gut, 34,38% gut, 34,38% befriedigend) sind mit dem Qualitätslenkungssystem bekannt worden, während nur wenige damit nicht bekannt sind (9,38% oberflächlich, und 3,13% überhaupt nicht). Als ihre stärkste Seite haben sie die Sicherheit und Qualität des gelieferten Dienstes bewertet, was man in Graf 6. bemerken kann.

Graf 6: Bewertung der Primärenergie in der Erbringung von Verkehrsdienstleistungen

Als die wichtigsten Qualitätskriterien für den öffentlichen Fahrgasttransport wurden Sicherheit und sorge für den Dienstnutzer bewertet, während man den Einfluss auf die Umwelt als nicht so wichtig bewertet, was man im Graf 7. bemerken kann. Nur 9,38% der befragten hat ein Qualitätslenkungssystem implementiert, aber niemand von den Befragten hatte einen Umweltlenkungssystem implementiert. Sogar 71,88% der Befragten ist überhaupt nicht mit der Norm HRN EN 13816 für den öffentlichen Fahrgasttransport bekannt, 78,13% ist mit
der Norm HRN EN 9001 Qualitätslenkungssystem bekannt und 50% der Be-
fragten ist nicht mit der Norm HRN EN 14001 Umweltlenkung bekannt. Nur
31,25% der Befragten plannt eine von diesen Normen einzuführen und 28,13%
bekommt Beratungsdienste und Konsultationen. Dass man eine interne Edukation
der Fahrer mit dem Ziel der Verbesserung der Dienstleistungsqualität von öffentli-
chen Fahrgasttransport durchführen sollte und dass sie vom jeden Busverkehrsun-
ternehmen eingesetzt sein sollte, stimmte vollständig 55,63% zu, aber nur 53,13%
führt das in seinem Unternehmen durch.

Graf 7: Die Bedeutung von Qualitätskriterien für den öffentlichen Personenverkehr

Hauptsächlich stimmt 53,13% der Befragten zu, dass der Eintritt Kroatien in
EU eine gute Gelegenheit für hohe Positionierung auf dem internationalen Markt
mit der Besitzung des Qualitätslenkungssystem wäre. 34,38% der Befragten stim-
mt vollständig zu, während 9,38% gar keine Meinung besitzt und 3,11% stimmt
hauptsächlich nicht zu.

6. SCHLUSSFOLGERUNG

Durch die Forschung kam es zu Schlussfolgerung, dass die meisten Manager
im Unternehmen die sich mit öffentlichen Bustransport der Fahrgäste beschäftigt
bekannt ist mit Qualitätslenkungssystem und denken dass die Dienstleistungsqual-
ität eine der wichtigsten Primärkräften im Unternehmen ist. Für das erfolgreiche Organisationsverhalten halten sie die Implementierung des Qualitätslenkungssystems für sehr wichtig. Die Mehrheit des Unternehmens hat aber das Qualitätslenkungssystem aber nicht implementiert, plant es nicht zu implementieren und bekommt keine Beratungsdienste und Konsultationen wegen der Implementierung. Der Einfluss auf die ganze Umwelt, die zusammen aus Dienstleistung im öffentlichen Transport hängt, halten weniger wichtig als andere Kriterien der Qualität für öffentlichen Fahrgasttransport. Qualitätsanwesenheit sollte man als Weise des Organisationlebens vom Unternehmen verstehen und die Politik der Umweltlenkung sollte ziemlich klar und verständlich für alle in der Organisation sein. Die Verbesse-

rung der Qualitätsleistung im Bustransport spielt wichtige Rolle auf dem lokalen Markt, besonders mit dem Eintritt Kroatiens in der EU, weil man mit dieser Be-

schäftigungsart Wettbewerb mit der kommenden Konkurrenz halten könnte.

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NOTIZEN
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Abstract

One of the main components in a motor vehicle, without which the vehicle can not be started, nor be in operation, is the battery, or that in the academic literature is called, a starter battery or start – light - ignition battery (SLI), in Croatia usually called acumulator. The subject of this paper is the development of battery industry, while the paper focuses on the only company of this industry in Croatia, the company Munja, Inc.. The main goal of this paper is to analyze strengths, weaknesses, opportunities and threats of battery industry. To achieve this goal, the paper argues the possibilities and directions of development of battery industry and on this basis analyzes the strengths, weaknesses, opportunities and threats of company Munja, Inc.

JEL Classification: D41, L11, L21

Keywords: battery industry, competitiveness, Republic of Croatia, SWOT analysis

1. Introduction

Analysis of strengths, weaknesses, opportunities and threats, or SWOT analysis is a popular tool that can be useful for managers in developing strategies. SWOT is an acronym of the four factors, and these are strengths, weaknesses, opportunities and threats. Lack of SWOT analysis is that it is a subjective method, but it is nevertheless useful, because it is used as a good tool for identifying strengths and weaknesses of the economic entity and to identify opportunities and threats in the environment.

SWOT analysis assumes that each economic entity must take into account the internal and external opportunities while selecting the strategy. SWOT matrix sys-
tematically displayed internal strengths and weaknesses of the economic entity and the external opportunities and threats that are present in its environment.

Starter batteries and traction batteries are used in cars, tractors, trucks, boats, etc., and the same goes with the stationary batteries which energized stationary objects. Therefore, the use of these products indicates the market specifications, since that, usually, not the ultimate consumer is the one who is in the market relation with the manufacturer, but almost there is always someone among them that connects them. The aim of this paper is to argue the strengths, weaknesses, opportunities and threats of battery industry in the Republic of Croatia, and point to directions for the development of this industry.

This paper consists of the following parts. After the introduction there is an overview of battery market. Furthermore, a review of methodology is shown in third section. The fourth part of the paper provides an overview of the SWOT analysis of companies in the battery industry. The fifth part of the paper summarizes the SWOT analysis, and finally, the sixth part of the papershows concluding remarks.

2. Battery market overview

Battery producers followed the development of vehicle production (cars and commercial vehicles) in the world. Until World War II production was significantly “slower” in relation to the period after the war, and especially toward the end of the 20th and beginning of 21st century, when recording its enormous expansion.

Rapid development of the automotive industry increases the need for lead-acid batteries (all types of the theese batteries are based on lead electrodes imersed into a sulfuric acid solution), and the development of telecommunications and IT industries stimulate more demand, development and production of various types of batteries. It is believed that the lead-acid batteries had one of the biggest global growth during the 20th century.

There is a limited number of vehicle manufacturers on the car producers market. Number of battery manufacturers, particularly accumulators, from a few dozen now moving at several thousand worldwide. The exact number of battery manufacturers is almost impossible to determine, because there are no accurate records and statistics, and it is very difficult, we would say impossible, to determine the exact number of produced and sold batteries (for some regions of the world where statistics exist is relatively easy, while in other regions, there are no basic data).
It is also significant that the process of globalization has led to the consolidation of companies – manufacturers of batteries and accumulators, in a way that large companies were taking over the smaller ones.

3. Methodology

The research problem is defined like an exploratory study and research techniques were used on past experience and analysis of selected cases (Marušić & Prebežec, 2004). The technique was selected on past experience, starting from the assumption that the usage of existing knowledge, experiences and ideas of people who are well informed about the battery market will gain insight into the issue of this paper. Rather than carry out a study on a large number of subjects, of which many of them does not have good insight into the battery market, we started conducting research on a sample of experts.

Based on the above approaches in-depth interviews were conducted with 12 respondents - managers familiar with the market in and out of the battery market in Croatia, particularly because, as we said, in Croatia there is no battery manufacturers. The interviews were conducted in the period from May 5th to June 30th 2012 year. In-depth interviews were conducted following the framework of this paper, but in conversation is used free discussion also, which led to some very interesting conclusions and information. Interlocutors are deliberately and intentionally chosen, because they are more familiar with the subject from other professionals, which allowed enactment conclusions about the nature of phenomena.

Besides the research techniques of past experiences we used analysis of selected cases also, where the subject of the analysis was company Munja, Inc..

4. SWOT analysis of enterprise from battery industry

4.1. Strenghts of enterprise from battery industry

The major strenght of company Munja, Inc. is that on the “sight” does not have the new technology in the production of batteries that would dislodge it - replace the current lead-acid batteries for various purposes, nearly one billion cars in the world and 99.99% of the cars in Croatia with internal combustion engines will still require a battery for years in the present form or with modifications.

It is about the only Croatian manufacturer of accumulators, which is also a local manufacturer. This fact allows the company to offer customers low transport costs,
which significantly affect the final cost of the product. At the same time, due to localized businesses and a strong identification with the Croatian market, brand recognition is achieved, with the name Munja, Inc. - the company has a great tradition, of even 92 years, which further ensures familiarity with the market.

An important strength of the enterprise is flexibility also, which allow the company an adaption to small production batches, relatively small number of workers make small fixed costs of labor and economical production. The company constantly invests in human resources through education of staff and continually invests in production capacity, which is being upgraded and expanded at the same time.

None of the above would not have been possible without two very important items for every industry, and in particular battery industry: environmental protection and high quality standards.

The company management has recognized these two strategic forces, and by the highest standards of environmental protection and the implementation of ISO standards, provides a platform for further growth in the market.

4.2. Weaknesses of enterprise from battery industry

The major weakness of enterprise Munja, Inc. is that there is no OEM (original equipment of the manufacturer), company has no exclusive contract with any of the car manufacturers. Specifically, countries that have their own car industry generally have battery industry, and give priority to their own industry. Without first installing there are no large series in production, which means increase of production costs, and discontinuous production leads to a loss of quality in certain manufacturing processes. Absence of “great series” in production reduces capacity and has impact on quality, products, and to the increasing price of raw materials in its procurement. It also affects the continuity of production and utilization of less profitable product lines, but also leads to lower productivity, increasing production costs and energy consumption.

Local character of the company Munja, Inc. is also the weakness of the company, because it does not provide global familiarity and makes difficult access to the global market.

Compared to the competition, the production volume is small, which does not exploit economies of scale to a sufficient extent.
Croatia is also still relatively underdeveloped country, and the automotive industry is the industry associated with higher purchasing power, and the perception that is associated with Croatia as a tourist and agricultural land are also weaknesses of company Munja, Inc.

In addition, authorized dealers, distributors and service cars prefer original parts, and in that way give advantage their manufacturers, and to Munja, Inc. it is harder to reach to the customers when replacing the battery.

“Small series of production “ preventing the existence of supplies and impede rapid response and adjustment to the requirements of customers. There is also a weak self-consciousness of Croatian people and the reluctance of domestic product.

4.3. Opportunities of enterprise from battery industry

The major opportunity of company Munja, Inc. would be the possibility of entering the OEM, ie. the possibility of concluding an exclusive contract with car factory and battery instalation in process of car production.

Entry of Croatia to the European Union in 2013, will allow sale in this market, which is becoming the “home market” and the opportunity to enter the OEM.

Using the projects of the European Union, particularly in the area of environmental protection would be possible to run some of the important projects related to environmental protection.

Introducing, gathering, processing and export of used batteries, which will be allowed upon the Croatian entry to the European Union, would reduce the price of the basic raw material for the production.

The Croatian market has significant capacity to increase the proportion of the number of batteries of Munja in battery sales in the Croatian market, the nearby Croatian market (ex-Yugoslavia), in which the company Munja, Inc. is traditionally present.

Building a facility to recycle old batteries - smelter. Construction of the smelter for recycling old batteries is a significant opportunity for the company, as the world gets 35% of raw materials by recycling. With these activities the company increases its social responsibility, has an opportunity in the direction of improving brand awareness and the potential use of EU funds to finance the construction of the smelter.
The introduction of industrial batteries program, since there is already a machinery for that, and put in function, would expand the supply of Munja, Inc. on the market. Introduction of calcium technology (Ca Technology) will modernize the production of batteries, and put the product even closer to the requirements of customers.

Opportunities of company Munja, Inc. also is coming from the new market trend. Usage of solar energy, ie. solar batteries are the new potential market. As a new market appears nautical tourism which will increase the demand for batteries for boats, as part of the needs and trends of nautical tourism. Important opportunities are related to the change in the exchange rate, ie. the rate may decline, which would strengthen price competitiveness of enterprises.

4.4. Threats of enterprise from battery industry

Republic of Croatia will soon be a part of European Union, also meaning a threat to Munja, Inc., increasing the number of competitors on Croatian market. In short period of time, Munja, Inc. will be encountered with very strong competition already experienced in winning new markets and with global character. At the same time, Munja, Inc. will have a possibility to expand on the markets of European Union, already filled with popular brands with long time tradition. Anticipation of slow growth will be very important in years 2013, 2014 and 2015, as well as insuring the existence on home market and growth on the markets abroad.

Entering the European Union, Croatia will loose the CEFTA markets, initiating tariffs on Croatian products that are already recognised and traditionally present on those markets. This means a huge threat to Munja, Inc. increasing the price of its products on already owned markets. Currency Politics that benefits importers is also a big threat to producing corporations. Increasing the value of energy generating products in Republic of Croatia increases the expense of production.

Also, a major threat is the fact that in Croatia, there are no mines of lead, as the main source of raw materials, as well as recycling plants for old batteries, and all the raw materials have to be imported from abroad, which increases the cost of the product and thus reduce the price competitiveness.

At the same time, Republic of Croatia has no industrial strategy, but its market is completely open to foreign competitors.
5. SWOT analysis summary of enterprise from battery industry

The work is largely focused on the development of Croatian battery industry and its only representative, company Munja, Inc.. The origins of this business company infancy correlate with the automotive industry in general. Business of any company cannot be considered isolated from the environment. Therefore, the business of company Munja, Inc. observed with regard to the development in the last century, but compared to other battery manufacturers, the two former common state, but also the world’s battery manufacturers.

Few activities in human history in such a short time has played such an important role and so changed the world and the human environment, such as the automotive industry has made.

The age-old human desire to move, experienced fully proven discovery devices that will call the engine, and by the invention of internal combustion engines, in the last decades of the nineteenth century, begins the era of motoring and motor sports.

Without automotive industry development of road networks is unimaginable, and therefore part of the construction industry also, while the number and type of vehicles (both cars and trucks and motor machines) determines the level of development of a country and the standard of its population. Intensive development of the automotive industry “dragged” behind it developing parts for the car (auto components), as well as machines for the automotive industry.

Picture 1. Shows major findings of SWOT analysis of company Munja, Inc., with a starting point in the development of strategic marketing model of company development.
Picture 1. SWOT analysis of enterprise Munja, Inc.

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>➢ No new technology in the world as a substitute for lead acid</td>
<td>➢ Factory has no exclusive contract with the manufacturer of the car; it is not in the OEM market</td>
</tr>
<tr>
<td>➢ The only Croatian producer of batteries</td>
<td>➢ Lack of domestic carmakers</td>
</tr>
<tr>
<td>➢ Local manufacturer, low transport costs</td>
<td>➢ The local character of the company; difficult access to the global market</td>
</tr>
<tr>
<td>➢ Recognizable name</td>
<td>➢ The smaller volume of production compared to the competition</td>
</tr>
<tr>
<td>➢ The long tradition</td>
<td>➢ Lower utilization of economies of scale</td>
</tr>
<tr>
<td>➢ Flexibility with the ability to produce small series</td>
<td>➢ Perception of Croatia as a tourist and agricultural land</td>
</tr>
<tr>
<td>➢ Investing in human resources</td>
<td>➢ Weak self-consciousness of Croatian people, reluctance of domestic product</td>
</tr>
<tr>
<td>➢ Investment in productive capacity</td>
<td></td>
</tr>
<tr>
<td>➢ Monitoring the highest environmental standards</td>
<td></td>
</tr>
<tr>
<td>➢ Recognized the importance of quality (ISO standards)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Opportunities</th>
<th>Threats</th>
</tr>
</thead>
<tbody>
<tr>
<td>➢ Possibility of entering the OEM</td>
<td>➢ Entry of Croatia into the European Union</td>
</tr>
<tr>
<td>➢ Increase Croatian market share</td>
<td>➢ Loss of the CEFTA market</td>
</tr>
<tr>
<td>➢ Increase in region</td>
<td>➢ In Croatia no mines of lead</td>
</tr>
<tr>
<td>➢ Use of Solar Energy</td>
<td>➢ Lack of industrial strategy in the Republic of Croatia</td>
</tr>
<tr>
<td>➢ Nautical tourism</td>
<td>➢ Exchange rate policy which favors importers</td>
</tr>
<tr>
<td>➢ Expansion of industrial applications: Traction and stationary program</td>
<td>➢ The growth of energy prices in Croatia</td>
</tr>
<tr>
<td>➢ Moving to Ca Technology</td>
<td>➢ „Expensiveness “of financial assets</td>
</tr>
<tr>
<td>➢ weakening exchange rate of Kuna</td>
<td></td>
</tr>
<tr>
<td>➢ Opening of the EU market after accession in June, 2013</td>
<td></td>
</tr>
<tr>
<td>➢ Usage of EU projects</td>
<td></td>
</tr>
<tr>
<td>➢ Construction of the smelter for recycling old batteries</td>
<td></td>
</tr>
</tbody>
</table>

Source: Authors work

6. Conclusion

For this paper was selected company Munja, Inc. since this is the only Croatian company, as a manufacturer, which operates on battery market, so there is the
justification for such approach. Limitations of the research resulting from the used methodology. The conclusions of the study are based on past experiences, and an analysis of selected cases in the form of company Munja, Inc. Research methods on past experiences was used in order to study focuses on a small number of people whose experiences are helpful for the subject of paper.

Despite these limitations, the results of paper may be considered relevant, because the survey includes a business partners of company Munja, Inc., managers outside Croatia, also employed at other battery manufacturers in other countries.

It can be concluded that the battery industry has a great potential in this area, and that the company Munja Inc., has shown great stamina and ability to survive in the hardest conditions. As a proactive approach to the strengths, weaknesses, threats and opportunities in the development of the company, it can be expected that Munja, Inc. will achieve even greater progress in the future. However, for these are the required concrete action in the Republic of Croatia, primarily through future strategy of industrial production, and exchange rate policy.

REFERENCES
IMPORTANCE OF MANAGEMENT STRATEGIES IN MUSEUMS AND GALLERIES

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¹Josip Juraj Strossmayer University of Osijek, Department of Cultural studies, Republic of Croatia, mpesic@unios.hr
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ABSTRACT

Strategies in the management of museums and galleries show the need for strategic management and governance, which is a key factor for the quality management of galleries and museums.

This area of culture management is a specific area for itself, because culture is traditionally observed as a very vulnerable area, due to lack of financial resources that would normally characterize these activities. Planning, implementation strategies, the results of performance achieved by good strategy are essential elements of any management. Since museum and gallery activities in the Republic of Croatia are in an unenviable position, this paper will show some of the possibilities for better management, will an emphasis on the importance of management, strategic management and the potentials that can be achieved through quality marketing management, to increase the number of service users and thus generate revenues.

It will explain the fact that museums and galleries can increase the number of users through strategic management and marketing activities, in order to create revenue by attracting customers, by offering well-attended exhibitions, being thus a successful organization.

JEL Classification: Z11

Keywords: strategy, strategic management, management, marketing management
1. INTRODUCTION

The area in which the work of museums and galleries is constantly changing, thus it is necessary that museums operate and adapt to the conditions and changes in the market. This includes monitoring of market trends and monitoring of culture of visitors to museums and galleries.

Museums can be general and specialized according to the type of museum holdings, as well as national, regional and local according to geographical area in which they are. In carrying out activities within the system of museums in the Republic of Croatia, museums can be the first level museums and second level, in line with the Ordinance on the method and criteria for integration into the system of the Croatian Museum.¹

Museum and gallery activity itself is a set of a large number of business activities in the field of museum that permeates through the whole range of activities.

Museum activities include: collection, preservation and study of civilizing, cultural and natural resources and their professional and scientific processing and systematizing the collection, permanently protecting the museum collection, the museum documents, museum sites and sites, directly and indirectly, their presentation to the public through permanent and temporary exhibitions and dissemination of information and knowledge on the structure of the museum and museum documentation through the professional, scientific and other communications. Museums, as well as museums, galleries and collections within institutions and other legal entities, must be linked to the system of Croatian museums to adopt a unified approach to professional museum work. Methods and criteria for connecting to the system prescribed by the Museum of Croatian Culture Minister at the proposal of the Croatian Council of Museums.²

2. MUSEUM INDUSTRY AND ORGANIZATION

The museum industry is characterized by series of features that make it a challenging environment in which to operate and compete. One of these features is to cultural industries, product performance must be viewed as multidimensional, because cultural goods have a twofold nature: they are at the same time artistic products and economic products. Moreover, quality evaluation in the museum industry

¹ http://www.propisi.hr/print.php?id=6109 (20.02.2013)
² Antolović, J.: Menadžment u kulturi, Hadrian d.o.o., Zagreb 2009., p. 69
is inherently difficult since products of the creative industries differ unpredictably in the quality levels that consumers, funding bodies and other relevant stakeholders see in them.³

Method of organizational development in culture and arts is being conducted as a response to the new management changes in the environment and the new demands of cultural policy. Organizational development is a complex process that includes educational strategies to enhance capacity building of organizations and institutions to operate successfully in the long period of time. It helps the organization adapt to change, creating it at the same time creating. Therefore, in this process some conditions should be created, so that the organization can, through learning process, enrich its capacities in all areas of operation and management, to implement the strategic plan which could be adapted for strategic thinking - and that is to become the center of excellence (both programmatic and artistic sense and control) and to become adaptable to the expected and unexpected changes in the environment.⁴

2.1. Organizational models

The following alternative organizational models for museum staff highlight different ways in which museum management can overcome compartmentalization and facilitate teamwork among museum staff:

- Hierarchical pyramid;
- Matrix organization; and
- Task forces

These models are by no means mutually exclusive and may be used in combination as required in the life of the museum. Thus the organization chart may be drawn as hierarchical pyramid, with matrix organization and/or task forces being introduced as needed for specific functions on projects.⁵

⁴ By: Dragojević, S., Dragičević – Šešić, M., Menadžment umjetnosti u turbulentnim vremenima, Jesenski i Turk, Zagreb, 2008. p. 67-68
There is a thesis that culture management is a result of experiences in culture of art organizations in the U.S. during the sixties. This thesis supports the fact that the U.S. cultural creativity and culture flows much more influenced by the market than it is in Europe, the European experiences mostly pointed to the development of culture and cultural creativity, supported by wealthy mecenas. This European experience has been illustrated by Frederick Dorian in his book “Commitment to Culture” (1964) trying to show the Americans the European way of thinking related to stimulating culture and art. Also, state subsidies as incentives for cultural creation in the U.S. have never gained much interest, as opposed to the European experience.\(^6\)

2.2 Managers in culture

What do managers in culture do? What are their duties and tasks?

Managers in culture:

• Develop plans for cultural programs and actions
• Develop a plan to raise funds and organize its implementation
• Investigate and win the sponsors, donors and financiers
• Collect funds from budgetary support and other sources
• Research market in the field of culture
• Developed marketing plans
• Promote public relations
• Provide human resources and equipment necessary for the execution of planned activities,
• Support and encourage cultural development
• Manage the human resources and persons employed or engaged
• Have the role of leadership, especially coordination and supervision
• Create and manage financial policy financial resources
• Prepare, monitor, and if necessary, revise the budget
• Establish the necessary level of office and administrative operations
• Negotiate procurement of necessary goods and services, etc...\(^7\)

\(^6\) Antolović, J.: Menadžment u kulturi, Hadrian d.o.o., Zagreb 2009., p. 15
\(^7\) Antolović, J.: Menadžment u kulturi, Hadrian d.o.o., Zagreb 2009., p. 24
2.3. Strategic objectives

Museums and galleries, as well as any other company must operate in line with their objectives, strategies and strategic actions.

The strategic goals are long term and are the answer to the question of what the museum wants to be in the future. Operational objectives may be short-term or medium-term, and they are determined by the tasks that must be successfully completed to achieve the strategic tubes. They answer the question of how the museum wants to look and vision that it wants to accomplish in the future (program planning, organization, internal structure, financial policy). Based on the current situation and the current situation strategy defines what the state should be achieved, when in certain activities the change would occur; why change is necessary, what funds are needed for it. Strategy determines the direction of development, goals and the steps in order to make to achieve them.8

Figure 1 shows the relationship between vision and mission that lead to the goal where the museum wants to be, which is achieved through strategic action and strategic management.

**Picture 1:** the vision and mission, the distinction

<table>
<thead>
<tr>
<th>Vision</th>
<th>Mission</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inspiring</td>
<td>Reinforces the values and defines the identity</td>
</tr>
<tr>
<td>Anticipated and promoted a new aesthetic and programmatic challenges - a trend setting</td>
<td>Defines the aesthetic - program criteria</td>
</tr>
<tr>
<td>Mobilization</td>
<td>Reinforces organizational cohesion</td>
</tr>
<tr>
<td>Different and innovative</td>
<td>Recognizable in public</td>
</tr>
<tr>
<td>Ambitious</td>
<td>Achieved adequate resources organization</td>
</tr>
<tr>
<td>Future oriented</td>
<td>Present oriented</td>
</tr>
</tbody>
</table>


The table shows a comparison of a vision with a mission through all segments covering each, presenting the acts.

---

Possible strategies for cultural development can be:

- The strategy of internationalization / Europeanization / regionalization
- The strategy of raising the quality of the audience,
- The strategy of decentralization programs and activities,
- Strategy alignment with professional standards ...

Cultural development plan must opt only for a few basic strategies that will contribute to the realization of the fastest goals.9

3. MARKETING OF MUSEUM AND GALLERIES

Marketing is the most crucial factor in linking the museum and gallery with audiences and customers that provide museums and galleries, and it is achieved through a high-quality promotion of museums and galleries.

Marketing is the art of finding, developing, and profit from a variety of conditions. If the marketing department does not see any opportunity, it is time to dissolve it. If managers can not imagine marketing new products, services, programs and systems, for which are they paid?10

Promotion of cultural products is an element of the marketing mix of cultural institutions that still has not been sufficiently represented by our cultural institutions. Although publicity and public relations serve as promotion activities, on the other hand, activities of advertising and sales promotion have not been used at all, although the main role of advertising in cultural institutions should be getting to know the market of cultural products, their quality and properties.11

The promotion of marketing services at the official website of particular Croatian museum is shown below.

For these museums the marketing departments are classified as one of the most significant aspects of museum activities, focusing on the most important focus, and this is attracting the visitors.

9 By: Dragičević – Šešić, M., Stojković, B.: Kultura, menadžment animacija marketing, Clio, Beograd, 2011., p. 67
10 Kotler, P.: Kotler o marketingu, Kako stvoriti, osvojiti i gospodariti tržištima, Masmedia d.o.o. Zagreb, 2006, p. 44
3.1. Example of marketing in the Museum of contemporary arts in Zagreb

Key activities of the marketing department are the following: publicity, sponsorships, sales, organizing of marketing actions; being intertwined, finally contribute to its ultimate goal to contribute to recognition of the Museum of Modern Arts and to the improvement of conditions for the implementation of the program. In collaboration with the Department of Public Relations. The marketing department coordinates the overall presentation of the exhibitions and other programs of MSU to the museum partners and to the public. Starting from the application of visual exploration of cultural identity to the market in the context of the presentation and implementation of specific programs, the goal of promotional activity is detectable, stable and attractive brand of the institution.12

3.2. Example of marketing in the Museum of arts and crafts

The marketing and public relations office is based in the Museum of Arts and Crafts-1980s as one of the first of its kind in Croatian museums. The primary task was to systematically develop cooperation with the print and electronic media, and marketing of all forms of creative cooperation and relations with the wider public as a means of promoting museum programs and the reputation of the museum to the public.

By monitoring the changing needs of visitors for quality cultural offerings, based on a set of high professional and academic standards, and monitoring the overall artistic production, marketing department adjusts the placement of cultural products to potential customers by continuously adapting and improving the quality of communications and public relations.13

4. CONCLUSION

Museums and nonprofit galleries in addition to basic services, procurement and presentations offer more and more services. Even the smallest museums today have a booth to sell books, supporting material within exhibitions, postcards and materials devoted to exhibits. In larger museums there is often a museum store, restaurant, or (rarely) a library. The goal is to complement the offer of basic services in museums and exhibition activities. The success of a museum and its appeal to the public.

12 http://msu.hr/#/hr/63/ (17.10.2012)
13 http://www.muo.hr/hr/muo/marketing/ (17.10.2012)
public not only depend of exhibitions and collections, but is a common result of art, the building of museums, shops, restaurants, staff and atmosphere.\(^\text{14}\)

Some world-famous museums like El Prado and Reina Sofia in Madrid have introduced free admission to museums after 5 p.m., because at that time there were the least visitors, so before entering the visitor has to take a free ticket to have access to enter the museum for free. This activity has resulted in a huge queue at the entrance to the museum, which showed an additional effect through the crowds in gift shops located in the museums, before and after 5 p.m., while the visitors were waiting to enter the museum.

**SOURCES:**


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http://msu.hr/#/hr/63/; Accessed on: 17th of September 2012

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ANALYSIS OF UNEMPLOYMENT RATES BY EDUCATION LEVEL OF UNEMPLOYED

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ABSTRACT

The study, which analyzes the rate of unemployment by education level of unemployed persons, divided into three parts. The first part deals with the theoretical explanatory variables used in the paper in order to analyze the structure of unemployment by education level. The second part presents the research methodology and data used in the work of the selected sample of 40 countries of the world. The variables used in the paper to explore are: the percentage of unemployment of people with low education (primary school), the percentage of unemployment of people with secondary education (secondary school), the percentage of unemployment of people with higher education (university degree) and the unemployment rate. Data relating to the 2011th year and are part of the official statistics (Education at a Glance 2011th – OECD indicators), Organisation for Economic Co-operation and Development (OECD) in 2011th year. In the third part of this paper is an analysis of the research results that show the structure of unemployment by level of education and the impact of educational level on the unemployment rate.

The study is to test the hypothesis that individuals with higher levels of education have a significant negative impact on the unemployment rate of a country of the world. Also, the study aims to test the hypothesis that unemployed people with higher education in a much shorter time finding jobs and significantly shorter period of time are part of the unemployed population.

JEL Classification: E24, J64

Keywords: human capital, unemployment rate, education, placement, economic benefit
1. Introductory considerations

The research, which analyzes the rate of unemployment by education level of unemployed persons, divided into three parts. The first part deals with the theoretical explanatory variables used in the paper in order to analyze the structure of unemployment by education level. The second part presents the research methodology and data used in the work of the selected sample of 32 countries of the world. In the third part of this paper is an analysis of the research results that show the structure of unemployment by level of education and the impact of educational level on the unemployment rate.

2. Theoretical review of the indicators of unemployment by education level of unemployed persons

Indicators used in research examines the relationships between educational attainment and labour force status, for both males and females, and considers changes over time. It also focuses on employment rates among those nearing retirement age to shed some light on the employment of an ageing population and the links with educational attainment.

Employment rates rise with educational attainment. With few exceptions, the employment rate for graduates of tertiary education is markedly higher than the rate for upper secondary graduates. For males, the gap is particularly wide between upper secondary graduates and those without an upper secondary qualification.

Those with low educational attainment are both less likely to be labour force participants and more likely to be unemployed. Differences in employment rates between males and females are also wider among less educated groups. The chance of being employed is 23 percentage points higher for males than for females among those without upper secondary qualifications but falls to 10 points for the most highly qualified.

Education is an important factor for employment at an older age. On average, 40.2% of 55-to-64-year-olds with below upper secondary education are employed, 52.4% of those with upper secondary and post-secondary non-tertiary education, and 65.9% of those with a tertiary qualification.

As employment rises with education, increasing educational attainments will likely alleviate some of the concerns about the costs associated with an ageing population. Countries that seem to be well positioned to benefit from this em-
employment-attainment effect are Finland, Greece, Ireland, Japan, and Spain, where tertiary attainment levels have risen sharply between 45-to-54-year-olds and 55-to-64-year-olds and where employment levels for those with tertiary education are particularly favourable.

To further their economic development, OECD countries’ economies and labour markets depend upon a stable supply of well-educated workers. As skills levels tend to rise with educational attainment, the costs incurred when those with higher levels of education do not work also rise. As populations in OECD countries age, higher levels of education and longer participation in employment can lower dependency ratios and help to alleviate the burden of financing public pension schemes.

Employment rates normally rise with educational attainment. This is principally due to the larger investment in human capital made by more educated individuals and the need to recoup their investment. However, between country variations in employment rates often reflect cultural differences and, most notably, differences in the labour participation rates among female workers.

Similarly, unemployment rates are generally lower for higher-educated individuals, but this is typically because higher educational attainment makes an individual more attractive in the labour market. Unemployment rates therefore include information both on the individual’s desire to work and on the individual’s attractiveness to potential employers.

In a sense, employment rates are more closely tied to supply while unemployment rates are more closely tied to demand. Time series on both measures thus carry important information for policy makers about the supply, and potential supply, of skills for the labour market and about employers’ demand for these skills. Information about supply of and demand for skills is particularly important among the age group approaching retirement age as it can help to indicate potential remedies and policies for prolonging the working life of the adult population.

Variations among countries in the female employment rate are a primary factor in differences in overall employment rates. The countries with the highest overall rate of employment for 25-to-64-year-olds – Denmark, Iceland, New Zealand, Norway, Sweden, Switzerland and the United Kingdom – also have among the highest female employment rates. The overall employment rate for males aged 25 to 64 ranges from 77% or less in Belgium, Finland, France, Hungary, Poland, the
Slovak Republic and Turkey to over 85% in Iceland, Japan, Korea, New Zealand, Mexico and Switzerland. In contrast, employment rates among females range from 55% or less in Greece, Italy, Mexico, Poland, Spain and Turkey to above 77% in Iceland and Sweden, an indication of different cultural and social patterns.

Employment rates for graduates of tertiary education are markedly higher – around 9 percentage points on average for OECD countries – than for upper secondary graduates. For 2006, the difference ranges from a few percentage points to 12 percentage points or more in Greece, Poland, the Slovak Republic, Turkey, and the partner countries Israel and Slovenia. While there have been some large changes over time in employment rates of educational groups within countries, the OECD averages for lower secondary, upper secondary and tertiary educated adults have been rather stable over the last decade.

The gap in employment rates of males aged 25 to 64 is particularly wide between upper secondary graduates and those who are not. The extreme cases are the Czech Republic, Hungary and the Slovak Republic, where employment rates for males who have achieved an upper secondary education are at least 30 percentage points higher than for males who have not. The gap in employment rates between males with and without an upper secondary education is 7 percentage points or less in Greece, Iceland, Korea, Luxembour, Mexico and Portugal.

In 2011, employment rates for females aged 25 to 64 show substantial differences, not only between those with and without an upper secondary education (15 percentage points or more in 24 out of the 29 OECD countries for which data were available), but also between those with upper secondary and those with tertiary attainment (10 percentage points or more in 18 countries).

Employment rates for females with a lower secondary education are particularly low, averaging 50% for OECD countries overall and less than 30% in Poland, the Slovak Republic, Turkey and the partner countries Chile and Israel. Employment rates for females with tertiary-type A attainment equal or exceed 75% everywhere except Japan, Korea, Mexico and Turkey, but remain below those of males in all countries.

On average among OECD countries, the difference between the employment rates of males and females decreases significantly at successively higher levels of educational attainment from 23 percentage points at the below upper secondary level to 10 percentage points at the tertiary level.
The employment prospects of individuals with different levels of educational attainment depend largely on the requirements of labour markets and on the supply of workers with different skills. Unemployment rates therefore provide a signal of the match between what the education system produces and the demand for skills in the labour market. Those with lower educational qualifications are at particular risk of economic marginalisation since they are both less likely to be labour force participants and more likely to be without a job even if they actively seek one. Under the auspices of the International Labour Organisation (ILO) and their conferences of labour statisticians, concepts and definitions for measuring labour force participation were established and are now used as a common reference.

The employment rate refers to the number of persons in employment as a percentage of the population of working age. Unemployment rates refer to unemployed persons as a percentage of the civil labour force. The unemployed are defined as individuals who are, during the survey reference week, without work, actively seeking employment and currently available to start work. The employed are defined as those who during the survey reference work for pay (employees) or profit (self-employed and unpaid family workers) for at least one hour or have a job but are temporarily not at work (through injury, illness, holiday, strike or lock-out, educational or training leave, maternity or parental leave, etc.).

3. Data collection and research methodology

Gathered data relate on 40 world countries and their statistical data for variables: the percentage of unemployment of people with low education (primary school), the percentage of unemployment of people with secondary education (secondary school), the percentage of unemployment of people with higher education (university degree) and the unemployment rate. Data relating to the 2011th year and are part of the official statistics (Education at a Glance 2011th – OECD indicators), Organisation for Economic Co-operation and Development (OECD) in 2011th year. These are official statistical data of OECD for world countries for years 2011. openly published in 2012.¹

¹ Data refer to the year 2011 and are based on the UOE data collection on education statistics administered by the OECD in 2012 (for details see: Appendix and www.oecd.org/edu/eag2010).
3.1. Analysis of research results

The collected data were processed and analyzed using the statistical package of SPSS program and with the analysis of linear correlation matrix and multiple linear correlation matrix, and obtained research results are presented and interpreted by creating tables.

3.2. Analysis of matrix of linear correlation and multiple linear correlation matrix

The study looked at the interaction of variables: the percentage of unemployment of people with low education (primary school), the percentage of unemployment of people with secondary education (secondary school), the percentage of unemployment of people with higher education (university degree) and the unemployment rate.

Table 1. Matrix of linear correlation (made by authors).

<table>
<thead>
<tr>
<th>the percentage of unemployment:</th>
<th>people with low education (primary school)</th>
<th>people with secondary education (secondary school)</th>
<th>people with higher education (university degree)</th>
<th>unemployment rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>people with low education (primary school)</td>
<td>1,00</td>
<td>0,62</td>
<td>0,32</td>
<td>0,95</td>
</tr>
<tr>
<td>people with secondary education (secondary school)</td>
<td>0,62</td>
<td>1,00</td>
<td>0,65</td>
<td>0,89</td>
</tr>
<tr>
<td>people with higher education (university degree)</td>
<td>0,32</td>
<td>0,65</td>
<td>1,00</td>
<td>0,35</td>
</tr>
<tr>
<td>unemployment rate</td>
<td>0,95</td>
<td>0,89</td>
<td>0,35</td>
<td>1,00</td>
</tr>
</tbody>
</table>

As can be seen in Table 1, the linear correlation matrix analysis shows that a variable percentage of unemployed people with low education (elementary school) has a very significant positive impact on the unemployment rate variable with very high efficiency and the highest of all observed variables, then a variable rate unemployed with secondary education (high school) also has a very significant positive impact on the unemployment rate is variable, with a slightly lower coefficient, and, finally, a variable percentage of unemployed people with higher education (university degree) is also positive, but not significant effect on variable rate of unemployment.
Table 2. Multiple linear correlation matrix (made by authors).

<table>
<thead>
<tr>
<th>Multiple linear correlation matrix</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>constant:</td>
<td>2,16</td>
</tr>
<tr>
<td>square of coefficient:</td>
<td>0,84</td>
</tr>
<tr>
<td>standard error of regression:</td>
<td>1,7</td>
</tr>
<tr>
<td>number of observations:</td>
<td>40</td>
</tr>
<tr>
<td>degrees of freedom:</td>
<td>100</td>
</tr>
<tr>
<td>dependent variable:</td>
<td>unemployment rate</td>
</tr>
<tr>
<td>the percentage of unemployment:</td>
<td></td>
</tr>
<tr>
<td>people with low education (primary school)</td>
<td>0,93</td>
</tr>
<tr>
<td>people with secondary education (secondary school)</td>
<td>0,81</td>
</tr>
<tr>
<td>people with higher education (university degree)</td>
<td>0,24</td>
</tr>
</tbody>
</table>

As can be seen in Table 2, the analysis of multiple linear correlation matrix shows that the squared coefficient of 0.84, all three variables have a positive impact on the dependent variable, the unemployment rate, with a variable percentage of unemployed people with low education (primary school) and the percentage of unemployed persons with secondary education (high school) have a very significant impact, while a variable percentage of unemployed people with higher education (university degree) has a negligible effect or no significant effect on the dependent variable, the rate of unemployment. A variable percentage of unemployed people with low education (elementary school) has the highest ratio when observing the impact on the dependent variable, the rate of unemployment.

4. Synthesis of research results

The study is to test the hypothesis that individuals with higher levels of education have a significant negative impact on the unemployment rate of a country of the world. Also, the study aims to test the hypothesis that unemployed people with higher education in a much shorter time finding jobs and significantly shorter period of time are part of the unemployed population.

Research has shown that the hypothesis, which suggests that people with higher education have a significant negative impact on the unemployment rate of a country of the world, is negative. Also, research has shown that the hypothesis, which
says that unemployed people with higher education in a much shorter amount of time finding jobs, and significantly shorter period of time are part of the unemployed population, positive.

Research has shown that a variable percentage of unemployed people with low education (elementary school) has a very significant positive impact on the unemployment rate variable with very high efficiency and the highest of all observed variables, then a variable rate unemployed with secondary education (high school) also has a very significant positive impact on the unemployment rate is variable, with a slightly lower coefficient, and, finally, a variable percentage of unemployed people with higher education (university degree) is also positive, but not significant effect on variable rate of unemployment. Research also has shown that all three variables have a positive impact on the dependent variable, the unemployment rate, with a variable percentage of unemployed people with low education (primary school) and the percentage of unemployed persons with secondary education (high school) have a very significant impact, while a variable percentage of unemployed people with higher education (university degree) has a negligible effect, or no significant effect on the dependent variable, the rate of unemployment.

5. Literature
6. Appendix

<table>
<thead>
<tr>
<th>List of countries involved in the research</th>
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</thead>
<tbody>
<tr>
<td>Australia</td>
</tr>
<tr>
<td>Argentina</td>
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<tr>
<td>Austria</td>
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<tr>
<td>Belgium</td>
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<tr>
<td>Brazil</td>
</tr>
<tr>
<td>Czech Republic</td>
</tr>
<tr>
<td>Chile</td>
</tr>
<tr>
<td>Denmark</td>
</tr>
<tr>
<td>Estonia</td>
</tr>
<tr>
<td>Finland</td>
</tr>
</tbody>
</table>

Table 3. List of countries involved in the research (made by authors).
EVALUATIVE LINGUISTIC RESOURCES: PRESENTING NEW INSIGHTS IN THE FIELD OF MANAGEMENT

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Abstract

Having in mind all the more intensified exchange in the world of business at global level, as well as in international working settings, it is beyond dispute that foreign language proficiency is necessary in today’s world of economy and management. At the same time, in order to present new insights in the field of management, an expert or a researcher has also to have evaluative linguistic resources at his/her disposal. The paper investigates most frequent modal means appearing in the articles dealing with the issues of management. The corpus-based approach is positioned within the appraisal theory, basically corresponding to the concept of evaluation defined by Hunston and Thompson (2000: 5) as “a broad cover term for the expression of the writer’s attitude or stance towards, viewpoint on, or feelings about entities or propositions that he or she is talking about”. The corpus consists of 5 recent articles in economic, i.e. business domain, Management articles of the year, available at www.cmilibrary.managers.org.uk. It has been processed in order to identify evaluative linguistic resources at writer’s or speaker’s disposal when he/she wants to express his/her opinions and attitudes, to suppose and anticipate, get into socially and culturally acceptable interaction with the addressee, as well as to influence the addressee’s subsequent conduct. The basic finding refers to the most frequent evaluative means identified in the corpus being the modal verbs (can, could, may, might, will, would, should), as well as verbs need, seem, argue, claim, appear, believe, think, tend to, suggest, the phrases be likely/unlikely, be supposed to, be bound to, as well as modal adverbs perhaps, presumably, probably, possibly… The paper also offers an outline of poly-functional potential of the identified English modal means used at pragmatic level either deontically or epistemically.
Introduction

Today’s world of management and business is characterised by intercultural environments, the growing trend of mobility within and between corporations, as well as by all the more intensified exchange at global level. As a consequence, business communication exchange events, either spoken or written, involve native and non-native speakers of English. Thus, it is beyond dispute that foreign language proficiency, especially English language mastery, is necessary in the contemporary world of economy and management. At the same time, in order to present new insights in the field of management, an expert, a lecturer or a researcher has also to have evaluative linguistic resources at his/her disposal. In other words, it is not sufficient to have linguistic competence, but it is also necessary to have command over evaluative devices, supported by intercultural linguistic competence. Linguists have recently become increasingly more interested in the linguistic devices used to convey personal feelings, attitudes, and assessments of likelihood (e.g. Hunston & Thomson 2000; Martin & White 2005). Of these, modal verbs are the most common device (Biber et al. 1999: 979). There is evidence in linguistic literature that modal verbs are often problematic for non-native speakers in terms of both perception and active use. Therefore, a targeted analysis of evaluative linguistic means, before all modal verbs in management writings can provide useful insights for both experts, i.e. lecturers, researchers and audiences, i.e. readers who find themselves in cross-cultural contexts of presenting new insights in the field of management.

Outline of the appraisal theory

Appraisal theory and its resources basically correspond to the concept of evaluation defined by Hunston & Thompson (2000:5) as “a broad cover term for the expression of the writer’s attitude or stance towards, viewpoint on, or feelings about entities or propositions that he is or she is talking about”. In other words, it deals with what has traditionally been dealt with under the heading of ‘modality’. More specifically, appraisal theory approach is informed by the notions of dialogism and heteroglossia under which all verbal communication, whether written or spoken, is ‘dialogic’ in that to speak or write is always to reveal the influence of, refer to, or
to take up in some way, what has been said/written before, and simultaneously to anticipate the responses of actual, potential or imagined readers/listeners (Martin & White 2005: 93).

Even though its focus is on ‘epistemic modality’ and ‘evidentiality’, concentrating on interpersonal meaning in written discourse, appraisal theory also recognizes the meanings traditionally classified under deontic modality. At the same time, regardless of the approach to modality and modal verbs as its exponents, the fact remains that in different contexts English modal verbs can express a wide range of meanings falling into different types of modality (according to polysemous view: epistemic – the modality of knowledge and belief; deontic – the modality of permission and obligation; dynamic – the modality of volition and ability). Furthermore, semantics exercises a powerful influence on the grammatical behaviour of the English modal verbs. Furthermore, there are cases in which different domains of modality merge completely, allowing flexibility of pragmatic reading and hindering accurate interpretation.

Appraisal theory divides evaluative linguistic resources into three main categories: adopting subjective positions through attitude, managing and negotiating intersubjective positions through engagement, and intensifying or downgrading a given value as graduation. These three main appraisal systems are further sub-categorised in increasing levels of delicacy. Attitude has 3 sub-systems: affect (emotional response), judgement (evaluation of human behaviour) and appreciation (evaluation of entities).

Research

The research investigates most frequent modal devices appearing in the articles dealing with the issues of management. It should be noted that the study could on the one hand be considered quantitative, since it deals with the frequency of occurrences of evaluative language devices, while, on the other, it also provides qualitative analyses of the examined linguistic means, offering an outline of poly-functional potential of the identified English modal means used at pragmatic level either deontically (within attitude, i.e. judgement) or epistemically (within engagement).

1. Corpus description and methodology

The corpus-based approach is adopted and positioned within the above outlined appraisal theory. A small-size corpus has been compiled for the purpose of the re-
search, consisting of 5 recent articles in business domain, i.e. Management articles of the year, available at www.cmilibrary.managers.org.uk. The articles included in the corpus are as follows: The ‘need to get more for less’: a new model of ‘engaging leadership’ and evidence of its effect on team productivity, and staff morale and wellbeing at work, written by Beverly Alimo-Metcalfe – EL; A new role emerges in downsizing: Special envoys, Ian Ashman – SE; Dynamic knowledge creation, T. H. Powell - DKC; Against the Tyranny of PowerPoint: Technology-in-Use and Technology Abuse, Yiannis Gabriel – TPP; Closing the Needs to Offer Gap: CRM Intervention in Retail SMEs, co-authored by K. Hutchinson, A. Reid & L. Donnell. The corpus has been processed in order to identify evaluative linguistic resources at writer’s or speaker’s disposal when he/she wants to express his/her opinions and attitudes, to suppose and anticipate, get into socially and culturally acceptable interaction with the addressee, as well as to influence the addressee’s subsequent conduct. It is worth noting that the articles are written by native speakers of English language.

2. Analysis

Semantic and pragmatic analysis of a small-size corpus consisting of about 30,000 words has been carried out showing that the ratio of the modal verbs within it is about 1%, i.e. 300 modal verbs have been identified. Table 1 below reports the number of occurrences of these modals in the corpus:

Table 1 Modal auxiliaries in the corpus

<table>
<thead>
<tr>
<th>Modal</th>
<th>Example</th>
<th>Occurrences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Can</td>
<td>Downsizing activities can often become a preoccupation for those charged with managing events…</td>
<td>99</td>
</tr>
<tr>
<td>May</td>
<td>So while these concepts of knowledge may be effective in the present, as they are static, they are unlikely to prove as effective when confronting a dynamic market.</td>
<td>43</td>
</tr>
<tr>
<td>Would</td>
<td>Without the exploration of new possibilities, the organization would find itself trapped in suboptimal states and would eventually become maladapted to changing environmental conditions.</td>
<td>40</td>
</tr>
<tr>
<td>Will</td>
<td>But organizations that devote all their resources to the exploration of new possibilities will face too high a degree of risk, and even in the case of successful discoveries they will often fail to exploit the knowledge they acquire and will systematically perform worse than fast followers and imitators.</td>
<td>34</td>
</tr>
<tr>
<td>Could</td>
<td>If only HP knew what HP knows, we could be three times more productive!</td>
<td>26</td>
</tr>
<tr>
<td>Need to</td>
<td>To successfully compete in these markets, it is argued that firms need to continually create new sources of competitive advantage - but how?</td>
<td>24</td>
</tr>
</tbody>
</table>
Table above shows that the modal verb *can* significantly outnumbers the rest of the modals. Most often it is used in its neutral sense of dynamic modality, simply pointing to existence of particular possibility. The modals following it according to its frequency (*may, would, will* and *could*) mainly express the epistemic modal meanings, while those less frequent modals (*need to, must, should* and *have to*) predominantly belong to deontic domain of modality. Even though the verb *need to* is actually not a modal verb in it narrower formal sense, it is included in the analysis due to its semantic features. Quantitative analysis of other evaluative means has not been undertaken, but their appearance and senses will also be briefly discussed in the text that follows.

### 2.1. Engagement

The domain of engagement within the appraisal theory refers to the resources for positioning the speaker’s/author’s voice with respect to the various propositions and proposals conveyed by a text; it also encompasses the meanings by which speakers either acknowledge or ignore the diversity of viewpoints put at risk by their utterances and negotiate an interpersonal space for their own positions within that diversity. In other words, when using the evaluative language means belonging to the domain of engagement, a speaker(writer can perform a whole range of interactive and interpersonal language functions: he can distance himself from the truth of the proposition, he can express doubt or certainty, as well as attribution and proclamation; furthermore, he can predict, anticipate or express expectation or counter-expectation.

Identified devices falling within the domain of engagement are as follows: epistemic modals: *may, might, could, will, would*, but also the verbs *seem, argue, claim, appear, believe, think, tend to, suggest*, the phrases *be likely/unlikely, be supposed to, be bound to*, as well as modal adverbs *perhaps, presumably, probably, possibly*...
In order to express epistemic distance, i.e. what is generally or currently possible or to be expected in the future, but not necessary, the writers of the examined articles most frequently use the modal verbs *may* (example 1) and *might* (example 2):

1. This means that the knowledge created for one context *may not be relevant* to any other context, and even if it is relevant, it *may not be possible* to articulate this knowledge to easily share it. (DKC 8)

2. Criticism of an emphasis on the ‘inspirational–charismatic’ aspects of leadership grew in the 1990s alongside awareness of the ‘dark side of charisma’, which *might include* arrogance, narcissistic and manipulative behaviours, and be associated with an inability to build and support a team. (EL)

Furthermore, the modal verbs *can* and *may* are used interchangeably to merely denote a whole range of possibilities:

3. Sometimes, the image *may reinforce* the sound or vice versa. At other times, image and sound *can work* against each other and *may produce* entirely novel effects. (TPP 265)

In collocation with perfective infinitive, the modal verb *may* conveys the meaning of possibility in the past:

4. Where an old-fashioned lecture *may have employed* a drawing on a blackboard (...) PowerPoint offers a colour diagram; where a traditional lecture *may have used* an anecdote or a joke to support an argument, a PowerPoint lecturer *may use* a photograph or a cartoon to liven things up. (TPP 267)

As it has already been stated and illustrated above (example 3), the modal verb *can* is predominantly used dynamically, i.e. merely referring to all kinds of possibilities. The same is true for the modal verb *could*. Apart from this usage, the modal verb *could* is often used in collocation with passive infinitive to refer to possible standpoints a phenomenon could be considered from: *could be viewed, could be seen, could be described, could be said, a correct description could be*...

Another interesting sense detected in the corpus denoted by the above stated modal verbs is a warning, which is a meaning balancing between epistemic and deontic modality. In other words, pointing to negative aspects or consequences, the modal verbs *can, could, may* and *might* are actually often used as a warning:

5. ... PowerPoint in the classroom *can* reduce students’ critical awareness... it *can* substantially limit a lecturer’s ability to deviate from a preconceived lecture plan... (TPP 258)
It is not a rare case that may/might and can/could are used as hedges in the expressions like, e.g. if I may/might say so, we can say that, or:

6. The irony, if we can call it that, is that despite the heightened emotional burden, the envoys always felt it right and proper that they should take responsibility for delivering the news of downsizing to their subordinates and colleagues because they knew them best and wanted to provide support.

Even though Palmer holds that might is more tentative than may (Palmer 1990: 10), i.e. implying lower degree of confidence or commitment, the data from the present corpus have not shown any difference between the two, or even the modal verb could, so that the finding is in favour of Coates view, who sees them as equivalent, both expressing the speaker’s lack of confidence in the truth of the proposition (Coates 1983: 133). In each of these cases it is available to the reader to interpret the modalising locutions as a sign by the writer that their knowledge of the matters under consideration is to some degree limited and therefore not sufficient to allow for a categorical formulation of the proposition.

There are two more modal verbs frequently used to express prediction with a higher level of certainty: will and would. When the modal verb will is in question, a process of reasoning is involved as the writer draws the inference from the premise (example 7), while in the case of the modal verb would the prediction is always potential (i.e. it will come true if particular requirements are met) (example 8):

7. Success will ultimately depend on the capacity of the business to analyse customer data collected and use it to make informed business decisions: (CNOG 7)

8. This would result in a relationship as depicted in figure 4 (DKC 12)

Like might, the modal verb would in collocation with perfect infinitive refers to prediction about the past, implying that the writer is convinced that the proposition was true:

9. On this final point, it is worth remembering that many downsizing survivors will have spent some time at risk so have had direct contact with envoys. (SE 32)

Another way which is at writer’s disposal when he/she wants to distance him/herself from the truth of the proposition is to attribute the statement to another source. According to appraisal theory, this is dialogistic expansion through the externalised proposition – attribution. Namely, under the heading of ‘attribution’, the authors deal with those formulations which disassociate the proposition from the text’s internal authorial voice by attributing it to some external source. (Martin
The examined articles are permeated by such evaluative language means, i.e. expressions: *it is argued, it is claimed, in the light of the findings, it is evident in the literature, numerous survey studies had revealed, it has been found, this is consistent with other studies, according to certain author, as cited by...*

Apart from the discussed modals verbs, the corpus analysis has shown that the writers are also searching for other stylistic alternatives, by far the most common of which are the phrases *is likely/unlikely and it seems.*

### 2.2. Judgement

Entertaining dialogic alternatives, deontic modality is classified under the category of entertain locutions within appraisal theory. So, on the one hand, Martin and White classify deontic meanings of permission and obligation within the system of engagement, i.e. the category of entertain locutions (Martin and White 2005: 111); on the other, they note that modulations of obligation can be related to as lexicalized judgements (Martin and White 2005: 55). Prototypically imposing a course of action on the addressee, deontically used modals also make dialogic space for alternative possibilities. In other words, using a deontic modal the speaker often allows the addressee not to take the proposed course of action, acknowledging the speaker’s role as a participant in a dialogic exchange.

Table 1 shows that the most frequent verbs conveying the meaning of obligation is *need to*, followed by *must, should and have to*. According to its illocutionary force, the modal verb *must* is the most powerful, imposing undisputable obligation on the addressee and implying a subjective opinion supported by moral and ethical reasoning. Expressing the existence of objective necessity, the semi-modal *have to* expresses lower degree of deontic modality. Even though *will/would and can/could* are often used in formulaic expressions in interpersonal communication to influence the actions of the addressee, such examples have not been found in the corpus. The modal verb *should* is one of the most frequent modal verbs in the English language expressing, among others, both subjective and objective deontic meanings of medium strength. On the other hand, even though it expresses similar deontic meaning, the modal verb *ought to* does not appear in the corpus, since it is relatively rare (Quirk et al. 1996: 227) and is reaching the end of its useful life (Leech 2003: 236).

In regard to its intensity of deontic meaning, the verb *need to* is between *must* and *ought to*, usually containing a distinctive feature of circumstances being such
that impose a necessity, i.e. obligation. When the analysed corpus is in question, it most frequently expresses the meaning of strong recommendation:

10. Support from the HR function may be valuable, but, crucially, support needs to come from senior managers and peers… (SE 35)

Having in mind that, compared to other modal verbs, it denotes the strongest deontic meaning and is often likened to the force of an imperative, it is rather surprising that the occurrences of the modal verb must outnumber those of have to and should in the corpus.

11. …a company also must search continuously for new strategic positions… then it must attempt to manage both simultaneously… As the old position matures and declines, the company must slowly make a transition to the new. (DKC 3)

The semi-modal have to expresses a meaning similar to must with a significant difference – the obligation imposed by it is due to objective circumstances. Furthermore, what has also been found according to the examples containing the semi-modal is that when it is used the obligation is usually assessed as unpleasant for the one/those it refers to:

12. Every organization that has restructured or downsized has within it “envoys”, people who have to break the news of redundancy or redeployment to their colleagues. (SE 32)

Used deontically, the modal verb should conveys the meaning of strong recommendation:

13. Interestingly, all of the HR envoys said their professional training had provided them with very little insight into the emotional aspect of downsizing suggesting that professional developmental program should pay more attention to the less palatable psychological demands of organizational renewal (SE 35)

Furthermore, in interrogative form, i.e. questions, it usually expresses unwillingness of the speaker, i.e. writer to obey the obligation. In a sense, it usually denotes a protest:

14. Why should I change my ways, purely in response to pressures from students and administrators?’ TPP

Even though they are not so frequent the modal verbs will (example 15) and can (example 16) are also used to express the meaning of strong recommendation:

15. Ideally, that will mean involvement at the strategic, policy and implementation levels. (SE 35)

16. Causal relationships can only be determined through a longitudinal investigation… (EL)
Usually being an implicit component of a text, a direct interaction with a reader can be introduced by the use of modal verbs. Namely, knowing how tricky and delicate it might be for a writer/researcher to offer a definite list of features, the author wants to point it out to the reader that he/she is aware of that fact using the modal verb *may* to introduce a hedge:

| 17. | The skills include (if I *may be permitted* proposing a list): (TPP 267) |

**Concluding Remarks**

The small-scale corpus analysis has identified a whole range of evaluative language means in the texts dealing with economy and management. Overall, modal verbs turned out to be major devices to express writer’s stance. Even though each modal in English can convey multiple meanings falling under different types of modality, there seems to be a trend towards monosemy; in other words, modal verbs *may, might, could, will* and *would* are mostly used to express epistemic meanings, while *need to, should, must* and *have to* usually express deontic meanings. The finding is in accordance with other studies (Leech 2003: 234). Furthermore, when epistemic modality is in question, the writers of investigated articles can hardly be said to be indicating different degrees of commitment to the truth of their statements by their choice of the modal; namely, the choice of a modal does not always follow the epistemic gradient. As for the deontic meanings of the examined modal verbs, the fact that the modal verb *must* outnumbers other deontically used modal verbs is rather surprising, especially having in mind that in regard to its frequency, deontic sense of *must* has significantly declined between 1960s and 1990s, i.e. it has suffered most of all (Leech 2003: 234).

Meanwhile, it would seem worthwhile to carry forward this investigation in economy register extending the size of the corpus and encompassing other means and layers of evaluative language.

**References:**


THE TRAVELLING SALESMAN PROBLEM IN THE FUNCTION OF TRANSPORT NETWORK OPTIMALIZATION

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Abstract
The fundamental objective and purpose of this paper is to analyze the Travelling Salesman Problem (TSP) as a function of forming and optimizing transport networks. There are several software solutions for solving such problems, based on a heuristic algorithm. In practical application, the starting point consists of algorithms with solutions close to the optimum, or at least those with one optimal solution. Accordingly, the basic assumption of this paper is to use object modelling and programming in the spreadsheet interface (VBA for Excel), of which detailed analysis shows more than one optimal solution that could be used to create a flexible and adaptive transport network.

JEL Classification: C61

Keywords: Travelling Salesman Problem (TSP), transport networks, optimization, object modelling, programming

1. Introduction
The Travelling Salesman Problem (TSP) is the problem of discrete and combinatorial optimization. It belongs to the NP-difficulty group of problems, its complexity is $O(n!)$. Mathematical problems similar to the Travelling Salesman Problem were first considered by Euler, who wanted to know how the jumper on the chessboard would visit all the 64 fields only once. In the early 20th ct, mathematicians William Rowan Hamilton and Thomas Kirkman discussed the problems which come down to the Travelling Salesman Problem, and its early general form appears in the 30’s of the 20th ct. The term ‘salesman’ was first used in 1932.
The majority of existing software solutions allows calculation and insight into one optimal solution. Using visual and object methods in programming and modelling to form an algorithm of detailed search criteria can simulate models with more than one optimal solution for small scale patterns, with clear interpretation of the results, not only those in optimal value, but also those of approximately equal values and their deviation from the optimum. Finding a large number of optimal transport relations allows greater flexibility in making a multiobjective selection of optimal transport relation, especially over different periods of time. In this paper, the basic criterion for selection of optimal transport relation is the distance between cities (trade-transport centres). In cases of the same or similar distance, there is a possibility of dynamic selection of multiple transport relations for different periods of time, so, from the perspective of other relevant criteria, there can be one optimal relation for a certain period of time, and another optimal relation for other periods.

2. Theoretical Background and Problem of Research

Logistics have distinct geographical dimension, expressed in terms of flows, nodes and networks within the supply chain (Rodrigue et al; 2006, 161). The spatial structure of contemporary transport networks is the outcome of the spatial structure of distribution. The networks setting leads to a shift towards larger distribution centres, and often serves as significant transnational flux. However, there is no demise of national or regional distribution centres, with some goods still requiring a three-tier distribution system (regional, national and international distribution centres). Figure 1 illustrates five main network strategies.
The following deals with distribution strategy in short (Rodrigue et al, 2006, 163-164). **Point-to-point** distribution is common with completion of specialized and specific one-time orders, which often results with less-than-full-load as well as empty return problems. Logistical requirements of such a structure are minimal, but at the expense of efficiency. **Corridor** structures of distribution often link high density agglomerations with services such as the landbridge, where container trains link seaboards. Traffic along the corridor can be loaded or unloaded at local / regional distribution centers, acting as sub-hubs in this distribution system. **Hub-and-spoke** networks have mainly emerged with air freight distribution and with high throughput distribution centers favored by parcel services. Such a structure is made possible only if the hub has the capacity to handle large amounts of time-sensitive consignments. The logistical requirements of a hub-and-spoke structure are consequently extensive as efficiency mainly derives at the hub’s terminal. Commonly, a major distribution center located at the hub will have privileged access to a terminal. **Routing** networks tend to use circular configurations where freight can be transshipped from one route to the other at specific hubs. Pendulum networks characterizing many container shipping services are relevant examples of relatively fixed routing distribution networks. Achieving flexible routing is a complex net-
work strategy requiring a high level of logistical integration as routes and hubs are shifting depending on anticipated variations of the integrated freight transport demand.

If we observe distribution of goods, it can be considered that its efficiency is proportional to degree of the transport network construction, and strategic distribution planning should be based on the optimal movement drove of a transport network. Strategic planning requires managers to understand types of factors in an environment (Certo & Certo, 2008, 181), and accordingly, to build a flexible and adaptive transport network. Transport network flexibility and adaptability can be achieved by optimizing routes for vehicles moving from one place of departure to specific, more than one transport destination. The most important operational decision related to transportation in a supply chain is routing and scheduling of delivers (Chopra, Meindl, 2001, 284).

The Travelling Salesman Problem (TSP) can be formulated as follows: to choose a pathway optimal by the given criterion. In this, optimality criterion is usually the minimal distance between towns or minimal travel expenses. Travelling salesman should visit a certain number of towns and return to the place of departure, so that they visit each town only once. The Travelling Salesman Problem (TSP) is one of the most studied problems in management science. Optimal approaches to solving Travelling Salesman Problems are based on mathematical programming. But in reality, most TSP problems are not solved optimally. When the problem is so large that an optimal solution is impossible to obtain, or when approximate solutions are good enough, heuristics are applied. Two commonly used heuristics for the Travelling Salesman Problem are the nearest neighbour procedure and the Clark and Wright savings heuristic (Heizer & Render, 2004, T 5-5). The complexity of TSP is vividly demonstrated in Chart 1.
The Travelling Salesman Problem (TSP) from the perspective of combinatorial optimization can be formulated as follows: given a set of n towns C and travel distances $d_{ij}$ from town i to town j. Starting from a given town, it is necessary to visit each town only once, so that the total length of travel distance is minimal. In accordance with the above definition, derive the following formulas and terms: 1) lengths of transport distances (distances between towns) are symmetrical: (1) $d_{ij} = d_{ji}$, 2) input variable is defined as a finite set of towns $C = (c_1 \ldots c_n)$, and the distance matrix is defined in terms of $d(c_i, c_j)$, which indicates the distance between town $c_i$ and town $c_j$ for each pair $i,j$. Since the distance matrix is symmetrical, the following formula applies $c_{ij} = c_{ji}$; 3) permutations are calculated as resultant variables, that is all permuted relations to be gained by a given number of towns. Permutations $p(1), \ldots, p(n)$ from the set $1, \ldots, n$ are calculated and compared so that the sum of the formula is minimal.

Consequently, the Travelling Salesman Problem can be expressed by the formula:

$$\sum_{1 \leq i \leq n-1} d(c_{\pi(i)}, c_{\pi(i+1)}) + d(c_{\pi(n)}, c_{\pi(1)})$$

(1)
The formula represents the sum of lengths of relations starting in town cp(i), i=1, so that each town is visited in a particular sequence (cp(i), cp(i+1)), and finally to return to the town of initial departure cp(1). This algorithm calculates the length for all possible relations and finds the relation with the smallest length. Also, the number of possible relations is factorial of n number of towns, that is, the number of permutations of n elements.

Object program for the algorithm of detailed search in the spreadsheet interface explores and finds all relations with the minimal value achieved. Also, the program can explore and find relations with values close to optimal (minimal) value with predefined minimal deviation. Crucial factor for structuring a transport network with transportation at minimal cost, maximal profits and minimal time is the use of relevant information technologies and computer applications that allow the calculation of the optimal connectivity of nodes (towns) and scheduling of transport relations. Despite this, the level of using computer-supported methods for optimization of transport networks in Croatian companies is significantly lower compared to needs and opportunities provided by natural, human and technological resources.

3. Research Results and Discussion

This section discusses the Travelling Salesman Problem in analysis of a transport network on a practical example. Here, the connection between towns is given: Croatia: Rijeka (RI) and Zagreb (ZG); Italy: Trieste (TR) and Udine (UD); Slovenia: Ljubljana (LJ), Celje (CE) and Maribor (MB); and Austria: Klagenfurt (KL) and Graz (GZ). This example is chosen because it is expected that by joining the EU the Port of Rijeka as a significant refractive traffic point will become an even more important source of trade flows in the regional transport network. Relations between towns are provided in Table 1.
Table 1: Relations between towns within regional transport network

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>142</th>
<th>160</th>
<th>331</th>
<th>266</th>
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<td>142</td>
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<tr>
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<td>121</td>
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<td>152</td>
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<td>147</td>
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<td>74</td>
<td>93</td>
<td>224</td>
<td>288</td>
<td>220</td>
<td>170</td>
<td>73</td>
<td>170</td>
<td>1</td>
<td>9</td>
</tr>
</tbody>
</table>

Source: By Author, according to Google Maps.

Highways are used for connecting towns. When distance and estimated time are smaller on the motorway, compared to a highway which connects the same towns in question, it is recommended to use the motorway. The information from Table 2 shows that by object modelling and interface spreadsheet programming using detailed search four optimal relations are obtained, plus two more relations with 1% deviation.

Table 2: Optimal solutions of movement drove on the regional transport network

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
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<td>6</td>
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<td>2035</td>
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<td>5</td>
<td>7</td>
<td>6</td>
<td>2035</td>
<td>114,7%</td>
</tr>
</tbody>
</table>

Source: Author’s calculations
The information from Table 2 show four optimal solutions for movement drove on the regional transport network:


The information from Table 2 show two suboptimal solutions for movement drove on the regional transport network within 1% deviation:


Accuracy of the above data is verified by comparing solutions obtained by using Xpress, a program language for mathematical modelling (cf. Figure 2).

Figure 2: Optimal solution of movement drove on the regional transport network by use of Xpress
What appears to be interesting is that all optimal solutions include redundant relation (cf. Map 1a).

Redundant relation (GR-MB) means any gap in the context of responsive movement, and hence, of the dual movement on the same route. Formally, mathematically speaking, the optimal relational line, in this example as well, passes exactly once through each node. Realistically, the optimal relation passes through Maribor twice.

For suboptimal solutions (cf. map 1b) within acceptable deviation, there is no redundant relation, and the total movement drove is increased by only 2 km.

4. Conclusion

Object modelling and programming in spreadsheet interface (VBA for Excel) using the method of detailed search, results with a larger number of optimal alternative routes on the transport network that are examined in solving the Travelling Salesman Problem. Finding a larger number of optimal transport relations enables management to achieve greater flexibility and adaptivity of companies and also, faster and easier decision making. Thus managers can consider different optimal alternative solutions and choose the most beneficial solution from the perspective of various relevant criteria. Empirical research confirmed that even suboptimal solutions (within 1% deviation) contribute to effective problem solving.
References


THE INFLUENCE OF PROJECT MANAGEMENT ON ECONOMIC ACTIVITIES PLANNING IN BROD-POSAVINA COUNTY

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Abstract

Croatian economy in the past years has gone through, or is still going through two periods of recession. The first period from 1998 to 1999 and the second that occurred in 2008 and is still lasting. Nine years period of economic growth occurred between these two periods. These economic trends had a significant influence on the economy of Brod-Posavina County, that found its model of economic solutions focused to the increase of production.

The purpose of this article is to determine the correlation between the success of companies in Brod-Posavina County and use of local resources (incentives of Ministry of Entrepreneurship and Crafts) and international programs (CARDS, PHARE, ISPA and SAPARD, IPA) for the promotion of economic activities and entrepreneurs competitiveness. Conducted research showed the actual effect of prepared, nominated and completed projects on economic growth or economic survival of businesses, regardless of company size.

Study is based on an analysis of economic situation of Brod-Posavina County in segment of large companies, middle and small entrepreneurs and craftsmen during the economic crisis in period 2008 to 2011, which caused stagnation of economic activities. Study specifically observes businesses participating in preparation and submission of projects, concerning the source of funding.

SWOT analysis showed that the main problem of entrepreneurs is to organize survival of entrepreneurs companies, without investments in development or new
products adjusted to market figured out. Management activities must be directed to find a solution to increase the economic activities through quality projects whose effects are measurable and which obtain new employment and bonuses to the company. The result is adaptation to the market through new products or services.

JEL classification: O21, R58

**Keywords:** Project, management, economy, Brod-Posavina County, development

### 1. INTRODUCTION

The project can be defined in several ways, some of the definitions describe project as a time-limited one-time enterprise that is committed to provide unique products. Secondly project is timed effort to produce a unique product, service or result. PMI (Project Management Institute) describes project managing as an application of knowledge, skills, tools and techniques in project activities to accomplish project requirements, Barkovic: projects are extraordinary events that must produce the expected results within given time and prescribed budget.

Regardless of the definitions, all projects have several characteristics in common: limited time, specific knowledge is necessary for the implementation, each project has a expenses which must be carefully managed, and methods how project management leads are crucial and strategic aim of the company depending of them. It is often stated that aim of the project is to respond of market demands, to flexibilize products and services, and as a result to create a project-oriented organization whose project teams continually work on planning new products and services. Planning should not become purpose of its own, the planning must be controlled by mechanism based on comparing the achieved results and the aims reached.

For the purpose of more efficient planning and directing the development of Brod-Posavina County, it has been made a strategic document ROP - Regional Operational Programme of Brod-Posavina County 2005 - 2012 conceived as an instrument that will allow Brod-Posavina County to act according to the strategic and concerted development plan to various donors and investors, including the Government of Croatian Republic, the European Commission and to number of other bilateral or multilateral donors. In the short term, the aim of ROP is to allow

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1 www.pmi-croatia.hr (20.03.2013.)
the County more efficiently and economically access to EU pre-accession funds of European Union and the EU Structural Funds as they become available in Croatia. ROP defined development vision and development aims, which is anticipated to strengthen the economy and to reduce unemployment, build infrastructure necessary for the development of entrepreneurship and wise management of the environment, intensive development of the educational systems that can adapt to the needs of the economy.

In order to achieve more successful implementation of ROP, Brod-Posavina County has established a Department of development and European Integration and strengthen the work of CTR - Development Agency of Brod-Posavina County.

Subject of analysis is success of the economy based on the accomplished cooperation between business entities and institutions that have been established for the purpose of economic activity planning and implementation through projects that will be nominated to the sources of financing; national or European funds.

2. ECONOMIC SITUATION OF BROD-POSAVINA COUNTY

Economic of Brod-Posavina County in 2011 (available data) can be observed in segment of small, medium-sized and large entrepreneurs and crafts. In Brod-Posavina County exist 1,523 companies with 15,659 employees. The largest number of companies are in trade sector and in sector of car servicing which employ 1,768 workers. Considering the number of entrepreneurs, next follows the manufacturing sector (294 enterprises), which employs a total of 7,414 employees. Third sector is construction businesses with 199 businesses and 2,541 employed workers. During 2011, in Brod-Posavina County has been worked 2,707 craftsmans with a total of 6,553 employees craftsmen and their workers.
2.1. Influence of globalization on the economy in Brod-Posavina County

Negative trends of economic in Brod-Posavina County has been present during the observation period 2008-2011, the economy is stagnant or in decline, resulting in reduced overall profit business, increased total loss, reduced average net salary, external trade exchange is negative, and the coverage export by import has reduced from 112% in 2008 to 74.22% in 2011.

We can ask the question for reason that consequence is current poor economic situation in the Brod - Posavina County and how to predict economic recovery. Negative trends are mostly indirect results of the reduction in foreign investment as a consequence of the recession in the European Union since 2008. year. The situation is also a result of the recent twenty years, since the creation of the State, War, improper privatization model, through the strengthening of service activities, especially trade, which becomes dominant and without investment in production, resulting no economic development.

2.2. SWOT economic analyses of Brod - Posavina County

SWOT analysis represent a useful tool for the analysis of the current state of the economy and the conditions in which it happens. It can be used as a base on which can be made important strategic decisions that will point in what direction should be economic activity planed.
SWOT analysis shows us that Brod - Posavina County has the capacity of which can be expected economic growth, and that means increasing of production, production capacity, and all other components of the economy apropos increase of the total output of the economy. Growth in the economy can be reached in several ways: progress of labor force, capital goods, technology and productivity per worker. To achieve economic growth, it is necessary to establish a management organization which provides efficiency without forcing and dissipation of resources because managers are responsible for selecting the right aims, their realization through a maximum occupancy of all factors in the process of strengthening each organization individually and as an organization which represent economic factor.

Mission of manager is to direct economic activity, during a time of economic crisis and recession which makes capital more scarce and more expensive, into a direction of change, turning toward to resources which are abundant, and that is people, trying to compensate through the development and maximum use of resources, inaccessibility and lack of other forms of capital. Knowledge that people are an inexhaustible developing resource, and in the same time the most flexible source of capital, defines the business logic and behavior of successful businesses today, their organizational and management structure and all organizational processes. Best examples comes from Japan, which has no natural resources, but with continuous investment in hu-

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man resources has grown into a global economic powerhouse. Economists of Brod - Posavina County are involved in a challenge and the possibility of investing in human resources, which should result in the recovery of the economy.

3. MANAGERIAL METHODS AND STRATEGIES OF BUSINESSMEN IN BROD - POSAVINA COUNTY

The task of management is to find a balance between the aims of the owners, employees, political parties, unions, government. The main task of strategic management is to set planning of programs and projects that will enhance competitiveness, increase the possibility of find the correct behavior in the market conditions and provide new markets.

Strategic managers are dealing with analysis of opportunities, threats, strengths and weaknesses in order to achieve business success and competitiveness that can be reached by investing in human resources, and continuous learning must become a standard of conduct for all employees.

Next task of management is to identify trends in a society like that today’s modern society has become a society of knowledge, and knowledge workers are a key resource of the modern economy, something like an significant “shareholders” of modern society. Knowledge workers are those workers who use and create new knowledge. They use their intellect to transform new ideas into new products, services, processes on solutions and improvements. Their greatest value refers to their ability to collect and analyze relevant information and make decisions for the benefit of the organization in which they work. To knowledge workers has been given great importance like function of generators of future development of the company because they can ,with their knowledge, skills, abilities, and ideas, make an important contribution to the success and development of the company⁵. The task of management is to retain and motivate knowledge workers.

Some businessmen in Brod - Posavina County have recognized the challenges of modern society and they are trying to find a solution of economic problems in way to plan projects and to applicate them to the sources of funding. Those activities preserve jobs and creates new jobs and at the same time takes advantages of the

⁵ Doc. dr. sc. Danica Bakotić: Menadžerski izazovi u funkciji vođenja Radnika znanja u suvremenim poduzećima, Ekonomski misao i praksa, No.1 lipanj2012.
SWOT analysis like well developed customizable education system, educated management, available sources of funding and successful development agencies on that area.

3.1 Analyses of planed and applique project in Brod - Posavina County

One of the most important conditions for achieving greater competitiveness is the ability to control changes, a company that does not know or can quickly learn how to control changes, cannot adapt their strategic management process to deal with their influence. Changes and their influence cannot be predicted with certainty, so the only way to solve this problem is to constantly acquire changes, live with changes, respond to them, or gain the ability to incorporate the changes in professional life as a constant component. Key role in adapting and responding to changing has a project management that has been present for decades, but only now takes a significant position in the new managerial environment and makes necessary postulate in a successful business organization which contributes to the achievement of strategic aims.

Economy of Brod-Posavina County in the last two decades has suffer a significant changes (basic industry was metal industry) but processing industry still employs the most workers which producing organizes a large number of small businesses or tradesmen.

Important role in this type of economic have development agencies in the County, County Development Agency, Centre for Technology Development (CTR) and the Regional Development Agency of Slavonski Brod Ltd which are project managers for supporting small and medium enterprises and craftsmen. Small and medium businesses led by innovative entrepreneurs, focused on research and development, have become the main axis of development for economy and the foundation of economic competitiveness, which is closely linked with way how entrepreneurs thinks which are developed agencies are provide by logistical support.

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7 dr. Hans Ruediger Kaufmann, Dr. Haritini Tsangar, prof.dDr. Demetris Vrontis: Innovativeness of European SMES: Mission not yet accomplished, Ekonomski istraživanja, Vol.25 No.2 Lipanj 2012
Graph 2: Prepared and nominated projects by regions in BP County

Graph 2 shows that the largest number of projects have been aimed at strengthening the competitiveness of small businesses, followed by female entrepreneurship. We can call 2012th year, the year of planning and nomination of innovation and new technologies, and the expectations are that their effects will contribute to the recovery of the economy of the County and way out from the negative trend of falling economic activity. New knowledge is a product of the knowledge society to which we aspire, and only by using new technologies we can respond to this challenge. It is important to note the continued presence of projects targeted at young entrepreneurs which further directs the economy toward recovery.

Today, successful organizations must stimulate innovation and be familiar with the skills of self-change or otherwise they will become a candidate for extinction. Winning organizations will be those organizations that maintain their flexibility, which are continuously improving their quality. Small and medium-sized enterprises have demonstrated the necessary flexibility and they are becoming an increasingly important factor in the economy BPC.

3.2 Analysis of the performance of entrepreneurs regarding to the planned projects

The success of entrepreneurs can be observed by comparing their gross profits, total profits, profits by the annual accounts in calendar year, or to rank them

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8 Stephen P. Robins, Timothy A. Judge: Organizacijsko ponašanje, Mate d.o.o., Zagreb 2009., page 23.
according to the number of employees. Task of indicators is, as part of strategic planning, to monitor achievement of strategic aims. Strategic aims in economic development board of Brod – Posavina County is to increase employment rates, reduce the trade deficit and the coverage of imports by exports. If we observe the statistical reports of most successful companies in the County in the areas of small, medium and large businesses, we can notice that certain companies are among the best in different categories of success according to the annual accounts. Among the most successful companies in the period 2008 to 2011 are the group companies Đuro Đakovic which achieve the highest revenue; Cromos-svjetlost - company that continually shows positive total revenue among medium businesses; Clarum Ltd. - belongs to the group of small businesses that show profits based on annual accounts; Oriolik Ltd. as a medium-sized enterprise with continuous employs important number of workers as well as Descpan Mato frontage Ltd. SIGMAT Ltd is a small company that has been continuously in the top in category of small businesses after realizing the gain based on the final bill.

**Graph 3**: Successful companies which have been using services of developing agencies

It is evident from the graph that the successful business have been declare of companies that have their own project management for example the ĐĐ group or companies which, because of its size and organizational structure, using services of the project management of development agencies. Great interest in the planning, preparation and running of projects has shown from crafts and non-profit sectors as well as youth and female whose logistical support of project management is required to achieve vision of their company, and that will contribute to achieve
the vision that brings ROP: to be focused on reducing unemployment and to raise living standards through the promotion of economic activities which are based on the sustainable use of natural resources and tradition of partnership and on the intersectoral relations.

4. CONCLUSION

Economists of Brod-Posavina County small, medium, large and craftsmen are working in an environment of constant change which is necessary to manage, and the best way to do this is the existence of flexible strategic management, human resources management and project management, which is the task to plan and manage projects to achieve the planned objectives.

In the County operates a significant number of business owners who are not able to form their own management teams which is, in the future, necessary to provide quality support of development agencies for small business so they can be able to follow global trends in the world economy. Previous experience in planning and managing projects have gave the desired results in the companies and trades whose operations managers had a vision which has to be implemented through projects.

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FINANCING OF INVESTMENT PROJECTS IN SMALL MANUFACTURING COMPANIES IN CROATIA

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Abstract

The role of financial managers and financial management in making investment decisions is increasing. The role of finance is incorporated into all business processes and financial decision in the long term affects the total businesses enterprise.

This paper investigates and analyzes the way in which small enterprises that manufacture furniture in Croatia prepare themselves for financial decision-making and how they prepare themselves for financing investment projects. An empirical research was conducted among small enterprises that manufacture furniture in Croatia on the extent of their use of financial pre-accession funds of the European Union and preparations for project funding from the Structural and Cohesion Funds of the European Union. In this context, the contribution of financial resources from these funds on the market competitiveness is described.

JEL classification: D92, E22, F21

Keywords: Financial management, investments, pre-accession funds of the European Union, small enterprises, competitiveness

1. Introduction

Today’s economy can be described as an economy of constant changes, innovations and market uncertainty. In such environment, small enterprises should represent economic growth and development generators and they should, via their growth, development and employment promotion, create economic growth. Manufacturing industry is one of those industries that allows and promotes creation of new values and creation of domestic products via its development. By developing manufacturing industry, better macroeconomic indicators and stable economic cycles in a given economy are ensured.
Share of manufacturing industry in the GDP of the Republic of Croatia has decreased by 3% during the last 10 years and is one of the reasons why small manufacturing enterprises are the subject matter of this paper.

This paper focuses on the role of small enterprise financial management during a process of making investment decisions. For the purposes of this paper, existing studies regarding small manufacturing enterprises have been examined and a research was conducted among small manufacturing enterprises that manufacture furniture in the Republic of Croatia.

2. Role of financial management in small enterprises

Financial theory and practice during the 20th century has been the subject of constant changes caused by globalization processes and other market changes. Together with dynamic economic development, finances also developed and business finances have mostly been developed during the 20th century. At the beginning, business finances mostly dealt with financial institutions, instruments and were equated with accounting. Economic development in modern times demanded concentration of financial assets, so concentration and centralization of capital became the levers for development of modern market-oriented economies. Soon after that, financing problems became more complex. The question of external business financing grew in its importance due to a growing number of new innovations, increased number of newly-opened enterprises and changes in economical structures (Veselica; 1995, p.23).

After the great economic crisis during 1923-1933, which encompassed all field of economic theory and practice, and especially business finances system, there was a need for solving problems of liquidity, insolvency and reorganization which focused business finances towards saving existing enterprises. Until the 1950’s, finances were dominated by a traditional approach that looked at enterprises from the outside, from investor’s point of view, while decision making process within the enterprises was not specially emphasized. Profound changes in the development of finances were brought about by a publication of two books: “The Theory of Investment in the Firm” (1951) by Friederich and Vera Lutz and “Capital Budgeting” by Joel Dean (Veselica; 1995, p.24).

Computers and complex information systems allowed financial managers to access data that contributes to increased efficiency of financial markets. Financial
analysis and financial planning were developed, which allowed better understanding of financial problems which in turn resulted in making better financial decisions.

Further contribution to development of financial analysis and financial management came from works in the second part of the 20th century. Special contribution was given by Harry M. Markovwitz in his work „Portfolio Selection: Efficient Diversification of Investment“, Wiliam F. Sharpe in his work „Capital Asset Prices: A Theory of Market Equilibrium under Conditions of Risk“, John Lintner in his work „Security Prices, Risk and Maximal Gains from Diversification“, and Eugen F. Fama and Merton H. Miller in their work „The Theory of Finance“ (Veselica; 1995, p.24). The development of finances strengthened the role of financial management whose scope of work was broadened from its original role of studying data to overall financial analysis that encompassed both external and internal analysis.

The definition of financial manager changed during time as its role in business finances changed due to complexity of financial manager’s responsibilities and obligations. Financial manager actively manages financial activities in various types of organizations: financial and non-financial, small and big, profitable and non-profitable, private and public. It performs various tasks such as budgeting, financial forecasting, cash and credit management, investment analysis (Ekonomski leksikon, 1995).

There are different types of financial managers, but regardless of the type and scope of their work, they all deal with:

- assets earmarked for property investments
- creating the best combination of financing and
- making investment decisions

Since financial managers make investment decisions, it is necessary to define them for the purposes of further understanding of this paper. Investments are used for expanding or restoring manufacturing potentials, converting financial assets into real capital elements. There is a difference between financial and real investment. Financial or portfolio investments are just a transfer of financial assets between economic subjects. Real investments are investments into equipment, facilities and supplies and are divided into investments into basic assets and investments into working assets (Ekonomski leksikon, 1995). Broadly speaking, investment is an accumulation in the present with the hope of future gains.
Investment can be performed in various forms, but it is mostly performed via cash assets, for the purposes of gaining certain economic benefits, i.e. profit (Orsag & Dedi, 2001, p.15). The same authors claim that while doing so it is possible to invest in financial forms of property and appropriate investment or into real form of property that allows the realization of economic benefits, i.e. profit created via certain productive business activities.

Large enterprises have financial departments in which financial managers are responsible for making all financial decisions. But, in small enterprises in most cases only one person makes all decisions and that person is simultaneously operative and financial manager, and very often the owner.

Due to that fact, this paper describes the role of financial management in small manufacturing enterprises during a process of making decisions regarding financing of a certain investment project. One of the forms of financing is using pre-accession and Structural Funds of the European Union. That is why a research was conducted among small manufacturing enterprises that manufacture furniture to determine how much financial assets are they using from pre-accession funds of the European Union and whether they intend to use financial assets from the Structural and Cohesive Funds of the European Union that will be available to Croatian entrepreneurs after the Republic of Croatia becomes a member of the European Union.

3. Small manufacturing enterprises in the Republic of Croatia

Manufacturing industry is a part of an industry that mechanically, chemically or otherwise processes various raw materials and intermediate goods. It encompasses manufacturing branches that process products of extractive industry, agriculture, forestry and various synthetic raw materials (Ekonomski leksikon, 1995). Manufacturing industry is, alongside financial intermediation sector, real estate sector, renting and business services sector, a sector with the highest share in the GDP structure and overall employment in the Republic of Croatia and has by far the biggest share in overall export of the Republic of Croatia (Ministry of Economy of the Republic of Croatia).

In order to define manufacturing enterprises that manufacture furniture in the Republic of Croatia, we first need to examine the National Classification of Activities 2007 that came into force on 1st of January 2008. According to the National
Classification of Activities 2007, industrial policy sector is amenable for the following manufacturing industry sectors (National Gazette, 58/2007):

- manufacture of textiles, clothing, leather and associated products
- manufacture of chemicals and chemical products, pharmaceutical products, rubber and plastic and other nonmetal mineral products
- manufacture of metals and metal products
- manufacture of electronic and electric products and machinery
- manufacture of food products and beverages
- manufacture of wood and products made of wood and cork and manufacture of furniture, paper and paper products

Manufacturing furniture implies manufacturing furniture and associated products using any materials apart from stone, concrete and ceramics.

The total enterprise sector in Croatia is composed of 168,931 productive units. Within this enterprise universe, the SME sector (1 to 249 persons) comprises 168,443 productive units. There are 155,828 micro-enterprises which account for 92.5% of total SMEs (76,665 legal entities (including cooperatives) and 79,163 crafts); 10,599 small companies or 6.3% of all SMEs, comprise of 8791 enterprises and 1808 crafts, and 2015 (0.2%) are medium sized enterprises, comprising 1954 enterprises and 61 crafts. The leading productive sectors are: the wholesale and retail trade sector (24.35% of enterprises); manufacturing (13.27%); construction (13.07%); accommodation and food service activities (10.67%); and, professional, scientific and technical activities (10.38%). These five sectors represent contain 72% of all SMEs (The Croatian SME Observatory Report; 2012.).

The SME sector (including crafts) contributes significantly to the development of the Croatia’s economy in terms of employment generation (50%), exports (40%) and value added (56%). SMEs employ 35.7% of total labor force, with crafts employing a further 14.6%; together they employ 50% of the total labor force (The Croatian SME Observatory Report; 2012.).

According to the data presented by the Croatian Chamber of Economy, small enterprises make 21.37% of all enterprises within manufacturing industry. Due to that fact, and a fact that manufacturing industry should be a generator of economic growth and development of every county and a main employment sector, this paper is focused on small enterprises within manufacturing industry and the possibility of their further growth and development.
During the period 2008-2010, the number of enterprises in manufacturing industry has increased despite the economic crisis that dominated Croatian economy during the said period. In 2008, share of manufacturing industry enterprises in the overall number of enterprises was 11.83% and in 2010 that share was increased to 11.87%. The increase of manufacturing enterprises was 7.78%, while the overall growth of number of enterprises was 7.44%. Despite the aforementioned growth, the number of small enterprises has decreased during the said period by 1.8%, while the number of micro and medium enterprises was increased by 11% and 2% respectively.

According to the data of the Croatian Chamber of Economy (Croatian Chamber of Economy, 2012) and the Register of Business Entities, annual financial report for 2011 was submitted by 3 large, 20 medium and 561 small manufacturing enterprises whose principal activity was manufacturing furniture. This data is mentioned since a research was conducted among small manufacturing companies that manufacture furniture in the Republic of Croatia for the purposes of this paper.

4. Investment project financing in small manufacturing enterprises

A precondition for creating investment climate in a given economy is to create a legal frame and institutional support.

One of the most important acts aimed for promoting investments in the Republic of Croatia is the Investment Promotion Act (National Gazette, 138/2006) and the Promotion of Small Enterprises Act (National Gazette, 29/2002, 63/2007) that define promotion measures for investments in the Republic of Croatia. These measures concern investment projects in: manufacturing-processing economic activities, technological development-innovative activities and strategic activities of business support. In order to increase entrepreneurship capacities and promote investment in the Republic of Croatia, since 2004 several main institutions which act as a support to investment development were established and linked. Those institutions include Ministry of Economy, Croatian Agency for Small Enterprises, Croatian Bank for Reconstruction and Development, Croatian Chamber of Economy, Croatian Chamber of Trades and Crafts, Croatian Employers Association, various entrepreneurship centers, entrepreneurship incubators, technological centers and parks, regional development agencies, private consultants and many other institutions and legal entities.
According to the data stated in The Croatian SME Observatory Report 2012, investments in small enterprises have decreased during 2008-2010. Data regarding investment amounts are presented in Table 1.

Table 1: Manufacturing industry enterprise investments in the Republic of Croatia in 2008 and 2010

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<th>Year</th>
<th>Micro</th>
<th>Small</th>
<th>Medium</th>
<th>Large</th>
<th>Cooperatives</th>
<th>Crafts</th>
<th>Total</th>
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Source: Data processed by the author based on the data stated in The Croatian SME Observatory Report 2012

Investments in micro enterprises were reduced by 48.3%, while investments in small enterprises were reduced by 64.76%. Investments in medium and large enterprises were increased by 19.2% and 4.8% respectively. Presented data is alarming for micro and small enterprise sectors, since their share in overall number of enterprises in manufacturing industry was 94.90% for 2010.

That raises a question regarding the manner in which financial management and personnel responsible for making investment decisions in small manufacturing enterprises make decisions regarding financing investment projects and what sources are they financed from.

The usual manner of financing investments into real property in small enterprises in the Republic of Croatia is from own sources, via banking credit, co-financing via non-refundable incentives issued by the Ministry of Entrepreneurship and Crafts and from pre-accession funds of the European Union.

With the frame of a project titled “Improvement of Administrative Efficiency on National Level” a qualitative research was conducted regarding support programs issued by the Ministry of Entrepreneurship and Crafts and experiences of small and medium enterprises regarding application procedures for receiving support. Results indicated that the most frequent reason why entrepreneurs did not apply for a support in the last 4 years were: they did not know that ministries are issuing supports (26%), they did not know when to apply (20%), that they do not believe in the fairness of selection (15%), that they did not meet the criteria (14%) and that they did not apply because of complicated application process (10%). Enterprises that used the aforementioned support, when asked how significant was the support,
stated that: the support was a huge help (9%), the support had significant positive impact on their business activities (22%), the support has slightly contributed to their business activities (32%), while 12% of enterprises stated that given support did not at all contribute to their business activities (The Croatian SME Observatory Report 2012, p. 158-161).

The manner in which small manufacturing enterprises used funds from pre-accession funds of the European Union and a manner in which they prepare their business activities regarding financing investment for accession into the European Union are reflected in obtained data from research among small enterprises that manufacture furniture. Phone survey completed during September 2012 included 42 small enterprises out of 561 total small enterprises that manufacture furniture in the Republic of Croatia. They were asked about their usage of assets from pre-accession funds of the European Union. Only 4.76% of enterprises uses such assets and are readying themselves for using assets from Structural and Cohesion Funds, 33.33% do not use assets from pre-accession funds, 40.48% are readying themselves for using assets from Structural and Cohesion Funds and 19.05% do not intend to use assets from the aforementioned funds of the European Union after the accession of the Republic of Croatia.

Based on the data we can conclude that in the Republic of Croatia investment project financing of small manufacturing enterprises from non-refundable funds and pre-accession funds of the European Union is still inadequate. Significant changes on Croatian market will start with the accession of the Republic of Croatia into the European Union and that will surely change competitive position of Croatian enterprises. They will be able to seek new markets for their products, and in order to achieve competitiveness it is mandatory to change existing investment attitudes and approaches.

Possible restrictions for further investments are human potentials and technical-technological potentials of enterprises. According to the results of this study regarding the volume of financial decision making methods utilizations when making decisions regarding the efficiency of investment project in manufacturing enterprises in the Republic of Croatia, conducted for the purposes of Master thesis (Štavlić, 2012) it was concluded that in almost 62% of surveyed enterprises there is no additional employee training in the field of financial management and that a third of enterprises does not utilize a single method for making financial decisions when making investment decisions. Furthermore, according to the same research, almost
85% of enterprises do not intent to educate their employees about the methods used for making financial decisions in the near future. Only 16.67% of enterprises are focused on future employee educations and on utilizing method for making financial decisions, while 64.29% believe that financial decisions are the responsibility of the owner and they will not opt for additional employee education that would allow them to use methods for making financial decisions. Current and future investments in the enterprises that participated in this study are in most cases earmarked for equipment, manufacturing facilities and introduction of new products on the market, while none enterprise that participated in this study does not invest, nor has a plan to start investing, in patents in the next two years. This fact does not go into favor of compositeness since innovation process should accompany investment process. Such results prove the fact that inadequately developed human potentials represent a limitation to promoting investments in small enterprises.

5. Conclusion

Financial management and financial managers have increasingly important role in small enterprises during the process of making investment decisions. On the basis of a research conducted among small manufacturing enterprises it was concluded in this paper that small enterprises should invest more effort in educating their managing structures (in most cases the owner is also a financial manager) regarding making financial and investment decisions, because of the increasing role of management and ownership structure in the process of making investment decisions. Reduced investments in small and micro enterprises can be alarming since small enterprises represent 21.37% of all manufacturing enterprises. Analyzed results indicate still inadequate utilization of secondary financial sources (apart from own sources and bank credits). Financing real investment from non-refundable assets pre-accession and Structural Funds of the European Union allows more successful business activities and competitiveness on the marker, which is the precondition for maintaining successful business activities after the Republic of Croatia becomes a full member of the European Union.
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GENERAL ECONOMICS
Abstract

In our globalized world more and more experts are dealing with investigation of country image, and number of countries, trying to shape consciously their country brand, is increasing. Present study is dealing with a reasonably actual field of marketing through an example of a special country image. Croatia proclaimed its sovereignty in 1991, which also meant the beginning of the Yugoslavian war causing enormous human, cultural and economic devastation. At that time Croatia, coming out from Yugoslavia put itself on the map independently, and its success is not only proven by its being one of the most famous destinations of the Mediterranean but as well by its new chapter heading the EU, leaving its history’s storms behind. Now the new challenge for Croatian country image is to find its place in the European Union. The paper aims to demonstrate the present Croatian image in Hungary based on primary research.

JEL Classification: M30

Keywords: Croatia, Hungary, country image, country brand

1. Introduction

“It would not be necessary to highlight but for safety’s sake: the collocation ‘Croatia and the EU’ is not the same as ‘Croatia and Europe’, as EU has no right to monopolize this term. Balkans are also Europe irrespectively of the manner how Croatia located itself in it or how it is perceived from the outside. Croatia is Europe, not only from geographical but from cultural aspects alike, regardless from the fact that it is still behind Western-European cultural standards.” (Kušar; 2006)

Present study investigated this idea. Why is it so important? Croatia, being in the anteroom of EU, faces a rare opportunity – however, it already had a similar one...
in 1991. First step of leaving the Balkans’ pejorative characteristics behind was the birth of independent Croatia and the last more than two decades, characterized by fighting the negative effects of war and development of a strong touristic image, seems to be fruitful. We still cannot state that this process was entirely successful. With the accession new changes are coming, Croatia has to find its place in the EU. The study focuses on the nowadays reasonably popular field of country image which is today extremely actual in the everyday life of Croatia. It also investigates a small and specific slice of the reception of Croatia in the European Union along with the Croatian image in the minds of neighbouring Hungarians.

2. The Croatian country image

In recently published marketing papers (and also in our everyday conversations) some kind of destination image often appears, along with specific country image, which is defined by Kotler as the sum of different views, beliefs and opinions that people have about a country. (Kotler et al.; 1993) The notion of country image can be found in professional literature dating back to the 1960s, at that time primarily from the aspects of the so called country of origin effect. However, the latest papers investigate country image as a brand value, as a result of which the process of country branding shows up. Every country has a continuously changing image, varying spontaneously or in a managed way (Papadopoulos & Heslop; 2002), and as all image types, it is a multidimensional concept. (Sándor; 2003) As a result of the independence of colonies, the breakup of the Soviet block and Yugoslavia, there are around 200 countries competing in our globalized world, and the role of country image is highly prominent in this battle. According to Anholt (2005) a good country brand means “soft power” in this competition, and in Kotler and Gertner’s (2002) opinion it is specifically a competitive edge. Simon Anholt, being the first to write down the concept of “nation branding” in 1996, called country image as competitive identity in 2007 connecting it to national identity, as country brand is the material, strong, communicated form of it. (Anholt, 2007) Papp – Váry (2009) says that the goals of country image are primarily economic; enhancing tourism, supporting investments, export and improvement of the country’s judgment in foreign policy. These are true for the investigated country as well, but it also has to be taken into consideration that the history of its past century is not only marked by the typical processes of transitional countries, but also by a dominant war. Croatian image is now facing more challenges; it has to become competitive in the battle of countries, moreover, accessing a new group of states it must strain strongly after
getting the negative consequences of its history over, since still today it is frequently associated with the war, war crime, home of barbarian people, corruption or the dark Balkans. The conflict between attraction towards and loathing from the foreign political, ideological and economic influence is one of the permanent elements of the history of the Balkans (Jelavich; 1996), including Croatia. Its past is characterized by linkage to different nations: after the Romans conquered the Illyrians, Avar and Slavic tribes appeared in the region. The country entered a personal union with the Hungarian crown, hence after the Tatar and Turkish invasion it became part of Austro-Hungarian Monarchy, the first and second Yugoslavia, later led by Josip Broz Tito in which six countries were kept together along a so called Yugoslavian identity. (Bali & Kolútácz; 2006) After Tito’s death Yugoslavian member states proclaimed their independence one after the other – Slovenia and Croatia were the first in June 1991. The Yugoslavian War broke out. More than 20 years have passed since Croatia became a sovereign and internationally recognized state. Austria and Germany were the first supporting Slovenia’s and Croatia’s secessions, carefully adding to the later that it could expect a long and tough path. (Juhász et al; 2003) According to Vukadinović (2000), forming the independent state of Croatia showed a range of peculiarities since it used to be one of the countries possessing the strongest economy in former Yugoslavia that could not benefit from it as it got involved in a war. The independent Croatia, getting the image of a “victim” after its international recognition in 1992, had outstanding opportunities for economic recuperation and for creating a positive image in tourism, as a result of which its marketing activity was mostly focused in this direction in the following years. Croatia’s victim role was soon destroyed by the Croatian acts committed (or not committed) during the war. Disappointment of Europe is dated between 1995 and 1999. (Skoko & Jurilj; 2011) The war slowed down the democratization process as well, hereby the Croatian image was really facing a difficult fight. Governmental change in 2000 brought a new step in the process of joining Europe, soon the accession negotiations began at the end of which everyone concerned could heave a sigh of relieve, Croatia is accessing the EU on 1st July 2013. (Ištaković; 2012)

3. Methodology

Aim of the study was to provide a small insight into what Croatia’s image can expect from the accession. Besides the fact that the investigation cannot be considered representative regarding neither the EU nor Hungary, the results may be noteworthy because of the large sample. The research was carried out by an online
questionnaire in March 2013, collecting the answers by snowball sampling. 681 valid questionnaires came back within a two-week-long period. During the design the main aim was that the respondents in the beginning cannot recognize the focus of the investigation since principally their overall associations were expected. According to this, in the first few questions Croatia does not appear independently, and guiding the respondents’ thoughts, like by showing the word “tourism” in the beginning, was tried to be avoided. The questionnaire strived to investigate what image Hungarians associate Croatia with nowadays, not long before the EU-accession. The sample consists of Hungarian citizens, 59% of which are women and 41% men, with the average age of 29, 70% possessing BSc or MSc diploma, 56% working and 43% living in Baranya County, while 23,5% living in Budapest or Pest County. It is worth mentioning that as a control question they were asked to answer whether they have national connection to Croatia, the result of which was 12.6% and their answers were not decisively differing others. They were also asked how many times they have visited Croatia so far (53.5% three or more times) that aimed to examine the rate of building their opinion on own experience.

4. Results

In this chapter the summarized results, a basic insight is shown, taking no notice of the methodological sequence of the questionnaire design.

4.1 Toolkit of country image

Because of (and through) its tourism, Croatia created its slogan, logo, used colours early, that all showed up in the received answers. Regarding Croatia, 84% of the respondents associate on some word in connection with the seaside tourism such as the sea, seaside, the Adriatic Sea, holiday or the tourism itself, and similar results came regarding the symbol of Croatia, as 42% associate on some emblematic things of sea or tourism but many answers (18.5%) mentioned the red-white chessboard, the flag (10%) and the coat of arms (5%). 71% of the sample associated the blue colour with Croatia and 13% the red, while beside 13% of “I don’t know” answers 59% think it would be a male if being a person. By giving a Croatian settlement it can be observed that besides the capital (16%) holiday resorts were mentioned, in a relatively higher rate Split and Zadar (11%), Dubrovnik (9%) and supposedly because of its location near the Hungarian border, Osijek (7%).
4.2 Allocating Croatia within the neighbouring countries

First two questions of the questionnaire asked to allocate Croatia within the neighbouring countries of Hungary. It was asked to rank the seven countries where one would choose to move and to do international business with. Results are shown in Figure 1 presenting the average position of each country based on the mentioned two viewpoints.

Figure 1: Average position of neighbouring countries regarding moving and doing international business

Hungarians would prefer moving to Austria at first place, at second to Croatia, then to Slovenia, followed by Slovakia, Serbia, Romania and Ukraine. The ranking is the same in case of doing business with a neighbouring nation as well, except for the position of Croatia and Slovenia, the reason of which could be the years-long Slovenian EU-membership and the probably evolved practice during these years, moreover, when moving people may prefer a beautiful place at the seaside. Besides, Slovakia has also been an EU-member for several years, Hungarian people still do not desire that country and far not Romania. Though not by a higher percentage, but Hungarians still chose Serbia before Romania. The aim of these two questions was to show the supposed difference between countries situated to the west and
east from Hungary, and Croatia’s judgment not independently but compared with other neighbouring countries.

4.3 The EU-accession

Two questions were designed to see how Hungarians, as neighbouring nation, are aware of Croatia’s EU-accession and whether they agree with it. It is hopeful that based on open answers almost 350 people knew the exact date of accession (2013) although besides a few extremities 2014 also got big number of responses. Moreover, 186 think that Croatia is already an EU-member. Even so, the average guess was 2012. Besides 13% of no answer, 76.5% agree with Croatia’s EU-accession. It is interesting to mention that 59% of respondents having Croatian roots agree and every third person belonging to Croatian minority in Hungary would say no.

4.4 “European Union or the Balkans?”

It is a frequent dilemma worldwide to allocate the former Yugoslavian states on an imaginary line between “Europe” and the “Balkans”. It is extremely difficult to define these terms since people would rather only feel the developed world and economic wellbeing behind “Europe” and pejorative characteristics behind multicultural geographical unit often called the “dark Balkans”. In the questionnaire an attempt was made to present Croatia’s position on this imaginary line with three questions. In these three questions there were four groups of characteristics regarding the environment, legal-political, social and economic aspects. In question 8 the respondents were asked to rate these on a five-point scale regarding how much each characteristic is true for Croatia (where 1: not at all and 5: absolutely), and later in question 13 the same was asked regarding EU and in question 14 the Balkans. The results (average rating of each characteristic) are shown in Figure 2.
Considering that the aim of the survey was investigation of the image-associations, it was not a goal to explain what the terms “European Union” and “Balkans” mean. The expectation was rather to see whether Croatia is nearer to one or the other. Besides the fact that rating on the five-point scale tends to move towards the centre, there is a tendency showing that Balkans got smaller values in all cases than the EU and Croatia. Croatia is usually positioned between the two others, although there are some surprising results as well. Croatia is allocated even above the EU regarding both the quality of the roads and the cleanliness of the environment. Croatia is averting the EU also in case of the quality of tourism services and some social characteristics as well, according to which Hungarians consider Croatian people to live a much healthier life and to be more trustworthy than EU-citizens. There are surprising results in the legal-political block as well, since, although Croatia does not reach the EU in its democratic functioning, public security is better and there is a lower degree of corruption, organized crime, and even ethnic tension (being in the block of social questions). These show favourable results for Croatia as during the accession negotiations and also in the international press these peculiars have been often mentioned as weaknesses. It can also be easily concluded that Balkans are far away from getting good evaluation and Croatia seems to be separated from
it. Considering all the three territories (including the Balkans as well), the highest rates were given to cultural values. In its entirety it can be concluded, taking also in consideration the obscurity of the concepts mentioned above, that according to the Hungarian respondents Balkans decisively lag behind the European Union and Croatia is far not Balkans. Furthermore, in many aspects it even precedes the EU. Referring to the beginning, the aim of these questions was to reveal what a Hungarian person means by “Balkans” and “European Union”, and how Croatia is evaluated compared to them. The reason of the methodology was that a country image basically develops this way: opinions are not weighed based upon rational arguments, but rather leaning on individual impressions, experiences and feelings.

Following these questions, as a test, the respondents were asked whether Croatia was considered rather to be “part of” Balkans or Europe, based on their feelings. Beside 9% of “I don’t know” answer 69% think that it is more a European country. This question was a control to the results presented above and, although there is a high percentage of Balkan answers, people think three times more (taking everything in consideration) that Croatia is a European country.

4.5 Croatian, “Yugo”, Slovenian or Serbian?

Based on subjective selection of the Author, a bunch of five Croatian, five Serbian, five Slovenian and five, in the region today also existing former Yugoslavian products, famous persons, concepts, places, food, beverage or film was shown. (see Figure 3) The group called Yugoslavian (in Hungary still often called “Yugo”) refers to items not necessarily selected based on their origin but with the reason to see whether the respondents were able to separate the brands they are familiar with. The respondents saw the elements in alphabetical order and in contrast with the other questions, giving an answer was not compulsory.

They were asked to mark the items which they thought was for sure Croatian, unaware of the numbers belonging to each group. 609 respondents marked at least one Croatian brand, out of which 164 only chose Croatian and Yugoslavian one.
Figure 3: Croatian, “Yugo”, Slovenian or Serbian?

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<td>Radenska (mineral water)</td>
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<td>Janis Nataša (canoeist)</td>
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<td>Black Cat White Cat (film)</td>
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<td>Nemanja Vidić (soccer player)</td>
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<tr>
<td>Novak Đoković (tennis player)</td>
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<td>Zastava (car)</td>
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</tbody>
</table>

Source: Author’s calculations

119 marked only Croatian item and only 11 managed to find all the five ones. Total number of marks of each items (sequentially: Croatian, “Yugoslavian”, Slovenian, Serbian) is presented in Figure 3. All Croatian items were marked by at least 30% of the respondents; principally Plitvice was recognized and the least of all was Vegeta. Goran Višnjić is “beating” Davor Šuker but Jana is highly considered to be from Croatia. The second highest values are given to the Yugoslavian group where for instance the čevapi got higher mark than Vegeta but the ajvar, kolo or šljivovica are also considered to be only Croatian. Radenska mineral water is emerging from the Slovenian group although it did not get as many marks as the really Croatian Jana. Serbian group got a bit less votes than the Slovenian one, however it is surprising that not only the tennis player Novak Đoković achieved good position but many people think of our really well-known Olympic champion and at the same time Serbian Janis Nataša that she is Croatian. Aim of this question was to see how much are the Croatian brands recognizable among the respondents in Hungary and according to the results, although they sometimes mix them up with
the Serbian and Slovenian brands, all in all half of the sample recognized what was Croatian. However, it is noteworthy that still too many people are confused by the distinction between Croatia and “Yugo”.

5. Conclusion

Although, the results presented above cannot be regarded as representative it also has to be mentioned that Hungary cannot be regarded as Western Europe. Hungarian answers could demonstrate much different views about Croatia than the responses of other nations situated more to the west would. From this point Croatia is a touristic paradise, proven by the associative questions since our first thoughts about the country are in connection with the sea. However, it is surprising that although 43% of the respondents live in Baranya County near the Croatian border, and hence could have been touched by the wind Yugoslavian war, the potential role of war in country image did not appear in the results. Respondents could distinguish between the subjective concepts of the “Balkans” and the “European Union” for the benefit of the later, and they did not only consider Croatia far away from the Balkans but in several cases even positioned it high above the EU. If Hungarians would have to move they would prefer Croatia right after Austria and they would rather do business with Croatian people than Slovakian, Serbian, Romanian or Ukrainian. The Croatian EU-accession is seemed to be supported by Hungarian people. All in all it can be concluded that independent country image development of the past more than 20 years, focusing on tourism and the EU-accession was definitely successful among Hungarians. To forget the concept of “Yugo” in everyday small talks by Hungarians may still require some time; probably a new generation which will not see the remains of bullet shots on the walls of houses anymore, will respect the nation that defended its country and will also know that not every food ordered from the friendly, patriotic and hospitable waiter in the seaside restaurants is originally Croatian.
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IMPLEMENTATION OF ORGANIZATIONAL BEHAVIOUR AND MANAGEMENT DECISIONS IN THE GOLF COURSE MANAGEMENT

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ABSTRACT

The main objectives of company management are making profit and strengthening the competitiveness on the market and the further development of business functions. The same hypotheses concern the management of golf courses as a business entity on the tourism market that must apply knowledge of modern scientific disciplines in order to succeed. Managerial decision making and organizational behavior are one of the most important among them. The former is the process of making decisions about the functioning and operation of golf courses, while the latter is a scientific discipline concerned with the systematic study of actions and attitudes that people show within the organization and within the team, including the team of people working on the golf course. Therefore, the knowledge of these two disciplines is of great importance to the management process, and need to be applied in the functioning and operation of the golf course as a subject on the tourism market.

JEL Classification: D23

Keywords: organizational behaviour, managerial decision making, management, golf course, scientific disciplines

1. INTRODUCTION

Since making profit, strengthening the competitiveness on the market and the further development of business functions are the main objectives of the company management, the golf course management process as a subject in the tourism mar-
ket requires the application of knowledge in various fields. Managerial decision making and organizational behavior are one of the most important among them. In the second part of this paper are therefore examined the relevant facts about the process of managerial decision making and organizational behavior. The third part examines the basic principles of management of golf courses. The synthesis of organizational behavior and the managerial decision making principles used in the golf courses management process is to be found in the fourth section. In the conclusion, i.e. the final section, the most important results of this research are systematically and concisely formulated and presented.

2. BASIC SETTINGS ABOUT MANAGEMENT DECISION PROCESS AND ORGANIZATIONAL BEHAVIOUR

2.1. BASIC SETTINGS ABOUT THE MANAGEMENT DECISION PROCESS

Decision making is on the basis of each guidance and leadership. It can be defined as the process of preparing and making decisions as a choice between several alternatives. Decision making is a process of preparation and decision making (Tadin, 2003, 96). This process consists of several steps that logically follow one another. The rational decision-making approach assumes that managers follow a systematic step-by-step process (Griffin & Moorhead, 2007, 202). The scheme of managerial decision-making is as follows:
Stating the decision goal is the first step in the process of managerial decision making which determine whether there is a decision to be made. The problem recognition and the need for its resolution is the second step in the process of managerial decision making. At this stage it is stated that the problem exists and is developed the criteria through which that problem will be solved. After the identification, the next step in the decision process is to decide whether the decisions to resolve the problem will be programmed or non-programmed. The programmed decisions are those related to known problems with a predetermined mode of solving, whereas the non-programmed decisions are those decisions relating to unfamiliar problems, and ultimately it is not even known how to solve them (Buble, 2004, 144). The programmed decisions require the application of certain rules in the decision-making process whereas with the non-programmed types all the possible alternatives to solve the problem and their evaluation are being generated instantly. Once the decision-making process is carried out in that manner, the next very important step is to rationally choose the best alternative. The ability to de-
velop alternatives is regularly as important as the ability to correctly choose among them (Weihrich & Koontz, 1998, 201). After that, the decision is implied in the operating process. The verification and measurement of the success of the process are done according to the collected feedback on the implementation of the decision and monitoring of the situation regarding the condition of the company in view of the managerial decision. For all that it is important to emphasize that the decision-making process is involved in all management functions and throughout the whole management process. Decision contains the essence of each management function, as a way of complementing that function (Sikavica & Bahtijarevic-Siber, 2004, 72). The following chart clearly shows the relationship of managerial functions and their compatibility in the overall process of interactive relationship between management and managerial decision making:

**Scheme 2:** Management and managerial functions in the process of decision making

![Diagram](image)

P-Planning   O-Organizing   S-Human Resources   L-Leading   C-Control


It is also important to emphasize the role and importance of information in the whole decision-making process, which is evident from the previous scheme. On the basis of the presented material it can be concluded that the entire decision-making process depends on a variety of information from internal and external business environment. Decisions are based and depend on information and they in turn generate information (Frankel, 2008, 2). Therefore, their quality, speed of processing and use
are of key importance in the decision process. In addition, you need to know how to process information while making a decision (Harvard Business School Press, 2006, 3).

2.2. BASIC SETTINGS ABOUT ORGANIZATIONAL BEHAVIOUR

In order to be successful regarding the functioning and operations as well as the realization of profit and the development of business activities, the company management needs a proper team of people in the organization. Since that team is made up of individuals with different characteristics, the team must apply knowledge of organizational behaviour in order to successfully function and realize the planned goals of the organization. It is the scientific discipline that systematically studies the actions and attitudes people show within the organization and the team. The discipline of organizational behaviour is the systematic study of actions and attitudes that people show within the organization (Robins, 1995, 1). The behaviour of people within an organization depends on many factors which are shown by the following scheme:

Scheme 3: A field map of the organizational behaviour terrain

As is visible from the scheme there are two outcomes of organizational behaviour studies, the way people - as individuals or as a group - act within organizations. On the one hand there are individual, groups, structural, process and managerial factors that have implications for organizational effectiveness and quality of working life as the second outcome of the organizational behavior. Every organization has its past, present and future state represented in the models of organizational be-
haviour, so it can be concluded that it is not a static entity but a very dynamic structure. One approach to understanding context influences is the “PESTLE” analysis which explores the political, economic, social, technological, legal and ecological issues affecting the organizational members (Huczynski & Buchanan, 2007, 11). PESTLE factors are presented by the following diagram:

Scheme 4: PESTLE factors affecting the organization


3. IMPLEMENTATION OF ORGANIZATIONAL BEHAVIOUR AND MANAGEMENT DECISIONS IN THE GOLF COURSE MANAGEMENT

The implementation of the principles of organizational behaviour and managerial decision making in the management of golf courses is reflected through the aforementioned five sets of factors and their influence on the organizational effectiveness and quality of working life. From the point of view of the discipline of organizational behaviour and managerial decision making, the individual factor - the behaviour of individuals within the golf course team work – is to be studied in regard to how the individual reacts to the decision-making process in solving a particular problem. The
facts and details about the problem at the golf course represent the first step in the process where an individual must be well acquainted with the problem the managerial decision want to solve. After reviewing the facts and details about the problem, an individual from within the organization brings an alternative proposal to solve problems in the business of golf courses, followed by an objective analysis of each alternative. The selected alternative is followed by the process of solving the problem and the assessment of the impact it will have on the golf course business activity. Intuition and creativity are also two very important elements of individual factors inside the golf course. Both intuition and creativity are important influences in managerial decision making (Campbell-Nelson & Quick, 2006, 331). Also, it is very important to note that each individual must find personal benefit of any actions taken. If not in the short, then certainly in the long term. Since the participation in the decision making concerning the business of golf courses is a very complex process, it is up to the golf course manager to decide which individuals and at which stages of managerial decision to use. Due to higher motivation and greater cumulative effects, it is advisable to include as many individuals as possible in as many stages of the managerial decision making in the golf courses business activity. For all that the manager of the golf course must take care that due to the participation in this process, the individual does not neglect his primary business tasks in the golf course business process. From the point of view of the disciplines of organizational behavior and managerial decision making, group factors also occupy an important position. It is therefore necessary to study the reactions of the group with regard to the decision-making process in solving a particular problem in sports management, including the management of golf courses. In sport management, groups are involved in planning, generating ideas, solving problems, making decisions, agenda settings, policy making and governance (Parkhouse, 2005, 282). In different organizations (including the golf course) formal and informal groups are being formed during the business process. Such groups may be formal or informal, and formal groups may be temporary or permanent (Newstrom, 2007, 297). The group’s response to the process of managerial decision making in the golf course business process depends on the size, composition and agendas. These three factors are further reflected on the leadership role of the group, where there are usually a task leader and a social leader. The task leader is focused on the conduct of the business and guiding the group to the achievement of business objectives, whereas the social leader plays a supportive role to help the group develop. In the business practices of the golf course it is possible that both roles are performed by one person, but it is sometimes possible to have two. Consequently, there is a potential risk of conflict if the task leader with his actions begins to irritate people and injure the unity of the
group. For the optimal functioning of the golf course and the quality of managerial decision making there would be, therefore, desirable that the task leader recognizes the social leader of the group and tries to form a coalition in order that the two leaders work together for an improved effectiveness of the group. In informal groups of the golf course organization, individuals form alliances based on shared interests or friendship that are neither structured nor organizationally determined. The process factors are very important because they determine the problems of managerial decision making and organizational behaviour of the golf course management. The attention is to be focused on the diagnosis and problem-solving of the process in order to fill the gaps in the organization and address to and resolve particular problems. The organizational process of the golf course management should explore organizational development, organizational changes, organizational culture and human resource management. The organizational processes of the golf course management have some overlapping areas which contribute in different ways to the development and evolution of the organization. These processes also imply organizational effectiveness and the quality of working life at the golf course. Structural factors of the organizational structure of the golf course are very important because it is the pattern of interactions and coordination that links tasks, technology, sports skills and human component of the organization to manage the process and achieve business goals. A representative general manager organizational structure for a golf club is presented by the following scheme:

**Scheme 5: A representative general manager organizational structure for a golf club**

Management factors explore leadership and decision-making process of the golf course management. Leadership is a function of management that represents a phase in which all the actors of the business process on the golf course are directed towards the desired goal of the organization. On the other hand, the process of managerial decision making is a responsible and demanding process that consists of several steps that need to be known, applied and elaborated in detail in order to make optimal decisions for the operation and management of golf courses on time. Therefore, on the basis of scientific analysis and research results it is to conclude that for the survival and development of golf courses as a business entity in the tourism market, it is necessary to implement all those five factors.

CONCLUSION

Managerial decision making and organizational behaviour are one of the most important scientific disciplines that study the modern business and whose knowledge should be applied in order to achieve the fundamental objectives of the management company, i.e. making profit and strengthening the competitiveness on the market and the further development of business functions. The management of golf courses as a business entity on the tourism market must also apply the knowledge of these modern scientific disciplines considering the specific qualities of the golf course as an element on the tourism market. With the objective knowledge about the managerial decision making within the golf course management it is concluded that it is a step-by-step process in which the most important decisions are made related to the functioning and operation of golf courses as a business entity on the tourism market. In order to be successful, each stage of this process needs to be concisely and meticulously carried out. With the help of fundamental principles of scientific discipline of organizational behaviour, the actions and attitudes of the people within the organization and within a golf course team can be systematically investigated and studied. Consequently, these findings can be implemented in the process of managerial decision making so that the managerial decisions are efficiently implemented into the golf course business operations. On the basis of scientific analysis and research results it is therefore concluded that as a process of working with others and with the help of others in order to achieve the golf courses business objectives, its management needs to implement the findings from these two disciplines that complement each other and are located in an interacting area of interest.
REFERENCES:


INDUSTRIAL CONCENTRATION IN CROATIAN FOOD AND BEVERAGE INDUSTRY

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Abstract
The food and beverage industry represents one of the leading and most prospective industries in Croatia. Despite its importance, studies related to it are fairly rare, while the analysis of its market structure is non existent. Therefore, the aim of this study was to fill this gap and to analyse the change of industrial concentration in Croatian food and beverage industry during the period from 1999 to 2011. Exploration of the changes in industrial concentration can help perceive and predict important structural events within the industry. In that sense, it was discovered that Croatian food and beverage industry had become more consolidated during the years. Also, by applying different measures of industrial concentration and by performing correlation matrix, it was possible to detect the level in which one measure of industrial concentration can be substituted with another one.

JEL Classification: L66

Keywords: industrial concentration, Croatia, food and beverage industry

1. Introduction
The food and beverage industry is an important segment of every economy. According to the Croatian Chamber of Economy (CCE), in 2011 this industry participated with approximately 20 percent in gross value added and 20 percent in total employment in the manufacturing industry. Only a few industries in Croatia have managed to maintain stability during the last decade and the food and beverage industry is among them. Moreover, it is an industry which is increasingly gaining importance. This can be corroborated by the fact that, at a global level and over
the last three decades, this industry has grown at the rate of 1.6% per year, thus achieving a growth rate of leading industries in the world such as mining, textile and automotive industries (Selim; 2009, 2). According to the economic experts, the success of the food and beverage industry lies in the long manufacturing tradition that domestic corporations have maintained in this part of Europe. Due to its significant impact on the development of society, employment, foreign trade balance and the national GDP, the food and beverage industry is one of the most important economic priorities.

Despite the importance of this industry for the development of Croatian economy, studies related to it are fairly rare, while the analysis of its market structure is nonexistent. Having in mind that one of the dominant measures, which seek to describe the structure of a particular industry and the level of competitive forces existing within it, is industrial concentration, the objective of this paper was to analyse the change of industrial concentration in Croatian food and beverage industry during the period from 1999 to 2011.

2. Food and beverage industry

2.1. Food and beverage industry in numbers

In 1999 the manufacturing industry achieved a total revenue of 84.42 billion kuna, 22% of which was generated by the food and beverage (F&B) industry. The latter industry is very important for Croatia since the revenue it achieves suggests that it is one of the “generators of growth in industrial production”. Specifically, the total revenue of the food and beverage industry was continuously growing during the period 1999 - 2011, and the growth rate for that period achieved the value of 89% (Figure 1). Furthermore, according to the CCE, in 1999, the manufacturing industry employed 271,736 people, while approximately 17% of them (i.e. 47,134) were employed in the food and beverage industry. The financial crisis that has shaken the global economy left almost an insignificant effect on the number of employees in the F&B industry during the analysed period. The number of employees in this industry amounted to 46 000 in 2011. Because of a noticeable decline in the number of employees in other branches of the manufacturing industry, the share of employees in the F&B industry increased to 20.4% in 2011.
Globalization and changes in consumer habits, as well as other lifestyle changes, have resulted in increased consumerism and massive production which facilitated the growth of companies in the food and beverage industry (Krznar; 2011, 16). This industry accounts for about 14% of the total number of manufacturing companies. According to the CCE data, the food and beverage industry in Croatia had 1428 of registered companies in 2011, which is 69% more than in 1999. The majority of enterprises were privatized and a large number of new small businesses were established. In 2011 more than 92% of companies registered in this industry were the small ones (up to 50 employees), while only 2.5% comprised large companies. Although the food and beverage industry is dominated by small companies, they have a small share in total income (about 8% in 1999, and about 14% in 2011). On the other hand, large companies achieved almost 69% of this industry’s total revenue in 2011. It is clear that, due to the importance and the significance that large companies have, they can also affect the trends on this market.

The analysis of total revenue at the level of individual sectors within the food and beverage industry shows that the most of total revenue in the observed period was achieved by the following branches: the manufacturing of other food products, the dairy industry, the beverage industry and the meat industry.
2.2. Sample definition and data source

Selection of the period (1999 - 2011) and the sample of analysed companies (medium and large companies) in this research were primarily determined by the data availability of companies from the analysed industry. In order to ensure compatibility and continuity in the analysis of industrial concentration, NACE 2002 (i.e. National Classification of Economic Activities) was used in this study, since in NACE 2007 the analysed industry was separated in two categories: the food industry and the beverage industry. According to that, the number of analysed groups (three-digit level of the NACE 2002) was nine. All data used in this paper were collected from publications and/or web pages of the Financial Agency (FINA), the Croatian Chamber of Economy (CCE) and the National Bureau of Statistics (CBS). Although some companies were active during the whole analysed period, a certain number of them went out of business despite the known fact that due to the inelastic nature of income demand for their products, the food and beverage industry can successfully resist the economic crisis and numerous pressures from the environment. Our final sample consisted of 1652 units of observation.

3. Industrial concentration

Concentration is one of the basic elements in the analysis of market structure which can range from highly fragmented to firmly consolidated (Sarkaria & Sher-gill; 2001, 100). Consolidated industries are industries with a higher degree of concentration and a small number of companies controlling a larger part of total industry sales, while fragmented industries have a larger number of relatively small companies with approximately similar, smaller share of industrial sales, and neither company is in a position of dominance in the industry (Tipurić et. al.; 2003, 5). According to the Structure-Conduct-Performance (SCP) paradigm, the higher concentration may result in collusive behaviour of the enterprises that, by increasing the price, aim to directly affect profit growth. Due to the foregoing, the concentration is becoming an increasingly monitored phenomenon which public authorities try to control by many provisions (Harrison; 2004, 4).

3.1. Analysis of changes in concentration by applying weighted arithmetic mean

Over the last few years, companies in the food and beverage industry have been influenced by many factors from their immediate environment, government poli-cies, global changes in business, consumer habits, etc. These events have led to the change of market structure and industrial concentration in the food and beverage
industry. In order to assess whether Croatian food and beverage industry has become more consolidated, the relative changes of concentration which occurred for the period 1999-2011 were determined (Table 1) at the level of each sector of this industry. Due to the simplicity of calculation and data availability, the concentration ratio (CR) represents one of the most commonly used measures of concentration, and therefore it was considered in this part of the analysis. CR shows the percentage of market output concentrated in the hands of the \textit{largest n} companies (in our case four) in the industry. It can range from 0%, for a perfectly competitive industry, up to 100%, for a monopoly.

In most sectors of the food and beverage industry, a decrease in level of concentration occurred during the period covered by the analysis. The largest fall of concentration was recorded in the sector of Processing and preserving of fish and fish products (20.91%), while the smallest one was recorded in Processing and preserving of fruit and vegetables and Manufacture of vegetable and animal oils and fats (3.42% and 6.48%). The essential feature of the latter two industries is that the four leading companies in these industries account for more than 90% of market share (i.e. they form a tight oligopoly) and each of these industries has one dominant company (Shepherd; 1997, 16, Shepherd; 1972, 25) that controls more than 80% of the total market. Research of Setiawan et al. (2012, 475) for Indonesian food and beverages industry and those of Juhász et al. (2008, 67) for Hungarian food retail market also showed a presence of a high level of industrial concentration.

\textbf{Table 1} Changes in industrial concentration for the period from 1999 to 2011

<table>
<thead>
<tr>
<th>Sector (NKD2002)</th>
<th>1999</th>
<th>2011</th>
<th>Change (%)</th>
<th>Weight Wi</th>
<th>Wi*Pi</th>
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</thead>
<tbody>
<tr>
<td>DA151</td>
<td>58.24</td>
<td>58.88</td>
<td>1.10</td>
<td>0.16</td>
<td>0.17</td>
</tr>
<tr>
<td>DA152</td>
<td>68.73</td>
<td>54.36</td>
<td>-20.91</td>
<td>0.02</td>
<td>-0.34</td>
</tr>
<tr>
<td>DA153</td>
<td>94.45</td>
<td>91.22</td>
<td>-3.42</td>
<td>0.08</td>
<td>-0.26</td>
</tr>
<tr>
<td>DA154</td>
<td>96.41</td>
<td>90.16</td>
<td>-6.48</td>
<td>0.04</td>
<td>-0.25</td>
</tr>
<tr>
<td>DA155</td>
<td>86.62</td>
<td>88.69</td>
<td>2.38</td>
<td>0.20</td>
<td>0.47</td>
</tr>
<tr>
<td>DA156</td>
<td>52.13</td>
<td>74.16</td>
<td>42.25</td>
<td>0.05</td>
<td>2.00</td>
</tr>
<tr>
<td>DA157</td>
<td>57.32</td>
<td>51.32</td>
<td>-10.46</td>
<td>0.03</td>
<td>-0.36</td>
</tr>
<tr>
<td>DA158</td>
<td>42.27</td>
<td>38.72</td>
<td>-8.39</td>
<td>0.24</td>
<td>-1.99</td>
</tr>
<tr>
<td>DA159</td>
<td>49.00</td>
<td>64.97</td>
<td>32.61</td>
<td>0.19</td>
<td>6.35</td>
</tr>
</tbody>
</table>

Source: Authors’ calculations based on data from FINA
Some of the possible reasons for the reduction of the level of concentration in certain sectors of the F&B industry are linked to the fact that, in 2008 and 2009, there were numerous changes in the economic field, such as a decline in industrial production and consumer spending, a rise in unemployment, a lack of investment, etc., which affected the operations of all companies in Croatia including companies in the food and beverage industry. Nevertheless, most of these industries (55.56% of them) in 2011 can still be characterized as sectors with strong oligopolistic structures.

On the other hand, the highest growth of concentration was recorded in the mill products industry (42.25%) which is followed by the beverage industry (32.6%). The number of companies in the beverage industry grew by 82% in 2011 when compared to 1999. Three of four leading companies in this industry were able to further strengthen their position by increasing their market shares and thus creating a tight oligopoly.

The use of a weighted arithmetic mean (where a participation of a certain activity in total sales realized at home and abroad is used as a weight) makes the conclusion about the average change of the degree of concentration in the observed sectors of the food and beverage industry possible. The results of the conducted analysis showed that for the 1999-2011 period, industrial concentration increased by 5.79% on average. These findings conform to those reported by Sadraei Javaheri (2009, 256), Fedderke & Naumann (2012, 2932) and Fedderke & Naumann (2012, 241).

Omnipresent globalization and the opening of Croatia to foreign markets introduced competition that together with automation, technological advancements (Hong & Fu; 2011, 2339), mergers and acquisitions (M&A) and changes in consumer habits significantly affects business activity of companies in the food and beverage industry. Consequently, in the last few years, an increased consolidation of companies has been recorded, together with an increased concentration on the industry.

3.2. Possible substitution of one concentration measure with another

Beside concentration ratio, some other indicators can be used for concentration measuring. In order to determine if one concentration measure can replace the
other, some additional measures of concentration were calculated in this research: Herfindahl-Hirschman Index (HHI), Comprehensive Industrial Concentration Index (CCI), Hall-Tideman Index (HTI), Entropy index (EI) and the Rosenbluth Index (RI). As a base for calculation of these measures, companies’ sales were used.

As opposed to CR$_4$ that takes into consideration market shares of only four leading companies in the industry, HHI takes into account market shares of all companies in the industry. Its value ranges from 0 (perfect competition) to 10 000 (monopoly). The next measure of concentration, HTI, emphasizes the importance of the absolute number of companies. The assumption is that the entry on the market will be easier if the market already consists of a large number of companies. This index differs from the Rosenbluth Index (RI) only in the manner of ranking companies. In the case of RI, a smaller company will be ranked higher and therefore it will affect the index more than a larger company which will have a lower rank. CCI is the index that simultaneously shows relative dispersion among companies and the absolute number of companies. It is calculated by adding market share of the largest company to the summation of the squares of market shares weighted by a multiplier reflecting the relative size of other companies in the industry. EI is the only index that is inversely associated with concentration. The index value is approximately equal to zero on the market characterized as monopoly, while its highest value, calculated as ln(N), is obtained on the market categorised as perfect competition. Formulas for calculating previously presented measures of concentration are displayed in table 2.

<table>
<thead>
<tr>
<th>Concentration measure</th>
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<th>Concentration measure</th>
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<tbody>
<tr>
<td>CR</td>
<td>$CR_n = \sum_{i=1}^{n} s_i$</td>
<td>RI</td>
<td>$RI = 1 / \left( 2 \sum_{i=1}^{N} s_i - 1 \right)$</td>
</tr>
<tr>
<td>HHI</td>
<td>$HHI = \sum_{i=1}^{N} s_i^2$</td>
<td>CCI</td>
<td>$CCI = s_1 + \sum_{i=2}^{N} s_i^2 (1 - s_i)$</td>
</tr>
<tr>
<td>HTI</td>
<td>$HTI = 1 / \left( 2 \sum_{i=1}^{N} is_i - 1 \right)$</td>
<td>EI</td>
<td>$E = -\sum_{i=1}^{N} s_i \ln(s_i)$</td>
</tr>
</tbody>
</table>

Note: $s_i$ denotes the market share of the company; $N$ is the total number of companies in the industry; $n$ is the number of the largest (leading) companies in the industry

In order to determine whether one measure of concentration can be replaced with another without influencing the final results and/or conclusions of the research, the correlation matrix was calculated and its results are shown in Table 3.
Table 3 Correlation matrix for different measures of concentration in Croatian food and beverage industry

<table>
<thead>
<tr>
<th></th>
<th>CR$_4$</th>
<th>HHI</th>
<th>CCI</th>
<th>HTI</th>
<th>RI</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>CR$_4$</td>
<td>1,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HHI</td>
<td>0,827**</td>
<td>1,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CCI</td>
<td>0,951**</td>
<td>0,955**</td>
<td>1,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HTI</td>
<td>0,730**</td>
<td>0,889**</td>
<td>0,842**</td>
<td>1,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RI</td>
<td>0,394**</td>
<td>0,341**</td>
<td>0,369**</td>
<td>0,672**</td>
<td>1,000</td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>-0,802**</td>
<td>-0,855**</td>
<td>-0,860**</td>
<td>-0,938**</td>
<td>-0,665**</td>
<td>1,000</td>
</tr>
</tbody>
</table>

Note: ** Correlation is significant at the level of 0.01
Source: Authors’ calculations

The correlation coefficients between different measures of concentration are statistically significant at the 1% significance level. Correlation between measures of concentration is generally strong and positive. The only exception is EI which is, by its nature, negatively related to other measures of concentration. Namely, a higher entropy index indicates a lower concentration and consequently higher competition in the industry. Based on the results shown in Table 3, it is possible to conclude that there is a weak relationship only between RI index and the remaining indices of concentration which suggests that the use of Rosenbluth index could lead to different conclusions about the degree of industry consolidation in relation to the conclusions derived by the use of the remaining measures of concentration. Also, if someone wants to test the SCP paradigm and ascertain whether a higher concentration (due to the collusive behaviour of the companies) will result in higher profits, the application of Rosenbluth index could result in misleading conclusions. However, it should be noted that one of the possible reasons for obtaining these results for the Rosenbluth index lies in the fact that this research took into account only medium and large companies, while RI index, according to its definition, puts more emphasis on small companies.

4. Conclusion

The food and beverage industry is among a few domestic manufacturing industries that has managed to maintain during the time of war, post-war phase of privatization and present world crisis. In Croatia, this industry occupies a prominent place because it employs a significant number of people, it has a significant production capacity and it achieves the highest total revenue within the manufacturing industry.
During the last two decades, the food and beverage industry has been affected by many changes that influenced its structure. In order to assess whether Croatian food and beverage industry has become more consolidated during the years, we applied a measure which seeks not only to describe the structure of a particular industry, but also to indicate the level of competitive forces existing within it i.e. industrial concentration measure was applied. The results of the analysis indicated that the changes of concentration within different sectors of the food and beverage industry vary greatly. In order to assess the average change of the degree of concentration, the weighted arithmetic mean was used, and the results of the analysis carried out for the period from 1999 to 2011 showed that, on average, industrial concentration increased by 5.79%. The reasons for this industry consolidation, among others, can be found in the omnipresent globalization and the opening of Croatia to foreign markets, automation and technological advances, increased competitive pressures and mergers and acquisitions.

Additionally, the results of the correlation analysis between different measures of concentration, calculated at the three-digit level of the food and beverage industry, have led to the conclusion that there exists a relatively strong and statistically significant relationship between all analyzed measures of concentration (with a Rosenbluth index as an exception). A high level of correlation between the concentration indices indicates that any of these measures of concentration can be used for a high quality analysis of concentration in this industry, since each of them will indicate approximately the same changes in the structure of this industry. Of course, this does not mean that the indices needn’t be considered mutually, since each provides additional information about the structure of the analyzed industry.

**Literature**

Croatian Bureau of Statistic http://www.dzs.hr/default_e.htm (15-01-2013)
Croatian Chamber of Economy (CCE) http://www.hgk.hr/ (10-01-2013)


MICROECONOMICS, MACROECONOMICS AND MONETARY ECONOMICS
FOREIGN DIRECT INVESTMENT AS A KEY ELEMENT OF ECONOMIC GROWTH

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ABSTRACT

Foreign direct investment (FDI) is crucial for faster development of the countries that are still developing their economies and trying to reach the developed countries. This flow of new capital strengthens the structural basis of an economy because of long term investments. This implies the investor brings new knowledge in managing the company and investment means a great improvement in abilities of local workforce. Furthermore, there are also great advantages in obtaining new technologies, production processes and opening new markets. Since FDI is divided into greenfield (investing in new capacities) and brownfield (investing in existing capacities) investments, the importance of the first one is much greater since brings greater ‘blood flow’ to the economy. Many countries give investors a lot of benefits trying to lure them in an investment that will greatly benefit the countries’ economy starting from new employment. Smaller costs of production, political stability, market growth, good infrastructure, educated workforce are the conditions that increase FDI.

The FDI in Croatia as in other countries slowed down and created great problems in boosting the economy. In the paper figures will compare investment and growth in different countries trying to find the reasons why there is difference between them. We will look for the determinants that are slowing the flow of FDI. With the recession, stagnation of GDP and a big unemployment figure FDI would greatly help in restoring economic growth. According to the findings and obtained results, this paper will propose measures that can help the growth of FDI in Croatia and similar countries.
1. INTRODUCTION

The Gross Domestic Product (GDP) is one of the most important indicators for the economic health of a country. It has four components: private consumption (C), gross investment (I), government spending (G) and net exports (export (X) – imports (M)). Investments are very important because they enable the economy to grow faster. Foreign investments are even more important because they are new capital coming in a country’s economy. Countries with a great need for economy growth have to invest in business capacities and strengthening the basic production of their economy. Since the countries in development are usually the one that need more investment, they get the money either from loans or trying to lure foreign investors to invest in the country’s economy, which is for sure better than a loan. When we say foreign direct investment (FDI) we mean the investing assets in structures, equipment or organization in a subject that is located in another national economy with the goal of achieving a long term interest, with the exclusion of investing in equities.

The main target for foreign investors is to accomplish a long term relationship with an entrepreneur in another country, that way the FDI includes all transactions from the first investment to the next following transactions, taking into consideration that there is a long term motive when at least 10 % is invested in the capital of the foreign company. The definition of FDI implicates that the foreign investor has a big influence on the management and managing of the company in which he invested. A foreign investor can be an individual person, a company or an investment group (fund) and the investment can be in the form of an investment in the capital, reinvested earnings or loans between companies. Because of the long term character of the relationship, this type of investment is better than an investment in shares. Furthermore, when a crisis arrives, the money invested in shares and other equities tend to escape out of the country, unlike the investments in the business structure that tends to evolve and continue in spite of a crisis (Škufl ić & Botrić; 2009., 9-28). This active participation of the foreign investor and his long term interest to cultivate his capital form the main difference from short term portfolio investments that are motivated by short term earnings.
FDI are just a part of the total capital motion which is usually divided in three categories (Kumar; 2007., Vol. 2, No. 1): FDI, equities and debt. The International Monetary Fund divides the net flow of capital in five categories (IMF; 2000., Part1, p.XI.): FDI, portfolio investments, other investments (commercial loans and deposits), use of a MMF’s loan and extraordinary financing (accumulation of unpaid liabilities and condonation of debt).

FDI are divided into greenfield and brownfield investments. Greenfield investments create new production assets. Brownfield investments include buying existing production units and companies as well as taking control over them. In economic theory mergers/acquisitions or take-overs are widely spread. From the acquirer or new owner it is usually expected to bring new knowledge, technology, production process, management as well as opening new markets. These investments give benefits to the company in which it is invested as well as to the surrounding region and sometimes even to entire countries. It has to be said that there are also some negative results from FDI, for example, when new competition enters a country’s market home companies can be thrown into problems or even closure. But usually the benefits from FDI greatly outcome the negative sides e.g. the benefits being transfers of new technology, knowledge, new employment, strengthening of an economy, better trade balance with other countries, and so on.

Since FDI open new work places they have a direct impact on employment, rising of wages as well as transferring of skills and knowledge. FDI also improve management skills and techniques, which combined with new skills of workers working with new and sophisticated technology rises productivity and competitiveness. The results of new FDI are better if the income country has educated human capital that can or is able to cope with new technologies. Infrastructures as telecommunication, transport, as well as a good banking and insurance system have also great importance. If a country wants to lure foreign investments usually it uses persuasions as tax and duty benefits, cheaper work force, etc.

2. DETERMINANTS THAT ATTRACT DIRECT FOREIGN INVESTMENTS

FDI is usually attracted by owners’ private interest, e.g. lower labor, production or business costs, big market can be a good reason for investing. There are some criteria that must be fulfilled for FDI. The first is political stability – for a long term investment stability is an imperative. Unstable political situations usually attract high risk investments that usually have a short term character. The second criterion
is a favorable business environment – companies should have the possibility to function freely on the market without any excessive cost or administration. The third is economy stability – stable fiscal and monetary policies are key components for a foreign investor. The forth is infrastructure – traffic, communication, institution and other infrastructures can be of great help for the development and growth of FDI.

There are two main preconditions that have to be fulfilled for a country to become a target for foreign investors, and those are profitability and stability. If a country can assure conditions for a profitable and steady business with its policy, FDI comes almost automatically. The credit rating is one of the indicators of risk and attractiveness for investing in a country, ratings that are given by well known agencies. Some of the ratings are shown in the table below (cf. table 1).

### Table 1: Credit rating of chosen countries

<table>
<thead>
<tr>
<th>Country</th>
<th>S&amp;P Rating</th>
<th>Moody’s rating</th>
<th>Fitch Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brazil</td>
<td>BBB</td>
<td>Baa2</td>
<td>BBB</td>
</tr>
<tr>
<td>Russia</td>
<td>BBB</td>
<td>Baa1</td>
<td>BBB</td>
</tr>
<tr>
<td>United States of America</td>
<td>AA+</td>
<td>Aaa</td>
<td></td>
</tr>
<tr>
<td>China</td>
<td>AA-</td>
<td>Aa3</td>
<td>A+</td>
</tr>
<tr>
<td>Germany</td>
<td>AAA</td>
<td>Aaa</td>
<td>AAA</td>
</tr>
<tr>
<td>Italy</td>
<td>BBB+</td>
<td>Baa2</td>
<td>A-</td>
</tr>
<tr>
<td>France</td>
<td>AA+</td>
<td>Aa1</td>
<td>AAA</td>
</tr>
<tr>
<td>Austria</td>
<td>AA+</td>
<td>Aaa</td>
<td>AAA</td>
</tr>
<tr>
<td>Slovenia</td>
<td>A</td>
<td>Baa2</td>
<td>A-</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>BBB</td>
<td>Baa2</td>
<td>BBB-</td>
</tr>
<tr>
<td>Poland</td>
<td>A-</td>
<td>A2</td>
<td>A-</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>AA-</td>
<td>A1</td>
<td>A+</td>
</tr>
<tr>
<td>Greece</td>
<td>B-</td>
<td>C</td>
<td>CCC</td>
</tr>
<tr>
<td>Croatia</td>
<td>BB+</td>
<td>Baa3</td>
<td>BBB-</td>
</tr>
</tbody>
</table>

Source: [www.guardian.co.uk](http://www.guardian.co.uk), January 2013

Countries with A have the highest rating and the lowest risk when investing, C is the lowest rating with the highest risk when investing in those countries. As the table shows, well developed countries like Germany and USA usually have a high rating, unlike them developing countries usually with structural, corruption,
slow administration and other problems, like Bulgaria, Greece, Croatia, have lower ratings.

3. INCENTIVES MEASURES FOR FDI

Since direct foreign investments have positive effects on the economic growth many countries try to boost FDI by giving incentives for investors. Investors have a great number of choices where to invest their money, knowledge and technology so the country with the best conditions is the most probable to get the investment. Incentive measures can be used not only to drive investments but also to drive them in the right activities, sectors and regions. The choice of which measures to use depends on the goals that a country has. Sometimes countries add conditions for investors that want incentives, such as the minimum amount of investment, employment conditions, the cooperation of local companies, the transfer of technologies, etc. One of the most used measures is to exempt the investor from some taxes and/or duty for a certain amount of time. There can be also other financial measures like giving free fields to use, free infrastructure, etc. Fiscal measures are usually used by developing countries that do not have a lot of financial capital. Developed countries are most likely to use financial measures to attract investments giving loan or other financial help with good conditions to investors.

The financial sum of the incentive measures for FDI should be equal to the difference between the society benefits of the receiving country and the private benefits of the investor.

4. FOREIGN DIRECT INVESTMENT PER CAPITA

The FDI per capita is the value of a country’s final net inflow FDI in one year divided by the country population. So it’s the average net inflows FDI of the citizens of a country. Below are the FDI per capita for selected countries (cf. table 2).
Table 2: FDI per capita in selected countries

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>EU</td>
<td>637,742</td>
<td>554,325</td>
<td>456,501</td>
<td>1640,28</td>
<td>1390,02</td>
<td>2227,25</td>
<td>1760,86</td>
<td>619,978</td>
<td>364,009</td>
<td>809,559</td>
</tr>
<tr>
<td>WORLD</td>
<td>100,289</td>
<td>89,8227</td>
<td>111,349</td>
<td>211,906</td>
<td>257,125</td>
<td>370,166</td>
<td>326,193</td>
<td>169,331</td>
<td>192,072</td>
<td>233,096</td>
</tr>
<tr>
<td>USA</td>
<td>293,333</td>
<td>219,746</td>
<td>498,509</td>
<td>468,085</td>
<td>986,286</td>
<td>1128,92</td>
<td>1094,18</td>
<td>454,922</td>
<td>875,986</td>
<td>826,491</td>
</tr>
<tr>
<td>CHINA</td>
<td>38,5098</td>
<td>36,5389</td>
<td>42,3868</td>
<td>79,8551</td>
<td>94,6454</td>
<td>118,561</td>
<td>129,494</td>
<td>98,437</td>
<td>182,164</td>
<td>163,781</td>
</tr>
<tr>
<td>RUSSIA</td>
<td>23,8206</td>
<td>55,0356</td>
<td>107,365</td>
<td>90,0161</td>
<td>208,431</td>
<td>387,566</td>
<td>528,372</td>
<td>257,203</td>
<td>305,015</td>
<td>372,567</td>
</tr>
<tr>
<td>BRASIL</td>
<td>92,5332</td>
<td>55,8462</td>
<td>98,7946</td>
<td>83,124</td>
<td>103,098</td>
<td>234,879</td>
<td>264,778</td>
<td>162,905</td>
<td>273,637</td>
<td>363,777</td>
</tr>
<tr>
<td>GERMANY</td>
<td>649,8515</td>
<td>374,802</td>
<td>-118,8</td>
<td>507,4766</td>
<td>674,2814</td>
<td>350,8083</td>
<td>201,3296</td>
<td>504,8895</td>
<td>250,1508</td>
<td>478,0213</td>
</tr>
<tr>
<td>FRANCE</td>
<td>802,0429</td>
<td>691,8441</td>
<td>523,5717</td>
<td>1405,352</td>
<td>1393,538</td>
<td>1453,965</td>
<td>995,8873</td>
<td>415,2512</td>
<td>581,2534</td>
<td>690,8812</td>
</tr>
<tr>
<td>ITALY</td>
<td>257,1698</td>
<td>287,0912</td>
<td>288,6298</td>
<td>335,059</td>
<td>661,7919</td>
<td>674,4033</td>
<td>-416,326</td>
<td>670,4293</td>
<td>-87,4479</td>
<td>460,7952</td>
</tr>
<tr>
<td>SLOVENIA</td>
<td>832,0256</td>
<td>151,0723</td>
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<td>343,6163</td>
<td>934,0034</td>
<td>901,6755</td>
<td>-171,233</td>
<td>309,1644</td>
<td>398,6306</td>
</tr>
<tr>
<td>CZECH REPUBLIC</td>
<td>832,6047</td>
<td>198,0214</td>
<td>487,2541</td>
<td>1133,468</td>
<td>537,7047</td>
<td>1026,311</td>
<td>630,4973</td>
<td>273,5559</td>
<td>581,6707</td>
<td>510,1855</td>
</tr>
<tr>
<td>CROATIA</td>
<td>247,74</td>
<td>461,443</td>
<td>242,975</td>
<td>400,073</td>
<td>778,705</td>
<td>1130,81</td>
<td>1366,07</td>
<td>773,932</td>
<td>192,006</td>
<td>286,906</td>
</tr>
<tr>
<td>EURO AREA</td>
<td>782,05</td>
<td>697,913</td>
<td>405,471</td>
<td>1470,92</td>
<td>1161,01</td>
<td>2055,32</td>
<td>1363,91</td>
<td>817,258</td>
<td>381,931</td>
<td>961,179</td>
</tr>
</tbody>
</table>

Source: calculated and prepared by the authors
While in the last twenty years the FDI per capita grew steadily in developing and developed countries, in the last ten years things changed. In developing countries continued to grow steadily while in developed slowed down.

The FDI per capita for some selected countries, the world and the EU is shown below (cf. graph 1).

**Graph 1: FDI per capita for selected countries**

![Graph 1: FDI per capita for selected countries](image)

Source: calculated and prepared by the authors

In the graph is clearly visible the impact of the world economic downturn started in 2008, after that happened the FDI per capita fall down, slowly recovering after that. The crisis had obviously a great negative impact on direct investment and has to be taken into account when analyzing the FDI. The natural course and growth of the FDI changed because of such an event.

5. **GROSS NATIONAL INCOME PER CAPITA**

The gross national income (GNI) is the sum of all the incomes of a country’s residents in a given period. GNI=GDP+(FL-DL)+NCI, where FL and DL are foreign and domestic income from labour, and NCI is the net capital inflow. The GNI per capita is the value of a country’s final income in one year divided by the country population. So it’s the average income of the citizens of a country. It’s one of the most important indicators that measures the well being of a country and of course it’s citizens. This is the main reason why it’s used in this paper as a clear indicator of a country’s growth. Below are the GNI per capita of selected countries as well as the average GNI per capita for the world, EU and the Euro zone (cf. table 3).
Table 3: GNI per capita of selected countries

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>EU</td>
<td>18043,6</td>
<td>20357,5</td>
<td>24669,5</td>
<td>28279,1</td>
<td>30227,9</td>
<td>32350</td>
<td>34724,3</td>
<td>34157,1</td>
<td>33912,9</td>
<td>34033,1</td>
</tr>
<tr>
<td>WORLD</td>
<td>5210,83</td>
<td>5609,84</td>
<td>6408,85</td>
<td>7109,93</td>
<td>7583,1</td>
<td>8088,31</td>
<td>8687,61</td>
<td>8674,44</td>
<td>9076,38</td>
<td>9511,19</td>
</tr>
<tr>
<td>USA</td>
<td>35970</td>
<td>38360</td>
<td>42020</td>
<td>44670</td>
<td>46280</td>
<td>46910</td>
<td>47890</td>
<td>45950</td>
<td>47360</td>
<td>48620</td>
</tr>
<tr>
<td>CHINA</td>
<td>1100</td>
<td>1270</td>
<td>1500</td>
<td>1740</td>
<td>2040</td>
<td>2480</td>
<td>3040</td>
<td>3620</td>
<td>4240</td>
<td>4940</td>
</tr>
<tr>
<td>RUSSIA</td>
<td>2100</td>
<td>2590</td>
<td>3410</td>
<td>4460</td>
<td>5820</td>
<td>7590</td>
<td>9710</td>
<td>9290</td>
<td>9930</td>
<td>10730</td>
</tr>
<tr>
<td>BRASIL</td>
<td>3050</td>
<td>2950</td>
<td>3310</td>
<td>3960</td>
<td>4800</td>
<td>6110</td>
<td>7490</td>
<td>8150</td>
<td>9540</td>
<td>10720</td>
</tr>
<tr>
<td>GERMANY</td>
<td>22850</td>
<td>25400</td>
<td>30750</td>
<td>34780</td>
<td>37210</td>
<td>39440</td>
<td>42470</td>
<td>42540</td>
<td>43280</td>
<td>44270</td>
</tr>
<tr>
<td>FRANCE</td>
<td>22330</td>
<td>25130</td>
<td>30420</td>
<td>34850</td>
<td>36760</td>
<td>38900</td>
<td>41940</td>
<td>42380</td>
<td>42190</td>
<td>42420</td>
</tr>
<tr>
<td>ITALY</td>
<td>19910</td>
<td>22310</td>
<td>26980</td>
<td>30880</td>
<td>32560</td>
<td>34030</td>
<td>35760</td>
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<td>35550</td>
<td>35290</td>
</tr>
<tr>
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<td>10790</td>
<td>12470</td>
<td>15400</td>
<td>18070</td>
<td>19570</td>
<td>21520</td>
<td>24210</td>
<td>23750</td>
<td>23910</td>
<td>23610</td>
</tr>
<tr>
<td>CZECH REPUBLIC</td>
<td>6340</td>
<td>7720</td>
<td>9750</td>
<td>11890</td>
<td>13440</td>
<td>14910</td>
<td>17840</td>
<td>17920</td>
<td>18390</td>
<td>18620</td>
</tr>
<tr>
<td>CROATIA</td>
<td>5390</td>
<td>6390</td>
<td>8150</td>
<td>9690</td>
<td>10800</td>
<td>12140</td>
<td>13700</td>
<td>13590</td>
<td>13570</td>
<td>13330</td>
</tr>
<tr>
<td>EURO AREA</td>
<td>20234,9</td>
<td>22806,8</td>
<td>27723,6</td>
<td>31728,6</td>
<td>33812,7</td>
<td>35869,6</td>
<td>38477,3</td>
<td>38472,7</td>
<td>38502</td>
<td>38654,2</td>
</tr>
</tbody>
</table>

Source: data.worldbank.org
From the table is visible the rise of the GNI per capita in all the chosen countries. Also, we can see that GNI per capita in developing countries grows faster, sometimes a lot faster than in developing countries. In the last ten years GNI per capita in China grew 4.49 times, in Croatia 2.51 times, in Brazil 3.51 times, in Russia 5.11 times. While the USA had a growth of 1.35 times, Germany 1.94 times, France 1.9 times.

6. THE IMPACT OF FDI ON THE COUNTRIES ECONOMY GROWTH

To find out what’s the impact of foreign direct investment on the countries growth we calculated the correlation between FDI per capita and GNI per capita. The results are shown in the table below (cf. table 4).

Table 4: Corelation between FDI per capita and GNI per capita of selected countries

<table>
<thead>
<tr>
<th>Coefficient</th>
<th>Pearson</th>
<th>Spearman</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU</td>
<td>0.58202667</td>
<td>0.619549</td>
</tr>
<tr>
<td>WORLD</td>
<td>0.76639428</td>
<td>0.783459</td>
</tr>
<tr>
<td>USA</td>
<td>0.62256813</td>
<td>0.675188</td>
</tr>
<tr>
<td>CHINA</td>
<td>0.95317143</td>
<td>0.956391</td>
</tr>
<tr>
<td>RUSSIA</td>
<td>0.92891719</td>
<td>0.674436</td>
</tr>
<tr>
<td>BRASIL</td>
<td>0.85328416</td>
<td>0.813534</td>
</tr>
<tr>
<td>GERMANY</td>
<td>-0.090155</td>
<td>0.051128</td>
</tr>
<tr>
<td>FRANCE</td>
<td>0.43611064</td>
<td>0.275188</td>
</tr>
<tr>
<td>ITALY</td>
<td>0.29800262</td>
<td>0.249624</td>
</tr>
<tr>
<td>SLOVENIA</td>
<td>0.46373433</td>
<td>0.494737</td>
</tr>
<tr>
<td>CZECH REPUBLIC</td>
<td>-0.0860509</td>
<td>0.249624</td>
</tr>
<tr>
<td>CROATIA</td>
<td>0.58716629</td>
<td>0.466917</td>
</tr>
<tr>
<td>EURO AREA</td>
<td>0.54783887</td>
<td>0.482707</td>
</tr>
</tbody>
</table>

Source: calculated and prepared by the authors

As we can see in the table developed countries there is no or low correlation between DFI per capita and GNI per capita. Countries in development have a good or high correlation between FDI per capita and GNI per capita. The results has shown that there is a much bigger impact of FDI on the economy growth of developing countries than on developed ones. Which is understandable because
those countries have a lot less investment capital of their own so they need FDI if they want to grow with faster rates.

CONCLUSION

The economic growth is the primary concern of modern governments. FDI is one of the elements that contribute to the economic growth of a country. Benefits from FDI greatly can be seen in transfers of new technology, knowledge, new employment, strengthening of an economy, better trade balance with other countries, and so on. Since FDI opens new work places they have a direct impact on employment, rising of wages as well as transferring of skills and knowledge. FDI also improve management skills and techniques, combined with new skills of workers working with new and sophisticated technology rises productivity and competitiveness. FDI is usually attracted by owners private interest, like lower labour, production or business costs, big market can be a good reason for investing. There are some criteria that must be fulfilled for FDI. The first is political stability, for a long term investment is imperative stability and favourable business environment, unstable political situations usually attract high risk investments that usually have a short term character. The Gross National Income (GNI) is one of the most important indicators of a country’s economic health, for more objectiveness in this paper was used GNI per capita. Investments are very important because they enable the economy to grow much faster. Foreign investments are even more important because it’s new capital coming in a country’s economy. While in the last twenty years the FDI per capita grew steadily in developing and developed countries, in the last ten years things changed. In developing countries continued to grow steadily while in developed slowed down. The financial crisis of 2008 had obviously a great negative impact on direct investment and has to be taken into account when analyzing the FDI. The natural course and growth of the FDI changed because of such an event. The GNI per capita in developing countries grew faster, sometimes a lot faster than in developing countries. Since Croatia and other countries that still haven’t arrive to the level of development of leading countries in economy they have to improve in lowering administrative barriers as well as still some corruption issues, there is lot to be done in education to create a workforce that can cope with new technology, there can be done also a lot more in fiscal benefits for companies as well as in financing. The results has shown that there is a much bigger impact of FDI on the economy growth of developing countries than on developed ones. Which is understandable because those countries have a lot less investment capital of their own so they need
FDI if they want to grow with faster rates. Finally, we found that FDI has a big impact on the economic growth, but as the countries develop they become less reliant on foreign investments.

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STRENGTHENING OF COMPETITIVENESS OF SMALL ENTERPRISES IN METAL INDUSTRY IN BRODSKO POSAVSKA COUNTY

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Abstract

Metal industry is one of the largest and most important industries, together with agriculture, in Brodsko Posavska County. Through history this industry was and still is one of the main drivers of the economy, but in the last two decades, this industry has experienced stagnation, decline and was neglected. Large number of enterprises does not exploit their competitive advantage. Sometimes think they have it, but are not aware that they do not. The second case is to have a strong competitive advantage that they do not know and fail to promote their service users or goods. Often small-sized enterprises do not specify its competitive advantages, which should be the basis for all strategic and operational decisions.

The main goal of this paper is to research and evaluate approaches, views and factors that determine the competitiveness of 15 small-sized enterprises in 2013 in metal industry in Brodsko Posavska County. Analysis is based on primary research by questionnaire. The targeted objectives are to understand the necessity and role of strengthening competitiveness, to evaluate current state and investigate what enterprises can do to improve and achieve better scores in future. Try to find answers what the enterprise distinguishes from the rest of the competitors in the market-why it operates, maintains and allows growth.

JEL Classification: F12

Keywords: competitiveness, metal industry, small-sized enterprises, development, strategy
1. Introduction

For majority of enterprises competitive advantage is rarely uniform and it changes over the long term. Successful enterprises constantly looking for new competitive advantages and spent a lot of time on market research- monitor what their competitors are doing. Successful enterprises are built on solid foundations, have quality, professional people, good service, tradition, authenticity, etc. But strengths of enterprise are not the same as a competitive advantage. Forces are important to be able to survive on the market, but did not influence diversity. Finding a competitive advantage is not a one-time deal. It is important to create a work culture that is constantly maintains a competitive advantage. It is necessary to constantly monitor the competition, and well informed about the competition is a kind of competitiveness. The most important is reputation as perceived by customers. Enterprises often do not care to find out what is really important to customers. If the company has a competitive advantage, which was not presented to customers or if they do not confirm it, then it's a big lack in the business.

Metal industry is a main industry in Brodsko Posavska County (BPC), but it is very poorly competitive in the market. The reason that BPC is for years one of the least developed counties in Republic of Croatia. Most perspective part of metal industry are small enterprises who try to implement new ideas, technologies, trends, support export and so on, in order to increase their competitiveness.

2. Competitiveness

One of main experts in competiveness of enterprise is Michael E.Porter and his definition of competitiveness is: “Competitive advantage is what the company stands out from the rest of the competitors in the market”. It is why how the company operates and maintains and allows growth” (Porter, M.E., 2004,p .24). Competitive advantage can also be found under different names such as: unique selling position, recognition, a favorable competitive position, discrimination, differentiation. “Competitiveness can be obtained by offering superior value to the customer through either unique benefits that offset a higher or lower price than competitors for equivalent benefits“ (Wagner, S. M., 2006., p. 687).

2.1. Types of competitive advantage

There are two types of competitive advantages: external and internal. External competitive advantage is visible to the customer: patented products or special ser-
vices that the competition does not measure, better quality products, fast delivery. Internal benefits are not visible to customers, but because of them, the company has a big advantage over its competitors. They develop over years, if not decades. Internal benefits can be: buying power, good organization within the company, good distribution channels, advanced technology etc. Internal benefits will not affect the daily customers, but they have a great importance for the sustainability of the financial stability of the company, for suppliers, bankers, employees and business partners.

The enterprise possesses a competitive advantage when applying a strategy that is not used by other competitor. The enterprise must offer its customers more than low prices. Competitive position is defined like: “market share, the range of product lines, distribution efficiency, accounting advantages, price competitiveness, effectiveness of advertising and publicity, location, capacity, productivity, experience, cost of materials, financial position, product quality, grade level research and development, the structure of the employees, the general picture companies, consumer profile, patents and other proprietary rights, union relations, technological leadership, social reputation” (Pearce, J.A., Robinson, R.B., 2005., p. 102).

2.2. Porter’s five forces for industry analysis

Competitiveness means that enterprise conducts its activities in a different way, or “perform activities that are different from competitors in order to make the market different from their competitors and to create new value” (Thompson, A.A., Strickland, S.J., 2006, p.114). The purpose of business strategy is to choose the way which will achieve competitive advantage for a particular strategic area that can be domestic or international. “Each enterprise if wants to have a competitive advantage must define which type of advantage wants to achieve” (Lazibat, T., Kolaković, M., 2004., p. 66).

Porter’s five forces allow enterprise to perform better in comparison to other in same industry. It is impossible that the two enterprises in the same industry implements the same strategy, because every company has different view on future market conditions, different strategies adapt to new conditions, different strategy with their competitors. Setting strategy is reduced on two elements: the size of the market group that may have a wide range of customers, or a narrow segment of customers and a competitive advantage with respect to the products at low cost or differentiation. Five generic competitive strategies are: “competition in the indus-
try, potential of new entrants into industry, power of suppliers, power of customers, threat of substitute products“ (www.investopedia.com).

2.3. Strategies for competitiveness

When enterprise decides which of Porters 5 competitive force will use, it focuses its attention on strategic actions that can complement first choice. To achieve competitive advantage it is important to timely plan a strategic moves. Strategies that helps to achieve competitiveness are: Strategic Alliances- „partnership between two or more companies that merged to enable better implementation of its strategy“ (Thompson, A.A., Gamble, J.E., Strickland, S.J., 2004., p.130); mergers and acquisitions - often consist used in cases where strategic alliances fail; outsourcing- „process of creating a separate business entities in the company of former smaller functional units or organizational unit“ (Tipurić, D., 1999., p.315); usage of e-business and Internet as new market- „benefit of computerization, not only in the use of employee knowledge, but also the development of simple systems that allow the flow of information“ (Kourdi, J., 2009., p. 178); human resources- the most important part of any organization or enterprise. People who use their knowledge, skills and creativity are most important for achieving competitiveness; and last but of most important for metal industry in BPC is international business - important because of the development of globalization, and it is difficult to imagine how the enterprise can operate nowadays if there is no international trade.

New term in competitiveness is blue ocean strategy which defines the unknown market space, untainted by competition. „The key point in Blue Ocean is making the right strategic moves. Competitions are never used as benchmarking factors instead the incumbents often create blue ocean, mostly with their current core businesses. It’s also not about technology innovation, but about building brands. It rejects the trade-off between low cost and differentiation because blue ocean creators attract customers in larges scales and volumes thus they would be able to generate economies of scale very rapidly, placing the potential imitators and current rivalries at a cost disadvantage“ (Kim, W. C., Mauborgne, R., 2004., p. 76).

3. Research

Metal industry is one of the largest and most important industries in the Republic of Croatia and most important industry in BPC. This industry was and still is one of the main drivers of the economy. To be able to make the analysis of metal
industry it is important to know how it is structured. Metal industry is divided into two groups. The first group includes the manufacture of metal, and the other branches of the manufacture of metal products, except machinery and equipment. Metal production into the manufacture of welded and seamless steel pipes, reinforcing steel, wire rod, rebar net, aluminum processing, and metal casting.

In the last twenty years, this industry has experienced stagnation and decline, was ignored, and greatly changed the structure of the share of the economy. There are many social and economic changes have had a drastic reduction in metal industry in Croatia. Explanation can be given by fact that at the beginning of the transition metal industry in Croatia employed about 178,000 workers, and today from them has about 65,000. The first indications of the current poor state of metal activity started to appear in late 80s fall of the Berlin Wall. Then started to disappear, all the Eastern European market in which Croatian metal industry largely leaning on. Shortly after this event come war, and mistaken politics and transition of metallurgical complexes contributed to its collapse. In this paper will be shown the current state of the metal industry and its competitiveness based on research of 15 small enterprises on area of Brodsko Posavska County.

3.1. Metal industry in Brodsko Posavska County

Brodsko Posavska County has 176,765 inhabitants, which is 4% of the total population of Croatia (51, 47% female and 48, 53% male). There are five international roads through which an enormous transit of goods, people and services. In the end of 2012 there was “18 548 unemployed persons“ (www.soundset.hr), but highest rate of employment was in manufacturing industry-61%. Metal industry is part of manufacturing industry. The importance of income is high because Brodsko Posavska County “in 2010 had lowest rate of GDP per person in Croatia, it was 6.183 Euros” (www.glas-slavonije.hr). According to Croatian Financial Agency in Brodsko Posavska in “2010 there have been 96,4% of small-sized enterprises, but more than 93% of them is in private sector” (www.bpz.hr). Structure of industry in County is that there are: “34% of enterprises in manufacturing, 14%, in construction, 33% wholesale and trade 33% and 7% in energetic industry” (www.bpz.hr). Assumption is that all documents and fact are change negatively nowadays, because of very bad economic situation many new-time documents are not available and are little outdated and not represent current state.
3.2. Characteristics of the analyzed enterprises

According to Croatia law acts small enterprises are those that do not exceed two elements: “total asset of 32.500.000,00, total revenue of 65.000.000,00 (kn) and average number of employees during the current year is maximum 50 persons” (Accounting Law OG 109/07). The goal is to show ways of strengthening competitiveness and current state of 15 small-sized enterprises in metal industry in one of the most undeveloped region in Croatia.

Table 1. Characteristics of enterprises

<table>
<thead>
<tr>
<th>Number of employees (max.50)</th>
<th>Number in enterprises (max.15)</th>
<th>Age</th>
<th>Number of enterprises of certain age</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-5</td>
<td>4</td>
<td>0-5</td>
<td>0</td>
</tr>
<tr>
<td>10-20</td>
<td>3</td>
<td>10-20</td>
<td>6</td>
</tr>
<tr>
<td>20-50</td>
<td>1</td>
<td>More than 20</td>
<td>4</td>
</tr>
</tbody>
</table>

Source: Made by author

According to survey (Table 1.) there are 4 enterprises with less than 4 employees, 7 in scale from 5-10, 3 in scale 10-20 and only one enterprise in this research has more than 20 employees, precisely 41. Most of enterprises, 7 of them, operates from 10 to 20 years. Scales of age of enterprises is not higher than 20 years, because process of transition of metal industry began in the beginning of 1990s with private sector, and before that period most of enterprises were big-sized and of national property. Only 2 enterprises in private sector from this research began their business in 1986. (the only enterprise with more than 20 employees) and other in 1989. All mall sized enterprises are characterized like Limited Liability Company (LLC). In this paper, survey was conducted on 15 small-sized enterprises; 11 located in city of Slavonski Brod and 4 in rest of Brodsko Posavska County. Their activities are the production, trade of metal products, engineering, bust most of them doing combination of that three activities.

3.3. Achieving of competitive forces in small sized enterprises in BPC

Competitive advantage is characterized with Porter’s 5 forces. The only way to strengthen and sustain a competitive advantage is to upgrade it through 5 main dimensions that are shown below in Chart 1.
According to Chart 1, it is presented how an important is for respondents that enterprises take care about the Porter’s 5 forces. 66.6% of enterprises considered competition in the industry is very important for development and 33.3% that is little important, mostly because of organizations ability to respond on negative threats or capitalization of opportunities. Potential of new entrants into industry is very important for 33.3, little important and not important for same 33%. The reason why it is not important for some enterprises is because of bad economic situation and recession where many enterprises in BPC not operating in last few years or stopped to exist, because of high costs for starting business in metal industry- because of need of production technologies that is very expensive, and opportunities for financing nowadays are very low. That’s one of the reasons why enterprises estimate that new entrants are not threat. But, moving closer to membership of Croatia to European Union can be threat for domestic enterprises with new entrants form EU market.

On the other hand, respondents answer that the power of suppliers is very important for 53.3 and little important for 46.6. The reason fluctuations in the market conditions where, e.g. price of steel bars changed price in 2-3 month for more than 30%. It is an unfavorable situation for negotiating of future jobs. The reason is, in metal industry business contracts are entered on to a few years. 66.6% seems that power of customers is very important for their competitiveness, 24% little
important and 6, 6 not important at all. Small enterprises are very often present as cooperators on big projects (in shipyards, construction, pipelines and so on) of big enterprises and influence of customers for most of them. And the last Porter’s force is threat of substitute products.

3.4. Resource-based and dynamic-capability view

Resource base view is one of approaches of competitiveness. It can be defined: “a firm has a competitive advantage when it is implementing a value-creating strategy not simultaneously being implemented by any current or potential competitors” (Barney, J., 1991., p. 101.). Framework for using this approach has four primary attributes: value, rareness, inimitability and non-substitutability. On the other hand dynamic-capability view focuses on the development of resources with rent-generation potential rather than the possession. Organizations with dynamic capability will constantly „increase or maintain the value of the current resources or the position of the market via a flexible adaptation method in countering a dynamic competitive environment“ (Vinayan, G et.al; 2012., p.31). Attributes of this view are: market responsiveness, organizational learning, integration and coordination.

Chart 2. shows value of attributes of resource-based and dynamic-capability view which determines a competitive advantage of small-sized enterprises in metal industry in BPC. Respondents think that resource based view is important, but not so important like attributes of dynamic-capability, were results were almost 100% very important for achieving competitiveness. Enterprises prefer most innovation and creation attributes for new games, rather than fighting against competitors who are the setter of the industry standard.
3.5. Production strategy and market

Almost all enterprises from research are manufacturers. So, for strengthening of their competitiveness is important to define production strategy and market where they can place their products. The production strategy is included in the strategic plan of a company as its integral component and a starting point for the formulation of business strategy. The formulation of production strategy includes a discussion about factors of influence in the production function. In order to define production strategy it needs to include several different factors that are presented in Table 2.

Table 2. Factors of production strategy

<table>
<thead>
<tr>
<th>Factor</th>
<th>% (possibility of multiple answers)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Possibility of exports</td>
<td>100</td>
</tr>
<tr>
<td>2. Product innovation</td>
<td>66,6</td>
</tr>
<tr>
<td>3. Product design</td>
<td>33,3</td>
</tr>
<tr>
<td>4. Differentiation</td>
<td>6,6</td>
</tr>
<tr>
<td>5. Implementation of new technologies</td>
<td>100</td>
</tr>
<tr>
<td>6. Positioning of product</td>
<td>53,3</td>
</tr>
<tr>
<td>7. Capacity</td>
<td>93,3</td>
</tr>
<tr>
<td>8. Costs of production</td>
<td>100</td>
</tr>
<tr>
<td>9. Distribution</td>
<td>73,3</td>
</tr>
<tr>
<td>10. Product standardization</td>
<td>26,6</td>
</tr>
</tbody>
</table>

Source: Made by author
Table 2. shows that for all respondents possibility of exports, new technologies and cost are 100% important for creating of successful and competitive production strategy. Only with new competitive technology and low production cost enterprise can develop innovative product and become competitive on market, because domestic market is not sufficient if enterprise wants to be competitive and developed.

4. Conclusion

According this research there are many approaches, views and factors that can have influence of strengthening of competitiveness of small-sized enterprises in metal industry in BPC. The targeted objectives of this paper are to understand the necessity and role of strengthening competitiveness by given answers. Enterprises need to search valuable strategies in order to build competitive advantage and achieve business performance in environments in time of recession. To succeed, survive and sustain in the competitive environments, it is important to have innovation and technology and good position in industry. Each enterprise has to find best approach if it wants to be distinguished for other competitors in order of strengthening of competitiveness in metal industry.

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Abstract

The Republic of Croatia becomes a full member of the European Union on 1 July 2013. That goal was set more than two decades ago. To some extent it was delayed by social and political circumstances and also because of the slow process in adapting to the legal requirements of the European Union. At the same time, we were witness to and participants in the greatest economic crisis in Europe and the rest of the world since the Great Depression of 1929. That crisis demands adequate responses and solutions. But in the period since 2008 until today Croatia has not succeeded, either in absolute or in relative terms, in finding adequate responses. Therefore, the main theme of this work is to suggest what to do and how it should be done, and by what means and with what instruments the crisis can be overcome, while also providing an analysis of the current situation. The effects of the crisis can be seen in the constantly increasing rate of unemployment, the continual decline in GDP, and reduced share of exports to the European Union and the rest of the world, and the ever greater difficulties in maintaining financial equilibrium at the level of meeting the total obligations from the category of public expenditure. The work also emphasizes the areas and measures that are not only necessary but imperative to implement in order to achieve a successful economic turnaround. The achievement of such a turnaround in the economic sphere is also necessary as the foundation for maintaining social stability and social cohesion. Recent examples – Greece, Portugal, and Spain – have demonstrated all of the negative effects of the extended economic crisis: emigration and negative trends, and the further erosion of the overall value system. Therefore, finding adequate responses to achieve this turnaround is the fundamental responsibility of the protagonists of economic policy within each individual country.
JEL Classification:

Keywords: economic crisis, economic recovery, structural reforms, national competitiveness and environment, EU membership, EU adaptation.

1. Introduction

The Republic of Croatia has traveled a long road in its preparations to acquire full-member status in the European Union (EU). The initial enthusiasm at independence (1992) was interrupted, primarily by wartime events, and then by an extended transition process, which continued several social, economic, and normative limitations. An opportunity was missed in 2004, when ten new member countries were included in the EU, and in 2007, when it expanded with the inclusion of Romania and Bulgaria. At the same time, the requirements in regard to the preparedness of new candidates for membership, which included Croatia, became more rigorous. The economic crisis of 2008 shifted the EU’s focus on its priorities: from one of further expansion – the future of the EU – to a pragmatic, immediate one – how to respond to the global crisis to provide at the national and multilateral levels the optimal reform programs, and to establish policies and measures that would mitigate the consequences of the crisis, which were apparent in the aggregate in a decline in GDP and in growing unemployment. At the same time, within the EU tensions increased between members that were bearing up during the crisis (northern Europe) and Club-Med, those Mediterranean countries caught in to a greater or lesser degree: Greece, Portugal, Spain, Italian, and France.

2. National realities – current situation

The fact is that the economic crisis has been felt more deeply and more powerfully in the Republic of Croatia in comparison to the overall average of the EU27 and to the reference group of transition countries – the EU12. The rate of unemployment has grown dramatically when measured by both indicators: administrative and that which is expressed as a measure of the degree of interest in new employment. It is also apparent in the long period of time (beginning in 2007) in which GDP has continuously declined, as shown in the following graph.
Graph 1. Real changes in GDP - 2007-2014 (%)

From the beginning of the crisis until today and looking at future trends: beginning from a zero or a negative rate of GDP growth (in 2013), and the pronouncements for a weak recovery in 2014, it is apparent that this decline, considered in a comparative way (countries in the region, EU members), was greatest in Greece, followed immediately by Croatia. The countries of the EU27 have all achieved mild growth. There were also negative overall trends, but less than in Croatia, in the group of new EU members: Slovenia, Hungary, and Latvia; on opposite, positive side by rate of growth, considerer aggregately are Poland, Slovakia, Romania, the Czech Republic, and Estonia, while in this region positive trends were recorded by Montenegro and Macedonia.

This stated negative cumulative decline in GDP in Croatia is particularly worrisome because it coincides with a very strong decline in industrial production, which is closely related to the growth of unemployment and reduced export performance. This trend from the early phases of the crisis (2009-2010) is also apparent in the following period of the crisis (2011-2012).
Considered comparatively, the average decline in industrial production in the EU in 2012 was two percent, while in the same year in Croatia it was significantly greater. Keeping in mind the drastic reduction of activity in the area of construction, the poor weather conditions that affected agricultural production (drought, flooding), and the stagnant trends in the tourism industry, it is clear that the economic recovery is just in the phase of – expectations.

In addition, these statements on the absence of an economic recovery in the period 2009-2012 and beyond is a fundamental question that along with external reasons – the global crisis and the search for new models of economic cooperation within the EU – are the basic endogenous reasons for the Republic of Croatia’s inability to find appropriate responses for its own long-lasting negative trends and, therefore, indicators. It is necessary to search for the answer in Croatia’s overall contractions and deficits of economic policy: to attract domestic and foreign investors to new investment activities, but at same time and no less important, greater use of existing capacities: the processing industries, construction, agriculture, the tourism industry, and intermodal transportation.

It is certain that such a concept of economic policy – the spontaneity of events and other public policies that encourage a turn to creativity and entrepreneurship – which also means the readiness of citizens to accept business and life risks is missing. Without a doubt, principled investment assistance must also be given to various forms of concrete supporting activities: additional education, a professional public service for the purpose of education and constant evaluation of
business results, the sharing of (credit) risk with the engagement of public agencies especially established and staffed for that, support for entering domestic and foreign markets, financial and professional incentives for raising the level of quality of originality of products, and other concepts from a spectrum of well-known and well-established measures in several (competitive) countries and economies. All of this will be determined by the initial sentiment among Croatian citizens for entering the entrepreneurial sector. This is apparent from the data in the following table, which clearly identifies two types of entrepreneurship: a) that which arises from recognizing business opportunities, and b) the form of entrepreneurship that arises from personal or existential need, most frequently as a consequence of the loss of a previous job or the inability of one or members of a family to find a job.

Table 1. Motives for entering entrepreneurship – opportunity or need

<table>
<thead>
<tr>
<th>Year</th>
<th>TEA Prilika%</th>
<th>TEA Nužnost%</th>
<th>Motivacijalni koeficijent (TEA Prilika / TEA Nužnost)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Hrvatski</td>
<td>Rang</td>
<td>Hrvatski</td>
</tr>
<tr>
<td>2002</td>
<td>2,18</td>
<td>35/37</td>
<td>0,85</td>
</tr>
<tr>
<td>2003</td>
<td>1,74</td>
<td>29/20</td>
<td>0,59</td>
</tr>
<tr>
<td>2004</td>
<td>2,04</td>
<td>32/34</td>
<td>1,57</td>
</tr>
<tr>
<td>2005</td>
<td>2,92</td>
<td>32/35</td>
<td>3,09</td>
</tr>
<tr>
<td>2006</td>
<td>4,41</td>
<td>28/42</td>
<td>3,81</td>
</tr>
<tr>
<td>2007</td>
<td>4,16</td>
<td>28/42</td>
<td>2,50</td>
</tr>
<tr>
<td>2008</td>
<td>5,43</td>
<td>27/45</td>
<td>2,16</td>
</tr>
<tr>
<td>2009</td>
<td>3,01</td>
<td>46/55</td>
<td>2,08</td>
</tr>
<tr>
<td>2010</td>
<td>3,52</td>
<td>48/60</td>
<td>1,78</td>
</tr>
<tr>
<td>2011</td>
<td>4,61</td>
<td>42/55</td>
<td>2,59</td>
</tr>
</tbody>
</table>

Source: Singer, S., Šaralija, N., Pfeifer, S., Oberman-Peterka, S.: Što čini Hrvatsku (ne)poduzetničkom zemljom, Results of GEM 2002-2011 for Croatia, p. 28; available at: http://www.gemhrvatska.org/
General research (GEM) stresses that the reasons for undertaking entrepreneurial activities point to the capacity for entrepreneurial activity. This means that those who engage in this undertaking because of observed opportunity frequently have long-term plans and are more optimistic, and they contribute more to the economy through greater innovation and the creation of new jobs (Reynolds et al., 2002).

Also, it is continually stated that for almost the entire period Croatia was at the tail end of countries with regard to entrepreneurial activities based on observed opportunity, while for most of the years in the first half of the period under consideration the ratio between those who started a business enterprise because of opportunity and those who did so because of need was extremely low, which continually positioned Croatia in the lower third of those countries that participate in the GEM research. Of even greater concern is the gap between the motivation coefficient of Croatia and the countries that had the highest ratio between entrepreneurs based on opportunity and entrepreneurs based on need in the years under consideration: in 2005 that ratio was 1:29, while in the best year (2003) it was 1:4.85 (2003). In comparison to countries to in the same development phase as Croatia (an economy based of efficiency) the conclusions remain unchanged: Croatia has low entrepreneurial activity and among those who observe and among those how are forced into self-employment, which lead to a motivation coefficient that is half of that compared to the average of all countries of that development group.

The stated general situation: the quality (or lack of quality) of economic policy, the low level of institutional support for entrepreneurship, and a general (mis) comprehension of the role and responsibility of executive authorities for all development has resulted, in comparative terms, with Croatia’s drastic lagging behind the group of referent countries. This lag was achieved during the period of global conjuncture, which was less apparent from the outside, especially because of the accelerated indebtedness of all sectors: the government – budget and public enterprises, businessmen, and the populace. Such a trend and such a commitment created in the medium term (2000-2008) a false picture of the growth of living standards (citizens), of increased employment capacity, especially in construction (highways, apartment construction), the rapid development of the commercial sector (reliant on imports and, again, construction), and relatively significant of revenues from

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1 Singer, S., Šaralija, N., Pfeifer, S., Oberman-Peterka, S.: Što čini Hrvatsku (ne)poduzetničkom zemljom, Results of GEM 2002-2011 for Croatia, p. 28; available at: http://www.gemhrvatska.org/
the tourism industry. Fundamental activities: research and development, the use of innovation, support for and development of the sector for processing industries and green field investments to strengthen export potential, were almost entirely neglected. All of these trends are confirmed in the following graph.

**Graph 3.** Annual rates of growth, average 2004-2008

![Graph showing annual rates of growth, average 2004-2008](image)


The above data correspond to a great degree with the data from Graph 1, which relates to the period up to the beginning of the crisis. That period was notable for global conjuncture and accelerated economic growth at the global level, and also within the EU, which also means the group of new member countries. At the same time, it is apparent that economic growth in Croatia was, comparatively speaking, the most modest. Only Hungary was positioned behind Croatia, while in front of it were Slovakia, Romania, Bulgaria, Estonia, the Czech Republic, Poland, Slovenia, and two of Croatia’s neighbors, both of whom are outside the EU, Bosnia and Hercegovina and Serbia. The subject of this analysis is to research what caused these events. It is necessary to search for the fundamental reason in the long present economic model that was oriented mostly to public investments in infrastructure and to the growth of that portion of the domestic economy that is reliant on imports.
An effort and orientation to raising the level of competitiveness, which is the only real basis for stimulating foreign direct investment, was missing, which is apparent in the following data.

**Graph 4.** Average Influx of FDI as a % GDP, 2000-2008

![Graph showing average influx of FDI as a % GDP, 2000-2008](image)


Based on the level of GDP, the entry of foreign investments into the Republic of Croatia was more than modest – approximately five percent per year – a poor comparison to the extremely high 22 percent in Montenegro, 17 percent in Bulgaria, 12 percent in Estonia, and 8 percent in Slovakia. Only countries with a certain degree of political and social turbulence (Bosnia and Hercegovina, Macedonia, Hungary, and Slovenia) recorded slightly weaker results than Croatia, as did the Czech Republic and Poland, which had already absorbed a significant portfolio of foreign investment in the previous period.

In addition to this review of the influx of FDI as a share of GDP in individual countries in the year of economic growth, it is also of research interest to analyze the degree of motivation of foreign investors to invest in individual countries, measured by the number of *green field* project in the same time period.
It is apparent that this number for almost four times greater in Slovakia and Lithuania, twice as much in the Czech Republic, and almost 50 percent higher in Serbia. Keeping in mind the potential for possible investment in the Republic of Croatia, which structurally possesses the characteristics of a global investment portfolio – an exceptional geo-transport location, intermodal transportation, processing industries, including metal processing (for automobiles and ships), food, pharmaceuticals, and a strong service sector based on the tourism industry and the possibility of becoming a financial center for the region – then the presence of the lagging behind these other countries seems even more drastic.

3. What to do – what the EU does

After the first shock from the appearance of the crisis in the EU, and after its initial appearance in the US, the Eurozone, and the EU as a whole, began to search for general solutions that did not have a palliative character. The reason for this was the quick realization that the crisis was not just a global financial incident (sub-prime credits and extreme range and value), but a tectonic shift at the level of the global economy: the US – EU – the Far East, then its appearance and growth in the
BRIC group of countries, all of which influenced the establishment of totally new and different relationships. What that means in real terms and then in potential economic losses can be seen in the following data.

**Graph 6. Potential output relative to pre-crisis trend (2011)**

![Graph showing potential output relative to pre-crisis trend](image)

Source: Eurozone, Ernst & Young Eurozone Forecast, Autumn Edition - September 2011, p. 17.

The authors assess that permanent output losses are therefore likely to have occurred in many Eurozone economies, but especially in member states at the epicenter of the sovereign debt crisis, where severe austerity is causing deep recessions. Our calculations suggest that the most significant loss of output so far has occurred in Portugal, where we estimate that the level of productive capacity in 2011 was almost 9% below where it would have been had the pre-recession trend continued, and Ireland, where the difference is around 8.5%.

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2 Based on: Eurozone, Ernst & Young Eurozone Forecast, Autumn Edition - September 2011, p. 17.
This situation was followed by concrete action, laid out in a document of the EU Commission as part of its annual report on economic growth for 2013. The goal of the document was to determine the economic and social priorities for the EU in 2013, by providing clear directions for member countries in the context of structuring their policies.

Moreover, it launched the third European Semester of policy coordination, through which national performances and priorities are reviewed collectively at the EU level in the first half of each year. The European Council will issue guidance in March 2013 and Member States are due to present updated national programs by mid-April 2013, following which the Commission will present its country-specific recommendations.

In a realistic context this means a continuation of the policies and directions from 2012, which have been aggregated into the following five priorities.

- Pursuing differentiated, growth-friendly fiscal consolidation
- Restoring normal lending to the economy
- Promoting growth and competitiveness for today and tomorrow
- Tackling unemployment and the social consequences of the crisis
- Modernizing public administration

These directions for action and their content are important and timely for the Republic of Croatia, when the creation, and more importantly the implementation, of a common EU policy (development, economic, and social) becomes an obligation arising from membership on 1 July 2013. Also, it is clear that within the framework of overall coordination of policies at the EU level there will be an evaluation procedure of national performances and priorities. The estimate (EU Commission) is that in 2012 much was done to break the vicious circle of the weaknesses in the financial system, the shocks from the financial markets caused by the high and rapidly growing public debt of individual member countries, and the low rates of economic growth and to move in a direction to create the conditions for a gradual and sustainable recovery. In this context the following measures and

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4 Ibidem, p. 3.

5 Ibidem, p. 3.
activities can be cited as measures that can create the conditions for an achievable and sustainable recovery.

- The establishment of the European Stability Mechanism provides a credible backstop to assist euro area countries whose access to finance is curtailed.

- The adoption of a Compact for Growth and Jobs by the Heads of State or Government at the June 2012 European Council should galvanize the efforts of the EU legislator and administrations at all levels to mobilize the growth levers they have at hand - from the implementation of the Single Market Acts to the more targeted use of EU Structural Funds. The Commission has also recently proposed a strategy to improve the functioning of energy markets, as well as measures for a reinforced industrial policy.

- New rules to strengthen economic governance, notably within the euro area, are being implemented (“six pack” legislation), agreed (Treaty on Stability, Coordination and Governance) or should be agreed soon (“two pack” legislation).

- The European Central Bank has taken important measures to safeguard financial stability in the euro area.\(^6\)

All of these measured clearly demonstrate the extent to which the EU is consistently seeking for solutions to the economic crisis within its own borders, while keeping in mind the overall circumstances and all global factors that led to the crisis, but which all essentially the possible solutions. Also, it is apparent that there is an awareness of, but also a practical attitude that requires: a) the coordination of economic policies and national reform programs; b) the creation and constant introduction of criteria that will be a required threshold of behavior and at the same time a pre-condition for active EU assistance in resolving the concrete problems of individual member countries.

4. What to do – how to change things in the Republic of Croatia

Croatia stands at a unique crossroad. The continual postponement of the internal structural reforms has led to its slide in the rankings of the World Economic Forum from 57th place in 2007 to 81st place in 2012, which points to two facts: a) that since 2008 and the outbreak of the crisis the referent countries acted pro-

actively and initiated reforms and thus improved or at least maintained their existing positions (Poland, the Czech Republic, and Slovakia); and b) that especially because of internal political turbulence a clear direction is missing, as is the necessary capacity of the executive authorities to quickly devise solutions and then to effect changes. At the same time, the IMF estimates that economic conditions in Croatia in the current time period have continued to deteriorate. Thus, changes are required, and there have been positive evaluations of the steps in the direction of limiting public expenditure (reducing salaries in the public sector) and the announced reforms of the pension and health care systems in order to curb unsustainable levels, but also the continued trends, of increasing payments for pensions and health care insurance. In this context the IMF is convinced that the Republic of Croatia must respond to the current challenges with a comprehensive, ambitious, and long-term package of measures, particularly in three urgent areas:

- Quick realization of a plan of structural reforms to improve the competitiveness of Croatia and to stimulate medium-term growth. Structural reforms bring results only after some time, so they should be implemented in the shortest possible time.
- The continuation of gradual, but lasting fiscal consolidation to re-establish the sustainability of debt and to maintain access to markets at a reasonable cost. The respite that the financial markets are now giving should not be a reason to be calm.
- Keeping an appropriate balance between improving financial stability and supporting a recovery in credit growth.  

It is extremely important that the announced reforms start to be realized in 2012, immediately with the entry of the Republic of Croatia into the EU. It is clear that in addition to the increased interest in doing business with Croatia and in Croatia from that moment competitive pressures of the overall EU market on the national market and national economic entities will increase drastically. Therefore, it is even more necessary to assist and strengthen the positions of domestic entrepreneurs through active economic intervention, but also at the same time to create the condition to attract new investments.

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In this context it is clear that the Law on Strategic Investments will ease the implementation of major investments, but at the same time it is also necessary to invest additional effort to reduce the barriers to investment at the local level for all projects and to accelerate the privatization process. The IMF’s estimate is that without improvement in these areas Croatia will not stimulate sustainable growth and it will not be able to take full advantage of joining the EU. At the same time, it warns that the implementation of gradual, but constant fiscal consolidation must continue because the failure to achieve that goal carries extreme risks. It is evident that the current trajectory of public debt is unsustainable, and interest costs are rapidly growing and squeezing out productive expenditures. Should this process last longer the final adaptation will be more significant and cause greater disturbances. “...Furthermore, the recent decline in the investment credit rating increases Croatia’s vulnerability to increased interest costs for borrowers in the public and private sectors – creating additional pressure on growth and fiscal health – if there is another deterioration in the currently benign international financial environment. To reduce these risks as low as possible, the Government must dispel any doubt about its commitment to fiscal consolidation through the rapid implementation of further measures to adapt the budget and to put the budget back on the road to consolidation. ...Unfortunately, exceeding the projected amount of the mass of salaries and expenditures for pension and health insurance are compensated for by capital expenditures that are lower than planned and this depresses growth.”

All of this represents not only an (un)disputed criticism but exceptionally valuable analytical material, prepared and published as a kind of *second opinion* that provides a basis for reaching the appropriate conclusions at the national level and then for creating certain implementing policies. Why it is necessary to make changes is evident in the following graph.

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Graph 7. Competitiveness remains a problem

![Graph showing competitiveness rankings of EU countries](image)


It is apparent that Croatia in terms of its current competitiveness is lagging behind the group of EU12 countries, which are positioned at the top of the table, and also behind all countries caught in the economic crisis that prepared and implemented structural reform programs: Portugal, Hungary, Greece, Italy, and Slovenia. Croatia’s current position in the World Economic Forum’s competitiveness rankings is 81, but Portugal is 49, Lithuania 45, Hungary 60, the Czech Republic 39, Italy 42, and Slovenia is 56.

Why this is so can be seen in several documents and analyses by prominent international organizations and individuals: the IMF, the World Bank, OECD, rating agencies, and domestic economic institutes and analysts. For the purpose of this work, it is important to show (comparatively) a graph contained in an ECB study entitled *External Competitiveness of EU Candidate Countries*.9

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First, the data cited for Croatia for 2010 were relatively more satisfactory than for the year just completed, 2012. Second, clear structural deficits can be observed compared to the referent group of countries: the EU15 and the EU12. This is especially apparent in the degree of the tax burden, the quality of education, and the administrative difficulties related to doing business. The position of Iceland is much more satisfactory as a whole; also, it is worth noting the position of Montenegro and the same position of Serbia in the area of flexibility of the labor market and the competitive tax burden. Such a situation has essentially determined the investment position of the Republic of Croatia, which is conditioned by indicators.
related to the export capacity of the country and (again) in the period of global and EU conjuncture.

Graph 9. Average growth of exports, 2002-2008


Countries that in a longer period (starting in the mid-1990s) succeeded in achieving powerful investment push have also achieved significant shifts in exports; the average growth of exports in Slovakia, Hungary, and Romania were almost twice as great as in Croatia. Considerably better results were also achieved by Poland, Bulgaria, the Czech Republic, Slovenia, and Estonia. Even Austria, a highly developed economy that started from a considerably higher level achieved more satisfactory results in the period under consideration.

5. Conclusion

In today’s globalized economy, maintaining a *status quo* position is extremely difficult and demanding, if we are discussion the leading economies in the world, not because of their overall size but because of their efficiency. Regardless of insig-
significant annual changes in the leading positions, several economies (Singapore, the Netherlands, the Scandinavian countries) have succeeded that are comparable to Croatia’s in the extent of their territory or that have a population that is closer to Croatia’s than the leading economies in the world.

At present, though, the position of the Republic of Croatia cannot be an orientation to a status quo situation; in other words, with the establishment, and then the achievement, of a coherent and comprehensive economic and development program, this drastically unsatisfactory position will continue to deteriorate. Considered synthetically, the fact is that Croatia has fallen from 57th place in the global competitiveness rankings (WEF, 2007) to 81st place in 2012. The absence of changes and activity means that a further decline is possible. Or perhaps the creation of an awareness of reality, and then an awareness of the need for urgent and coherent pro-active action. In this work it has been clearly shown that there are real pre-conditions for such a turnaround. At the theoretical, scientific-research level there are several studies and analyses about the current situation and the reasons for it. But there are also undeniable targets and recommendations that can be made. Who – the executive authorities, and when – immediately after the first half of this year and Croatia’s entry into the EU. Because Croatia has fulfilled the political and normative criteria necessary for entry; according to evaluations from various EU organizations for these areas, Croatia has exceeded the degree of preparedness and the status of some of the current members. There remains the other part that is still (primarily) in the realm of national responsibility: the creation and implementation of a model of economic development and growth appropriate to its own conditions and whose implementation can also be supported by EU and EU funds. But an adequate policy must be created within national borders. This is the responsibility and task of Croatia’s legitimately elected representatives: parliament and the government cannot be substituted with any other mechanisms, not only because this is politically (and institutionally) impossible, but because there is no one else who can have a greater interest and agreement than the protagonists of public (political) life of any country, and it is the same for Croatia. Events in all or almost all EU member countries have confirmed this.

With its definite entry into the EU on 1 July 2013, Croatia cannot and must not direct its ambitions and its reach only to the (otherwise useful and necessary) engagement of the resources of the structural and cohesion of the EU. These are only some of the EU instruments to stimulate the development of SMEs, stability in agriculture, co-investment in future (national and EU) infrastructure – especial-
ly railways and ports. Indeed, how to strengthen institutional capacity (laws, public administration), the quality of economic policy: the complexity and consistency of measures, and including the system of education and the use of innovation in the overall development concept, remain the fundamental challenges.

With such an approach to its ambitions and goals, and then with its positioning as a country in the circle of *niche players*, and not the *trendsetters*, it is possible for Croatia to improve its national position in a reasonable period of time, transforming its comparative advantage into a competitive advantage in the EU. At the same time, with its new and enhanced presence with the EU, Croatia can establish a true win-win position.

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SOCIOINTERCULTURAL EVALUATION FOR INVESTMENT PROJECTS IN INDIGENOUS COMMUNITIES WIXARIKAS

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Abstract

This paper analyzes aspects of the problem that occurs in the social evaluation of investment projects for indigenous communities’ Wixarikas (Huichols). A project in this context make particularly complex the evaluation. On the socio-economic perspective with which it is evaluated comes into play the incommensurability of social and intercultural issues that cannot be ignored. It is addressed the questions that have arisen in the development of this type of project and presents a theoretical framework for the methodological proposal of socio-cultural evaluation.

JEL Classification: A14, Z13

Keywords: Social evaluation of investment projects, socio-intercultural evaluation, indigenous communities, Wixarikas.

1. Introduction

While developing investment projects for the implementation of alternative energy in communities Wixarikas (Huichols) in Mexico in 2010, it was found that there were a number of issues to discuss in the theory of social evaluation of investment projects when they are applied in an indigenous context. These projects aim to improve the conditions of Wixarikas and other indigenous communities through
promoting basic infrastructure. This basic infrastructure also enables the generation of projects with their own principles and approaches in line with the cultures and economic logics of the involved ethnic groups, as well as their social and environmental rationality, especially how they relate with Mother Earth (Gómez González, Gómez Calderón and Gómez Calderón, 2008).

In Wixarikas communities, the fact of assessing the possibility of providing electric service through alternative energies presents in advance externalities which can be considered negative to their culture, as this service would involve greater use of television sets, radios and other media which open the possibility of extending an acculturating process that despite the benefits, negative effects could be even more undesirable. However, the installation of all services would result in improving their means of agricultural production through the use of machinery and equipment that cannot be used without electricity. But the simple fact of wanting to help Wixarikas as part of government policy may have racist implications to place the national mestizo culture above them.

This is not a simple matter; the sample is that despite the high interest in this culture, in recent decades, the government policy has not been able to contribute to significantly improve the economic and material well-being of this ethnic group (Wiegand and Fikes, 2004: 54).

Externalities are found in opposed directions and they should be valued them both from the perspectives of the indigenous communities and the non-indigenous society. Clearly, it is evident that the non-indigenous culture has a greater weight and that decisions will have a particular bias in this direction, but through a series of ethical issues in public policy, they could be taken into account qualifications of the indigenous world to try to balance their interests. For example, unlike the non-indigenous world, for Huichol peasants both production and religion are so closely linked with economic and social life which apparently show a lack of interest in the adoption and adaptation of technology (Torres Contreras, 2000: 162 - 163).

The Huichol Serrano uses his time not devoted to alternative working techniques in the performance of ritual acts jointly with his family and other families in the social and production environment production (Torres Contreras, 2000: 163).

This does not mean that Wixarikas are isolated from the mestizo society. The persistence of their culture and community can be explained through processes of identification to the world, but the specificity of their ethnicity is due in part to the
creative integration of what is not their culture (Florentine Beimbord and Peñaflor Romandie, 2009: 13). The complex skein for the analysis of projects in these contexts begins with the consideration that in the social assessment, mentions Fontaine (1999), externalities allow to understand the feasibility of promoting a non-profit project and socio-intercultural context. Externalities are multi-way and should be analyzed in intra-social, the intra-cultural and inter-cultural (Guerra García, 2004).

This research refers to intra-societal aspects when what it is analyzed is not unique to one of the participating cultures involved and is not put into consideration in inter-cultural relationships. The intra-societal aspects are all those cross-cutting issues in society regardless of the cultures involved, such as poverty, technology and welfare that concern to all human beings. The inter-cultural affairs, on the other hand, are placed on the discussion of the interrelationships among cultures such as the use of resources, domination, language shifts and displacements, asymmetries, differences of understanding, among others. Intra-cultural refers to the differences within the ethnic and cultural groups and that does not give a clear and uniform idea of what a community or people want.

By introducing this methodological perspective of analysis that it has been called socio-intercultural (Guerra García, 2004) in the social assessment, it opens an area of research to generate models that describe the categories to consider in this type of environment.

To pay to the issue is necessary to take into account the fact that decision-makers and intended beneficiaries of the project are from different cultures necessarily involves a “poli-relativism”, i.e., to consider all possible relative positions on the evaluation at the same time. That is, if relativity is understood as the application of criteria and calculations from a determined particular perspective accepting that there are certain other points of reference, then, implies not only the acceptance of the existence of other criteria, but the development of mechanisms to consider these other benchmarks and other ways of seeing the world in her assessment of a project.

This implies that the assessment must be also performed as ‘multi-criteria’, i.e. recognizing that treating complex problems such as those presented in ethno-regions will need to consider the social, cultural, intercultural and intra-cultural incommensurabilities present in these situations. This incommensurability refers to the presence of multiple legitimate values in society and culture, diverse views and conflicting that result not only the in need to involve all the different actors and
agents in the decision making process, but understand the policies of the State implied to the effect (Vargas Isaza, 2005). The incommensurability is associated with the multidimensional nature of complexity and the use of different dimensions of socio-intercultural analysis.

Therefore, this paper is aimed to answer the following research questions: How to make a socio-intercultural assessment of an investment project in an indigenous community? Or more specifically, what are the categories to be considered in these assessments? These issues have been analyzed for the case mentioned and briefly described in this article.

2. Evaluation of investment projects

It is understood as an investment project to be considered as the formulation of an intervention as a mean to study an existing problem and analyzing the feasibility of achieving a desired change at least in some parts of society. The investment project is one where is delineated with clarity and detail what is to be achieved and also how to do, allowing to justify the intervention from different points of view to give or not give solution to a problem (Andia Valencia, 2010: 28-29).

Before achieving any activity are assessed the possibilities and potential for the project or projects. In any case, even when the target is private, the assessment should be considered a form of social research.

...applied, systematic, planed and directed, on which is supported a judgment about the merit and value of different components of a program, in such a way that serve as a basis or guide for making rational and intelligent decisions between courses of action (Matos Bazó, 2005:23).

3. Evaluation of investment projects

The objectives of any project evaluation, private or social, are always aimed at developing or improving living conditions. The development of the formulation comprises activities from the intention until the end and how it is to be put into operation the project.

The project evaluation, although not mentioned in many methodologies, borrows from making public policy criteria already established or commonly accepted. The private evaluation of investment projects provides criteria that mostly come from public policies aligned with an individualistic perspective they put on a secondary level the involvement made to the community. The social assessment of investment
projects, however, departs from public policy underlining the common good as a priority.

It is to be considered that public policies can be placed in streams and approaches of economic thought. Classical economics often includes only the variables that are monetary and cash, but the latest trend precisely includes all aspects of the social fabric that could not be strongly measured though can be qualified. Especially when considering the known effects as externalities previously thought to be indirect or of minor importance, but increasingly are taking on a greater significance. Without putting aside the economic and financial technicalities, the fact that many externalities are hardly difficult to quantify in general makes more difficult to evaluate.

Evaluation is one of the more difficult concepts to address in socio-inter-cultural environments because is generally not possible to implement a valid metric valid and accepted by all stakeholders. In addition, the aspects that commonly are considered to have universal validity are questioned in the presence of other ways of seeing and perceiving the world. Then for this case, to evaluate means to clarify any doubts that the operation of a project might have before it is applied from the poli-relativism and multi-criteria mentioned.

Such type of projects do not always represent a competition for the allocation of scarce resources, where the guiding principle of the allocation would be given by an indicator of profitability, but there are other equally valid criteria that deal with socio-inter-cultural issues where cultural relativism provides different views that may converge or diverge. The uncertainties that arise are due in large part because of problems involving socio-inter-cultural information and the difficulties for prescribing and determining the final outcome (Arroyave, 1994).

4. The social economics approach

The crisis of development models has allowed the visibility of some ancestral ways of understanding the economy and the emergence of innovations that have been called the third sector economy, solidarity economy, barter economy, popular economy or social economy (Bastidas Delgado and Richer, 2001: 1). In fact, any economy is social. However, when the focus is on private, all considerations are set aside of the other actors involved in the whole economy (Bastidas Delgado and Richer, 2001:2). The purpose is not to add a more endogenous variable but predominantly recognize the social dimensions of the economy (Izquierdo, 2009:5).
The aim of the social economy is not for profit, it is a welfare-oriented model of groups and communities (Pujol, 2003:36). So, an alternative energy project in these communities ensures sustainability, even if the investment cost is high and apparently did not have a positive financial result. The good life of the community and social synergies generation may be sufficient to justify a project of this type. From this perspective, the State would pursue the aim to improve conditions in communities. In addition, the social economy is diffused through a process of recognition of the poor circumstances in which there is an indigenous community and the debt for over 500 years of Mexican society has for this sector (Bastidas Delgado and Richer, 2001: 2).

In modern times, where it is increasingly clear responsibility for each of the people, where cooperation is becoming increasingly necessary and where it is not considered that the individual good necessarily leads to the common good, social approach is increasingly most needed, even in private projects. In this sense the social economy is an alternative approach consistent with the proposed socio-intercultural assessment. Precisely for the mentioned case, it is necessary to address an indigenous economy, understood as one form of social economy in Latin America, which starts from a vision of a plenty fulfillment life of human beings in their relationship with nature and its search for the good of all.

For example, for the case of Wixarikas is known that

…each family member contributes something to the party and also he has the right to be helped to open his land to plant, to help him clean the fields, to harvest and to help him hunt the deer (Torres, 2000: 162).

This gives a sample of a different economic dynamics of the mestizos. In itself the indigenous economy looks:

…to ensure to the indigenous peoples their well-being in all spheres of life, being this philosophical basis of welfare and lays the groundwork for the implementation of the indigenous economy (Consejo Indígena de Centroamérica, 2010).

The indigenous economy is composed of traditional practices to adapt to a particular environment which consist of the following features: a) the production that determines a given landscape according to the particular form of territory appropriation of each tribe worked with traditional techniques, b ) distribution, where different mechanisms operate to the intermediation as reciprocity and redistribution c) consumption, characterized by the forms of matching d) work organization
and e) the earth, seen from a different worldview of individual ownership (Lugo, 2007: 60).

However, it is necessary to clarify that the indigenous economy has particular characteristics according to the indigenous culture and has this relationship with other ethnic groups. The pre-Columbian elements, which consist of traditional practices to adapt to a particular environment, where there is no money to exchange, correspond to an economy that can be called traditional (Lugo, 2007: 60), but there are many elements that have been created from the relationship with the non-indigenous world, perhaps the oldest economic relationship of the latter has been trading.

Trying to generalize,

Indigenous economies are composed of a traditional economy with a segment of a market economy which may be in descending from larger to smaller magnitude, depending on the case in question. Generally, the segment of the market economy behaves inter-cultural adaptations as goods produced with techniques or traditional labor organizations to sell them to the market or whose incomes are applicable to reciprocity or traditional complementarities (Lugo, 2007: 60).

To Lugo (2007: 60-61) the traditional economy consists of the following elements: 1) the production of traditional practices that determine a landscape, a product of particular forms of land appropriation, 2) distribution, where different mechanisms operate other than the intermediary of money, which in their different languages have to do with reciprocity, mutual aid, barter, community collaboration, etc., 3) consumption, which is characterized by finding ways of matching, 4) social indigenous organization, which determines to a greater or lesser extent the allocation of work, use and the enjoyment of the resources and the use of goods and services production and 5) The land as a living being that belongs to itself, so that private property is always a matter of conflict in the legal framework in relation to non-indigenous population (Lugo, 2007: 60-61).

Barter for example, is one of the elements of the traditional economy that is not only currently used by many indigenous communities, but is re-emerging in different niches of society, for example in clubs and interest groups in local and international levels and has being questioned its inefficiency (Tocancipá Falla, 2008: 147). Based on the above, it can be understood why the idea that the indigenous people lack power to be used as leverage for their good living or to live together in a
more harmonious way in Mexican society, requires a broader view that the providing common assessment tools, both private and social.

For all the above to take place it is necessary the real and true recognition of the social organizations in this case the government, communities and indigenous peoples. This public policy is highly relevant for evaluation in such type of contexts (Huot and Bussiéres, 2006:124)

4. Social evaluation

A social investment project seeks to meet social objectives through government targets or alternatives, used by support programs (Matos, 2005). Most important in this type of intervention is that the direct users and social beneficiaries must agree with the formulation posed, i.e., the project must be generated in a unidirectional way, in this case mestizo government to an indigenous community, but must be multidirectional.

However, regarding the social dimension, few evaluations go beyond indicators that describe the satisfaction of basic needs and are pending or without considering other socio-inter-cultural aspects such as inter-cultural equality, balance within and between generations, the level of social organization or the management capacity of a community or region, the formation of social networks, social and human capital, the response and societal organization facing market structures and their change processes (Mazabel-Domínguez, Romero-Jacuinde y Hurtado-Cardoso, 2010).

In the present case is noteworthy that the indigenous areas in Mexico have juxtapositions between uses and interests implying that the soil in the worldview of their people and economic activities are predominantly non-indigenous (Korsbaek, 2009). Recent examples have involved some ethnic struggles against the mining exploitation and use of certain private interests on the uses that indigenous peoples want to make on the soil (Saliba, 2011; La Jornada, 2011; Zapateando, 2012). So the difference from the other evaluations is that the benefits, costs and externalities should be observed from different perspectives simultaneously. That is, in inter-cultural projects is not sufficient to make the formulation and evaluation from one perspective, but it is necessary to put on the table all the criteria and viewpoints of the participating cultures involved.

This shows that the different etno-regions have conflicts and disputes regarding the agenda that economic actors that are not indigenous have for the use of what
they consider their land. Thus, in addition to private mining projects, indigenous aspirations confront other companies in connection with new sources of energy, innovative technologies and media, which have also presented breaks, joints and disagreements, subject to further study. The problem that arises is that on the social valuation there are other elements which are perceived and then visible as a community harm that are difficult to quantify or to generate a weighting in monetary units. Hence the development approach of such projects must be preferably a qualitative approach.

5. Externalities

Social research projects always involve a number of edges concerning the management of externalities not only unresolved, but are raised to the extent they are found in practice. Externalities occur when social or economic activities of a group of people have an impact on another or on the nature and the impact is not taken into account adequately by the first group (Jaime and Tinoco, 2006:105). Externalities occur when social or economic activities of a group of people have an impact on another or on the nature and the impact is not taken into account adequately by the first group (James and Tinoco, 2006:105). But this does not mean that their development is less valuable. Instead, discussions on the socio-inter-cultural perspective lead to generate new constructs that allow understanding that what happens in a concrete social reality.

Traditionally the evaluation of an investment project intend to build a starting point for determining the compensations that would probably be necessary to grant for counteracting the negative effects on the natural or social systems. However, this compensatory and corrective philosophy is not recommended for projects in which participate different cultures, because actions implying compensation and involving a party could be unacceptable to another.

In the treatment of externalities is important to mention that from the social approach is feasible to calculate the costs of the negative effect and then try to pay in corrective form is not precisely the optimal (Fontaine, 2008: 13), i.e. to internalize externalities is not the best philosophy in the social assessment, because when the groups are from different cultures there are inter-cultural situations that must be addressed proactively.
6. Economics and management of natural resources

The importance of this type of projects increases the finding that rural indigenous communities have been assigned the task of being providers of resources to urban areas and have been given the responsibility to preserve the environmental balance (Mozas Moral and Bernal Jurado, 2006: 127). Also an added feature with this type of alternative energy projects in indigenous communities is that at the same discusses issues of economics and management of natural resources. In this regard it should be noted that interest in the sources of new and renewable energy (SNRE) (Fuentes de Energía Nuevas y Renovables, FENR) was due to the energy crisis that increasingly is stress sing (Rodríguez Murcia, 2008: 88).

Within this discipline is the green economy, which unlike conventional economic theory, its objective is not the pursuit of efficiency, profitability and growth in purely monetary terms, but to try to support the sustainability of capital natural (Domínguez Torreiro, 2004:8). Therefore this type of project also is part of a natural resource economics that encompasses everything related to 1) the management and valuation of natural resources, 2) determining acceptable levels of negative externalities and 3) the calculation of positive externalities.

But despite that awareness of the global ecological crisis is an undeniable fact, the current economic systems difficult not only has the evaluation of these projects but also the incorporation of new methods of energy used to be more sustainable. What is clear is that the human dependence on ecosystems can be seen so clearly in subsistence economies linked to the natural environment, where human communities, including indigenous communities take directly from the ecosystems only what they need to live; of this, community’s Wixarikas have great wisdom.

Recognition of this fact implies the assumption that the economic and social development will depend on the medium and long term, not only the proper maintenance of ecological systems that sustain and constitute the planet’s natural capital but also the respect and attention given to the indigenous cultures from which there is too much to learn (Gómez and de Groot, 2007:5-6). Issues related to natural resources are analyzed both from an economic perspective and from the institutional framework with its rules, duties and obligations, formal and informal (Domínguez Torreiro, 2004: 6-7). Also should be considered certain forms of relationship that each culture has with nature.
7. Incorporating the environmental dimension in project analysis

In this type of projects in rural indigenous communities is difficult to ignore the environmental impact assessment, which involves the identification, analysis and evaluation of project impacts on the environment, natural and social, from the poli-relativism and multi-criteria even when they are not necessarily expressed in monetary units. The addition of this category involves considering a number of additional activities not normally considered and whose execution is required today.

To evaluate the environmental impact of a project on the economic environment it is possible to note that from the time of its construction and after commissioning and implementing, it will influence the environment where it will be installed by the effects produced on the existing and future natural, human and economic activities, during its operation and to the final stage of abandonment. In particular, the environmental evaluation is to gauge the future effects through a process to identify, interpret, predict and disseminate the project’s potential effects on the economic and socio-inter-cultural environment in which it will be located and operated that would be reflected in the actual and future environmental changes.

8. Development or good living

Another element to consider in evaluating projects in indigenous communities is that in Latin America is running a renewal of the critique of conventional development under a process that offers several special features and it provides another approach to social assessment.

In this new situation points out that while many of the positions on the conventional development, and even many of the critical currents, they operate within their own knowledge of western modernity, the most recent Latin America alternatives are beyond those limits (Gudynas y Acosta, 2011: 72).

What is important here as it is in communities’ Wixarikas assessment is that the positions of the ‘good life’ recover visions rooted in the knowledge of indigenous peoples’ own knowledge. The positions of good living challenge to the development with its philosophy of progress and that in practice meant an adversarial relationship with nature.

Living well is not, then one more alternative development in a long list of options, but is presented as an alternative to all those positions (Gudynas y Acosta, 2011: 72).
The good life is a concept of public policy in construction, but generally recovers the idea of a good life, welfare in a broader sense and in the case of the social economy and social assessment as a general rule provides that a community lives well, without waiting for progress at the cost of the devastation of natural resources. As mentioned Kichwa leaders:

…is a holistic vision of what should be the goal or mission of every human effort, which consist of finding and creating the material and spiritual conditions for building and maintaining the good life, which is also defined as harmonious life that in languages such as *runa shimi* (Quichua) is defined as “alli kausar” or *sumac Kausai* (Hidalgo, 2011, 88).

From the above it is stressed that the evaluation of a project is different if it is part of any policy development or within the one presented to the approach of good living. Public policies are crucial in guiding the work of social evaluation.

### 9. Wixarikas indigenous communities

For the Huichol culture, also called *Wixarika*, be wise means knowing the nature (Iturrioz, cited by Juránková, 2007: 150). For this culture the mestizo world is an alter world coexisting with his mythical (Durín, 2005: 91).

Spirituality and religiosity influences the mode of being of the Huichol, in the way of seeing the world, in their view (Juránková, 2007: 151).

The word ‘Huichol’ derives from ‘hueitzolme’, a territorial area currently located in Nayarit, its language belongs to the dialect *totorame* from the family southern Uto-Aztecan (Wiegand and Fikes, 2004: 51-52). The *Wixarikas* inhabit the region Huicot comprising approximately two hundred and fifty thousand hectares shared by the states of Nayarit, Durango, Jalisco and Zacatecas. This area is located in the Sierra Madre Occidental in a broad band called the Big Nayar, but the weight that the desert located in San Luis Potosi has for them is crucial to their culture (Porras Carrillo, 2006: 34).

In fact, the pilgrimage that according to the obligations imposed by the Huichol culture should make the huichol to the desert of San Luis Potosi is one of the key events in his life and one of the highlights and attractions of this indigenous people (Porras Carrillo, 2006: 34).
This type of migration on the Wixarikas allows in a greater perspective to understand the dynamics of their culture in their intensive interaction with ‘the other’ (Florentine Beimborn and Peñaflor Romandie, 2009: 15). It is generally a poor region with unpaved roads and sidewalks, electricity is very scarce and low since the problems of access to this territory makes difficult the installation of services and communications (Barrera, 2002: 45).

The altitudes of variegated terrain of mountains, plateaus, cliffs and canyons are located from 400 to 3,000 meters above sea level, containing within it a variety of ecological niches, with a wealth biotic of untold wealth (Guízar Vazquez, 2009: 171).

In addition to the Wixarikas inhabit this region other ethnic groups besides mestizos: the Coras, the Tepehuanos, the Tepecanos and the Mexicaneros which congregate in total 56,614 indigenous people (Guízar Vasquez, 2009: 171). The town Wixarika has settled agricultural activities from at least 900 years ago (Tetreault and Lucio Lopez, 2011: 170), traditionally are living in three communities, San Sebastián, Santa Catarina and San Andrés, who along with Tuxpan and Guadalupe de Ocotán are the five political territorial units were formed from the time of the Spanish Crown in the eighteenth century (Wiegand and Fikes, 2004: 51).

According to the latest Census of Population and Housing of the National Statistics, Geography and Informatics (Censo de Población y Vivienda del Instituto Nacional de Estadística, Geografía e Informática, INEGI), 44,788 Huichol speakers live in these regions with an age greater than five years, of which 22,129 are men and 22,659 women (INEGI, 2010). According to INEGI (2011) the Huichol language is in place 22 speakers in number of speakers before the Chontal and after the Chatino, but it is one of the groups with a higher percentage of monolinguals in Mexico (Juránková, 2007: 149).

The productive organization of the groups in this ethno-region has focused on primary activities of the agricultural nature; the breeding of cattle, both Wixarikas as other ethnic groups is the most relevant activity. Rainfed agriculture and forestry have also gained importance in recent years (Guízar Vasquez, 2009: 177). However, the above are not the only economic activities. The migration process is also strongly linked to its economy. An interesting fact is that there are several types of migrations in addition to the religious: The seasonal, shelter and the handcraft.
The seasonal is when the Huichol go to work as laborers and employees outside of the mountains in the dry season. Many of them move from one job to another without having the opportunity to return regularly to the mountains. The second type of migration occurs because eventually have to flee the violence towards the coast where there are groups that have been definitively established, both indigenous peoples as mestizo’s townships. Handcraft migration is the third type of migration has to do with the height that today are taking the craft markets across the country, a number of passes Wixarikas spent full seasons on trading tour and for some this is already a form of life (Florentine Beimborn and Peñaflor Romandie, 2009: 15-16).

For the specific case of land use in the Nayar, the Wixarikas have sustained fighting.

Among the Wixarikas there is a subtle and complex regional division of labor, based not only on specialized production as agricultural and manufactured goods, but also in a particular way to grow, produce and manufacture products for each group. This division of labor is wrapped itself in a class hierarchy and of a group, as well as relative territoriality, prompting constant disagreements and conflicts involving animosities between all groups involved, and even within each group: Coras against Wixaritari, Tépehuano against Coras, etc. (Guízar Vasquez, 2009: 172).

Prolonged intra and inter-cultural conflict is cruder against colonization from the mestizo ranchers who have had the support of the state to advance the ethnophagic process resulting from the asymmetries among the indigenous and non-indigenous groups. The fact is that the territory Wixarika has been claimed more insistently every day since the colonial times and today. That claim is made in more sophisticated ways by the mestizo group, the current struggle is not only in the juxtaposition of mining regions with the sacred areas, but the mestizo group uses education, religion and technology, among others, to penetrate and change their world. These and other considerations socio-inter-cultural of the Wixarikas life cannot be neglected in the evaluation of an investment project.

10. Proposal for socio-inter-cultural evaluation

In this complexity described, the proposal for socio-inter-cultural evaluation lies in structuring the categories of analysis according to the macro-spheres and micro-spheres in the corresponding categories to specific cases a) intra-societal, b) intra-cultural issues and c) cross-cultural issues. Figure 1 shows a diagram referring to the above:
A. Evaluation from the macrospheres

To evaluate a project as presented is necessary to take into account the political, social and economic macro-spheres. In the case of communities Wixarikas maximum criteria come from a) trends in public policy, whether the development or the good life, which in turn imply what the State wants to do with the poor and the marginalized, that in most cases converge to generate the necessary synergies on the most needy; b) worldwide and nationally environmental trends that encourage alternative technologies and avoid those that add to global warming c) inter-culturalism, which the State wishes to do with ethnic groups that make up the nation, that is, to what extent and how they are targeted efforts towards indigenous peoples.

Perhaps these trends in public policy are the most important consideration in evaluating any investment project.

B. Evaluation from the micro-spheres

Since the talk is related to specific projects, the evaluation must consider the manifestations of the various stakeholders, local governments, and the Wixarika people here in this case and mestizo society that is located in the vicinity and possibly may also receive externalities of the projects. In this case it is important to consider other aspects of the specificity of the participating community, which can also guide the final decision, for example the demographic makeup in Wixarika is relevant.

C. The evaluation from the intra-social

This category includes the analysis of costs, benefits and externalities that have more to do with the affairs of society regardless of cultures and ethnic groups involved. In this case, the sustainable uses of the technologies, policies to address poverty regardless of ethnic group you belong to the population in this State, among others, belong to the intra-social evaluation. The use of alternative energy in the com-
munities avoid using harmful energies, here the problem lies in evaluating the potential environmental cost or benefit. This is because the contamination is considered a negative externality generated by the processes of production and consumption, in this case of electrical energy (Reyes Gil, Galván Rico & Aguilar Serra, 2005: 436).

On the other hand, the inclusion of the interests of future generations brings to rural indigenous communities opportunities for certain incentives from global policies for mitigation and adaptation to climate change through the mechanisms of clean development of energy (Pinto Silbato, 2004: 123). If to this problem is added the Mexican government’s responsibility to have entered the Kyoto Treaty, the evaluation becomes immeasurable and the result tends definitely to the installation of the best solar power plants, regardless of whether there are cash flows to recover the monetary investment.

That is, the financial investment is minimal compared to: a) the fight against the damaging effects of climate change, b) the opportunity for development of rural and indigenous communities and c) compensation to indigenous communities by the historical fact of the Spanish domain first mestizo domain later for more than five hundred years.

The presence of cutting sustainable projects is one of the intra-societal aspects that make complex this assessment, since the value of using alternative energy is more significant, regardless of the cultures involved. So that in the era we live projects of this type could have a differentiating feature from other social assessments.

D. The evaluation from the intra-cultural

In practice it results that the indigenous communities are not a uniform whole, for while some people refuse to have the benefits of alternative energy because they see certain dangers of acculturation, others prefer to apply in the household and production that would give them a better way of life. That is, not all Wixarikas manifested in consensus on intervention projects.

In the case of mestizos is, not everyone agrees with Wixarika help a community, especially if there are others - indigenous or not - which also require benefits. Therefore, the adoption of technology in the rural indigenous area is a challenge, defining the most suitable methodology in relation to user involvement requires more socio-intercultural research Wixarikas.
The technology used by farmers *Wixarikas* is normally integrated into its socio-cultural structure and dynamics and it is from their perception of the environment that they develop a culturally specific technical system, so that any technological innovation disrupts their life the way they see the world and their values (Berrueta Soriano, Limón Aguirre, Fernández Zayas & Soto Pinto, 2003: 95). This raises many questions that are ultimately linked to externalities. How does or could disrupt the use of alternative energy to cultural technical system of the *Wixarikas*? How this technology would change their lifestyle, their way of seeing the world and their values? Does this technology allow a strong presence of the inhabitants and their cultural values?

When the electric energy gets to the community, some people who thought they would emigrate and not do because satisfiers could possibly be enough for people to stay, possibly altering their migratory tradition. Another effect is that by the time of getting the electric power also they reach the mass media to disrupt cultural values. Preliminary assessment between costs and benefits is not easy to determine. The arrival of energy is also linked with the use of media and these processes of acculturation increases. How would these processes be? How much it is valued the displacement of a language in a culture and society? These are questions that cannot be solved simply.

**E. The evaluation from the inter-cultural**

The evaluation of inter-cultural projects must be understood in context by relating it to the contextualized political strategies. Inter-culturalism can’t be thought from an instrumental logic, which favors the extension or universalization of a trans-cultural model with supposed good intentions. Neither can pass the same criteria used in different contexts. As mentioned by Diez (2004: 195):

The construction of a project refers to socio-historically situated processes and practices that shape and are configured in a field of dispute, in which there are correlations of variables between different forces of actors with different and frequently conflicting, interests.

In the evaluation processes are present, the formations, structures and resistances, relationships of social inequality and the struggle to transform them. Thus, in this form, public policy aimed at expanding rural indigenous energy is not always desirable because of the dynamic processes of acculturation that generally have the inter-cultural relations. But if it is accepted this policy as essential to survival and
good life of communities, at least it should be noted the adoption of renewable energy solutions, as well the potential benefits would not be outweighed by the negative externalities that would make the investment an unsustainable project from the global point of view (Pinto Silbato, 2004:123).

Here it is necessary to evaluate the externalities that exist between cultures when the project enhances inter-cultural relations. Acculturation effects must be analyzed, especially those of non-indigenous society over Wixarikas, loss of cultural values, such as language, customs and in general the influence on their worldview. But how to assess externalities when the criteria are incommensurable? For example, in evaluating any investment project, the evaluator has to observe the possibility of soil contamination.

The problem is that, for the culture Wixarika land is sacred and should not be disrupted. To calculate an optimal point, in this case means that the indigenous people give up their principles and have to yield to mestizo’s criteria: To disrupt a little bit the earth to the “level of acceptance.” In summary, the solution becomes impossible. Let others decide for them is neither fair nor just, so it is more precisely at a crossroads.

11. In conclusion

It is conclude here that it is necessary to open research in line with the socio-inter-cultural assessment in the indigenous context, to address in more depth each of the raised externalities. Socio-inter-cultural evaluation of investment projects is a research methodology that is part of the implementation of public policies, which extends beyond the application of quantitative techniques centered on financial interest in the private perspective.

In the way of transversal and cross analysis of macro and micro-spheres is proposed to study certain aspects of intra-societal, intra-cultural and inter-cultural characterized features of multicultural societies. As explained, the analysis of macro-spheres departs from precepts of the social economy and considers the specific aspects of the indigenous economy in which theories are contrasted with the development of the emerging proposals of living. In this methodology, it is clear that financial technical matters are reduced to the need for further qualitative analysis of externalities.
The complexity of the evaluation is increased when the projects in question are related to alternative energies that fall down and framed into ecological economics of natural resources, where the idea of sustainability in itself marks a significant difference in the ways of conduct evaluation in social investment projects.

In short, from the perspective of socio-inter-cultural economy, alternative energy projects in communities’ Wixarikas could not be expected to pay monetary investment for a generation of mostly peasants, since their economic status would not allow it. However, the investment is justified because it would promote social and economic development of the community, but also if it is done through the use of renewable energy that would generate positive externalities to the world and the future of humanity. The latter value is fully justifying the project.

References


TESTING CONVERGENCE AND DIVERGENCE AMONG EU MEMBER STATES

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Abstract

Convergence is considered to be a fundamental element of the current economic literature and at the same time of the macroeconomic system concentrating upon distribution of the revenues among states and upon the polarity and differences that characterize the modern economies. Relating convergence to economic growth is considered to be an extremely debated subject that determines a series of interpretations. The existence of convergence throughout the economies was tested in order to establish the validity of the modern theories of economic growth. Also testing the speed of convergence between different economies is regarded as a key indicator of the economic growth models. This study aims to investigate the current degree of convergence between different member states of European Union using different models and determine the main factors that conduct economies to converge or on the contrary to diverge one another and the channels used.

JEL Classification: F43, O47

Keywords: convergence, divergence, economic growth, emerging economies

1. Introduction

An extremely debated subject among the recent macroeconomic theories is the one regarding the main arguments that raise the high interest of economists in analyzing the convergence process between different economies. In order to find a pertinent explanation for this phenomena one should take into consideration two important definitions of this controversial topic. The first one was developed by
Barro in his famous work: “The property regarding convergence is developed from the neoclassical models of economic growth. The economies that register less relative levels of capital/worker tend to register more increased growth rates or more increased return rates.” A similar view is expressed by Malinvaud in 1998: ”States or regions with different levels of output/capita, developing in a stable environment and relaying on the same technology, should experience convergence tendencies: the dispersion in what concerns the output/capita should reduce over time and poor countries should grow faster than the rich ones”.

2. The concept of convergence

The concept of convergence is analyzed by many authors from two points of view: as an economic process and also as a statistic one. As an economic process the concept of convergence is highly related to the issues, whether the process of economic growth of a certain economy register multiple steady states or in a stochastic context, multiple invariant measures. If we were to attribute a mathematical definition to the mentioned statement we could summarize it as follows:

\[
\lim_{t \to \infty} k(g_{1,t+k}, S_{1,t}, \theta, \rho) \text{ does not depend on } S_{1,t}.
\]

where \( g_{i,t} \) is considered the growth rate of an economy \( i \) at the time \( t \), \( S_{i,t} \) denotes the levels of human and physical capital, \( \theta \) is the element denoting technology, \( \rho \) is regarded as a symbol of the preferences and \( u \) is considered a probability measure.

In order to establish a connection between this equation and the economic growth models we could simplify it according to the following hypothesis: we consider population to be 1, there is no technological progress, the capital stock depreciation is 100% and the saving rate is constant. In these conditions the evolution of the capital stock for a certain economy can be determined as follows:

\[
k_{t+1} = sf(k_t)
\]

3 See Durlauf Steven (2003), ”The Convergence Hypothesis After 10 Years”, available on: http://www.clmeconomia.jccm.es/pdfclm/durlauf_i.pdf
In what concerns the second approach, and namely the statistic one, the first papers that concentrate upon this aspect were the ones developed by Barro (1991)\(^4\), Barro and Sala-i-Martin (1992)\(^5\) and Mankiw, Romer, and Weil (1992)\(^6\) that investigated the convergence process between different economies. These models analyzed the convergence process by using as a key point the relationship between the level of GDP/capita as a dependent variable and the initial level of GDP/capita, the technological progress, the population growth rate and the saving rate of human and physical capital as explanatory variables. Following this trend, the concept of convergence may be analyzed also by relating it to the business cycles convergence or to the consumer behavior convergence. For a more clearly understanding of the complexity of this concept and an objective approach consistent with the recent trends it is necessary to establish some criteria in order to be able to classify the most appealing theories regarding this aspect. Such a classification is proposed by Islam that distinguishes between the following dichotomies when it comes to convergence process:\(^7\)

(a) Convergence within an economy vs. convergence across economies;
(b) Convergence in terms of growth rate vs. convergence in terms of income level;
(c) Sigma convergence vs. Beta convergence;
(d) Unconditional (absolute) convergence vs. conditional convergence;
(e) Global convergence vs. local or club-convergence;
(f) Income-convergence vs. TFP (total factor productivity)-convergence;
(g) Deterministic convergence vs. stochastic convergence.


\(^7\) Nazrul Islam (2003), "What have we learnt from the convergence debate", Journal of Economic Surveys, Vol. 17, No. 3
3. From transition to economic growth

The process of transition of the economies represents a historical landmark, and its analysis is very complex due to the fact that implies not only changes in what concerns the economic structures, but even more important profound changes in what concerns the political and social relationships that are considered determinant factors regarding its multi-dimensionality aspect. If we were to appeal at a common concept that determines the experiences of different economies in achieving their primary objective, and namely the welfare of the population, that would be economic growth. It has been over two decades since the transition process began to gain power, first in Central Europe between 1989-1990 and later expanding to the east. If we were to analyze the average of growth rates of GDP/capita between 1992 and 2011 the extreme values of this interval are registered in 1992 with a minimum value of -2% and in 2007 with a maximum value of 4.92%, the year before the trigger of the current economic crises in European Union. Even though the annual averages of GDP/capita are constantly decreasing, in 2011, only three countries registered negative trends in what concerns the analyzed indicator and namely Greece, Ireland and Portugal the rest of EU members, recording positive trends and values close to zero. The European Union is still in the catching-up phase of the values of growth rates registered before the recession. In what concerns the last semester in 2011 only Austria, Belgium, Germany, Malta, Poland, Slovakia and Sweden manage to counterbalance de loss of GDP/capita during 2008-2011. Greece did not manage to get out of the recession while Denmark, Italy, Ireland, Portugal, Slovenia and Spain manage to recover but only few percents of this mentioned indicator.


Table no. 1- The growth of GDP/capita in EU member states

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Austria</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>2 Belgium</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>3 Bulgaria</td>
<td>-7</td>
<td>7</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>4 Cyprus</td>
<td>9</td>
<td>4</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>5 Czech Republic</td>
<td>-1</td>
<td>5</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>6 Denmark</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>7 Estonia</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td></td>
<td>France</td>
<td>1</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>9</td>
<td>Greece</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>10</td>
<td>Hungary</td>
<td>-3</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>11</td>
<td>Ireland</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>12</td>
<td>Italy</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>13</td>
<td>Latvia</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>14</td>
<td>Luxembourg</td>
<td>2</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>15</td>
<td>Malta</td>
<td>5</td>
<td>-1</td>
<td>4</td>
</tr>
<tr>
<td>16</td>
<td>Netherlands</td>
<td>2</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>17</td>
<td>Portugal</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>18</td>
<td>Poland</td>
<td>3</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>19</td>
<td>Slovenia</td>
<td>-5</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>20</td>
<td>Slovakia</td>
<td>-7</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>21</td>
<td>Spain</td>
<td>1</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>22</td>
<td>Sweden</td>
<td>-1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>23</td>
<td>Romania</td>
<td>-9</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td>24</td>
<td>Finland</td>
<td>-3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>25</td>
<td>Great Britain</td>
<td>0</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>26</td>
<td>Lithuania</td>
<td>-21</td>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td>27</td>
<td>Germany</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>28</td>
<td>EU average</td>
<td>-2</td>
<td>4</td>
<td>4,92</td>
</tr>
</tbody>
</table>

Source: [http://books.google.ro/books?hl=ro&lr=&id=DfU15_U1VcoC&oi=fnd&pg=PA3&dq=HAVRYLYSHYN+RECOVERY+AND+GROWTH+IN+TRANSITION&ots=_g8xemZ9_V&sig=YqNK050mlyumzX4cz7UO9E2j6GA&redir_esc=y](http://books.google.ro/books?hl=ro&lr=&id=DfU15_U1VcoC&oi=fnd&pg=PA3&dq=HAVRYLYSHYN+RECOVERY+AND+GROWTH+IN+TRANSITION&ots=_g8xemZ9_V&sig=YqNK050mlyumzX4cz7UO9E2j6GA&redir_esc=y)

### 4. Data and methodology

When it comes to study the degree of convergence between different economies, the question that raise the interest of the economiest and not only, is the one refering to the period of time needed for an economy to converge towards the average of the group it is part of. This issues may also be applied to the analysis of the real convergence process for the new member states of European Union that joined this structure in 2004 and 2007 and are in the situation of having adopted euro or on the path of achieving this important goal. The first problem one may face when studing convergence across EU is the period of time needed for the new member states to approach the average level of GDP/capita of the European Union. Taking into consideration the initial level of GDP/capita ($Y_t$) of every economy from EU12 and comparing it with the average level of EU27 ($Y_{27}$), will try to estimate
using a deterministic approach, the period of time needed to equalise the mentioned indicators. This harmonization in what concerns the level of GDP/capita will occur in a reasonable period of time only in the situation where the new member states will register higher trends of growth rates \( r_t \) than the ones registered by the entire member states of EU 27 \( r_{EU} \). This phenomenon is generally known as absolute convergence. This concept is not a new one, and it has been used even in the famous neo-classical growth model developed by Solow.\(^9\) Empirical studies that have been elaborated much later, claim absolute convergence hypothesis only in some economies, namely between those one with similar characteristics or otherwise defined by a high degree of homogeneity, a concept known in the literature as convergence clubs.\(^10\) The controversy upon this subject may be found in works like the one developed by Mankiw et al. (1992)\(^11\) or Coulombe și Day (1999)\(^12\). In order to estimate the time period needed to achieve convergence we start from two simple relationships used to express the GDP/capita at initial level and also using average growth rates, equation also used by Aurel Iancu, in his study entitled Real Convergence\(^13\):

\[
Y_{tR} = Y_t(1 + r_t)^t
\]

\[
Y_{tE} = Y_{UE}(1 + r_{UE})^t
\]

The process of achieving convergence is taking place in the moment when these two equation are becoming equal:

\[
Y_{tR} = Y_t(1 + r_t)^t = Y_{tE} = Y_{UE}(1 + r_{UE})^t
\]

After the logarithm of the terms we may determine the time period needed for an economy to achieve convergence in what concerns the GDP/capita as follows:

\[
t = \frac{\log Y_{tE} - \log Y_{tR}}{\log(1 + r_t) - \log(1 + r_{EU})}
\]

\(^11\) Ibidem 6.
\(^13\) Iancu Aurel (2009)- ”Real convergence” National Institute of Economic Research, p.15-18
The source of the data included in the estimation is Worldbank. This source is also used for the average growth rates of GDP/capita of the new members states. All data are annually and are between 2004-2012.

5. Estimating the time period for achieving convergence for the new EU members

Taking as starting point the presented formulas we will try to determine the number of years needed for the new member states of EU and few of them already members of EMU to achieve the average of EU in what concerns GDP/capita.

Table no.2 - Evolution of GDP/capita in EU and the new member states

<table>
<thead>
<tr>
<th>PIB/CAPITA (constant 2005 international $)</th>
<th>Value</th>
<th>PIB/CAPITA (constant 2005 international $)</th>
<th>Value</th>
<th>Average growth rates in EU (2004-2011)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP/CAPITA initial EU (2004)</td>
<td>24600</td>
<td>GDP/CAPITA initial Romania (2004)</td>
<td>8965,47355</td>
<td>1,33 (%)</td>
</tr>
<tr>
<td>GDP/CAPITA initial EU (2004)</td>
<td>24600</td>
<td>GDP/CAPITA initial Poland (2004)</td>
<td>13297,1393</td>
<td>1,33 (%)</td>
</tr>
<tr>
<td>GDP/CAPITA initial EU (2004)</td>
<td>24600</td>
<td>GDP/CAPITA initial Hungary (2004)</td>
<td>16294,8365</td>
<td>1,33 (%)</td>
</tr>
<tr>
<td>GDP/CAPITA initial EU (2004)</td>
<td>24600</td>
<td>GDP/CAPITA initial Czech Republic (2004)</td>
<td>19958,0324</td>
<td>1,33 (%)</td>
</tr>
<tr>
<td>GDP/CAPITA initial EU (2004)</td>
<td>24600</td>
<td>GDP/CAPITA initial Lithuania (2004)</td>
<td>13088,1042</td>
<td>1,33 (%)</td>
</tr>
<tr>
<td>GDP/CAPITA initial EU (2004)</td>
<td>24600</td>
<td>GDP/CAPITA initial Malta (2004)</td>
<td>20405,1298</td>
<td>1,33 (%)</td>
</tr>
<tr>
<td>GDP/CAPITA initial EU (2004)</td>
<td>24600</td>
<td>GDP/CAPITA initial Cyprus (2004)</td>
<td>24061,9144</td>
<td>1,33 (%)</td>
</tr>
</tbody>
</table>

Source: Authors calculations based on World Bank data. Date of calculations 06.03.2013.
* The average growth rates of GDP/capita during 2004-2011 at EU level
Tabel no.3- Estimating the number of year t needed to achieve convergence for the new member states using different growth rates

<table>
<thead>
<tr>
<th>Country</th>
<th>The number of year t needed to achieve convergence for the new member states using different growth rates</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>R1</td>
</tr>
<tr>
<td><strong>Average rates</strong></td>
<td>2%</td>
</tr>
<tr>
<td>Romania</td>
<td>153</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>150</td>
</tr>
<tr>
<td>Poland</td>
<td>93</td>
</tr>
<tr>
<td>Hungary</td>
<td>62</td>
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<tr>
<td>Czech Republic</td>
<td>31</td>
</tr>
<tr>
<td>Latvia</td>
<td>112</td>
</tr>
<tr>
<td>Lithuania</td>
<td>95</td>
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<tr>
<td>Slovakia</td>
<td>73</td>
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<tr>
<td>Slovenia</td>
<td>13</td>
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<tr>
<td>Estonia</td>
<td>74</td>
</tr>
<tr>
<td>Malta</td>
<td>28</td>
</tr>
<tr>
<td>Cyprus</td>
<td>3</td>
</tr>
</tbody>
</table>

Source: Authors calculations based on World Bank data. Date of calculations 06.03.2013.

** For the six growth rates (2%, 3%, 4%, 5%, 6%, 7%) for the new members states they are between the range of 2004-2011.

The results differ considering the research method used to estimate the annual growth rates. The literature in the field uses a multitude of models in order to analyze the impact of adherence to the EU upon the speed of convergence within emerging economies.14 Analyzing the obtained data we may admit that at an average growth rate of 2%/year the country that would achieve most rapidly the optimal level of convergence of EU, supposing that it would maintain its growth rate at a level of 1.33%/year would be Cyprus in a period of 3 years, followed by Slovenia in 13 years and Malta in 28 years. At the opposite pole taking into consideration the same growth rates would be Romania and Bulgaria regarding the alignment in what concerns the GDP/capita with a period of time ranging between 153 years and 150 years from achieving EU average. Based upon the same rationing at an

average growth rate of 7%/year for the new member states and maintaining the
same range for the EU at a level of 1,33%/year, the differences in what concerns
the number of years needed to achieve convergence would reduce dramatically for
all the states. In this case Cyprus, Slovenia, Malta or Estonia will maintain their
leading positions with small intervals ranging between 4 months for Cyprus to 9
years for Estonia. Romania along with Bulgaria are still at the back of the list with
19 and 18 years needed to achieve GDP/capita convergence.

5. Conclusions

Last accesion rounds from 2004 with 10 new states and 2007 with other two
ones, were only the first step towards ensuring a sustenable convergence across
economies. In order to achieve this goal the mentioned economies will have to pay
more attention to the macroeconomic indicators, namely the ones required by the
Maastricht criteria but even more importantly to the ones relating to the real con-
vergence namely the level of GDP/capita, openness of the economy or structure of
industry by sectors. Secondly these states, unlike their predecessors will have to face
the effects of the recent economic crises that modified the structure of the econo-
 mies across all the world. Furtheremore, in order to achieve convergence and in the
end economic growth, economies should direct their strategies towards innovation
and competivness considered the engines of the growth process.

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Iancu Aurel (2009) - “Real convergence” National Institute of Economic Research, p.15-18


Nazrul Islam (2003), ”What have we learnt from the convergence debate”, Journal of Economic Surveys, Vol. 17, No. 3


ASSESSING THE PRICE RISK ON THE ROMANIAN AGRICULTURAL MARKET: ANALYSES AND IMPLICATIONS

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ABSTRACT

In any sector of activity, the uncertainty of price evolution poses challenges to producers, consumers, traders and investors, from private to national level. Moreover, the strategic importance of agricultural sector makes the issue of price volatility in this field an even more important matter both for private and governmental persons. Lately, the global economy struggled with profound turbulences and events that augmented the volatility context on the commodity markets in general and implicitly on those for agricultural ones. The substantial increase of volatility led to major debates regarding what has driven these developments and what new implications emerge from the price risk perspective. Romania, due to its sensitivity to external shocks, experienced in a severe manner the international commodity turmoil but it also has been affected by other factors that augmented the internal volatility and risk context. This paper intends to model and analyze the volatility of prices occurred in the recent years on the Romanian market for some agricultural crops. After calculating the econometric models and comparing the estimated conditional variance, the paper will aim at drawing some implications and recommendations from the perspective of price risk exposure.

JEL Classification: E30, E37, Q02.

Keywords: price volatility, price risk, agricultural commodity markets, Romanian market, conditional variance.
INTRODUCTION

Regardless of the sector of activity, the uncertainty of price evolution poses challenges to producers, consumers, traders and investors, from private to national level. More, the strategic importance of agricultural sector, from the view of food security in the context of global population growth trend, makes the issue of price volatility in this field an even more imperative matter. The commodity price volatility is definitely not a new concern, but it remains a permanently current one mainly in a present troubled economic environment. Price fluctuations tend to have sources that go beyond market fundamentals, adding to supply and demand shocks a large variety of factors, a list nearly impossible to conclude if all the links were to be considered. The recent global turbulences offered new perspectives in the analysis of volatility and instigated major debates regarding the factors driving these developments and the new implications emerged from the price risk standpoint. Romania, due to its sensitivity to external shocks, sensitivity caused by the processes it is traversing in the recent decades – post-communist transformations, globalization and European Union integration – experienced in a severe manner the international turmoil, being also affected by other factors that augmented the internal volatility context.

This paper models and analyzes the volatility of prices occurred in the recent years on the Romanian market for some agricultural crops and it draws some implications and recommendations from the perspective of price risk exposure. The rest of the paper is structured as follows. The second section depicts the agricultural commodities price volatility on international and domestic markets, presenting a literature review supported by empirical evidences. The third section illustrates the price volatility recently experienced by two of the traditionally cultivated cereals in Romania (wheat and maize) and compares it with the situation registered on the international market, using the GARCH models to express the conditional variances. Hence, this section offers a methodology description and an empirical illustration in which the econometric models are applied for the analysis of the price series of the aforementioned cereals. In accordance with the obtained results, we formulated some conclusions, implications and recommendations that finalize the paper.
THE PRICE VOLATILITY OF AGRICULTURAL COMMODITIES: LITERATURE REVIEW AND EMPIRICAL EVIDENCES

After the spike experienced during the food crisis of the 1970s, the agricultural prices on international market were characterized by a low and stable 25-year trend (Blein & Longo; 2009, 1). However, with the beginning of the new millennium, the prices started to increase, moderately in 2004-2005 and in a more accelerated manner between the end of 2007 and the middle of 2008. Between October 2006 and June 2008, commodity prices tripled for rice, and reached double levels for wheat and corn. Very soon, by the second semester of 2008, the prices for rice and wheat fell 55% and corn fell 64%. In January 2009 the prices restarted to increase slightly but consequent falls and raises followed. In August 2010, the prices rose sharply again, due to crop production shortfalls in key producing regions and resurging economic growth in developing and emerging economies. With a rebound in crop production, stocks have improved fairly and markets in 2012 appeared less turbulent. Yet, price volatility remains a concern, with weather-related yield variability and low stocks as the main threats. (OECD-FAO, 2008, 2009, 2010, 2011, 2012).

Agricultural prices are notoriously volatile on reasons explainable by the economic theory through price elasticities and the slopes of the supply and demand curves, both demand and supply being inelastic. However, the recent trends on the international commodity markets are regarded by analysts as structural changes which will create tensions and most likely increase the volatility of prices over the next decade (OECD-FAO; 2008, 26). To the instability of the recent years some factors contributed significantly (Blein & Longo; 2009, 1): the impacts of climate change on agriculture; demographic dynamics; degradation of land due to unsustainable agricultural practices; increased use of agricultural outputs for biofuels; negative long-term impacts of short-sighted agricultural public policies; the “financialization” of commodity markets for portfolio diversification; etc.

With regard to domestic markets, a fundamental pre-condition for sustainable development and growth resides in the capacity of a country to grow or to buy food products at affordable prices (OECD-FAO; 2011, 53). Price volatility in domestic markets depends on the policy environment. Governments attempt to stabilize internal markets in order to protect producers and consumers and thus the instability is exported to international markets. This tendency acts as a vicious circle because as world markets become more volatile, governments seek to stabilize domestic
markets even more, thus augmenting the international instability. Furthermore, international price trends are transmitted to domestic markets depending on the relative shares of domestic demand satisfied by food imports (Blein & Longo; 2009, 4).

The results of analyses comparing price volatility on domestic and global markets for the previous decade generally show that the volatility of domestic prices is greater if compared to the volatility of international prices. The exception is the period 2004-2008, during which global price volatility is higher. This feature confirms the incomplete transmission of price moves and a partial disconnection of domestic price trends from international markets (Blein & Longo; 2009, 5). These results are confirmed also for the Romanian market, by empirical studies made recently by Rovinaru et al. (2012) for the food market.

OVERVIEW OF THE ROMANIAN CEREAL MARKET FROM THE PRICE VOLATILITY PERSPECTIVE

In order to analyze the Romanian agricultural price instability, we chose to model the price volatility of two of the cereals most cultivated here: wheat and maize. In Romania, more than 60% in total arable land is cultivated with cereals, from which almost 90% is cultivated with corn, sorghum and wheat, while the rest of around 10% is occupied by barley, oats and an insignificant area by rice (Ionel; 2005, 2).

1. METHODOLOGY

The necessity of an accurate measurement of price volatility comes especially from the high level of risk and uncertainty it causes to producers, consumers and policymakers worldwide. Numerous methods for estimating price volatility and price risk can be identified in the economic literature, from rather simple ones (like unconditional standard deviation or the coefficient of variation) to more complex ones (such as the ARCH model and its extensions). The methodology followed in this article is the Generalized Autoregressive Conditional Heteroscedasticity (GARCH) model introduced by Bollerslev (1986).

Numerous authors, as for example Jordaan et al. (2007), Figiel and Hamulczuk (2010), Pop and Ban (2011), Apergis and Rezitis (2011), argue in favor of GARCH models on the grounds that they have the merit of accounting for both the predictable and unpredictable components in the price process, being also capable of capturing various dynamic structures of conditional variance and of al-
lowing simultaneous estimation of several parameters under examination. Studies using ARCH model and its extensions are commonly encountered in stock market price modeling. With regard to commodity prices, Jordaan et al. (2007) measured and compared the conditional volatilities for the prices of some crops traded on the SAFEX; Figiel and Hamulczuk (2010) tested for conditional volatility analyzing monthly wheat procurement prices in Poland; Apergis and Rezitis (2011) used GARCH and GARCH-X to examine food price volatility in Greece and the impact of macroeconomic factors, while Figiel et al. (2012) used weekly milling wheat price series for nine selected EU countries to evaluate volatility and to examine the sensitivity of the results to spatial aggregation of the price data. Regarding the Romanian market, Pop and Ban (2011) used EGARCH for modeling the price of wheat to estimate the volatility and the price risk on Romanian and international market and Rovinaru et al. (2012) estimated and compared the price volatility on Romanian and international food market.

In its general form, a GARCH(\(p,q\)) model includes two equations: one for the conditional mean (1) and the other for the conditional variance (2).

\[
X_t = \mu + \varepsilon_t \quad \quad (1)
\]

\[
\sigma_t^2 = \omega + \sum_{i=1}^{p} \alpha_i \cdot \varepsilon_{t-i}^2 + \sum_{j=1}^{q} \beta_j \cdot \sigma_{t-j}^2 \quad \quad (2)
\]

The coefficients of ARCH-terms (\(\alpha_i\)) reveal the volatility of previous periods of time, measured with the aid of squared residuals from the equation of mean, and the coefficients of GARCH-terms (\(\beta_j\)) show the persistence of passed shocks on the volatility. For the price series that we analyzed, we observed that the asymmetrical GARCH models perform better compared to the symmetrical ones. This conclusion is also consistent with the findings of Pop and Ban (2011). The extended asymmetrical model EGARCH also accounts for the leverage effect with the aid of the coefficient \(\gamma_i\). Consequently, the AR(\(k\))-EGARCH(\(p,q\)) model that we used, elaborated by Nelson (1991), has the following structure:

\[
X_t = \pi_0 + \sum_{i=1}^{k} \pi_i \cdot X_{t-i} + \varepsilon_t \quad \quad (3)
\]

\[
\log(\sigma_t^2) = \omega + \sum_{i=1}^{k} \alpha_i \cdot \frac{\varepsilon_{t-i}^2}{\sigma_{t-i}^2} - E\left(\frac{\varepsilon_{t-i}^2}{\sigma_{t-i}^2}\right) + \sum_{i=1}^{k} \gamma_i \cdot \frac{\varepsilon_{t-i}^2}{\sigma_{t-i}^2} + \sum_{j=1}^{q} \beta_j \cdot \log(\sigma_{t-j}^2) \quad \quad (4)
\]

where the residuals from (3), \(\varepsilon_t\), follow a GED or a normal distribution.

2. EMPIRICAL RESULTS

In our empirical investigation, we analyzed the evolution of price indices of wheat and maize for Romanian market, offered by the Romanian National Insti-
tute of Statistics (RNIS). In order to provide a comparison basis, we also used the price indices of wheat and maize at the international level, from the International Monetary Fund (IMF), Primary Commodity Prices Database. We used monthly data between January 2004 – December 2012, and we performed the analysis in Eviews 7.1.

A series of steps required by the statistical analysis of time series were initially implemented. We eliminated the seasonal component using the multiplicative moving average method. Further, we constructed and operated with the logarithmic price ratios \( \ln\left(\frac{P_t}{P_{t-1}}\right) \), due to their better statistical properties. The descriptive analysis of all the series revealed that volatility is not constant in time, indicating the presence of heteroscedasticity. In order to detect the serial autocorrelation, we analyzed the ACF and PACF estimated for a number of lags varying from 12, 24 to 36 considering the calculated Q-statistics. Table 1 presents some descriptive statistics, which show especially that the log returns of prices do not follow a Gaussian distribution.

Table 1. Descriptive Statistics of Wheat and Maize Price Indices

<table>
<thead>
<tr>
<th>Measure</th>
<th>LN_WHEAT_RO_SA</th>
<th>LN_MAIZE_RO_SA</th>
<th>LN_WHEAT_IN_SA</th>
<th>LN_MAIZE_IN_SA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>4.437508</td>
<td>4.495097</td>
<td>4.924231</td>
<td>4.999089</td>
</tr>
<tr>
<td>Median</td>
<td>4.346633</td>
<td>4.555729</td>
<td>4.873747</td>
<td>4.965105</td>
</tr>
<tr>
<td>Maximum</td>
<td>5.140846</td>
<td>5.108145</td>
<td>5.559492</td>
<td>5.695129</td>
</tr>
<tr>
<td>Minimum</td>
<td>3.669657</td>
<td>3.746142</td>
<td>4.444229</td>
<td>4.375954</td>
</tr>
<tr>
<td>Std. Dev.</td>
<td>0.368787</td>
<td>0.388171</td>
<td>0.306913</td>
<td>0.397821</td>
</tr>
<tr>
<td>Skewness</td>
<td>0.033846</td>
<td>-0.468228</td>
<td>0.146556</td>
<td>0.103505</td>
</tr>
<tr>
<td>Kurtosis</td>
<td>2.201056</td>
<td>2.147711</td>
<td>1.777796</td>
<td>1.813530</td>
</tr>
<tr>
<td>Jarque-Bera</td>
<td>2.893019</td>
<td>7.215055</td>
<td>7.108640</td>
<td>6.527542</td>
</tr>
<tr>
<td>Probability</td>
<td>0.023539</td>
<td>0.027119</td>
<td>0.028601</td>
<td>0.038244</td>
</tr>
</tbody>
</table>

Source: Authors’ calculations in Eviews 7.1.

Then, we tested the non-stationarity of the time series, in order to not obtain spurious regressions. In Table 2 we showed the results of ADF test. As the calculated value of t-Statistic showed that the logarithmic series were not stationary, we constructed the first order differences which proved to be stationary.
Table 2. Testing the Non-Stationarity of Wheat and Maize Price Indices

Null Hypothesis: the series has a unit root

<table>
<thead>
<tr>
<th></th>
<th>Level</th>
<th>t-Statistic</th>
<th>Prob.*</th>
<th>1st difference</th>
<th>t-Statistic</th>
<th>Prob.*</th>
</tr>
</thead>
<tbody>
<tr>
<td>LN_WHEAT_RO_SA</td>
<td>-0.340643</td>
<td>0.9140</td>
<td></td>
<td>DLN_WHEAT_RO_SA</td>
<td>-8.794297</td>
<td>0.0000</td>
</tr>
<tr>
<td>LN_MAIZE_RO_SA</td>
<td>-0.554752</td>
<td>0.8748</td>
<td></td>
<td>DLN_MAIZE_RO_SA</td>
<td>-9.933326</td>
<td>0.0000</td>
</tr>
<tr>
<td>LN_WHEAT_INT_SA</td>
<td>-0.593592</td>
<td>0.9470</td>
<td></td>
<td>DLN_WHEAT_INT_SA</td>
<td>-8.176446</td>
<td>0.0000</td>
</tr>
<tr>
<td>LN_MAIZE_INT_SA</td>
<td>-0.522317</td>
<td>0.8815</td>
<td></td>
<td>DLN_MAIZE_INT_SA</td>
<td>-8.466719</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

Source: Authors’ calculations in Eviews 7.1.

Afterwards, we estimated the models for each variable. Equations were estimated using the maximum likelihood. Based on the information criterion minimization (especially Schwarz) and on the residual test, we chose the appropriate number of lags. Combined models ARIMA-EGARCH with a GED distribution were selected.

For the Romanian wheat prices, we considered the most appropriate model to be the following (the z-Statistics and the probabilities are given in parentheses):

\[
\begin{align*}
d \ln \text{wheat}_{t} &= 0.382 \cdot d \ln \text{wheat}_{t-1} + 0.150 \cdot d \ln \text{wheat}_{t-5} - 0.135 \cdot d \ln \text{wheat}_{t-12} + \varepsilon_t, \\
&[3.85] \quad [2.84] \quad [-2.16] \\
(0.000) \quad (0.000) \quad (0.000) \\
\log (\sigma^2_t) &= -5.101 + 1.016 \cdot \frac{\varepsilon_{t-1}}{\sigma_{t-1}} - 0.278 \cdot \frac{\varepsilon_{t-1}}{\sigma_{t-1}} - 3.907 \cdot \log (\sigma^2_{t-1}) \\
&[-2.54] \quad [3.26] \quad [-1.69] \quad [5.08] \\
(0.010) \quad (0.001) \quad (0.09) \quad (0.006)
\end{align*}
\]

For the Romanian maize prices, the appropriate model is:

\[
\begin{align*}
d \ln \text{maize}_{t} &= 1.369 \cdot d \ln \text{maize}_{t-1} + 2.5194 \cdot d \ln \text{maize}_{t-6} + \varepsilon_t, \\
&[1.64] \quad [60.56] \\
(0.099) \quad (0.000)
\end{align*}
\]

\[
\begin{align*}
\log (\sigma^2_t) &= -9.958 + 0.839 \cdot \frac{\varepsilon_{t-1}}{\sigma_{t-1}} + 0.415 \cdot \frac{\varepsilon_{t-1}}{\sigma_{t-1}} - 4.792 \cdot \log (\sigma^2_{t-1}) \\
&[-51.94] \quad [2.53] \quad [0.346] \quad [-11.93] \\
(0.000) \quad (0.001) \quad (0.07) \quad (0.000)
\end{align*}
\]

Based on the estimated equations, we generated the series of conditional volatility, in order to compare the instability for the two agricultural products. The results are given in Figure 1, both for the conditional volatility of wheat and maize. Moreover, we estimated the models for the international market in order to provide a comparison basis for the Romanian market.
Figure 1. Wheat and Maize Price Volatility, Monthly Data from January 2004 – December 2012 (2004=100)

(a) Wheat Price – Romanian Market

(b) Maize Price – Romanian Market

(c) Wheat and Maize – Merged Graphs of Variances – Romanian Market

(d) Wheat – Merged Graphs of Variances – Romanian and International Market

(e) Maize – Merged Graphs of Variances – Romanian and International Market

Source: Authors’ calculations and illustrations in Eviews 7.1.

Examining the results obtained, there are some descriptions regarding the price volatility that we can make for the grain market in Romania. Both prices of wheat and maize experienced significant volatility in the last decade, but they experienced it in a different manner. The wheat market has been characterized by a lower but permanent volatility, combined with very acute spikes in moments of significant
turmoil at international level (e.g. in 2008 in the midst of the economic crisis or in 2011 during the Euro Area turmoil). After 2007, these spikes appeared with a lag of two-three months after the international wheat market experienced a significant fluctuation. With regard to the maize, we noticed a permanent higher level of volatility, but the spikes do not reach such soaring levels. Also, the maize market volatility does not appear to be evidently connected to the international market one, not even after 2007 when Romania joined the EU. Consequently, for both markets we detected a mix of imported and domestic volatility, the imported volatility being more evident on the wheat market and the domestic turbulences on the maize market.

Analyzing the equations for the Romanian market, we observed that the current volatility depends more on passed shocks than on passed volatility. Thus, the current volatility context has its origins on the shocks and transformations Romanian market in general, and the agricultural sector in particular, experienced in the recent period. Six years after joining the EU, the Romanian agricultural sector is confronted with many difficulties whose effects are reflected on its performance and competitiveness. Romania has a significant agricultural potential, and in early 1930s it has been an main exporting country on the world cereals market. But following the past policies and restructuring of agriculture into a centralized sector, Romania lost its advantage and transformed in the 1990s from a net exporting into a net importing country.

Grain markets in Romania are in a state of transition. The basic reforms have been completed, state controls have been removed and international and domestic trade is unrestricted. Since 1990, this sector has experienced development fluctuations, owed to structural changes like privatization, restitution of land, and other external influences and transformations due to the processes of market liberalization and of alignment to the requirements of the European Community. The excessive fragmentation of land cumulated with inadequate funding, is obstructing the achievement of an adequate level of performance necessary to cope with the increasingly competitive pressures. Due to the structure of ownership, over 85% of the cultivated areas with cereals are concentrated in the private sector and a significant proportion is worked on small exploitations, which dispose of limited financial resources. In Romania, there is still a very strong felling of the individualism, keeping in memory the previous communist agricultural cooperatives for production, which did not offer anything for the farmers’ work; thus, although aware of the benefits of cooperation, the farmers resent the idea of grouping (Ionel; 2005,
3). Small farmers do not have information regarding the prices of the future crops and they produce cereals as a rule, without having a firm contract with a potential buyer. Having reduced irrigation facilities, they are also highly exposed to weather risks and very few insure crops. Consequently, the grain market system is characterized by high risk for participants.

**CONCLUSIONS AND IMPLICATIONS**

Romania’s current volatility context is a mixture between imported volatility, internal instability and lack of maturity of the market structures. As price volatility represents a very complex phenomenon that can be moderated only up to some extent by adjusting market structures and specifying regulatory and fiscal policies, Romania should concentrate on strengthening its internal potential of production in order to reduce the level of imported volatility, while also dealing with the problem through price risk management strategies – contractual, market-based, insurance schemes etc. The Romanian producers are adapting with high difficulty to a market environment characterized by a high volatility of prices, especially in the context of the recent economic and financial turmoil. Investments in this sector – through the absorption of EU and state funds, banking products and other alternatives that the market economy offers – could contribute to increased productivity, better internal results and, in time, lower import levels. To encourage investment in agriculture, the full set of technical, economic, institutional, environmental and marketing risks that actors in this sector face, must be addressed simultaneously.

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UHNWI IN EMERGING MARKETS – THEY STILL THINK, ACT AND INVEST DIFFERENTLY

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Abstract
Extremely affluent investors differ in a number of ways. In industrialized countries the average age of UHNWI is rather high, their wealth is frequently inherited and the investment style is more conservative. In contrast, UHNWI in emerging markets are comparatively young, they have created their wealth themselves, and they strive for further growth also in terms of their investment style, which means they are less risk averse. It is still the case that UHNWI in emerging markets think, act and invest in a different way.

JEL Classification: D53, G11, G15, M41

Keywords: UHNWI, HNWI, extremely affluent individuals, emerging markets, BRIC, investment style, risk-return profile, the Next Eleven countries, entrepreneur, inheritance, private wealth, Forbes Report, Wealth-X-Report

1. Problemstellung

Die Turbulenzen der Finanzkrise (Banken- und Staatsschuldenkrise) haben weltweit ihre Spuren hinterlassen und wirken sich auf alle Schichten der Gesellschaft aus. Trotz wiederkehrender Krisen wächst der private Wohlstand weltweit, allerdings ergeben sich bei einer differenzierteren Betrachtung Unterschiede.1 Das Vermögen der Reichen in der „alten Welt“ (Nord-Amerika, Europa und Japan)
tritt auf der Stelle, währenddessen das Vermögen in den aufstrebenden Regionen der „neuen Welt“, wie Teile Asiens, Lateinamerikas, Osteuropas, des mittleren Ostens oder Afrikas dafür umso beachtlicher wächst. Im Folgenden wird untersucht, wie sehr Wohlhabende der „neuen Welt“ sich von denen der „alten Welt“ unterscheiden.

2. Definition der UHNWI und deren regionale Verteilung


---


Regionale Verteilung der UHNWI (ab 30 Mio. $ Nettovermögen):

<table>
<thead>
<tr>
<th>Region</th>
<th>Anzahl</th>
<th>Gesamtvermögen in Mrd. $</th>
<th>Geschätztes Wachstum p. a.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nordamerika</td>
<td>65.295</td>
<td>8.880</td>
<td>2 bis 3 %</td>
</tr>
<tr>
<td>Asien</td>
<td>42.895</td>
<td>6.253</td>
<td>5 bis 8 %</td>
</tr>
<tr>
<td>Europa</td>
<td>53.440</td>
<td>6.950</td>
<td>3 %</td>
</tr>
<tr>
<td>Südamerika</td>
<td>14.750</td>
<td>2.185</td>
<td>6 bis 12 %</td>
</tr>
<tr>
<td>Mittlerer Osten</td>
<td>4.595</td>
<td>710</td>
<td>4 bis 7 %</td>
</tr>
<tr>
<td>Afrika</td>
<td>2.535</td>
<td>325</td>
<td>7 bis 11 %</td>
</tr>
<tr>
<td>Özeanien</td>
<td>3.350</td>
<td>475</td>
<td>3 bis 5 %</td>
</tr>
<tr>
<td>Gesamt</td>
<td>187.380</td>
<td>25.778</td>
<td>5 – 7 %</td>
</tr>
</tbody>
</table>

Für Deutschland ergeben sich folgende Zahlen: Es gibt etwa 140 Vermögensmilliardäre, 1.000 Personen verfügen über 500 Millionen Gesamtvermögen oder mehr und über 15.000 Personen haben ein Vermögen von mehr als 30 Mio. $. Insgesamt errechnet sich für diese UHNWI in Deutschland ein Gesamtvermögen von etwa 2 Billionen $.

3. UHNWI in Industrie- und Schwellenländern

3.1 UHNWI in den Emerging Markets

3.1.1 Wachsende Bedeutung der Emerging Markets

In den Emerging Markets (Schwellenländer) leben etwa 80 % der Weltbevölkerung auf etwa 62 % der Landmasse. Überwiegend gibt es dort derzeit wenig demografische Probleme: Die Mehrzahl der Bevölkerung in den Schwellenländern ist jung und voller Tatendrang. Ungeniert nutzt man dort das Know-how der Industrieländer, um möglichst schnell im Lebensstandard aufzuholen.

Auch sind die Schwellenländer bei weitem nicht so verschuldet wie die Industriestaaten und leisten sich bisher keinen teuren Sozialstaat. Von der Banken- und Staatsschuldenkrise der letzten fünf Jahre waren die Schwellenländer nur mittelbar

---


Anteil am Weltbruttosozialprodukt in Prozent 1991 bis 2020:

Auch die Börsen reagierten auf diesen Trend (vgl. Chart nachfolgend). So ist der Börsenindex der Schwellenländer – gemeinhin gemessen am MSCI-Index-EM

---

10 The Economist, August 2011 und Heller: Der einfache Weg zum Wohlstand, München 2012, S. 198
- trotz erheblicher Kurseinbrüche – seit 2000 erheblich besser gelaufen als der Weltindex der Industrieländer – gemeinhin gemessen am MSCI-Index-World.\textsuperscript{11}

Vergleich der Weltindizes Industrieländer (MSCI World) vs. Emerging Markets (MSCI EM)\textsuperscript{12}:

\begin{figure}
\centering
\includegraphics[width=\textwidth]{MSCI_Welt_TR_vs_MSCI_EM_TR}
\caption{MSCI Welt (TR) vs. MSCI EM (TR)}
\end{figure}

3.1.2 Dominanz der BRIC-Länder

In 2001 definierte der Chefvolkswirt von Goldman Sachs Jim O’Neill aus den Anfangsbuchstaben der Länder „Brasilien, Russland, Indien und China“ das einprägsame Akronym „BRIC“. In diesen vier Ländern leben etwa 40% der Weltbevölkerung. Die BRIC-Länder gelten als die treibende Kraft der Weltkonjunktur und steuerten für die Jahre 2000 bis 2010 rund ein Drittel zum Wachstum der Weltwirtschaft bei.\textsuperscript{13} Das Wachstum lässt sich auch darauf zurückführen, dass dort

\begin{itemize}
\item \textsuperscript{11} Kursentwicklungen der Vergangenheit sind kein verlässlicher Indikator für die Zukunft. Auch kommt es auf den Währungsmaßstab und die Art der Renditeberechnung an. Dennoch: Die Renditeunterschiede der letzten 15 Jahre sind beachtlich.
\item \textsuperscript{12} Bloomberg-Datenservice, beide Indizes mit Dividende (Total Return), diskrete Renditeberechnung.
\item \textsuperscript{13} Die Zuwachsraten lagen in den letzten Jahren meist zwischen 5 und 10 % und damit um ein Mehrfaches höher als die Wachstumsraten in den USA, Europa und in Japan.
\end{itemize}
seit Jahren eine positive Integration der Wertschöpfung dieser Volkswirtschaften in
die internationale Arbeitsteilung im Zuge der Globalisierung stattfindet.\textsuperscript{14} Heute
leben in China und Russland mehr als 100 Vermögensmilliardäre, sie befinden sich
damit auf Rang drei und vier hinter den USA, \textsuperscript{15}wobei die Anzahl der UHNWI in
den BRIC Ländern stetig zunimmt.\textsuperscript{16}

Den BRIC-Länder kommt eine enorme wirtschaftliche Bedeutung zu, die für
2012 überblicksartig durch folgende Kennzahlen beschrieben wird.

Kennzahlen der BRIC-Länder für 2012 (Wertangaben in US-\$):

\begin{center}
\begin{tabular}{|l|c|c|c|c|}
\hline
2012 & Brasilien & Russland & Indien & China \\
\hline
Bevölkerung: & 195 Mio. & 142 Mio. & 1,2 Mrd. & 1,4 Mrd. \\
\hline
Fläche: & 8,5 Mio. km\(^2\) & 17,1 Mio. km\(^2\) & 3,3 Mio. km\(^2\) & 9,6 Mio. km\(^2\) \\
\hline
BIP nominal: & 2.423 Mrd. \$ & 2.027 Mrd. \$ & 2.054 Mrd. \$ & 8.141 Mrd. \$ \\
\hline
Pro-Kopf-
Einkommen: & 12.300 \$ & 14.300 \$ & 1.700 \$ & 5.900 \$ \\
\hline
Exporte: & 270 Mrd. \$ & 540 Mrd. \$ & 300 Mrd. \$ & 2.080 Mrd. \$ \\
\hline
Börsen-
Kapitalisierung: & 1.150 Mrd. \$ & 785 Mrd. \$ & 1.300 Mrd. \$ & 2.740 Mrd. \$ \\
\hline
Größte
Unternehmen: & Petrobas (Öl), Vale (Rohstoffe), Itau Unibanco (Bank) & Gazprom (Gas), Lukoil (Öl), Sberbank (Bank) & Infosys (IT), ITC (Chemie), Reliance Indus (Tabak) & China Mobile (Telekom), CCB und ICBC (Bank) \\
\hline
\end{tabular}
\end{center}

3.1.3 Next 11-Länder

Neben Brasilien, Russland, Indien und China gibt es weitere Länder mit ho-
hen Wachstumschancen. \textit{Jim O’Neill} hat im Auftrag von \textit{Goldman Sachs} weitere

\textsuperscript{14} Neumair, S.-M., Schlesinger, D. und Haas, H.-D. (2012): Internationale Wirtschaft – Unterne-

nehmen und Weltwirtschaftsraum im Globalisierungsprozess, Oldenbourg Verlag, München, S. 108.

\textsuperscript{15} Forbes Insights (2011): Driving Global Wealth – Mapping ultra high net worth individuals around

the globe, Forbes, New York, S. 4-10.


3.1.4 Charakterisierung der UHNWI in den BRIC-Staaten

Mit der rasant aufstrebenden wirtschaftlichen Entwicklung geht eine junge Altersstruktur der UHNWI einher. So sind in Russland und China die Millionäre durchschnittlich gerade einmal 49 bzw. 50 Jahre alt.

Durchschnittsalter der Millionäre in den BRIC-Staaten\(^\text{17}\):

\[\begin{array}{lcc}
\text{Brasiliен} & 68 \\
\text{Russland} & 49 \\
\text{Indien} & 60 \\
\text{China} & 50 \\
\end{array}\]

Rund zwei Drittel der Vermögen haben UHNWI in den Emerging Markets selbst geschaffen, die Vererbung spielt dort bisher nur eine untergeordnete Rolle. So ist in Russland die Quote der selbst geschaffenen Vermögen noch einmal signifikant höher. Weitere Besonderheit: Der Vermögensinhaber bleibt meist in seinem Unternehmen als Hauptgesellschafter involviert.

Das relativ junge Alter und die selbstgeschaffenen Vermögen führen auch dazu, dass das eingegangene Risikoprofil in der Kapitalanlage bei diesen Personen tendenziell hoch ist. Die Anleger in den Emerging Markets sind „risikobereit“, ihr Ziel heißt „weitere Vermögensmehrung“. Konkret soll auch in der Kapitalanlage


### 3.2 UHNWI in den entwickelten Regionen

Vor der Globalisierung kamen die UHNWI fast ausschließlich aus den Industrieländern, vorwiegend aus Nordamerika, Westeuropa sowie aus Japan. Heute stellen diese „traditionellen UHNWI“ noch rund zwei Drittel des weltweiten UHNWI-Vermögens. Die Altersstruktur zeigt, dass in den Industrieländern insbesondere ältere Generationen den Wohlstand halten:

---

Durchschnittsalter der Millionäre in den Industrieländern²⁴:

<table>
<thead>
<tr>
<th>Land</th>
<th>Durchschnittsalter</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>66</td>
</tr>
<tr>
<td>Frankreich</td>
<td>74</td>
</tr>
<tr>
<td>Deutschland</td>
<td>66</td>
</tr>
<tr>
<td>Grossbritannien</td>
<td>65</td>
</tr>
</tbody>
</table>

Auffällend ist der geringe Anteil des geschaffenen Vermögens. Überwiegend stammt das Vermögen aus Erbschaften. So ist in Frankreich und Deutschland etwa zwei Drittel des Vermögens der UHNWI geerbt oder auf einer Erbschaft aufgebaut.²⁵ Der Fokus der Anlagepolitik liegt im Kapitalerhalt, das Anlegerprofil ist eher „risikoscheu und konservativ“. Der Fokus dieser Anleger liegt in der Bestandssicherung, also in einem konservativen Mischportfolio bei dem Anleihen und Immobilienprojekte dominieren. Eine progressive Vermögensmehrung, die mit der Eingehung größerer Risiken verbunden ist, wird gewöhnlich gemieden. Der Vermögenserhalt ist wichtig, die Inflation stellt für die „traditionellen UHNWI“ die größte Bedrohung dar.²⁶

4. UHNWI in den Emerging Markets denken, handeln und investieren anders

Während in den Industrieländern das Augenmerk auf einer konservativen Anlagestrategie mit dem Ziel der Substanzerhaltung liegt, gehen die Anleger in den Emerging Markets risikoreichere Wege. Auch in der Geldanlage zielen die UHNWI der „neuen Welt“ auf Wachstum – auf Vermögensvermehrung. Zurückzuführen ist dieses dynamische Anlageverhalten zunächst auf das Alter des Inves-


5 Ein Blick nach vorne


Literaturverzeichnis

INFORMAL LEARNING AS THE FORM OF EXTENDING KNOWLEDGE IN THE AREA OF FINANCIAL MANAGEMENT

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ABSTRACT

In time of crises, the financial management knowledge proved to be one of the fundamental elements of preserving businesses from weakening. The part of the business owners and managers at the right time identified their gaps in knowledge in the field of financial management. Considering their awareness of the potential consequences of inadequate financial management skills, part of them tried to gain additional knowledge by attending various courses and seminars in this field.

The question is, are these common channels of informal education sufficient to enable entrepreneurs to acquire a level of knowledge which will secure their companies adequate financial decision making.

The authors carried out a research with the aim of gathering the information and drawing conclusions on actual usability of courses and seminars in financial management organized by various training centers for their targeted groups. For that reason through this study the authors explored the scale of difference in the level of knowledge before and after attending learning courses in the area of financial management and other business categories. In addition to the above, the authors tried to determine usability, in business reality, of knowledge that managers acquired through informal education channels. The study was carried with the purpose of improvement of existing informal education models in area of financial management and with the aim to strengthen the companies and, indirectly, economy in general.

JEL Classification: D83

Keywords: financial management, knowledge, lifelong learning, upgrade, opportunities, education
INTRODUCTION

Today's learning opportunities are limitless, borderless and instantaneous. Individuals learn and acquire new skills and competences not only in the traditional setting of the classroom (formal learning) but more and more outside it. Important learning takes place at work, through participation in civil society organizations or in the virtual space provided by the internet and mobile devices, individually or with peers. Increasingly often, companies offer their workers training opportunities to upgrade their skills through organized, but non-formal, learning. Informal learning is also becoming increasingly important in a global and interconnected world where technology allows individuals to learn in a plethora of different ways through for example open educational resources and at a distance.1

Informal education is completing the existing knowledge and broadening the learners skills. Curiosity and the need for continuous upgrade of knowledge and skills are usual motivators for attending informal educations. Informal education is important for human resource development and for individuals to stay competitive on the labor market. It is also important for people to relate more to term „learning“ than the term „education“, because „learning“ is more connected with what people do for themselves, compared to “education” which is perceived as something that is done to them.2 Authors have experience in informal education through attendance and teaching in several seminars in the area of entrepreneurship, guerilla marketing, finance etc. This experience made them conduct a research about the forms and usefulness of informal learning in their society.

Formal education is organized, guided by a formal curriculum, leads to a formally recognized credential such as a high school completion diploma or a degree, and is often guided and recognized by government at some level. Teachers are usually trained as professionals in some way.3

Informal education is the lifelong process by which every individual acquires and accumulates knowledge, skills, attitudes and insights from daily experiences and exposure to the environment—at home, at work, at play: from the example

2 Source: http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=504793&org=DRL&from=home (01.03.2013.)
and attitude of families and friends; from travel, reading newspapers and books; or by listening to the radio or viewing films or television. Generally informal education is unorganized, unsystematic and even unintentional at times, yet accounts for the great bulk of any person’s total lifetime learning—including that of a highly ‘schooled’ person. The basic terms of informal learning (e.g. objectives, content, means and processes of acquisition, duration and evaluation of outcomes, applications) are determined by the individuals and groups that choose to engage in it).

The difference between formal and informal learning is:

Formal education is organized and sponsored by school or institutions, classroom-based and highly structured. Informal education is difficult to organize and control, non-routine, tacit and it is incidental so it can take place despite an environment not highly conducive to learning. It differ also from formal education it encourages individual and social learning, it develops attitude and values and it is complementary to formal education. What is most attractive in informal education? It is voluntarily, people can relate to their interests and learn something they can benefit from. Most common reason for attending informal education is filling the gaps in the professional sense, usually in the business processes, finance management etc.

Financial management is important in all types of businesses, including banks and other financial institutions, as well as industrial and retail firms. Financial management is also important in governmental operations, from schools to hospitals to highway departments. The job opportunities in financial management range from making decisions regarding plant expansions to choosing what types of securities to issue when financing expansion. Financial managers also have the responsibility for deciding the credit terms under which customers may buy, how much inventory the firm should carry, how much cash to keep on hand, whether to acquire other firms (merger analysis), and how much of the firm’s earnings to plow back into the business versus pay out as dividends.

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5 Source: https://tspace.library.utoronto.ca/bitstream/1807/2735/2/21adultsinformallearning.pdf (05.03.2013.)

6 Source: An overview of financial management http://cfa.goldenglobal.org.cn/uploadfile/append_file/%E8%B5%84%E6%96%99%E4%B8%8B%E8%B2%BD%CFA%E5%AD%A6%E4%B9%A0%E8%B5%84%E6%96%99/01%20-%20An%20Overview%20of%20Financial%20Management.pdf (01.03.2013.)
Financial education is very similar to other educational programs. It takes place in formal, non-formal, and informal educational settings. Formal settings include credit courses offered in high school and colleges. Non-formal settings include financial education training workshops and counseling programs provided by various organizations and individuals outside of formal educational institutions. Informal financial education comes from everyday interactions with people and mass media.  

DESCRIPTION OF SAMPLE AND SURVEYS

Research on informal seminar attendance (in the field of financial management) was conducted in eastern Croatia on a sample of 107 people. Data was collected by contacting examinees via e-mail, and authors of the respondents submitted their responses via e-mail. Examinees were defined as business owners, employees and unemployed, students or others. Structured questionnaire was divided into two parts. The first part of the questionnaire contained six general questions like gender, age, years of working experience etc. The second part of the survey contained assessment of business areas, knowledge before training and after training knowledge.

DESCRIPTION OF EXAMINEE IN THE SAMPLE

All examinees included in the sample are from eastern Croatia. Most of the examinees were 20 and 30 years old and least of them were 41 and 50 years old. Most of the respondents graduated from the university, school or college (36%) and only a small number of examinees have a secondary school or high school (12%). Also a small number of respondents have a master’s degree (18%). Faculty of Economics, usually referred to as an educational institution at which the respondents were graduates (62.4%), followed by the higher school of economics (19.8%).

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INFORMAL EDUCATION: SITUATION IN CROATIA

The Centers for Entrepreneurship, Higher institutions, Universities of applied sciences, Public schools for adults etc. offer informal education in all economic fields like leadership, business communication, marketing and finance etc. The offer of those courses is broad, but there are few issues regarding to the area of informal education offer.

The quality of these educational programs is questionable because in Croatia there are no standard control valuations and quality grading of the programs they offer.

The following question is course/program certificates which are not recognized in the European Union. It can be an issue for those students who are willing to make their professional career in EU.

When it comes to informal education in Croatia, there are rare examples of informal trainings corporate financing. In most cases individuals/students have to acquire, in some cases, significant funds for informal education financing.

From existing legislation there are some efforts for systematic supporting the education and prequalification of unemployed, but usually in the area of craft occupations.

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8 List of informal educations in Croatia can be found on various internet pages, such as: http://www.moja-edukacija.com/tecajevi/poslovni-seminari/grad-osijek/3/ (15.03.2013.)
If the individual is willing to expand existing knowledge the education costs must bear alone\(^9\). Furthermore employers in Croatia still are not active enough in informal education supporting like the employers in EU countries. According to research on the competitiveness of the labor force, Croatian companies are investing in the development of the competitiveness of their employees below all international and European standards.\(^{10}\)

**THE BENEFITS OF INFORMAL EDUCATION IN FINANCIAL MANAGEMENT**

There are many benefits of informal education in financial management and putting effort in taking classes of financial management. Young and adults can think wiser about their financial state (in private and business life - making better financial decisions) and trying to understand how the world of finance works (corporate finance, investment financing, crediting, stock exchange etc.).

For example, a bank lending officer cannot do his or her job well without a good understanding of financial management, because he or she must be able to judge how well a business is being operated. The same thing holds true for security analysts and stockbrokers, for example Merrill Lynch's\(^{11}\), who must have an understanding of general financial principles if they are to give their customers intelligent advice.\(^{12}\) Further more entrepreneurs knowledge must be wide to be able to successfully cope with the business challenges.

It is hard to do a good job of any kind without a solid base of financial knowledge.

Well-informed, financially educated consumers are better able to make good decisions for their families and thus are in position to increase their economic security well-being. Financially secure families are able to contribute to vital, thriving

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\(^{10}\) Source: Pološki, N., Frajlić, D.; Pokazatelji konkurentnosti hrvatske radne snage – rezultati empirijskog istraživanja

\(^{11}\) Merrill Lynch is one of the world's premier providers of wealth management, securities trading and sales, corporate finance and investment banking services, Source: http://www.ml.com/index.asp?id=7695_8134_8296 (05.03.2013.)

\(^{12}\) Source: An overview of financial management http://cfa.goldenglobal.org.cn/uploadfile/append_file/%E8%B5%84%E6%96%99%E4%B8%8B%E8%BD%BD/CFA%E5%AD%A6%E4%B9%A0%E8%B5%84%E6%96%99/01%20-%20An%20Overview%20of%20Financial%20Management.pdf (17.03.2013.)
communities and thereby further foster community economic development. Thus, financial education is important not only to individual households and families but to their communities as well. As it was earlier already mentioned it is recommended for individuals to attend education in financial management because they handle wiser their financial situation and achieve economic well being. From informal education the individuals should learn how to handle their financial being, making financial decisions, manage their cash flow, debt, credits, savings and planning for the future.

REVIEW OF RESEARCH RESULTS

<table>
<thead>
<tr>
<th>Evaluating the importance of each function in the business success</th>
</tr>
</thead>
<tbody>
<tr>
<td>accounting</td>
</tr>
<tr>
<td>1.00</td>
</tr>
</tbody>
</table>

Average grade

<table>
<thead>
<tr>
<th>Evaluation of knowledge in all business fields</th>
<th>BEFORE INFORMAL EDUCATION</th>
<th>AFTER INFORMAL EDUCATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evaluation of knowledge in field of finance</td>
<td>1.53</td>
<td>2.46</td>
</tr>
</tbody>
</table>

CONCLUSION

Lifelong learning is considered to be a continuing “from cradle to grave”. The role and importance of informal education at the present time is very high, especially because of the permanent and rapid changes in business and in life which require quick and effective respond. It is important to create affordable options in terms of timing, pace, location, education quality and affordability, with the extra motivation to take part in learning. And, finally, one would want to invest time, effort and money in further education to advance the knowledge, skills, and expertise if they will be visibly increased and help them in business practice.
The question was: are the present informal education programs in the field of financial management enough for the employees and entrepreneurs to independently lead the finance in their firms, regardless of its activity and size.

On the market of informal educations there are no quality evaluations of the informal programs and the gradation of the best informal education institutions. The field of financial management is complex. Furthermore, successful financial managing and decision-making requires a set of specific knowledge that is not easy to acquire.

Objective of this study was to determine whether the non-formal education is enough to acquire sufficient knowledge in finance for later independent financial management and decision-making.

According to the results of research presented in this paper the non-formal education participants subjectively assessed the increase of the level of their knowledge in the field of finance after non-formal education participating, as the increase of 81%. But it should be noted that the participants self assessment showed that before the non-formal education, their average score for the field of finance was 1,43 (in the scale from 1 to 5), and after the non-formal education participation, still inadequate 2,43.

Furthermore the 52% of the participants noted that, although their knowledge isn't sufficient, they are no longer willing to attend the informal educations in the field of financial management.

Although, there is a large portion of subjective assessment, the presented scores clearly state that the quality of non-formal education programs is inadequate for the participant to gain a sufficient level of knowledge to independently manage the business finances.

Therefore, it is necessary to redefine and concretize the existing non-formal programs in the field of finance, introduce a non-formal education program qualitative assessment and quality controls or direct the participants to the formal educational channels with defined educational programs and curriculum on the level of University and with embedded systems of educational programs quality control.
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http://cfa.goldenglobal.org.cn/uploadfile/append_file/%E8%B5%84%E6%96%99%E4%B8%8B%E8%BD%BD/CFA%E5%AD%A6%E4%B9%A0%E8%B5%84%E6%96%99/01%20-%20An%20Overview%20of%20FinancialManagement.pdf (01.03.2013.)


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Hilgert, Marianne A.; Hogarth, Jeanne M.; Beverly, Sondra G., (2003.), Household Financial Management: The connection between knowledge and behavior, University of Kansas
THE IMPACT OF FINANCIAL POPULATION EDUCATION ON MANAGING PERSONAL FINANCES

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Abstract

In the modern world, one of the core competencies of each individual is the possession of knowledge and skills in the field of finance. Financial education is a set of knowledge in the field of finance are necessary in making short-term and long-term decisions of each individual. The authors expose the results of research related to the financial education of the population and its impact on personal finance management using the survey method, comparative, analytical and synthetic methods. The expected result of the research will be reflected in the segment to determine the correlation between financial education and managing personal finances.

JEL Classification: D14, D31

Keywords: financial education, personal finance, financial management

1. Introduction

Economic development and the prosperity and wealth of a country to a large extent reflect the development of its regions, and the financial strength of the population in this area. Unevenness of economic development often determines the reason of the problems of the population at local and personal level. These problems stem from deficiencies in financial income conditioned economic deterioration of the Eastern Croatia for the national average. This fact largely leads to population significantly changed its attitude towards finances and strengthen the awareness of the need and necessity of rational and better relations in the management of its income and expenditure.
2. The impact of financial education programs in Eastern Croatian on managing personal finances - survey results

Financial involvement as a basic starting point of social participation of every individual is increasingly gaining in importance. Financial exclusion can be defined as the gap between the needs and demands of certain social groups to offer basic financial services. It relates to the issue of participation of individuals in the financial sector through the difficulties in obtaining and using financial services. The reasons for the total or increased financial exclusion of the population is possible to seek at their marginal participation in the financial system. The reasons for this are insufficient personal income and household income, changed circumstances on the income at a given time (loss of part or total income) or insufficient knowledge of financial principles, low education in the field of personal finance and attitudes of individuals with regard to personal finance (Matic, 2010, 93). The relationship of the individual to personal finances in substantially reflects its level of financial education. The authors present and analyze the results of the survey conducted on the relationship between the population of Eastern Croatia toward personal finances. Studies have been conducted in order to collect relevant information about the financial potential of the population in Eastern Croatian, the knowledge of their status in the financial system and relative to personal finances, as well as the level of financial education. The obtained results were used to calculate the correlation values between financial education and management of personal finances for individual variables from both survey questionnaires and the same were shown for the time dimension. The first survey was conducted in December 2011 on a representative sample of 1199 respondents, while the second survey conducted in November 2012 on a sample of 444 respondents. The target group included both employed and unemployed, the pensioner population, students and other persons in Eastern Croatia.

The structure and the number of respondents considering to professional qualifications in both surveys is presented in Table 1.
### Table 1. Structure and the number of subjects with regard to education

<table>
<thead>
<tr>
<th></th>
<th>2011 survey</th>
<th>2012 survey</th>
<th>2011 survey</th>
<th>2012 survey</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Percent</td>
<td>Frequency</td>
<td>Percent</td>
</tr>
<tr>
<td>Valid</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Without finishing school</td>
<td>3</td>
<td>20</td>
<td>,7</td>
<td>1,7</td>
</tr>
<tr>
<td>Finished primary school</td>
<td>7</td>
<td>103</td>
<td>1,6</td>
<td>8,6</td>
</tr>
<tr>
<td>Completed secondary education</td>
<td>288</td>
<td>64,8</td>
<td>748</td>
<td>62,4</td>
</tr>
<tr>
<td>Completed college education</td>
<td>60</td>
<td>13,5</td>
<td>163</td>
<td>13,6</td>
</tr>
<tr>
<td>Completed a university degree</td>
<td>85</td>
<td>19,2</td>
<td>161</td>
<td>13,4</td>
</tr>
<tr>
<td>Others</td>
<td>1</td>
<td>4</td>
<td>,2</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>444</td>
<td>100,0</td>
<td>1199</td>
<td>100,0</td>
</tr>
</tbody>
</table>

Source: Authors

An important factor in assessing the financial resources of the population has a level of their financial involvement in the banking system. Financial involvement of the population observed through their participation and use of banking services. Trend links between qualifications and the number of respondents used services in banks is shown in Table 2.

### Table 2. Education of respondents and the number of used banking services

<table>
<thead>
<tr>
<th>Description</th>
<th>Services more banks</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Use the one services of bank</td>
<td>Use the services of two banks</td>
</tr>
<tr>
<td>Without finishing school</td>
<td>1,3%</td>
<td>-</td>
</tr>
<tr>
<td>Finished primary school</td>
<td>9,1%</td>
<td>2,2%</td>
</tr>
<tr>
<td>Completed secondary education</td>
<td>64,0%</td>
<td>56,3%</td>
</tr>
<tr>
<td>Completed college education</td>
<td>13,7%</td>
<td>17,9%</td>
</tr>
<tr>
<td>Completed a university degree</td>
<td>11,5%</td>
<td>22,7%</td>
</tr>
<tr>
<td>Others</td>
<td>,4%</td>
<td>,4%</td>
</tr>
<tr>
<td>Total</td>
<td>100,0%</td>
<td>100,0%</td>
</tr>
</tbody>
</table>

Source: Authors
The level of education of respondents is structured into six categories: without finishing school, finished primary school, completed secondary education, completed college education and university degree, master’s degree and doctorate. By analyzing and comparing the data of those surveyed can be concluded that the dominant categories of respondents are with secondary education. Given the completed qualification services of one bank uses 64% of those surveyed by research conducted in 2011, and is a significant slight upward trend of people as service users or customers of one bank in both the research carried out. A significant increase in the number of persons with a secondary education used in your daily life services between the two banks of 17%, which indicates an increase in financial mobility of users of banking services. The cause of this increase is the growing competition as increasing segmentation offers banks seek additional benefits to attract new customers.

Similar conclusions can be made for the remaining subjects of education, and the highest number of respondents uses one or two services of banks regardless of their level of education (Table 2).

Ways of getting an income for respondents are shown in Table 3.

Table 3. Method of receiving wages

<table>
<thead>
<tr>
<th>Description</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bank account</td>
<td>226</td>
<td>907</td>
</tr>
<tr>
<td>Cash</td>
<td>121</td>
<td>129</td>
</tr>
<tr>
<td>Partially on bank account &amp; partially in cash</td>
<td>72</td>
<td>156</td>
</tr>
<tr>
<td>Total</td>
<td>419</td>
<td>1192</td>
</tr>
</tbody>
</table>

In the total sample, the question about how to receive income in the first survey did not answer 25 respondents (5.63%), while in the second survey did not answer the 7 respondents (0.58%).

In 2011 53.9% of respondents were receiving pay by bank transfer, 28.9% in cash and 17.2% partly through the account, and the rest in cash. If we compare
the data from both surveys, we can see that the apparent trend towards increasing benefits payable through accounts in banks and also observe a significant reduction in payment of wages in cash and a combination of the partial payments through accounts and part in cash. The reasons for this trend are positive developments in the expansion of activities in the fight against the gray economy and the introduction of high penalties for violators.

In the first survey ranking second receiving income takes cash, while another survey ranking second in receiving income respondents are cash and bank accounts together (Table 3).

Ways of getting an income of respondents in both the research carried out are shown Chart 1 and Chart 2.

Observing the graphs it is possible see an increase in revenue earnings through bank accounts, compared to a cash payment and a mixed payment (part of the payment in the bank account, and part in cash) in the second research conducted in relation to the first survey (Chart 1, Chart 2).

Correlation and measures the degree of linear association between certain important variables for both the research is presented in Table 4 and 5. To calculate the correlation is used Pearson correlation coefficient. Pearson’s linear correlation coefficient is a measure of the direction and degree of statistical correlation and varies in the range of ± 1. If the correlation value > 0 there is a positive linear correlation, if the value is < 0 correlation between the variables is negative. The value of correlation is 0 points means that there is no correlation between the variables tested. The strength of the correlation can be ranked in three levels considering range of values
obtained. The value of correlation in the range from 0 to 0.25 indicates a weak correlation, range 0.25 to 0.64 indicates high intensity correlations, ranging from 0.64 to 1 indicates a strong correlation between the studied variables.

**Table 4. Correlation research variables**

<table>
<thead>
<tr>
<th>Survey 2011</th>
<th>( E )</th>
<th>( HBA )</th>
<th>( WRI )</th>
<th>( SMB )</th>
<th>( AOB )</th>
<th>( UO )</th>
<th>( HBL )</th>
<th>( FSO )</th>
<th>( RBR )</th>
<th>Mean</th>
<th>Std. Deviation</th>
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<tr>
<td>( E )</td>
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<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
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</tr>
<tr>
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<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>2.25</td>
<td>.863</td>
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<tr>
<td>( WRI )</td>
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<td>.15**</td>
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<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>1.63</td>
<td>.760</td>
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<tr>
<td>( SMB )</td>
<td>-.04</td>
<td>.12*</td>
<td>-.07</td>
<td>1</td>
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<td></td>
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<td></td>
<td>1.13</td>
<td>.443</td>
</tr>
<tr>
<td>( AOB )</td>
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<td>-.01</td>
<td>.11*</td>
<td>.17**</td>
<td>-.01</td>
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<td>2.61</td>
<td>.741</td>
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<tr>
<td>( HBL )</td>
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<td>.16**</td>
<td>.15**</td>
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<td></td>
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<td>.33**</td>
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<td>.655</td>
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<td>.30**</td>
<td>.23**</td>
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<table>
<thead>
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<th>( WRI )</th>
<th>( SMB )</th>
<th>( AOB )</th>
<th>( UO )</th>
<th>( HBL )</th>
<th>( FSO )</th>
<th>( RBR )</th>
<th>Mean</th>
<th>Std. Deviation</th>
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<td></td>
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<td>.704</td>
</tr>
<tr>
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<td>-.11**</td>
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<td></td>
<td></td>
<td></td>
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<td>.672</td>
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<td>-.16**</td>
<td>.13**</td>
<td>.13**</td>
<td>-.23**</td>
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<td></td>
<td></td>
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<td>.480</td>
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<tr>
<td>( UO )</td>
<td>.03</td>
<td>.14**</td>
<td>.09**</td>
<td>-.17**</td>
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<td>.16**</td>
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<td>-.27**</td>
<td>.42**</td>
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</tr>
<tr>
<td>( FSO )</td>
<td>.06</td>
<td>.08**</td>
<td>-.03</td>
<td>.08</td>
<td>.01</td>
<td>.31**</td>
<td>.18**</td>
<td>1</td>
<td></td>
<td>2.16</td>
<td>.729</td>
</tr>
<tr>
<td>( RBR )</td>
<td>-.04</td>
<td>-.05</td>
<td>.01</td>
<td>-.11**</td>
<td>.09**</td>
<td>.30**</td>
<td>.25**</td>
<td>.26**</td>
<td>1</td>
<td>1.67</td>
<td>.469</td>
</tr>
</tbody>
</table>

* Correlation is significant at the 0.05 level (2-tailed).

** Correlation is significant at the 0.01 level (2-tailed).
3. Conclusion

Financial education of the population is increasingly gaining in importance and has become an important factor in choosing financial products in everyday life and in making long-term financial decisions that affect the lives of every individual. The reasons for this statement are the starting point of the fact that there is increasing heterogeneity and complexity offers various financial products and services of credit institutions. The importance of choosing the rational and economically acceptable financial products and services is manifested in its long-term impact on the lives of individuals.

Results of research on the impact of financial education on the financial position and management of personal finances of population in Eastern Croatia indicate the following facts:

- the changing economic and business conditions is decreasing household indebtedness,
- a trend of using the services of banks increase approvals and increasing use of overdraft bank accounts,
- increasingly growing awareness on the management and care of personal finances, and is driven by the reduction in the level of financial income and disposable personal income.
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Abstract

The first part of the paper concentrates on the analysis of common risk models assumptions that are not fulfilled in practice. The most vital assumptions of the modern portfolio theory are discussed here and compared with reality to show that they do not come up to practice. The aim of the second part are empirical tests of some of these simplifications to justify opinions made in the previous section.

JEL Classification: D81, G11

Keywords: portfolio theory, risk

1. CHOSEN SIMPLIFICATIONS OF VALUATION MODELS LEADING TO RISK UNDERESTIMATION

Model risk is defined as the special risk that arises when an institution uses mathematical models to value and hedge securities.¹ The author defines it as the probability of generating a loss that derives from the extent of model simplification in comparison to the real economy and from insufficient knowledge of the person who applies it. It is relatively lower for such instruments as stocks or bonds than for derivatives. The more complex the derivative is the higher the model risk is (see figure 3). One of the reasons is that the more advanced the instrument is, the more difficult it is to suit the model to it, as well as to understand this product and rules of its valuation together with its oversimplifications. This is why nowadays, it is more difficult to manage the model risk than it was 20 years ago, when non-standard products were not as numerous as today. One can conclude that it is the

financial innovation that increases the model risk, defined by P. Tufano\(^2\) as an ongoing process whereby private parties experiment to try to differentiate their products and services, responding to both sudden and gradual changes in the economy.

**Figure 3.** The relation between the complexity of the instrument and the model risk.

![Diagram of complexity vs. model risk](image)

Source: Author.

The modern portfolio theory\(^3\) is based on the assumption that investors are in the setup of market equilibrium\(^4\), markets are perfect and efficient.\(^5\) Thus, treating investors as price takers who can’t influence them has some far reaching consequences like not taking into consideration the speculation and the desire to influence the prices of cash markets in order to generate profits from derivatives markets. It could have been acceptable in the fifties or sixties when derivative markets were not so well-developed, however after Black and Scholes having done their model\(^6\), the financial world has changed. Paradoxically, it let the derivatives market grow and at the same time, it created the need for risk management on the market where more and more complex structures have appeared gradually. Derivatives changed the nature of the cash market. Although it is generally approved that these

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are derivatives whose prices depend on underlying market fluctuations, in fact there is also the impact of derivatives markets on cash markets that is often neglected. I mean here affecting prices of the cash market in order to generate profits from derivatives markets.

The most widely applied measure of risk-adjusted performance is the Sharpe ratio developed by Sharpe in 1966.\(^7\) It measures the excess return above the risk free rate compared with the unit of volatility given as the standard deviation of rates of return. Although it was proposed by Sharpe for mutual funds during the time when the hedge fund world was at its start (the first hedge fund is reported to have been created in 1954 by Alfred Winslow, however that was not the hedge fund of the type they function at present), it is widely used to compare hedge funds investment results nowadays, although they invest in asymmetric instruments. Furthermore, rates of return and volatilities must be estimated using a sample of returns, which creates another part of model risk – estimation risk. Besides, expected rates of return and variances of rates of return are assumed to be constant and known to investors. In fact, they fluctuate together with prices on the market and there is no perfect information on the factors that influence them where the most unpredictable part of it is the human factor. Above all, the models do not take into account the credit risk that plays a significant role in practice.

Apart from the Sharpe ratio, two often met in practice risk-adjusted performance measures are the Treynor ratio\(^8\) and the Jensen Alpha\(^9\) that derive from the Capital Asset Pricing Model (abbreviated to CAPM) of William Sharpe\(^10\) which for example assumes that investors are risk-averse and do not take risk that can be diversified. Are really hedge funds as such if they invest borrowed capital and get commissions until the market goes in the right direction? When it starts to move in the opposite direction, they generate losses not for themselves, but for their customers. They have no motivation to be cautious being only rewarded for high rates

of return and not punished for high risk levels as their strategies are so complex and not revealed publicly that nobody can know what the real risk is.

The model suggested by Sharpe in 1988 treats the returns of an investment entity as a weighted average of portfolios or indices for the analyzed group of assets:\(^\text{11}\)

\[
R_t = \sum_{i=1}^{n} \omega_i r_i ,
\]

where:

- \( R_t \) – the return of an investment entity
- \( \omega_i \) – the weight of asset \( i \)
- \( r_i \) – the return of asset \( i \)

This model is often met in practice as the linear regression model with the random factor. In the original Sharpe model there is an assumption that the manager cannot generate alpha, but it was later considered, allowing for possible excess returns:\(^\text{12}\)

\[
R_t = \alpha + \sum_{i=1}^{n} \beta_i r_i + \varepsilon_t ,
\]

where:

- \( \alpha \) – measures the outperformance of the fund
- \( \varepsilon_t \) – error
- \( \beta_i \) – the exposure to hedge fund strategies

However, the point is that it is linear, so it does not capture in the correct way the use of leverage or derivatives so often applied in the hedge fund industry. If one uses indices instead of assets this problem decreases, however another problem arises. Not all hedge funds are taken into consideration when indices are built. Thus, the question of representativeness appears.

Derivatives valuation models price these instruments in relation to the underlying asset market and assume that there are no arbitrage possibilities. It means that derivatives prices depend on underlying assets prices, however they

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influence them at the same time, which together with the financial leverage applied, makes this dependence intensified. Besides, models are done on the assumption that there exists perfect liquidity of financial markets. Thus, the role of liquidity is marginalized and such events as the global financial crisis of 2007 – 2009 show that liquidity management is a crucial element of risk management.

Liquidity risk takes two forms:\textsuperscript{12}

- Asset liquidity risk which arises when a transaction cannot be conducted at prevailing market prices due to the size of the position relative to normal trading lots.

- Funding liquidity risk which refers to the inability to meet payments obligations, which may force early liquidation, thus transforming “paper” losses into realized losses.

Both kinds of liquidity risk influence the market of both derivatives and cash market instruments, however they are not incorporated into pricing models. Asset liquidity risk is especially extreme on OTC exotic derivatives markets, as well as on emerging markets, whereas the funding liquidity risk is especially important for leveraged transactions conducted mostly by hedge funds.

Moreover, the value-at-risk model shows the worst case scenario, however during normal market conditions, at some level of probability and in a certain period of time. Normal market conditions mean that rates of return of assets follow a normal distribution and there is no risk of extreme events defined by K. Jajuga\textsuperscript{13} as those events that:

- Have low probability of appearance and

- Lead to big losses, and are thus called LFHS (Low Frequency, High Severity) events.

In fact, many distributions of rates of return of various assets are not normal and the effect of the so called “fat tails” appears. The probability of rates of return distant from the average is higher than the standard normal distribution shows.


\textsuperscript{13} K. Jajuga (ed.), Zarządzanie ryzykiem [Risk management], PWN, Warsaw 2007, p. 61.
There are three basic methods for VaR calculation and each of them is based on some untrue assumptions:\(^\text{14}\)

- The variance – covariance approach – assuming that the distribution of rates of return is normal, correlation coefficients between risk factors do not change in time and the sensitivity of portfolio values to the change of risk factors does not change. Usually historical data are used for this method and the standard deviation is calculated.

- The historical simulation approach – assuming that the distribution of rates of return does not change in time. Historical data are used to define the kind of the distribution and it is assumed to be the same in the future.

- The Monte Carlo simulation – contrary to the previous two methods, it requires advanced computer software and is time – consuming. One creates a hypothetical model that describes rates of return fluctuations and generates many rates of return, which lets define the empirical distribution of rates of return. This approach is especially used when one needs to take into consideration such complex instruments as options, because the variance – covariance method does not consider gamma parameter, as well as exotic options that are priced with numerical methods.

It is alarming that many hedge funds apply basic risk management VaR analysis for their portfolios, however a minority of them deepens quantitative risk management practices to extreme value at risk, covariance analysis, and skewness framework. At the same time, the research has shown that many hedge funds exhibit significant skew and kurtosis.\(^\text{15}\) The main problems concerning the value-at-risk application are:

- The risk of the wrong VaR method application that does not take into consideration the appearance of extreme events


• The choice of the proper confidence level that can be changed on the grounds of the hedge fund policy or its procedures
• The proper choice of the time interval (the so called holding period) for which VaR should be calculated to be the adequate measure of risk
• VaR is not available for non-standard instruments that have low liquidity and thus historical price data for such structures are impossible to gather
• Skewness and kurtosis are not incorporated into the standard VaR model. The standard deviation used in the most common method of VaR calculation (variance – covariance) does not take them into consideration and does not measure the real level of risk.

The hedge fund survey done in 1999 by Capital Market Risk Advisors, Inc.\textsuperscript{16} shows that the variance – covariance approach was the most widely used method for calculating VaR. Although 1999 was a long time before the world global financial crisis of 2007 – 2009, it was shortly after the Asian crisis and the LTCM failure. It shows that no lessons were taken from it and still methods based on the normal distribution of rates of return were most commonly used by these institutions without doing any stress tests. However, there is nothing bad in applying simplified models but the point is not to believe them in 100\% and to take into consideration that extreme events may appear and to have enough of capital that will let manage the liquidity in case of them (the author calls it safety margins for the model risk).

2. EMPIRICAL VERIFICATION OF THE NORMAL DISTRIBUTION ASSUMPTION MADE FOR RATES OF RETURN FOR SELECTED HEDGE FUND INVESTMENT ASSETS

The first of tested assumptions is that rates of return of assets are normally distributed. It is shown with the example of three hedge funds investment assets that it does not have to be. Another assumption is that variance does not change in time, whereas in fact it not only fluctuates, but also significantly influences levels of value-at-risk. Besides, the assumption that correlation does not change in time is verified and it is concluded that its changes together with volatility fluctuations impact value-at-risk levels, which in turn means that value-at-risk cannot be treated as an absolute risk measure. It is often forgotten that both VaR and other models

show risk level in standard market conditions or in conditions that one expects to turn out. In other words, one can calculate risk using these models, but they will only show the result which depends on our expectations of the market situation. And the point is how it will be understood and managed.

The author chose at random three investment assets which are widely known as those being the aim of hedge fund investments (crude oil futures contracts, CDS contracts for Goldman Sachs and copper futures contracts).

In order to check if rates of return of crude oil futures were distributed normally in 2005 – 2010, the author made the chi-square test. Chart 4 depicts the results of the test which lets reject the hypothesis of distribution normality with $p = 0.00000$ that the distribution is normal.


Source: Author.

Although the modern portfolio theory developed by Markowitz uses the standard deviation as a main measure of risk, rates of return of many assets do not follow the normal distribution. As chart 4 depicts, rates of return of crude oil futures contracts are dispersed around the mean more than the normal distribution.
assumes, however it is not the core of the matter. The biggest problem is that there are more rates of return far more from the mean than the normal distribution suggests (fat tails). Thus, the standard deviation is not a proper measure of risk for such distributions. Although it is rather low here (2.46%), risk is high because of excess kurtosis. Kurtosis is the fourth central moment of a distribution and its formal definition is:17

\[
\text{Kurtosis} = \frac{T(T+1)}{(T-1)(T-2)(T-3)} \sum_{t=1}^{T} \left( \frac{R_{t} - \overline{R}}{\sigma} \right)^4 \frac{3(T-1)^2}{(T-2)(T-3)},
\]

where:

- \( T \) – the number of observations
- \( \sigma \) – the standard deviation of rates of return
- \( \overline{R} \) – arithmetic mean of rates of return

The normal distribution kurtosis is 3 and the value higher than this is considered excess kurtosis. For crude oil futures contracts it is 4.14 and shows another part of risk which is neglected in common valuation models.

Another risk measure omitted in the mentioned models is skewness. It is the third central moment of a distribution and measures the symmetry of a return distribution around the mean. Mathematically it is calculated as:18

\[
\text{Skewness} = \frac{T}{(T-1)(T-2)} \sum_{t=1}^{T} \left( \frac{R_{t} - \overline{R}}{\sigma} \right)^3
\]

If the distribution is negatively skewed, it means that it is more probable that returns lower than average will be higher than returns higher than average. Even if two distributions have the same values of the standard deviation, the normal distribution with zero skew generates lower risk level than the non-normal distribution. Skewness of crude oil futures rates of return is close to zero and it is positive, which eliminates these problems (see table 1).

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17 F.S. Lhabitant, Handbook of hedge funds, John Wiley & Sons, Ltd., Chichester 2006, p. 437. Note that some analysts do not subtract the second term from the kurtosis. As a result, when \( T \) is large, the threshold value for the normal distribution becomes 3 rather than 0.
Table 1. Descriptive statistics of examined variables.

<table>
<thead>
<tr>
<th>Item</th>
<th>Oil crude futures</th>
<th>CDS Goldman Sachs</th>
<th>Copper futures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of observations</td>
<td>1518</td>
<td>1505</td>
<td>1517</td>
</tr>
<tr>
<td>Mean</td>
<td>0,000510</td>
<td>0,001036</td>
<td>0,000704</td>
</tr>
<tr>
<td>Median</td>
<td>0,000813</td>
<td>0,00</td>
<td>0,001471</td>
</tr>
<tr>
<td>Minimum</td>
<td>-0,129589</td>
<td>-0,504155</td>
<td>-0,119575</td>
</tr>
<tr>
<td>Maximum</td>
<td>0,185866</td>
<td>0,571255</td>
<td>0,118506</td>
</tr>
<tr>
<td>Variance</td>
<td>0,000606</td>
<td>0,002591</td>
<td>0,000526</td>
</tr>
<tr>
<td>Standard deviation</td>
<td>0,024617</td>
<td>0,050906</td>
<td>0,022942</td>
</tr>
<tr>
<td>Standard error</td>
<td>0,000632</td>
<td>0,001312</td>
<td>0,000589</td>
</tr>
<tr>
<td>Skewness</td>
<td>0,006557</td>
<td>-0,178642</td>
<td>-0,150265</td>
</tr>
<tr>
<td>Standard error skewness</td>
<td>0,062807</td>
<td>0,063078</td>
<td>0,062828</td>
</tr>
<tr>
<td>Kurtosis</td>
<td>4,142480</td>
<td>26,36507</td>
<td>2,567517</td>
</tr>
<tr>
<td>Standard error kurtosis</td>
<td>0,125533</td>
<td>0,126072</td>
<td>0,125574</td>
</tr>
</tbody>
</table>

Source: Author’s calculations.

Chart 5 shows that fat tails are present in the distribution of rates of return of CDS for Goldman Sachs. Besides, excess kurtosis appears (26,36), as well as negative skewness (-5,47). Thus, although the standard deviation is about 5,09%, risk is much higher than for the normal distribution. The chi-square test proves without any doubts that the hypothesis of the normal distribution of analyzed CDS rates of return can be rejected (with $p = 0,00086$ that the distribution is normal). The same conclusions can be drawn for chart 6 which suggests that the distribution of copper futures rates of return is not normal and data depicted in table 1 show that it is negatively skewed. The result of the chi-square test also confirms that copper futures rates of return are not normally distributed.

Source: Author.


Source: Author.
Additionally, chart 7 shows probability plots for analyzed variables which compare the model probability with the real probability. If the model is adequate, the probability plot lies close to the diagonal line. It can be seen that the fit is not so good and any deviations from linearity indicate some model failing.

**Chart 7.** Probability plots for examined variables in 2005 – 2010.

Source: Author.
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ABSTRACT

The concept of the internal marketing was defined in order to stress the role of employees as the key element in determining service quality. Although the origin of the term is in the service marketing literature of the 70s, many authors stress that both general and particular problems are not adequately represented in theory. The purpose of the thesis is to stress the theoretical benefit of the implementation of internal marketing concept and to research its practical usage. The organizations that implement the activities of internal marketing should have a fertile ground for successful business. Considering that banking services are, usually deemed hard to sell, internal marketing is even more important in the respective sector. Thereby the primary research about the acceptance of internal marketing and its specificity had been conducted on the banking sector of the Republic of Croatia. Results of the research show that the banks that operate in Croatia are aware of the need to apply activities commonly associated with the concept of internal marketing, however it is evident there is room for progress in the fields of communicating the vision, development and awarding of employees.

JEL Classification: M31, M54

Keywords: internal marketing, employees, customer satisfaction, service quality, financial sector
1. Introduction

In the modern economy services have a pre-eminent role. In the most highly developed countries services constitute between 2/3 to 3/4 of GDP (Čirić; 2005).

In the service sector, customer satisfaction is conditioned by a high-quality service that can be delivered only by satisfied, loyal and productive employees (Bansal et al.; 2001). There is a strong need to ensure a high quality education and interactive process competence for all the employees who are involved in the process of creating and delivering the service to the customers (Lings; 1999). The concept of internal marketing was defined in the seventies (Ahmed & Rafiq; 2002) with the aim of emphasising the role of the employees’ behaviour as the key element in determining the service quality.

First line employees in banks are faced with special challenges not only by specific features of the service sector but also by the financial sector and crisis in the same sector. A well performed financial service strongly depends on the experience and acquired knowledge of employees (Nekrep; 2009).

There are not enough scientific researches on this specific subject. Theoretical background, together with the empirical evidence of the internal marketing, may contribute to wider understanding and acceptance of the concept. The main purpose of this paper is to research the acceptance of the internal marketing concept in the banking sector and indicate the differences between the level of acceptance of each of the three internal marketing components and to point out the strengths and weaknesses of the implemented internal marketing concept in the Croatian banking sector, and compare the obtained results with the research results of other authors.

The paper is composed of five chapters. Introduction is followed by contemporary facilities of the banking sector and the respective role of internal marketing. The third chapter is dedicated to different aspects of internal marketing. In the fourth chapter methodology and results of the conducted research as well as research limitation are presented. In the conclusion the most important implications of the conducted research are specified.
2. Internal marketing concept and contemporary banking sector

The increasing competition didn’t sidestep the banking sector. The main reasons for that are frequent mergers and acquisitions (Gilmour; 2003), rapid technological development (Thwaites & Lee; 1994, Gilmour; 2003) and deregulation on a global scale (Gilmour; 2003, Bergeron et al.; 2008).

Furthermore, as the banking services are often about a customer’s personal finances, providing them with a service requires a satisfactory clarification of the services to the customers, contributing to the common opinion of the services being hard to sell. They can hardly be distinguished from each other, while the competition moves in from the non-banking sectors (insurance, leasing, factoring companies etc). At the same time new technologies have enabled financial services users to become more informed, demanding, and most importantly, less likely to stay with the same service provider (Bergeron et. al.; 2008). Moreover, nowadays financial markets are unstable and it is harder to ensure a customer’s trust and achieve a competitive advantage.

In order to overcome the changes and competitions in the banking service sector, it is important to accept the internal marketing concept from the aspect of achieving some of its primary tasks. Among other, a successful internal marketing implementation results in high quality services delivery (Ahmed & Rafiq; 2002), customer satisfaction and therefore loyalty (Kotler, et al.; 2006), competitive advantage (Papasolomou-Doukakis; 2003) and increase of profitability (Dunmore; 2002).

Previous research of financial sector internal marketing reached different conclusions. Some researchers pointed out the majority of the internal marketing ideas being accepted in organizations with a large number of employees (Quester & Kelly; 1999). The acceptance of internal marketing was confirmed by Bouranta and Mavridoglou (2003) applied to the Greek banking sector. O’Loughlin and Szmigin (2005) found there was an awareness of the importance of internal marketing in financial institutions, but at the same time reached the conclusion that it was not effectively implemented. Certain research (Snell & White; 2009) indicates that internal marketing is practised with varying degrees of sophistication. However it also provides evidence suggesting that professional service organizations do not readily identify and understand internal marketing. Papasolomou-Doukakis (2003) indicated the importance of successful implementation of internal marketing in the banking sector and the importance of further study and development of the internal marketing implementation models.
3. Typology of internal marketing

Although there is still no common internal marketing conceptual framework, the most significant and original view on internal marketing was given by Berry, who alluded to its importance for service organizations. He advocated treating employees as internal users whose delivery of excellent service to external users represents the key to an organization’s success (Pitt et al.; 1999).

Early empirical works did not provide a significant development to the field of marketing. The ideas that many organizations (especially service ones) treat employees similarly to how external users are treated, as stated by Pitt and Foreman (1999), can summarize all of the contemporary arguments.

Money and Foreman (1995) offered an interesting typology of internal marketing in order to provide a comprehensive and somewhat different view on internal marketing and its role. Namely, they indicated internal marketing should not be viewed as something an organization (in totality) implements to its employees (in totality). The two dimensions that pertain to who the internal marketer is (the entire organization or a department within it) and secondly to whom the internal marketing is aimed at (all employees or a specific group, function, or a department within the organization) are pointed out.
Table 1: PERSPECTIVES ON INTERNAL MARKETING

<table>
<thead>
<tr>
<th>Who is the focus of IM?</th>
<th>DEPARTMENT (D)</th>
<th>ORGANIZATION (O)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Who performs internal marketing?</td>
<td>TYPE II IM Where the organization is the marketer and the department is the customer</td>
<td>TYPE IV IM Where the organization is the marketer and the organization is the customer</td>
</tr>
<tr>
<td></td>
<td>O ↔ D</td>
<td>O ↔ O</td>
</tr>
</tbody>
</table>

Intention: that the group will engage in behaviour that supports or enhances certain organizational initiative.

Bream et al. (1992): IM by a group of hospitals, of a strong positive image of nursing to their nurses coupled with incentives, to lessen the organization’s reliance on agency nurses.

Female employees with young children may be targeted by organizations that offer infant care services to them. One large insurance company has begun to offer frail care to elderly dependants of employees (Comm, 1989).

Has received most attention in the literature (cf. Berry, 1980) (employees as customers, jobs as products).

Kotler (1991) (marketing concept requires internal marketing for external marketing success).

George (1990): IM is the best approach for establishing a service orientation as an organizational imperative.

Tansuhaj et al. (1988); Richardson and Robinson (1986): significant empirical support for the strong relationship between IM and customer satisfaction.

IM used to develop and maintain a service culture, to introduce new products and new marketing activities (see also Lewis, 1989; Tansuhaj et al., 1988, Hartley and Lee, 1986).

Grönoos (1990): the focus of IM should be on how to obtain and retain customer-conscious employees.

Tools of external marketing - marketing research (cf., Gel band Gelb, 1991), market segmentation/targeting, the four „P’s“ are also relevant to the internal customer of organizations - employees.

Berry et al. (1991); employees are one of the key respondent groups from whom data should be gathered in a services marketing audit; IM listed as a dimension of their framework.
<table>
<thead>
<tr>
<th>DEPARTMENT</th>
<th>TYPE I IM</th>
<th>TYPE III IM</th>
</tr>
</thead>
<tbody>
<tr>
<td>D ← ← D</td>
<td>D ← ← O</td>
<td></td>
</tr>
</tbody>
</table>

Gombeski et al. (1992) describe peer reviews by hospital physicians within various medical disciplines. Intended originally as a quality improvement technique, it has become an IM tool for different specialization – e.g., anaesthesia to surgery, radiography to orthopaedics.

Obenshain (1992); how the development of an IM plan enabled a MIS department to focus its efforts on the sales department in a large financial services organization.

Stokes and Lawrimore (1990): the use of IM techniques by accountants to gain the support of top management for a new system.

Typically practiced by service/staff functions within organizations, such as HM and MIS.

Better marketing of information technology services by MIS departments to the rest of the organization (Burgetz, 1991; Emmet, 1991; Trumbly and Arnold, 1989; Watson et al., 1993).

HR has also started to adopt many of the tools of marketing to enhance relationships with the rest of the organization.

IM by HR departments of direct deposit of payroll (Masonson, 1992; to enhance the status and visibility of HR (Collins and Payne, 1991; Schuler and Jackson, 1988).

IM by a legal firm’s law library to the rest of the firm (Shimpock-Viewg, 1991).

Source: Pitt & Foreman (1999), Internal Role in Organizations: A Transaction Cost Perspective, p. 27

The proposed typology of internal marketing also provides valuable insights into the role of internal marketing and the ways it can be used.

Along the lines suggested by Berry (in Caruana & Calleja; 1998), the researches investigate the Type IV situation where internal marketing is used by an organization to achieve satisfaction of internal and external users.

4. Research on the internal marketing concept in the Croatian banking sector

4.1. Research objective and methodology

Since 1970’s and the emergence of the idea, internal marketing has been often studied. However, many authors point out that internal marketing has not been studied enough (Foreman & Money; 1995, Pitt & Foreman; 1999, Pitt et al; 1999,

The authors have conducted research with the goal of determining the acceptance of the internal marketing philosophy and its particular dimensions in the Croatian banking sector with the accent on the strengths and weaknesses of the applied concept.

The acceptance was measured using a slightly adjusted 15-item questionnaire developed by Money and Foreman (1995) consisting of three underlying factors: vision (giving employees something to believe in), development (items having to do with developing employees) and reward (items having to do with rewarding employees) with the added questions about the subjects’ gender and expertise and the formal existence of internal marketing plans. In accordance to the researchers’ suggestions on employees in charge of internal marketing activities implementation (Foreman & Money; 1995, Quester & Kelly; 1999), the questionnaire was aimed at marketing managers, human resource managers or persons in charge of internal marketing. Every statement was associated with the Likert scale with five levels of intensity (from 1 = strongly disagree to 5 = strongly agree).

The research covers 32 banks in accordance to the regulations listed at Croatian National Bank (HNB) internet sites. The research took place from 20/11/2011 to 1/2/2012. The usable questionnaires, which were returned constitutes 81% of the total population.

4.2. Research results

The measuring instrument was calibrated with a 0.93 value by the Cronbach-alpha reliability coefficient. It is generally accepted that a 0.7 or higher value of the Cronbach-alpha coefficient represents high reliability (Nunally; 1978).
### Table 2: MEAN AND STANDARD DEVIATION

<table>
<thead>
<tr>
<th>Items</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vision</td>
<td>3.13</td>
<td>1.33</td>
</tr>
<tr>
<td>1. Our organization offers employees a vision in that they can believe in.</td>
<td>2.96</td>
<td>1.40</td>
</tr>
<tr>
<td>2. We communicate our vision to the employees clearly.</td>
<td>3.31</td>
<td>1.26</td>
</tr>
<tr>
<td>Development</td>
<td>3.49</td>
<td>1.14</td>
</tr>
<tr>
<td>3. We prepare our employees for a good execution of tasks.</td>
<td>3.62</td>
<td>1.27</td>
</tr>
<tr>
<td>4. Our organization views the development of our employees' knowledge and skills as an investment, rather than cost.</td>
<td>3.65</td>
<td>1.09</td>
</tr>
<tr>
<td>5. Development of our employees' knowledge and skills is a continuous process in our organization.</td>
<td>3.58</td>
<td>1.21</td>
</tr>
<tr>
<td>6. We teach our employees, „why they have to do things“ and not just, „how they should do it“.</td>
<td>3.77</td>
<td>1.07</td>
</tr>
<tr>
<td>7. Our organization provides more than training, our employees are provided with complete education.</td>
<td>3.04</td>
<td>1.04</td>
</tr>
<tr>
<td>8. Our employees are provided with adequate training in order to fully accomplish their role of service delivery.</td>
<td>3.73</td>
<td>1.08</td>
</tr>
<tr>
<td>9. Our organization is flexible in adapting to various needs of employees.</td>
<td>3.31</td>
<td>1.05</td>
</tr>
<tr>
<td>10. In our organization we invest significant effort to communicate with our employees.</td>
<td>3.23</td>
<td>1.31</td>
</tr>
<tr>
<td>Rewards</td>
<td>3.30</td>
<td>1.18</td>
</tr>
<tr>
<td>11. Our performance rating and rewarding systems are directed at encouraging co-operation between employees.</td>
<td>3.27</td>
<td>1.08</td>
</tr>
<tr>
<td>12. We rate performance and reward employees who contribute most to the achievement of our organization's vision.</td>
<td>3.19</td>
<td>1.13</td>
</tr>
<tr>
<td>13. The data we collect from the employees is used to improve their jobs and develop our organization’s strategy.</td>
<td>3.23</td>
<td>0.99</td>
</tr>
<tr>
<td>14. Our organization communicates to the employees the importance of their role in service delivery.</td>
<td>3.46</td>
<td>1.07</td>
</tr>
<tr>
<td>15. We reward employees who provide excellent service.</td>
<td>3.31</td>
<td>1.12</td>
</tr>
</tbody>
</table>

Source: Author’s calculations.

The mean and the standard deviation of all the received values is 3.30 and 1.18 respectively. Considering that higher scores on the scale indicate higher levels of internal marketing concept acceptance, we can conclude that according to the perceptions of the executives the acceptance of the internal marketing concept as well as the three underlined components in the Croatian banking sector is mediocre.
The received results are not in line with the research conducted by Paliaga et al. (2010) whose work on the large and medium organizations in the Republic of Croatia indicates a high level of implementation of the internal marketing concept. Furthermore, the results are not in line with the results of the research conducted by Bouranta and Marvidoglou (2003) who studied the banking sector of Greece, and the research by Quester and Kelly (1999) who determined significant acceptance of the internal marketing activities in the Australian financial sector, especially in the organizations with a large number of employees. However, the research is in line with the research conducted by Snell and White (2009) and that of O’Loughlin and Szmigin (2005) who pointed out deficiencies in understanding and implementing internal marketing.

The items with the lowest score received are those about giving employees something to believe in (mean = 2.96). In order to direct the employees toward the preferred behaviour it is necessary to communicate the bank’s vision clearly and to have it accepted by the employees. Development as one of three components of internal marketing is scored with the highest grade (mean = 3.49) compared with the other two. The item that states that the employees are relatively aware „why they have to do things“ and not only „how they should do“ stand out the most (mean = 3.77). Individual contribution to achievement of the bank’s vision is not measured and therefore can not be awarded accordingly. It is the item with the lowest rate (mean = 3.19) compared with the others included in rewards. Other researches (Money & Foreman; 1995, Caruana & Calleja; 1998, Ewing & Caruana; 1999, Bouranta & Mavridoglou; 2003) indicate different strengths and weaknesses of the conducted internal marketing activities which is to be expected and is mostly not in line with the conducted research.

Only 31% of subjects stated there was a formal internal marketing plan in their bank, 69% stated there was no such plan. Therefore, there is a relatively low number of organizations with a formal internal marketing plan, but all organizations implement internal marketing activities, all of which is in line with the earlier researches (Quester & Kelly; 1999, Papasolomou-Doukakis; 2003). That indicates internal marketing is not a planned effort, i.e. it is not accepted in a strategic form.

4.3. Limitations of the results

In order to obtain a complete picture of internal marketing acceptance, not only those employees in charge of the internal marketing implementation but all of
them should be examined. It is possible to find out that the two sides have different perspective on the same item. Moreover, the existence of the internal marketing concept should be tested on the whole financial sector and on other activities which would provide wider generalization and comparison of the results. Larger sample may allow conduction of explorative factor analysis in order to determine components of the IM concept in the respective sector.

5. Conclusion

Internal marketing achieves its purpose when it contributes benefits, both external and internal. Primarily, for building loyalty to an organization, customer satisfaction is the foundation and it is conditioned by a constant delivery of a high-quality service that can be created only by satisfied and productive employees.

The conducted research highlights the strengths and weaknesses of the conducted internal marketing activities and indicates that the acceptance of the concept in the Croatian banking sector is mediocre. Disadvantages in internal marketing activities implementation are especially evident in Vision as one of the three components. Development items are scored with the highest rates compared with the others two. Those results highlight what should be the focus of marketing managers or human resources specialists in order to enhance the effects of the conducted IM activities. The results indicate that those in charged for internal marketing activities implementation are successful in demonstrating to employees why they do something not only how they should do it. Additional effort must be exerted in the field of communicating the vision of an organization. The non-strategic approach to internal marketing is shown by the non-existence of internal marketing plans. After comparing the research results obtained in this study with the previous work in the field, the authors conclude that the implementation of the internal marketing concept in the Croatian banking sector can be improved. Finally, the conducted research results contribute to the deepening of the theoretical knowledge about internal marketing. The obtained results can be used in future researches of how the internal marketing acceptance influences job satisfaction of bank employees, work motivation or other dependent variables.
Literature


THE SIGNIFICANCE AND ROLE OF LEASING IN CORPORATE FINANCING IN REPUBLIC OF CROATIA

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Abstract

Financing business activities of any company requires the availability of adequate sources of funding in the required amount and in a timely manner. The structure of the funding sources or capital structure, which finances business assets, is one of the main factors, which determines the competitive position of the company on the market and influences growth opportunities and expanding abilities of the business. In today’s complex business conditions, characterized by globalization processes and dynamic socioeconomic relations that prevail in the market, there are a significant number of funding sources that are available to businesses in accordance with their requirements. Those funding sources are different in terms of types, maturities, interest rates, and other contractual terms. Strong competition and market conditions demand a continuous restructuring of the company’s capital structure as well as finding the most appropriate financial mix between owned and borrowed funds of a certain maturity. Available data show that besides the usual external sources of funding, such as different types of bank and commercial loans, the companies increasingly are using alternative funding sources such as leasing.

The concept of leasing implies a financing of business activities through lease rather than purchase of the necessary business assets. A lease is an agreement in which one party (lessee) gains a long-term rental agreement for the use of some fixed asset, and the other party (lessor) provides that asset and receives a series of periodic contractual payments in return from the lessee. The leasing is particularly important for small and medium business enterprises that very often do not have sufficient financial resources to purchase the necessary assets nor can they get bank loans at favourable terms. There are numerous advantages of the leasing compared
to other asset financing methods such as simplified management and planning of current and future cash flows, better costs control, flexibility and ease of contracting, tax treatment (benefits) and many others. Therefore, the paper provides an overview of the basic characteristics and types of leasing as an alternative way for financing businesses and indicates the significance and role of leasing for business activities in modern market conditions. Additionally, the paper presents structure and basic features of the leasing market and leasing companies in Croatia.

**JEL Classification:** G32

**Keywords:** leasing, asset-based financing, leasing market

1. Introduction

The capital structure of any company consists of owned and borrowed funds. In today’s globally competitive markets it represents one of the key factors that determines current position and influences growth and development opportunities. There are many funding sources that are available to companies under virtually any conceivable terms. The main objective has become finding the most appropriate mix between owned and borrowed funds. Available data show that besides the usual external funding, the companies are increasingly using alternative sources such as leasing. The concept implies a financing of business through lease rather than purchase of the necessary assets. Leasing represents a hybrid type of financing used to finance different forms of fixed assets. A lease is an agreement in which one party (lessee) gains a long-term rental agreement for the use of the asset while the other party (lessor) provides that asset and receives a series of periodic contractual payments in return. The leasing is particularly important for small and medium businesses (SMEs) that often do not have sufficient financial resources to purchase the assets nor can they get loans at favourable terms. It has a widespread use in everyday business and numerous advantages if compared to other asset financing methods. Therefore, an overview of the basic characteristics and types of leasing is presented in the paper, indicating its significance in today’s modern markets. Also, the paper presents the structure and basic features of the leasing market and the leasing industry in Croatia.

2. The types of leasing and their characteristics

Leasing is defined as a contractual agreement between the enterprise (the lessee), which takes the lease for a certain asset, and the finance company (the lessor),
which provides asset for leasing and gets lease payments in return. A lease is a rental agreement that extends for a year or more and involves a series of fixed payments (Brealey & Meyers; 2003:729). Generally, the property of the leased asset remains with the leasing company while the lessee obtains the right to use the asset by paying lease rentals for the life time of the leasing contract. After the contract expires there is a possibility of asset ownership being transferred to the lessee at a certain cost. The ownership and the use of the asset are separated, the lessee generates earnings from the use of assets, while the lessor receives rental payments and retain the security of asset ownership (Deelen; 2003:3). Leasing can take many forms depending on complexity of business transactions and contractual relations. According to Brigham and Houston (2009:629) leasing takes three basic forms, i.e., operating lease, financial (capital) lease, and sale-and-leaseback arrangements. An operating lease, also called a service lease, is a lease under which the lessor maintains and finances the property. Costs of maintenance and other related services are built into the regular lease payments. The ownership of asset stays with the lessor while the right to use the asset is transferred to the lessee. At the end of the lease period, the lessee returns the property to the lessor. The value of the asset is not fully amortized because contracts are usually written for a period shorter that the expected economic life of the leased equipment. Additionally, the contract frequently has a cancellation clause giving an opportunity to the lessee to return the asset that is no longer needed or is outdated due to technological developments, thus getting more flexibility in a changing business environment. Industrial and business equipment as well as automobiles and commercial vehicles are the primary types of equipment involved in operating lease. A financial lease differs in three aspects from an operating lease. There is no possibility to cancel financial lease during its time span. Also, it does not cover maintenance costs by the lessor, leaving them to the lessee. The finance lease is primarily a method of raising finance to pay for assets, rather than a genuine rental. Therefore, it is fully amortized. The lessor receives rental payments that are equal to the full price of the leased equipment increased for an investment return. Generally, the user of the asset, the lessee, negotiates the terms of trade with the manufacturer or the seller of the needed asset as well as lease terms with a leasing company. The lessor pays the manufacturer/seller for a selected equipment and signs the lease contract with the lessee, which is obliged to make lease payments according to the contract. A sales and leaseback type of leasing can be thought of as a special type of financial lease. In this case, the company that owns and use specific asset sells that property to the lessor and simultaneously signs the leasing
contract to lease back the same asset for a specified period of time, thus becoming the lessee. Basically, the sale-and-leaseback plan is an alternative to taking out a mortgage loan. This type of leasing secures the lessee with immediate cash inflow when the asset is sold while retaining the undisturbed use of equipment. Many lessors offer leases under a variety of terms, thus making new combination leases that have mixed features. For example, the usual cancellation clause in operating lease is also a part of finance lease today but supplemented with penalty payments to the lessor in order to compensate for the unamortized amount of the leased asset. Additionally, in the 1990s some companies started to use synthetic leases in order to keep debt off their balance sheets (Brigham & Ehrhardt; 2008:717). The company would create a so-called special purpose entity (SPE) that buys needed asset with borrowed funds. In a second step the company would lease the same asset from the SPE, thus keeping the asset off the balance sheet under the terms of operating lease and expensing lease payments in its income report. Other leasing types stated in the literature are direct and indirect leasing, short-term and long-term leasing, full service (rental) and net leasing, leasing per asset type, leveraged leasing, first hand and second hand leasing, etc. (Poljičak; 2010:173).

3. The leasing as an alternative financing source

Prior to 1950s leasing was generally used in real estate to finance the use of lands and buildings without paying the full price up-front and owning the property. In today’s corporate world virtually any fixed asset can be leased while over 30% of all new capital equipment in the USA is financed through lease arrangements (Brigham & Ehrhardt; 2008:715). According to data of Leaseurope (2011), that represents 44 member associations in 32 European countries and covers around 92% of the European leasing market, total new leasing volumes reached 256.6 bill. EUR in 2011, an increase of 7.4% compared to 2010. The outstanding leases grew by 1.1% to 712.3 bill. EUR at the end of 2011. The largest European leasing markets in terms of new volumes are Germany (47.6 bill. EUR), France (39.6 bill.) and the UK (38.1 bill.). The structure of new leasing volumes per asset types indicates that the largest market segment is passenger cars with a 40% market share in 2011, followed by equipment (34%), commercial vehicles (17%) and real estate (9%). There are many advantages in relation to leasing, such as tax-related benefits, flexibility of contracts towards customer needs, lease payments tailored to cash flow generating patterns of the lessee, minimal initial expenditures, the preservation of working capital and credit lines, risk mitigation of assets obsolescence, improved liquidity,
better cost control, increased access to financial funds and others (Kraemer-Eis & Lang, 2012:7-10; Boobyer, 2003:2-3; Groppelli & Nikbakht, 2006:338-339). Leasing is especially important for SMEs that typically cannot raise money directly in the capital markets and are mainly dependant on traditional bank financing. Furthermore, leasing finance provides SMEs with additional funds that expands their access to short and medium-term financing for fixed assets. A survey of 3,000 SMEs across 8 European countries that accounts for 78% of the European leasing market, shows that 40% of the SMEs surveyed used leasing in 2010, i.e. 28% of micro firms, 42% of small firms and 53% of medium firms, and 16.7% of their total investment was financed via leasing (Oxford Economics & Linedata; 2011). Also, the survey indicates that SMEs that use leasing invest 57% more on average than non-users of leasing. The report on UK SMEs financing (Fraser; 2004:18-19) indicates that 27% of UK SMEs in 2004 used leasing and/or hire purchase as a way to finance primarily vehicles (72% of SMEs), computer equipment (11%) and machinery (9%), putting leasing on the same level with bank loans. Lasfer and Levis (1998) analysed more than 3000 UK companies in the period 1982-1996 and showed that companies that use leasing were more likely to have tax losses, high fixed capital investment, high debt-to-equity ratio and to be larger than companies that do not use leasing. Small companies in the sample tend to use leasing for survival and growth opportunities rather than for profitability and tax reasons. They indicate that leasing is a substitute for debt financing in SMEs, while large firms use them as complements. Haiss and Kichler (2009:5) found that leasing and credit positively contributed to the economic growth of Eastern European transition countries and established complementary relations between leasing and the credit. Due to widespread use and variability in contractual terms, the accounting treatment of leases is of great importance. International Accounting Standard (IAS) 17 prescribes the appropriate accounting policies and differentiates operating and finance leases based on the extent to which risks and rewards incidental to ownership of a leased asset lie with the lessor or the lessee. A lease is classified as a finance lease if it transfers substantially all the risks and rewards incidental to ownership. In other cases, the lease should be classified as the operating lease. Financial leases must be capitalized in the books and disclosed in the balance sheet while operating leases must be stated in the footnotes. Accounting standards recognize leases essentially as a debt, thus preventing a company to use more leverage than otherwise possible.
4. The structure of the leasing market in Croatia

Business of leasing companies in Croatia is regulated by the Leasing Act enacted in 2006 (Official Gazette, 135/06). Also, a number of subsidiary laws and regulations further dictate dealings in the leasing market. There are 25 specialized leasing companies that are active and registered at the present moment (table 1). One leasing enterprise has authority to perform only operating leases, while another 24 provide both operating and finance lease services. The number of leasing companies has been stabilized after the Leasing Act came into force in 2007. Due to regulatory conditions only 25 leasing companies survived in 2007 out of 57 that provided services in 2006. The new regulation has put an end to the widespread practice of approving and distributing ordinary loans and similar financial services disguised as leasing business dealings. If capital ownership is observed indirectly, residents own only three leasing companies, while others are owned by non-residents, primarily by big foreign banks and financial institutions.

Table 1 General data on leasing companies in Croatia (01.01.2007-30.09.2012.)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of leasing companies</td>
<td>25</td>
<td>26</td>
<td>26</td>
<td>25</td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td>Number of employees</td>
<td>997</td>
<td>1,007</td>
<td>992</td>
<td>989</td>
<td>958</td>
<td>n/a</td>
</tr>
<tr>
<td>Total assets (in bill. HRK)</td>
<td>30.30</td>
<td>35.07</td>
<td>33.67</td>
<td>28.07</td>
<td>25.60</td>
<td>23.08</td>
</tr>
</tbody>
</table>

Source: adapted from HANFA Yearly and Quarterly Reports (2007-2012)

Overall difficult market conditions and slowing down of economic activities in Croatia due to global economic crises, negatively influenced developments in the leasing market. Total assets of leasing companies have decreased 15.51% in the period 2007 to 2011, from 30.30 to 25.60 bill. HRK. The decrease is even bigger in the period 2008 to 2011 with total assets reduced 27% in 2011 compared to 2008. Generally, the leasing market downsizes in terms of total assets while retaining the number of companies and employees. The shrinking leasing market is also apparent when numbers of new leasing contracts and their structure are analysed (table 2). There were over 45% less new leasing contracts in 2011 compared to 2007. The value of new contracts decreased even more, almost 60%, from 13.82 bill. in 2007 to just 5.56 bill. HRK in 2011. The average value of new contracts was down 26.72%. Correspondingly, the value of operating lease contracts decreased 66.77%, and the value of finance lease contracts has been reduced by almost 54%. Negative trends in the market continued in first three quarters of 2012.
Table 2 Number and value (in bill. HRK) of new contracts of leasing companies

<table>
<thead>
<tr>
<th>Year</th>
<th>No. of new contracts</th>
<th>Value of new contracts</th>
<th>Avg. val. of new contracts*</th>
<th>Operating Lease</th>
<th>Finance Lease</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>55,835</td>
<td>13.82</td>
<td>247.51</td>
<td>6.29</td>
<td>7.53</td>
</tr>
<tr>
<td>2008</td>
<td>59,410</td>
<td>15.46</td>
<td>260.23</td>
<td>6.67</td>
<td>8.80</td>
</tr>
<tr>
<td>2009</td>
<td>31,632</td>
<td>8.27</td>
<td>261.44</td>
<td>3.16</td>
<td>5.11</td>
</tr>
<tr>
<td>2010</td>
<td>28,446</td>
<td>5.70</td>
<td>200.38</td>
<td>2.12</td>
<td>3.58</td>
</tr>
<tr>
<td>2011</td>
<td>30,656</td>
<td>5.56</td>
<td>181.37</td>
<td>2.09</td>
<td>3.47</td>
</tr>
<tr>
<td>2012**</td>
<td>21,053</td>
<td>3.80</td>
<td>180.50</td>
<td>1.54</td>
<td>2.26</td>
</tr>
<tr>
<td>Chg. in % (2011/07)</td>
<td>-45.10</td>
<td>-59.77</td>
<td>-26.72</td>
<td>-66.77</td>
<td>-53.92</td>
</tr>
</tbody>
</table>

* in thousand HRK; ** Figures for January 1st to September 30th 2012
Source: adapted from HANFA Yearly and Quarterly Reports (2007-2012)

Similar negative developments could be observed when the number and value of active contracts are analysed in the same time period (table 3). Active contracts are contracts for operating and finance lease and loans that are still outstanding and that are going to be settled in the next periods. Thus, the number of active contracts dropped by 12.32% in 2011, while their value was cut in half to 19.34 bill. HRK. Operating lease contracts lost 2/3 of their value stated in 2007, finance lease contracts dropped 22.51%, and loans were down 12.32% in 2011. Similarly as with other data describing leasing operations, the market showed upward tendencies in 2007 and 2008, growing 10% to 15% annually. The reverse of positive developments has started in 2009 and it has not finished yet.

Table 3 Number and value (in bill. HRK) of active contracts of leasing companies

<table>
<thead>
<tr>
<th>Year</th>
<th>No. of active contracts</th>
<th>Value of active contracts</th>
<th>Avg. val. of active contracts*</th>
<th>Operating Lease</th>
<th>Finance Lease</th>
<th>Loans</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>177,572</td>
<td>46.77</td>
<td>263.39</td>
<td>18.12</td>
<td>21.42</td>
<td>7.23</td>
</tr>
<tr>
<td>2009</td>
<td>158,939</td>
<td>26.74</td>
<td>168.24</td>
<td>9.02</td>
<td>15.42</td>
<td>2.30</td>
</tr>
<tr>
<td>2010</td>
<td>154,612</td>
<td>21.74</td>
<td>140.61</td>
<td>6.50</td>
<td>14.09</td>
<td>1.16</td>
</tr>
<tr>
<td>2011</td>
<td>138,893</td>
<td>19.34</td>
<td>139.24</td>
<td>5.61</td>
<td>12.91</td>
<td>0.82</td>
</tr>
<tr>
<td>2012**</td>
<td>130,009</td>
<td>16.94</td>
<td>130.30</td>
<td>4.81</td>
<td>11.49</td>
<td>0.64</td>
</tr>
<tr>
<td>Chg. in % (2011/07)</td>
<td>-12.32</td>
<td>-50.69</td>
<td>-43.76</td>
<td>-61.99</td>
<td>-22.51</td>
<td>-12.32</td>
</tr>
</tbody>
</table>

* in thousand HRK; ** Figures for January 1st to September 30th 2012
Source: adapted from HANFA Yearly and Quarterly Reports (2007-2012)
Closer look into the portfolio structure of new leasing contracts classified per asset type in the period 2008 to 2012 (table 4) reveals that most of the contracts are for passenger cars and commercial vehicles with contracts for industrial and business equipments (plant, machinery, transport machines and equipment) following. Leasing contracts for passenger cars are 35% to 45% of the total value of new contracts for every year in the period 2008 to 2011, while share of contracts for commercial vehicles varies between 16% to 22%. All main asset types reduced its value significantly over the period, thus reflecting a negative shift from the leasing as a financing source as well as showing deteriorated economic conditions.

**Table 4 Portfolio structure per asset type – new lease contracts (in mil. HRK)**

<table>
<thead>
<tr>
<th>Asset type</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012*</th>
<th>Chg. in % (2011/08)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Real estate</td>
<td>3,405.57</td>
<td>1,592.10</td>
<td>1,039.33</td>
<td>831.24</td>
<td>619.74</td>
<td>-64.49</td>
</tr>
<tr>
<td>Passenger cars</td>
<td>5,720.16</td>
<td>2,985.21</td>
<td>2,349.91</td>
<td>2,602.93</td>
<td>1,564.42</td>
<td>-54.50</td>
</tr>
<tr>
<td>Commercial vehicles</td>
<td>3,442.80</td>
<td>1,803.07</td>
<td>947.85</td>
<td>970.40</td>
<td>799.71</td>
<td>-71.81</td>
</tr>
<tr>
<td>Vessels</td>
<td>1,421.73</td>
<td>585.49</td>
<td>263.07</td>
<td>189.42</td>
<td>227.20</td>
<td>-86.68</td>
</tr>
<tr>
<td>Aircrafts</td>
<td>n/a</td>
<td>30.02</td>
<td>0.00</td>
<td>0.00</td>
<td>2.93</td>
<td>n/a</td>
</tr>
<tr>
<td>Plants, machinery, transport machines and equipment</td>
<td>2,396.61</td>
<td>1,118.23</td>
<td>984.27</td>
<td>864.40</td>
<td>559.54</td>
<td>-63.93</td>
</tr>
<tr>
<td>Other</td>
<td>142.16</td>
<td>156.83</td>
<td>116.88</td>
<td>106.52</td>
<td>28.75</td>
<td>-25.07</td>
</tr>
<tr>
<td>Total</td>
<td>15,464.02</td>
<td>8,270.95</td>
<td>5,701.30</td>
<td>5,564.91</td>
<td>3,802.30</td>
<td>-64.01</td>
</tr>
</tbody>
</table>

* Figures for January 1st to September 30th 2012

Source: adapted from HANFA Yearly and Quaterly Reports (2008-2012)

Portfolio structure of active leasing contracts classified per asset type indicates similarity with structure of new contracts (table 5). Again, total value of outstanding contracts decreased 58.65% in the period 2008 to 2011. The smallest drop in value was for real estate leasing contracts, almost 30%, while values of other asset types were cut significantly down to between half and three quarters of their level in 2008.
Table 5 Portfolio structure per asset type (operating and finance lease, loans) – active lease contracts (in mil. HRK)

<table>
<thead>
<tr>
<th>Asset type</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012*</th>
<th>Chg. in % (2011/08)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Real estate</td>
<td>8,851.16</td>
<td>7,348.09</td>
<td>6,196.35</td>
<td>6,245.46</td>
<td>5,823.81</td>
<td>-29.44</td>
</tr>
<tr>
<td>Passenger cars</td>
<td>16,644.57</td>
<td>7,830.54</td>
<td>6,184.40</td>
<td>5,436.14</td>
<td>4,561.21</td>
<td>-67.34</td>
</tr>
<tr>
<td>Commercial vehicles</td>
<td>9,105.60</td>
<td>4,689.66</td>
<td>3,779.89</td>
<td>3,174.03</td>
<td>2,857.78</td>
<td>-65.14</td>
</tr>
<tr>
<td>Vessels</td>
<td>2,993.43</td>
<td>1,662.42</td>
<td>1,204.24</td>
<td>796.85</td>
<td>695.41</td>
<td>-73.38</td>
</tr>
<tr>
<td>Aircrafts</td>
<td>n/a</td>
<td>34.46</td>
<td>30.73</td>
<td>37.32</td>
<td>4.44</td>
<td>n/a</td>
</tr>
<tr>
<td>Plants, machinery, trans. machines and equipment</td>
<td>8,483.44</td>
<td>4,729.09</td>
<td>3,942.96</td>
<td>3,325.45</td>
<td>2,881.81</td>
<td>-60.80</td>
</tr>
<tr>
<td>Other</td>
<td>692.37</td>
<td>443.29</td>
<td>401.41</td>
<td>322.51</td>
<td>113.37</td>
<td>-53.42</td>
</tr>
<tr>
<td>Total</td>
<td>46,770.57</td>
<td>26,737.55</td>
<td>21,739.98</td>
<td>19,337.77</td>
<td>16,937.83</td>
<td>-58.65</td>
</tr>
</tbody>
</table>

* Figures for January 1st to September 30th 2012
Source: adapted from HANFA Yearly and Quaterly Reports (2008-2012)

The unfavourable situation in the leasing market is additionally reflected in income reports of leasing companies. Although selected items in table 6, such as profit from interest, commissions and fees, and other revenues and expenditures, are mostly positive, leasing companies realized huge losses after income tax in the period 2008 to 2011. The largest loss of almost 602 mil. HRK was achieved in 2009. However, a profit after income tax of 285.76 mil. HRK was realized in the first three quarters of 2012. The main reason for reporting aggregate loss after income tax was the high cost of value adjustment of outstanding contracts due to impairment losses and write-offs. A number of lessees have become unable to pay their dues under the existing leasing arrangements, so leasing companies were compelled to book impairment losses. For example, according to data of HANFA the impairment loss in 2011 was 636.3 mil., thus being higher than profit from interest of 382.91 mil. realized in the same year.
### Table 6 Aggregate income report of leasing comp. – selected items (in mil. HRK)

<table>
<thead>
<tr>
<th>Profit/loss from</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012*</th>
<th>Chg. in % (2011/08)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interest</td>
<td>-112.60</td>
<td>515.54</td>
<td>602.79</td>
<td>382.91</td>
<td>263.15</td>
<td>440.06</td>
</tr>
<tr>
<td>Commissions and fees</td>
<td>28.13</td>
<td>70.27</td>
<td>73.65</td>
<td>52.76</td>
<td>22.75</td>
<td>87.56</td>
</tr>
<tr>
<td>Other revenues and expenditures</td>
<td>15.05</td>
<td>176.00</td>
<td>-228.28</td>
<td>86.30</td>
<td>173.70</td>
<td>473.42</td>
</tr>
<tr>
<td>After income tax</td>
<td>-455.15</td>
<td>-601.90</td>
<td>-1,038.96</td>
<td>-132.20</td>
<td>285.76</td>
<td>70.95</td>
</tr>
</tbody>
</table>

* Figures for January 1st to September 30th 2012

Source: adapted from HANFA Yearly and Quaterly Reports (2008-2012)

### 5. Conclusion

Availability of needed funding strongly influences the competitive position and growth opportunities of companies. Leasing is an alternative mechanism to facilitate access to finance. There are many different types of leasing, such as operating and finance lease and others, that vary in specific terms and conditions and that can be tailored to customer needs. In general, a lease is a contract between the company (the lessee) that uses the leased asset and the lessor who owns the leased asset and get lease payments in return from the lessee. The importance of the leasing is reflected in the size of its market; there are 256.6 bills. EUR in the new leasing volume in 2011 in Europe. Also, about 30% of all capital equipment is leased in the USA. Leasing is especially significant for small and medium enterprises, because it enables them to finance growth and substitute traditional debt, thus increasing their liquidity and investments. Croatian companies are also using different forms of leasing provided by 25 leasing companies with 23.8 bill. HRK of total assets in 2012. Although the leasing volumes have decreased since 2008, the worth of 3.8 bill. HRK of new and 16.9 bill. HRK of active contracts is still very important as a financing source. Improvement of the current economic situation in the near future would definitely also lead to the recovery of the leasing market in Croatia.

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PERSONAL SALES FACTORS AND THEIR QUANTIFICATION ON THE EXAMPLE OF A B-H LEASING COMPANY

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ABSTRACT

The paper is aimed at analyzing and quantifying personal sales elements in order to increase the volume of leasing service sales and achieve higher quality in satisfying customers’ needs. In their service sales, leasing companies typically use the personal sales method. Its basic characteristic is personal contact between the sales representative and the customer.

Personal sales is to a lesser degree quantified through quantitative elements of plan fulfillment; however, all the other qualitative indicators are hardly measurable as individual activities except that we can measure them indirectly through linking the success in plan fulfillment by quantity, volume and value with the assumption that they are the qualitative sales factors. However, it is not possible to directly calculate the intensity with which each individual sales element affects the physical volume of sales.

The paper will use primary research. The survey will include sales representatives, i.e. sales representatives employed with dealers and sales representatives employed in leasing companies. One group of questions pertains to the importance of individual elements of sales activities in personal sales, while the other group of questions pertains to advantages of personal sales over other forms of sales.

The scientific analysis will establish the importance of individual elements of sales activities in personal sales, as well as which advantages of personal sales over
other forms of sales customers find significant, all in order to increase the volume of leasing service sales and achieve higher quality in satisfying customers’ needs.

JEL Classification: G21, G32, O15

Keywords: Leasing service, personal sales, stages of personal sales, customers, human resources in sales.

1. INTRODUCTION

Leasing can be defined as a contractual relationship between two parties, the user (lessee) and the owner (lessor) of assets that are the subject of the leasing arrangement, whereby the user acquires the right to use the assets and takes on the obligation to make a series of periodical payments to the owner, i.e. the leasing company during the leasing period.1

Two parties appear in the leasing service process: leasing provider (lessor) and leasing user (lessee). Lessors include leasing companies as legal entities, while lessees may include companies as legal entities and natural persons (individuals, citizens).

“From the economic standpoint, leasing is a special financing technique, which has developed into a relatively powerful economic activity over the past thirty years. Leasing as a financing mechanism implies turnover of products whereby the user purchases the right to use a given good by paying a defined periodical price. It is actually a rent, i.e. leasing is a form of renting a given product. The object of rent may include technological equipment, machinery, medium-term resources, and different kinds of durable consumer goods.”2

Two sales channels are present in the sales of leasing services: direct and indirect sales channel respectively. The direct channel of leasing service sales implies that the leasing service is offered and sold directly to the end buyer. The indirect channel of leasing service sale implies that the sales of leasing service is made via a dealer, who is typically a retailer selling given machinery, equipment, motor vehicles, etc. However, the sales are accompanied by offering and selling leasing services.

In the direct sales channel, a direct contact between the leasing company and a potential leasing service buyer is established. This channel is extremely significant for the leasing company because the direct communication allows better presenta-

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tion of offer, removal of ambiguities, adjustment to customer needs and achieving greater efficiency in sales.

When selling their services, leasing companies mainly use the personal sales methods. Its basic characteristic is the personal contact between the seller and the buyer. Prof. Kotler points out that, “Using different approaches and sales training, the seller is transformed from a passive person who takes orders into an active person who receives orders and participates in solving buyer’s problems, An active seller who receives orders learns how to listen and research in order to be able to identify customer’s needs and arrive at good solutions. He starts from the assumption that the customers have latent needs that actually create opportunities, and that they will be loyal to those sales representatives who can analyze their needs and who are primarily interested in a long-term mutual interest.”

2. PERSONAL SALES PROCESS AND LEASING SERVICE

The process of leasing service sales in personal sales can be built based on the general models of sales process. Professor P. Kotler lists six steps for successful sales, as follows:

1. search for potential customers and their qualification,
2. pre-approach,
3. presentation and demonstration.
4. overcoming objections,
5. closing the sale, and
6. monitoring and maintaining contact.

Since the leasing service sales process is related to the financial service sales, the leasing service sales process can be defined by minor adaptations of the general model of sales process. Thus, the process of leasing service sales has fourteen stages, as follows:

1. researching potential customers,
2. identification and selection of target customers,
3. planning contacts,

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4 Cf: P. Kotler, ibid., p. 626.
4. contact with a potential customer,
5. drawing attention,
6. presentation of offer,
7. developing interest,
8. removing dilemmas and ambiguities,
9. arousing desire for leasing service use,
10. acceptance of the offer,
11. signing the contract
12. contract implementation – equipment delivery,
13. monitoring annuity payments, and
14. keeping in touch with the customer.

The successful sale of leasing services requires all the fourteen stages to be carried out successfully, professionally and with high-quality.

First stage. Researching potential customers. This stage includes research into potential customers for leasing service purchase that will be made by the personal sales method. The research includes actual companies that can be expected to acquire machinery and equipment in the ensuing period due to new investments or replacement of depreciated and outdated machinery. Besides, the research also focuses on the forecasts of the companies’ demand and sales, since it is typically successful companies that acquire new equipment and machinery. Sources of information for the research may be varied, such as chamber of commerce data, volume of business activity, off-the-record information, publicity of a company, etc.

Second stage. Identification and selection of target customers. Based on the first stage and a wide scope of the research, which covered a great number of potential companies that will invest in their development (renewal or expansion), the selection and identification of a small number of companies that are to become target customers may start. In this stage, one should take into account business affiliations of companies that are short-listed as target customers with another leasing company, and whether they buy the equipment only with cash or through a commercial bank. In this case, one should apply the strategy of marketing confrontation and assault on competitor.
Third stage. Planning contacts. In this stage, the way of contacting a potential customer is planned. If it is a new customer, basic indicators such as type of activity, company size, managers’ names, other business and personal information are collected about them.

Fourth stage. Contact with a potential customer. This stage implies the selection of the way of contacting the customer: in person, over the phone, personal visit, etc. The contact is typically established in writing, through a brief and clear address: goal of the contact, purpose of visit and brief presentation of the leasing company.

Fifth stage. Drawing attention. This stage involves drawing a potential customer’s attention to purchasing equipment using a leasing arrangement. Attention can be drawn using various publicity material focused on highlighting the advantages of acquiring equipment by means of leasing arrangement.

Sixth stage. Presentation of offer. Based on the established contact, the time for presenting the offer is determined. The presentation must be brief, clear and accurate. The duration of presentation should not exceed 10 minutes. An electronic presentation with additional oral explanations is desirable. It is recommended that the focus is placed upon the benefits the customer would have of the leasing package and providing clear information of the lease amount, term of payment, grace period, repayment warranty, etc. By the end of presentation, basic data on the leasing company should briefly be given. Before beginning the presentation, the leasing company representative must introduce him/herself and hand out his/her business cards to the audience. For the presentation to succeed technically, it is necessary to use one’s own projector and laptop.

Seventh stage. Developing interest. The presenter himself, in his presentation, must develop the customer representatives’ interest. Pointing to fast acquisition of equipment and machinery, favorable financial terms, grace period, longer term of payment, etc. must arouse interest among the audience.

Eight stage. Removing dilemmas and ambiguities. It is an extremely important stage after the offer presentation since individuals who attend the presentation will not fully understand the benefits and advantages of the leasing arrangement for the customer, particularly if it is their first encounter with the arrangement. The leasing company representative must clearly and accurately answer the asked questions and dilemmas. His authority and knowledge must arouse respect with the customers and remove their dilemmas. Real advantages and benefits of the leasing arrangement for
the customer are obvious and can be confirmed only by the assertive explanation. People are by their nature typically suspicious of new things or things they do not know about, and only the presenter’s authority can remove their dilemmas.

**Ninth stage.** Arousing desire for leasing service use. After the offer presentation that has developed the customer’s interest and after removing dilemmas and ambiguities, the customer feels a desire to use the leasing service.

**Tenth stage.** Acceptance of the offer. In this stage, the customer makes the decision on accepting the offer either in the original form or corrected based on the customer’s objections that were accepted by the leasing company representative. The customer can make the decision on accepting the offer during the presentation and negotiation or subsequently. However, in some cases the customer may refuse the offer and in this case further negotiation is discontinued. Still, the invested effort can be worthwhile in a new offer, particularly if the presentation was successful and if the customer accepted the leasing company as a serious and high-quality supplier.

**Eleventh stage.** Signing the contract. Upon the offer acceptance, the only thing that remains is to sign the contract on leasing arrangement. The very act of signing the contract is not just a technical formality, since it is in this stage that issues that were not dealt with in the stage of offer and that pertain to legal, financial and technical sections are resolved.

**Twelfth stage.** Monitoring annuity payments. It is a long-term stage and lasts as long as the term of payment for the leasing arrangement. Only in cases of tardiness in payments or default in payment is it necessary to get in touch with the customer and remind them of the obligation of regular payments. In cases where the customer has short-term obstacles for installment payments, it is possible to make an agreement with the customer to make a break of a few installments, with the break having the treatment of a grace period. If the customer has more serious problems in paying installments and stops paying them, it is necessary to take extreme measures in order to protect the leasing company’s interests, e.g. activate warranties or seize the resource (machine, piece of equipment, etc.) which is the object of leasing arrangement.

**Fourteenth stage.** Keeping in touch with the customer. In order to renew the leasing service sale and create a partner relationship with the customer, it is necessary for the leasing company representatives to occasionally contact the customer and show interest in their business performance and possible renewal of the leasing arrangement.
3. QUANTIFICATION OF PERSONAL SALES ELEMENTS

Quantification of personal sales elements is a fairly hard and complex task, since personal sales can to a lesser degree be quantified through quantitative elements of plan fulfillment and through comparison to the same period in the past. However, all the other qualitative indicators are hard to measure as individual activities, except that they can be measured indirectly by linking the success in plan fulfillment in terms of amount, volume and value with the assumption that qualitative sales factors are successful as well. However, it is not possible to directly calculate the degree and intensity of an individual qualitative sales element’s effect on the physical sales volume.

For the paper needs, primary research was conducted on the importance of individual elements of personal sales. A survey included sales representatives, those employed with retailers – dealers (154 persons), and sales representatives employed in leasing companies (22 persons). In this way, a total of 176 responses to survey questionnaires were obtained. One group of questions pertained to the importance of individual elements of sale activities in personal sales, while the second group of questions pertained to the advantages of personal sales over other forms of sales.

3.1. Importance of individual elements of sale activities in personal sales

The 176 obtained responses provide realistic quantification of the importance of individual elements. The respondents graded eleven sale activity elements in personal sales at the five levels of the elements’ importance (unimportant, somewhat important, important, very important and extremely important).\(^5\)

\(^5\) Vujic (2012), Own research: „Importance of individual elements of sale activity in personal sales“
Graph 1: “Importance of individual elements of sale activities in personal sales”

1. To the first question, which required gradation of the importance of making a list of existing customers, 95.5% respondents claimed that this element is particularly important (important, very important and extremely important), while only 4.5% responded that it is unimportant or somewhat important.

2. To the second question, which required gradation of the importance of making a list of potential customers, all 100% respondents stated that this element is particularly important. The structure of responses is as follows: important 36.9%, very important 27.3%, and extremely important 35.8%. No respondent claimed that this element is unimportant or somewhat important.

3. To the third question, pertaining to gradation of the importance of the element of pre-sales planning, a total of 88% respondents claimed that the element is important while 12% responded that the element is unimportant or somewhat important.

4. To the fourth question, pertaining to assessing potential customers, a total of 92.7% respondents claimed that it is a particularly important element while 7.3% responded that the element is unimportant or somewhat important.

5. To the fifth question, pertaining to the importance of customer needs and desires analysis, only 6.2% respondents claimed that the issue is unimportant or somewhat important, while all the others replied positively, as follows: the element is important 47.7%, very important 22.2%, and extremely important 23.9%, or 93.8% in total.

6. To the sixth question, requiring rating the importance of getting in touch with the customer, no respondent replied that the issue is unimportant or somewhat important; rather, all respondents, 100% replied that it is important: 33% that it is important, 19.3% that it is very important and 47.7% that it is extremely important.

7. To the seventh question, which asked respondents to rate the importance of the presentation of offer, 24.4% respondents replied that it is important, 31.8% that it is very important, and 43.8% that it is extremely important. On the other hand, no respondent claimed that the issue is unimportant.

8. To the eighth question, related to gradation of the importance of pointing to the advantages of leasing, the respondents expressed a high degree of agreement about the importance of the element (important 34.7%, very important 17.6% and extremely important 47.7%). Again, no respondent stated that the issue is unimportant.

9. To the ninth question pertaining to the importance of replies to customer objections, 5.7% respondents stated that the issue is somewhat important, while the remaining 94.3% believe that the issue is important.

10. To the tenth question, which inquired about closing the sale, all the 100% respondents believe that it is an important issue, by structure: 55.1% consider it extremely important, 35.8% very important and 9.1% important. No respondent considers the closing of sale to be unimportant.

11. Responses to the eleventh question, pertaining to the implementation of signed contract, are similar to those to the previous question. A total of 59.1% believes the issue is extremely important, 29.5% that it is very important and 11.4% that it is important. No respondent believes that the issue is unimportant or somewhat important.
3.2. Advantages of personal sales over other forms of sales

Quantification of personal sales is expressed through six questions pertaining to the advantages of personal sales over other forms of sales. The respondents could grade their responses into three levels: minimal advantage, significant advantage and very big advantage.


1. To the first question, as to how great is the advantage of personal sales in terms of interactive relationship, prevailing responses express the significant advantage – 52.3%, while 43.2% states that the advantage is very big and only 4.5% that it is minimal.

2. To the second question as well, most respondents believe that this element is a very big advantage of personal sales – 59.1% over other forms of sale. 26.1% believe the advantage is significant, and 14.8% that it is minimal.

3. To the third question, pertaining to better highlighting of leasing advantages through personal sales, as many as 52.8% consider this advantage to be very big, 27.3% consider it significant and 19.9% minimal.

Vujić (2012), Own research: “Advantages of personal sales over other forms of sales”.
4. To the fourth question, which pertained to easier removal of customer dilemmas, 38.9% respondents believe that it is a very big advantage of personal sales over other forms of sales, 47.2% believe it is a significant advantage and 15.9% that it is a minimal advantage.

5. To the fifth question as well, which pertained to grading the advantage of personal sales over other forms of sales with respect to the direct and fast answer to customers’ questions, as many as 66.4% respondents claim that the advantage of personal sales is very big, 23.9% believe that it is significant and only 9.7% that it is minimal.

6. The sixth question pertained to the gradation of advantages pertaining to accepting customers’ special requests. A total of 58.5% respondents believe that the advantage of personal sale over other forms of sale is very big, 27.3% that it is significant and 14.2% that it the advantage is minimal.

CONCLUSION

In the direct sales channel, leasing companies use personal sales since the leasing company representative establishes a direct contact with potential customers and through offer, negotiation and discussion sells leasing services to the end customer. This case involves an active leasing service seller. On the other hand, in the indirect sales channel the personal sale is made by a retailer – dealer representative, while the role of leasing company sales representative is reduced to finding retailers – dealers who will accompany sales of their goods with selling the leasing service to interested customers. In the indirect sales channel, the sales representative of the dealer – retailer, through personal sale, sells their own products and while doing so, they can offer both our leasing services and leasing services of other companies.

In leasing service personal sales, the selling performance of leasing company sales representative has an extreme significance both for closing the leasing service sale and for marketing promotion of the leasing company. For this reason, the performance of leasing company’s representatives in the personal sales stage is extremely important. They are both sales representatives and in the same time, they represent the leasing company as a whole and it is through them that customers assess the leasing company in its entirety. “In order to create and retain highly productive sales force, the company must design and implement the rewarding method so that it can attract and retain the most successful individuals.”

Based on the research, the respondents graded eleven elements of sale activities in personal sales from the aspect of importance for: producing a list of existing customers, producing a list of potential customers, pre-sales planning, assessing potential customers, analyzing customers’ desires and needs, getting in touch with customers, presentation of the offer, pointing to the advantages of leasing, replies to customers’ objections, closing the sales, and implementation of the signed contract. Besides, the respondents graded advantages of personal sales over other forms of sales through: interactive relationship, more detailed explanation of the offer, better pointing to leasing advantages, easier removal of customers’ dilemmas, direct and fast reply to question, and accepting special customers’ requests.

From this research, we can conclude that it is necessary to find such stimulating measures that customers, in the offer of leasing arrangement, accept and prefer our leasing company. Owing to good image and advertising, the end customer asks for our company’s leasing service.

Direct personal sale has many advantages for end customers, as well as for the leasing company, since it is interactive and is controlled by our own leasing company, while influences in sales through the indirect channel are beyond our control and are subject to many uncontrollable influences.

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THEORETICAL BACKGROUNDS OF EVALUATION OF SOCIAL SERVICES IN SLOVAK REPUBLIC 2013

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Abstract

The article deals with the situation in the area of social services in Slovak Republic and general concept of the evaluation from the perspective of different authors. It also defines the objectives of the evaluation, types of evaluation and different kinds of assessment. Article is also focused on evaluation of social services as an important part of social work. It describes theoretical concepts, which have significant impact on the evaluation of social services in practise. Article also describes the „evaluation tree“, which branches represent different focuses and orientations of many authors of evaluation theories.

JEL Classification: I0

Keywords: Social services, evaluation, evaluation of social services, theory about evaluation, theory in evaluation, evaluation tree, health, public health, health care

1 Social services in Slovak Republic

In recent years is the area of social services increasingly discussed not only by the professionals but also by the all members of the society. In Slovak Republic has happend the several significant changes in the field of social services.
At present the area of social services is regulated by the Act on Social services no. 448/2008 Coll. According to this Act it is clear that social services are professional, utility and other activities with main purpose to help people in need. In modernising social services to better respond to changing needs, societal challenges and financing constraints, national authorities are increasingly diversifying the ways in which these services are organised, provided and financed. Social services are focused on:

- Prevention, solution or reduction of the unfavorable social situation
- Enhancing of the abilities of clients to lead independent live and to promote their integration into society
- Ensuring of the necessary condition to satisfy the basic living needs
- Solution of the critical social situation
- Prevention of the social exclusion

There are few kinds of social services according to the Act on Social services:

- Social services to ensure necessary condition to satisfy the basic needs
- Social services to support the families with children
  - Social services to address the unfavorable social situation because of serious disability, illness or retirement age
- Social services using telecommunications technologies
- Support services

Social services in Slovak Republic are important part of activities of providers. In general the providers of social services are those who provide social services to clients. There are two kinds of providers in Slovakia – public and non-public.

Act on Social services no. 448/2008 Coll. defines also the obligations of the social services provides. The main obligation of providers is to elaborate and observe procedural, personnel and operating conditions of providing social services, so – called „standards of quality“. The standards describe what a quality social service should look like. They are a set of measurable and verifiable criteria. However, nowadays there are no standards of quality of social services in Slovak Republic. According to Krupa (2006) the quality of social services is a kind of match between supply of services and requirements of the clients in unfavourable social situation.

In social services, the concept of quality refers to the contents, conditions and results of the service. Social service is an instrument of social security. One strategy
to steer the increasing demand and supply is to turn formerly public systems into quasi-markets by complementing public services with new and additional providers (commercial and non-profit organisations). (Hoffmann, Leichsenring, 2011).

According to the several authors (Hrablayová et al. 2005) in recent years there were few ways of evaluation of social services, but as was already mentioned before, in Slovakia there are still no standards of quality of social services.

In history of social services in Slovakia there were some methods for evaluation of these services (Hrablayová et al. 2005) which included:

- Processual method of quality evaluation (criteria, indicators)
- Methods of social counselling and supervision
- Clients quality of life

By the term processual method of evaluation the authors understood the systematic way of evaluation of the quality of social services by the scientifically formulated criteria, standards and quality indicators with the real situation of social services in the social environment. According to Hrablayová (et al, 2005, p. 17) „comparison of the criteria (standards, indicators) with the real environment of the social services is carried out by the observation and evaluated by the teams of social workers.“ The effective evaluation of the quality of social services is also connected with the social counseling and supervision. Hrablayová (et al, 2005, p. 17) also says: „The objective evaluation of the quality of social services is connected with the experimental verification tool of the evaluation of the quality and with the professionally implemented social counseling and supervision.“

Today, there are defined the condition (not standards) of providing social services in the Annex no. 2 of the Act on Social services no. 448/2008 Coll.. In part A of this Annex no. 2 these conditions are divided into three categories with the maximum number of point which can an individual institution provided social services achieve. This is a category of procedural, personnel and operating conditions of the quality of social services. Part B of this Annex refers to the evaluation scale of the implementantion of the quality of social services. In the part C there is the final scale of the evaluation of the implemented condition of the quality of social services.

For a comprehensive evaluation system of the social services would be helpful to introduce the above-mentioned standards of the quality of social services into the practise. By them it would be defined the level of the quality of provided social ser-
vices in all three categories which are currently defined in the Act on Social services as a conditions of social services. By the implementation of the quality standards the state would ensure providing quality social services primarily to clients of these services – to people who find themselves in unfavorable social situation. (Čámský et al. 2011)

Experiences with the evaluation of social services by the quality standards from other countries or documents on european level can be helpful in the process of evaluation of social services by the quality standards in Slovak Republic.

2 The term evaluation

Evaluation is a process which use a comprehensive set of methods by which is possible to evaluate the benefits of some programs. In the case of social work it is possible to evaluate different kinds of social programs or social services.

The main purpose of the evaluation is provide services of the highest quality and still to improve these providing services. Evaluation is a process of valuation of some phenomenon. It is also a kind of survey if provided and used activities led to the expected results. Under the term evaluation it is possible to understand several ideas about what and how to evaluate. (Poluncová, 2011)

Evaluation is a wide concept and in general it is possible to evaluate everything. For example to evaluate the state interventions into the public sector. In this case evaluation can take part in three levels – at the level of project, program or policy.

Malíková (2003, In Poluncová, 2011, p. 11) defines the term evaluation as „a process of the results evaluation which have been completed in order to achieve given purpose.“ This author pays attention to the importance of feedback and she also argues that evaluation makes sense only if the results get back to the policy – makers.

Patton (1997, In Poluncová, 2011) defines the evaluation of programs as a systematic collection of the informations about the activities and outcomes of program with the purpose to reach the conclusion about this program, to improve its efficiency and to take the decisions about future program direction.

Weiss (1988, In Poluncová, 2011) describes evaluation as a systematic evaluation of the activity and results of the program or policy, compared to the explicit or implicit standards, and it also means a source to achieve improvements in the program or policy.
The subjects of evaluation of programs and services are: *what* (subject of assessment itself), *when* (time plan of assessment), *how* (methods of evaluation) and *who* (to be evaluate and who should evaluate the programs – evaluators). (Ondrušek, 2009)

### 3 Evaluation of social services

The theoretical basis for the evaluation of social services is the evaluation theory. According to this theory evaluation is focused on activity. It is guided by the intention of the value determination or by the impact of the policy, program, practise, intervention or service. Evaluation is conducted from the perspective of recommendations or changes (Clarke, 1999).

Evaluation of social services is a systematic collection of informations. According to Erath (2001, In Kahánková, 2007) the biggest benefit is that social services are regularly reviewed, monitored and evaluated by the diverse management of evaluation.

The main aim of evaluation of social services is the orientation on feedback of existing social programs and their use in practise. According to the evaluation theory there are two kinds of evaluation:

- Single – system evaluation (evaluation of effectivity of someone’s work which is usually managed by the social worker)
- Program evaluation (application of evaluation approaches, techniques and knowledge to development of planning, implementation and effectiveness of programs. (Chen, 2005 In Smutek, 2009)

There is a question in connection with evaluation of social services: What should be evaluated? The best answer according to Smutek (2009) is that the programs or social services with different focus should be evaluated, for example social policy programs, programs related to the employment policy or intervention programs in every area of welfare state. They are also focused on field of education, crime, social security and social services. The main purpose of evaluation of these programs is to improve social welfare/ well – being of population.

Stufflebeam a Shinkfield (1985, In Smutek, 2009, s. 10) say that: „*The most important purpose of the evaluation is not to test, but to inform.*“ Discovering new informations and knowledge is not the purpose of the evaluation of social services.
But there is another important purpose - to study the effectiveness of the social program or social services.

According to Rossi and Freeman (1993 In Smutek, 2009) the evaluation of social programs is performed for many different reasons:

- To access the value of runtime programs, to access the utility of the programs
- To determine the utility of innovative programs and initiatives
- To improve the efficiency of program management and administration, meet the standards of the responsibility to the program sponsors, donators and other interested stakeholders
- Evaluation may also help to real and methodological knowledge of social sciences

The outputs of evaluation are a kind of „technical“ expression of operation of the program (social service), while the results/outcomes represent total exposure of the program in reaction on changes in society. Results are wider expression which includes both: technical work of the program (outputs) and intervention of the program on the whole society.

When we uncover the relationship between theory and evaluation, it is important to distinguish between theories about evaluation and theories in evaluation. The first mentioned theory deal with Shadish et al. (1991 In Smutek, 2009) in their review of some main theories which speak about practical program evaluation. According to these authors, the evaluation theory tell us where, when and why should some methods be applied and others not. A clear and comprehensible theory of evaluation should include five major components:

- Social programming
- Knowledge construction
- Knowledge use
- Valuing
- Practise

4 Theoretical backgrounds of the evaluation of social services

Smutek (2009) argues that the theory of evaluation of social programs and services plays many different roles and it can provide the selection of appropriate scientific methods and methodological approaches to evaluators. The theory also
helps to focus the evaluation in the right direction, because it leads evaluators directly to the main key issues and problems. However, according to Smutek (2009), the theory of evaluation of programs and services is often overlooked in scientific literature.

In the area of the evaluation theories it is very important to distinguish between theory about evaluation and theory in evaluation.

**Theory about evaluation** describe the theory which is applied to the current practice of the evaluation. It is a theory which speaks how to practise the evaluation.

If we focus on the **theory in evaluation**, we find out that the emphasis is on the specification of the functioning of some program or intervention.

In the evaluation of social services is very important to mention term system theory. According to Chen (2005 In Smutek, 2009), social program must have two functions to succeed:

- It must ensure the transformation of inputs to desired outputs
- Program needs to be in constant interaction with its environment in order to get the resources and support which are necessary to sustainability

According to Chen (2005 In Smutek, 2009) based on system theory it is possible to conceptualise every intervention program which includes following five components:

- inputs - sources received from the environment (such as finance, technology, equipment, staff or the clients)
- transformation - during this phase implementors provide services to clients
- outputs - are the result of a transformation which are necessary to achieve the program objectives
- feedback - programs need information on whether the inputs are adequate, or if clients receive quality services
- environment - a variety of factors, which may be social norms, political structures, economy, interest groups and others. According to Chen social sustainability of the program often depends on how the environment perceived program outcomes.

Crucial to the success of the program can be as contextual support environment at the micro level as well as at the macro level. Micro - level contextual support can be understood as social, psychological, and material support that clients need
to make social intervention program effective. In addition to micro-level support should social program makers take into account the macro level of the social context, it means the community standards, cultural, political and economic processes which surround action of the social program.

One of the important questions in program evaluation is if program achieve goals and also the question how program achieve these goals. Also in holistic approach to evaluation important is to seen all circumstances which led to the program outcome. In this holistic approach there is a connection between ecological context and system theory.

In the theoretical concepts of the evaluation of social services it is important to mention the author Alkin (2004) who is the author of the „evaluation tree“. According to this author the evaluation roots have grown to the „evaluation tree“ and each branches of this „evaluation tree“ represent the different focus and the orientation of the delegates of the various theories of evaluation. In this „evaluation tree“, each branches always represent only one main theory:
- Branch of use
- Branch of methods
- Branch of assessment

The trunk of the evaluation tree has two bases:
- Responsibility
- Systematic social research

The main branch of the evaluation tree (branch of methods) is the continuation of the trunk of the social research. This is the evaluation as research, or evaluation guided by research methods, branch. „This branch we have designated methods since in its purest form, it deals with obtaining generalizability, or “knowledge construction,” as Shadish, Cook, and Leviton (1991) refer to it.“ (Alkin, 2004, p. 13 – 14) Another branch is the valuing branch. Initially inspired by the work of Michael Scriven (Alkin, 2004)), the valuing branch firmly establishes the vital role of the evaluator in valuing. Those on this branch maintain that placing value on data is perhaps the most essential component of the work of evaluator. Alkin(2004, p. 14 – 15) also sad that „Some subsequent theorists extend the evaluator’s role to include systematically facilitating the placing of value by others (e.g., Guba & Lincoln, 1989). The third major branch is use, which, with the pioneering work of Daniel Stufflebeam (initially with
Egon Guba) and the work of Joseph Wholey, originally focused on an orientation toward evaluation and decision making. In essence, work done by theorists on this branch expresses a concern for the way in which evaluation information will be used and focuses on those who will use the information."

In relation to the evaluation tree Alkin (2004) says that the need and desire for accountability are necessary for the evaluation. The importance of evaluation for activities or sources used in the implementation of programs is evident especially in programs supported by government institutions. The task of evaluation is not to limit any activity of organizations functioning at the state level, but the purpose is to improve and strengthen programs for the society and for the clients who use them.

At present most evaluations are performed to improve institutional performance. So, the results of these evaluations are often used in political or other government decisions.

5 Conclusion

The evaluation plays an important role in the system of social services. The current evaluation of public policies, social services and social programs is based on earlier experiences in social sciences in several important aspects. The primary interest of the evaluation is to explain and predict, build theories and analysis in order to be useful not only for the policy makers or social services and program makers.

It is very important to focus on the clients as a target group of social services in evaluation theory. According to this it is very important to mention author Thomas Cook (Smutek, 2009) who says that all stakeholders should be included in process of evaluation. According to him it is also important to cooperate with clients (as a one group of possible stakeholders) in decision – making process – what actually should evaluation examine.

Chen (2005 In Smutek, 2009, p. 172) says that: „... small group of theoretical researchers and methodologists developed the basis of evaluation theory and methodology for evaluation practitioners who applied the evaluation theory into the practise. “ Evaluators need basis concepts, strategies and tools to beginning their work. According to Chen (2005 In Smutek, 2009) all this mentioned before is important for cooperation between theoretical researchers and practitioners. It is necessary to connect academical and practical information in whole evaluation process.
However, it is necessary to use the theoretical knowledge about evaluation in the whole process of the evaluation of social services. It is also important to connect these informations and knowledge with the practise primarily at the increasing of the quality of provided social services.

**Literature**


Zákon č. 448/2008 Z. z. o sociálnych službách a o zmene a doplnení zákona číslo 455/ 1991 Zb. o živnostenskom podnikaní (živnostenský zákon) v znení neskorších predpisov
THE EFFECTS OF FISCALIZATION IN SUPRESSING UNDERGROUND ECONOMY IN CATERING INDUSTRY

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ABSTRACT

Based on the reported turnover of catering industry taxpayers in the past periods a very low turnover has been noticed. There arises a question of unrealistically reported income which is incongruent with the income scale of the taxpayers. Accordingly, Ministry of Finance suspects that there is an area of underground economy and therefore suggests the Fiscalization Act in order to try to suppress it.

In our paper we will show the stated results of turnover records after the obligation of reporting the records through the fiscal register office and compare them with the stated turnovers before the Fiscalization Act came into effect in the same period. The turnovers will be compared based on the average turnover per employee. We will provide an outline of two groups of taxpayers; small entrepreneurs and craftsmen, and large taxpayers, who have been obliged by the Fiscalization Act since 1st January 2013, and we will establish how much the Fiscalization Act has contributed to the state budget.

JEL Classification: O23

Keywords: fiscalization, turnover, proceeds, underground economy

1. INTRODUCTION

The problem of all modern countries is evident in constant struggles to use different measures in order to increase the awareness of citizens for the importance of paying taxes. A safe and uninterrupted collection of taxes insures constant filling of the state budget, which in turn insures normal functioning of the whole state machinery through financing public expenses.
Underground economy is a big problem for economic development of all countries, but also for the functioning of state machinery. Its rate is somewhere lower, but it can be found everywhere. Croatian economy is not the exception. The level of financial discipline, i.e. tax morale, today in Croatia is not satisfactory.

Survey results have shown that The Republic of Croatia, along with other countries in the region, is placed very low in the statistics of regular taxpayers, which points to a high level of tax fraud. Also, research shows that factors which lead to tax fraud are the opinions of taxpayers about the justice and complexity of tax regulations, about the state and the services it offers, the amount of fines for tax offenders and, what is perhaps the most important, the level of difficulty for committing tax fraud.1

The analysis can also be applied to available data on realized turnover of entrepreneurs which operate in the Republic of Croatia. By analyzing the reported turnovers, that is business revenue of small entrepreneurs, it is noticeable that operating through a gyro-account is the method in which the majority of turnover is conducted.

In this way cash turnover is common mostly in the following industries: catering industry and industries connected to it, retail trade and some of the service industries. According to statistical statements about processed annual tax reports for crafts income and freelance jobs, industries which use cash commerce, point to a very low level of conducting business.

For example, annual tax reports for the income of natural persons that work in service catering industry (restaurants, bars and other) based on reports for the year 2000 show that average daily turnover (365 days) is 620,00 KN which gives an average daily income of 100,00 KN. With this data, it is also important to state that these taxpayers employed 1,5 employees in this period.

By analyzing the available data and the researches, it is necessary to question the objectivity of stating the realized trades in cash. To support this there are many tax inspections which report cash trade. Such inspections are very difficult, and are reduced to constant cataloguing of products and services and their comparison to the realized income. These supervisions use a great deal of energy in discovering

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1 Vlada RH (2012) – konačni prijedlog Zakona o fiskalizaciji u prometu gotovinom, str.15
perpetrators effectively and in time, and in removing them from the market by using punishments and sanctions, so that space is left for regular taxpayers.

From all of this, one can conclude that not giving a receipt is an everyday occurrence in cash trade. However, the damage of not giving a receipt for the realized cash trade is multiple. By not stating the trade made in cash, tax has not been paid for the total amount of the trade, and it also cannot be used for estimating the annual income tax or profit tax. In this way state budgets are deprived of the revenue from VAT, profit tax, income tax and surtax. Also, charged amounts, but without the receipt for the cash trade make it possible for individuals to fill their own accounts without taking care of common needs. In this way citizens are not even aware of the fact that by their payments they do not participate in public costs but only in filling individuals’ accounts. The consequence is creating unfair competition; persons who do not give receipts are “dumping” prices and the possibility of competition for the rest of regular taxpayers, while the budget is left without the tax income.

2. REASONS FOR INTRODUCING FISCALIZATION IN THE REPUBLIC OF CROATIA

Fiscalization Act regulates the way to conduct cash transactions, determines who is subject to fiscalization as well as the model itself, determines the obligatory parts of a receipt which are to serve for an effective tax control, determines the process of introducing the fiscalization obligation in phases, the possibilities for fiscalization subjects for paying in cash and all other regulations important for fiscalization implementation.

According to the law, subjects to fiscalization are

- an individual person that is a taxpayer on revenue from a self-employment business (a craft or a businesses equal to a craft, freelance jobs and agriculture and forestry under certain conditions),
- an individual person that is a taxpayer for profit and
- a legal person that is a taxpayer for profit (companies and others), if they are subjects to giving receipts according to special regulations.

For this reason regulations on the receipt contents are additionally edited, so that the data can be used for tracking the work of employees of an employer in the whole duration of working hours. Also, for the purposes of a successful implementation of tax surveillance, the numeration of receipts is regulated, which will enable an effective control of all outgoing receipts.
To serve the fiscalization, the receipt has to have the following data (except the data as regulated by special regulations):

1. the time of giving the receipt (hour and minute)
2. the sign of the operator (the person) on the cash register
3. the mark for the way of paying the receipt – bank notes, cards, check, transaction receipt, other,
4. the unique receipt identification and
5. the security code of the fiscalization subject²

Fiscalization is primarily implemented for recording the trade, surveillance and collecting the appropriate VAT.

The process of fiscalization according to the regulations of the Act is done in two parts:
- giving a receipt which contains the Unique receipt identification (JIR), and
- sending the data about business premises.

Whenever giving a receipt for cash trade (before printing the receipt) the subject to fiscalization electronically signs the elements of the receipt and sends them to the Tax Administration via internet connection. The Tax Administration then checks if all the elements of the receipt as determined by the Act have been sent and if they have been signed by a correct digital certificate. If all the stipulations have cumulatively been realized (all the elements of the receipt and correct digital signatures) the Tax Administration gives the receipt elements a Unique receipt identification (JIR) and returns it to the fiscalization subject via internet connection. This exchange is done in a few seconds and it enables the printing of a receipt with a JIR, which means that the receipt that is printed is approved by the Tax Administration.

3. FISCALIZATION EFFECTS WITH SMALL ENTREPRENEURS AND CRAFTSMEN

Small entrepreneurs and craftsmen who are in catering industry, and are subjects to fiscalization from 2013, must report all the trade charged in cash via fiscal registers.

² Zakon o fiskalizaciji - NN 133/2012, čl.9
Comparing the data about the turnover in catering businesses owned by small entrepreneurs and craftsmen, by using the sales of monthly VAT forms for periods of January 2012 and January 2013 we have concluded as follows:

Table 1: The comparison of reported turnover for January 2012 and 2013:

<table>
<thead>
<tr>
<th>Taxpayer</th>
<th>Reported turnover for 01/2012</th>
<th>Reported turnover for 01/2013</th>
<th>Percentile change in reported turnover</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>4.445,14</td>
<td>35.339,30</td>
<td>695,10%</td>
</tr>
<tr>
<td>B</td>
<td>36.702,02</td>
<td>95.454,00</td>
<td>160,08%</td>
</tr>
<tr>
<td>C</td>
<td>88.801,39</td>
<td>115.435,09</td>
<td>29,99%</td>
</tr>
<tr>
<td>D</td>
<td>64.737,00</td>
<td>111.981,00</td>
<td>72,98%</td>
</tr>
<tr>
<td>E</td>
<td>163.178,00</td>
<td>209.466,13</td>
<td>28,37%</td>
</tr>
<tr>
<td>F</td>
<td>33.685,91</td>
<td>63.904,86</td>
<td>89,71%</td>
</tr>
</tbody>
</table>

Source: Information system of the Tax Administration, calculations by authors

Analysis of the data we have presented shows that after the obligation of fiscalization in January 2013, as compared to January 2012, small entrepreneurs and craftsmen have increased their reported turnover in the range of 28,37% to 695,10%. We would like to state that the number of workers, or employees, with all the subjects was the same in both periods.

Reporting turnover via fiscal registers does not allow for a correction of the reported turnover for an individual taxpayer at the end of the workday, so the reported turnover during the workday is the total reported turnover of the day, which leads us to conclude that this was being done prior to the Fiscalization Act.

Also, in the observed period there were no major changes of retail prices which would justify for the large difference in reported turnover.

If we examine the amounts of VAT in the reported turnover in the observed periods we will notice that the tax duty was in a different ratio compared to the turnover. Tax duties of those taxpayers are given in the following table.

Table 2: The comparison of tax duties in outgoing receipts for January 2012 and 2013

<table>
<thead>
<tr>
<th>Taxpayer</th>
<th>Tax duty in outgoing receipts 01/2012</th>
<th>Tax duty in outgoing receipts 01/2013</th>
<th>Percentile change of tax duty in outgoing receipts</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>831,20</td>
<td>3.546,63</td>
<td>326,69%</td>
</tr>
<tr>
<td>B</td>
<td>6.807,74</td>
<td>8.899,58</td>
<td>30,73%</td>
</tr>
<tr>
<td>C</td>
<td>16.605,18</td>
<td>10.494,10</td>
<td>-36,80%</td>
</tr>
</tbody>
</table>
VAT duty in the observed periods ranged from the increase in tax duty of 326,69% to a decrease of duty of 36,80%. The reasons for such variations compared to the percentage of changes in reported turnover are that the tax rate for catering services has been reduced starting from 1st January 2013 from 25% to 10% on nonalcoholic beverages, wine, beer and food in the catering businesses. In this way, regardless of the increase in reported turnover small taxpayers and craftsmen had lower duties per outgoing receipt, which we have shown in Table number 3. Amendments to the VAT Act of 1st March 2012, VAT rate was increased from 23% to 25%.

Table 3: Comparison of change in reported turnover and the change of tax duties

<table>
<thead>
<tr>
<th>Taxpayer</th>
<th>Percentile change of reported turnover</th>
<th>Percentile change of tax duty in outgoing receipts</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>695,10%</td>
<td>326,69%</td>
</tr>
<tr>
<td>B</td>
<td>160,08%</td>
<td>30,73%</td>
</tr>
<tr>
<td>C</td>
<td>29,99%</td>
<td>-36,80%</td>
</tr>
<tr>
<td>D</td>
<td>72,98%</td>
<td>36,98%</td>
</tr>
<tr>
<td>E</td>
<td>28,37%</td>
<td>-24,73%</td>
</tr>
<tr>
<td>F</td>
<td>89,71%</td>
<td>1,35%</td>
</tr>
</tbody>
</table>

Source: Calculations by authors

We would like to state that in small entrepreneur and craftsman businesses usually a small number of employees or most often one person works in procurement of goods (marketing office), selling (merchant, waiter), book-keeping, storage, depositing receipts and reporting the turnover. In this way there is no possibility for another person to control such work and to correct possible work mistakes, and there is no person to control the irregularities in any work segment. By introducing fiscal registers and registering the turnover in the Tax Administration momentarily, the turnover report is under control and supervision.

4. FISCALIZATION EFFECTS WITH LARGE TAXPAYERS

Large taxpayers are those taxpayers that have a bigger number of employees, more stores, and have a division of labor through different sectors (purchase, sales, marketing, accounting, finance). In Table 4 we will survey a turnover report of such taxpayers in the period of January 2012 and January 2013.
Table 4: The comparison of reported turnover for January 2012 and 2013

<table>
<thead>
<tr>
<th>Taxpayer</th>
<th>Reported turnover in 01/2012</th>
<th>Reported turnover in 01/2013</th>
<th>Percentile change in reported turnover</th>
</tr>
</thead>
<tbody>
<tr>
<td>O</td>
<td>59,489,54</td>
<td>65,203,79</td>
<td>9,61%</td>
</tr>
<tr>
<td>P</td>
<td>339,607,21</td>
<td>309,863,94</td>
<td>-8,76%</td>
</tr>
<tr>
<td>R</td>
<td>7,590,127,16</td>
<td>8,399,645,80</td>
<td>10,67%</td>
</tr>
<tr>
<td>S</td>
<td>123,368,67</td>
<td>126,287,03</td>
<td>2,37%</td>
</tr>
</tbody>
</table>

Source: Information system of the Tax Administration, calculations by authors

The table shows that the turnover of large taxpayers in the observed periods has not increased in the percentile rates found with small entrepreneurs and craftsmen, and it is in the amount of 8,76% to 10,67%. This leads to conclude that there were no major deviations in reporting turnover before and after the Fiscalization Act. The large taxpayers that were observed had approximately the same number of employees in both periods, and the prices of products and services have also not changed significantly in the periods. This way of surveying turnover, which is well organized in large taxpayer businesses, resulted in the same reporting of turnover before and after the Fiscalization Act.

In the next table we will examine the VAT duties in the reported turnover:

Table 5: The comparison of tax duties in the outgoing receipts for January 2012 and 2013

<table>
<thead>
<tr>
<th>Taxpayer</th>
<th>Tax duty in outgoing receipts 01/2012</th>
<th>Tax duty in outgoing receipts 01/2013</th>
<th>Percentile change of Tax duty in outgoing receipts</th>
</tr>
</thead>
<tbody>
<tr>
<td>O</td>
<td>11,124,06</td>
<td>11,633,33</td>
<td>4,58%</td>
</tr>
<tr>
<td>P</td>
<td>47,193,08</td>
<td>30,449,50</td>
<td>-35,48%</td>
</tr>
<tr>
<td>R</td>
<td>1,263,318,95</td>
<td>1,536,484,41</td>
<td>21,62%</td>
</tr>
<tr>
<td>S</td>
<td>23,068,95</td>
<td>18,077,13</td>
<td>-21,64%</td>
</tr>
</tbody>
</table>

Source: Information system of the Tax Administration, calculations by authors

VAT duties in the outgoing receipts which have been reported through the Fiscalization Act, range from a decrease of duties of 35,48% to an increase of 21,62%. Again, there is an impact from the decrease of VAT on catering services, nonalcoholic beverages, wine and beer from 25% to 10% from 1st January 2013.

Large taxpayers also have in their businesses some services and products that have retained the VAT rate of 25%, and it is therefore impossible to exclude the services that are explicitly connected to catering industry.
By comparing the percentile changes of the reported turnover and the reported VAT forms as shown in Table 6, we can conclude the following.

**Table 6: The comparison of changes of reported turnover and changes of tax duties**

<table>
<thead>
<tr>
<th>Taxpayer</th>
<th>Percentile change of reported turnover</th>
<th>Percentile change of tax duties in outgoing receipts</th>
</tr>
</thead>
<tbody>
<tr>
<td>O</td>
<td>9,61%</td>
<td>4,58%</td>
</tr>
<tr>
<td>P</td>
<td>-8,76%</td>
<td>-35,48%</td>
</tr>
<tr>
<td>R</td>
<td>10,67%</td>
<td>21,62%</td>
</tr>
<tr>
<td>S</td>
<td>2,37%</td>
<td>-21,64%</td>
</tr>
</tbody>
</table>

Source: Calculations by authors

As compared to small entrepreneurs and craftsmen, large taxpayers do not show a big discrepancy, i.e. big deviations, in correlation of the percentile changes of reported turnover and tax duties for the receipts.

Table 7 shown the average turnover per employee when comparing January 2012 and January 2013.

**Table 7: The comparison of reported turnover per employee for January 2012 and 2013**

<table>
<thead>
<tr>
<th>Taxpayer</th>
<th>Reported turnover per employee 01/2012</th>
<th>Reported turnover per employee 01/2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>889,03</td>
<td>7.067,86</td>
</tr>
<tr>
<td>B</td>
<td>18.351,01</td>
<td>47.727,00</td>
</tr>
<tr>
<td>C</td>
<td>14.800,23</td>
<td>19.239,18</td>
</tr>
<tr>
<td>D</td>
<td>21.579,00</td>
<td>37.327,00</td>
</tr>
<tr>
<td>E</td>
<td>13.598,17</td>
<td>17.455,51</td>
</tr>
<tr>
<td>F</td>
<td>6.737,18</td>
<td>12.780,97</td>
</tr>
<tr>
<td>O</td>
<td>11.897,91</td>
<td>13.040,76</td>
</tr>
<tr>
<td>P</td>
<td>11.320,24</td>
<td>10.328,80</td>
</tr>
<tr>
<td>R</td>
<td>17.448,57</td>
<td>19.309,53</td>
</tr>
<tr>
<td>S</td>
<td>20.561,45</td>
<td>21.047,84</td>
</tr>
</tbody>
</table>

Source: Calculations by authors

Reported turnover per employee in the first observed period was in the range from 6.737,18 to 21.579,00 KN, with the exception of taxpayer A, who reported a very low turnover. In the second observed period the turnover was from 7.067,86 KN to 47.727,00 KN per employee. Most of the large taxpayers have a balanced turnover per employee, while small entrepreneurs and craftsmen have a bigger range of difference in reported turnover.
5. THE EFFECTS OF FISCALIZATION IN THE REPUBLIC OF CROATIA

According to Ministry of Finance and Tax Administration data, small entrepreneurs and craftsmen have shown a turnover of 182.932.210,65 KN for January 2013, which is 31,43% more than in January, which was 139.183.743,43 KN. Large taxpayers have shown a turnover of 182.799.127,22 KN for January 2013 in the catering industry, which is 23,52% more than in January 2012: 147.986.086,06 kn.3

The data published by the Ministry of Finance show that the difference between the two periods for the reported turnover for small entrepreneurs and craftsmen was bigger than for large taxpayers, which is the conclusion that we found by comparing different taxpayers from Osiječko-baranjska županija.

The point of fiscalization is to implement control over cash turnover. The most important link in fiscalization are the citizens who pay in cash for goods or services. Those citizens are becoming aware of the fact that the tax which they pay through the price has to go to the state budget and not in someone’s private account.

In conclusion, fiscalization has significant benefits, but also calls for an adjustment of all the systems in the tax chain, the Tax Administration and taxpayers.

It is important to note that fiscalization has several indirect positive effects:
- it stimulates software development and ICT helpdesk,
- it stimulates market competition,
- it develops electronic transactions,
- it stimulates the ICT process of the whole society and
- it enables the taxpayers, subjects to fiscalization, to establish an effective system for internal control of their employees’ work.4

CONCLUSION

Having all of the above in mind, the state has to make efforts but also create prerequisites which will prevent, or at least reduce to the lowest possible level, tax fraud, which will improve the processes of tax control so to make them quick and

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4 Vlada RH (2012) – konačni prijedlog Zakona o fiskalizaciji u prometu gotovinom, str.19
effective and raise awareness of buyers that persons who do not give receipts do not pay taxes, break tax laws, and in the long-term are the cause of higher taxes or some other kind of public levies.

One of the measures which is used as a measure against tax fraud in not giving receipts is the process of fiscalization, as the base measure which introduces surveillance of giving receipts in cash trade.

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HEALTH,
EDUCATION
AND
WELFARE
LEARNING STYLES AS INDICATORS OF HIGHER EDUCATION QUALITY

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Abstract

From the viewpoint of styles as indicators of learning quality in higher education teaching the text considers the issue of putting into a context and understanding of the notion of higher education quality. Relations of meta-theoretical conceptions of pedagogy are considered, interwoven in theoretical grounds of didactic concepts; the relationship between didactics and postmodernism has been dealt with, as well as unexplained relation between postmodernism and constructivism; postmodernism as a new philosophy and constructivism as a general theory of cognition are considered in regard to emancipatory didactics which is theoretical grounds of participatory epistemology and learning styles as indicators of higher education teaching. The text gives a finding of a previously conducted explorative research on the correspondence between learning styles ad discourse methods in higher education teaching, involving 2nd and 3rd year students (N-114) enrolled at Teacher Training Faculty of Belgrade University – teaching department in Vrsac. The finding in question refers to the statement that learning styles correspond to discourse method and that the students with highly expressed dimensions of a meaningful style (search for the essence and understanding it; raising questions after reading…) understand discourse as a teaching method better due to the possibility to exchange opinions, express their own ideas, better understanding of contents, connecting knowledge…) which could be considered a possible guideline towards the culture of learning quality within higher education teaching.

1 The text is written within the project under the title Quality of Education System in Serbia in European Perspective, financed by the Ministry of Education, Science and Technological Development of the Republic of Serbia for the period 2010-2014.
1. Introduction

Teaching quality management, especially in higher education teaching, is considered an essential determinant of sustainable development in the conditions of highly competitive global market. The strategy is characterised by an emphasized note of innovative development, based on the management of changes that do not stop at the level of adaptive responses to the environment, but rather emphasize new competences for the world of employment. Among these a special place belongs to readiness for change. Psychologists explain such a readiness according to specific cognitive, affective and conative functioning of a person. In cognitive sense, this competence refers to flexible, creative thinking which is not dogmatic, as well as to ability to accept pluralism of ideas; in affective sense, it refers to the ability to tolerate suspense and uncertainty, while in conative sense, it refers to taking initiative, being innovative and ready for risk taking (Djurisic-Bojanovic, M. 2008). As a consequence, we are facing the idea that it is necessary to prepare young people for the world of work and life in general in pluralistic educational concept that should involve flexibility of educational models, with greater number of optional courses, along with the creation of personalized programs and multi-perspective teaching. The following didactic means of the flexible educational model are usually mentioned: team work, cooperative and individualized work, dialogic methods, nominal methods, the “brainstorming” method (Ibid). Pluralistic education concept is based on democratic values, ontological and gnoseological assumptions of pluralism in philosophy, as well as on the postulate of functional and critical process of democratization in school and society in pedagogy, leading to “student-oriented didactics” with a task to practice self-determination and co-determination and to enable self-responsible and co-responsible action (Kron, F. W, 1996). However, the didactic orientation supported by such arguments does not fully insist on social constructs of individual action. In other words, this is another didactic theory that has not been completely positively assessed. It has been reproached for the insufficiency in its efforts made for the aspect of relations and contents at getting closer to democratic self-comprehension of society in an integrated and balanced reality construct, through realization of self-determination and co-determination in the processes of learning and teachings at the institution of a faculty as a subsystem.
In this sense, criticisms have been expressed to the postulates of communicative didactics of Schaffer and Schaller in which personality related to emancipatory postulate is in the basis of open curriculum. In such a way, the extreme tendencies towards relativism of contents and types of learning have become omens of “open didactics” suffering from severe criticisms here in Serbia, as well. Meta-theoretical discussions on student-oriented didactics have been going on for years, and some of its statements would be the following:

- “self-determination” does not appear only as the most important aim of pedagogic process, but broader, as the only valid organizational criterion that can be met only if it is immediately manifested; brought in connection with the title of the text it should be manifested as a process, evident as an effect, i.e. indicator of quality of higher education teaching;

- the terms of “self-determination” and “emancipation” are insufficiently explained: it has neither been analysed what their relation to other notions (individuality, personality…) is, nor this has been put into ens sociale setting. And this is only one of the aspects of the complexity of the issue of learning process in higher education teaching and difficulties of delineating the question how to consider and improve the quality of education at higher education level.

Limitation of space does not allow broader discussion so that it will only be mentioned that meta-theoretical conceptions of pedagogy, permeating theoretical grounds of didactic concepts, are closely connected with the issue of higher education quality. On the normative dimension, postmodernism asks for a reflected attitude towards pluralism and tolerance (for further reading, see Gojkov, G., 2007, 114). Pluralistic tolerance does not imply that anything is all right and that everything has to be accepted — such a concept is rather unethical and undemocratic. Pluralistic tolerance is nourished by the insight into the heterogeneity of discourse types and language games. So, today’s task is to accept this fact and to develop the ability to fight for one’s own convictions without using violence; in other words, to learn to live with more or less permanent disagreement and dissent. This seems to be more important than to achieve the high and surely noble ideal of the subject that searches for a consensus according to rational arguments — an ideal that just a few achieve, anyway. The development of the ability to endure disagreement and dissent is closely connected to the insight that there is always a lack of information and knowledge, and it is connected to individual, often hurtful experiences of getting stuck with powerless, helpless and lacking arguments. To focus on complexity,
discontinuity and differences in school and teaching may lead to this postmodern modesty – a modesty that resigns from the modern belief that there are rational solutions to every problem and there is some higher sense and meaning in every difference (Gojkov & Stojanovic 2011: 289). All this refers to the search for the teaching methods to guide young people towards the above described abilities. Therefore new methods of instructions are being searched for; according to the modest assessment of the authoress of these reflections what fits well into new teaching methods is the issue of learning styles which, from the aspect of higher education teaching quality, could be viewed from two angles: as value learning styles themselves have or as a value through realization of teaching achievements. In other words, we are talking about value determinant of pedagogical process and work of teachers, which is an essential feature of the relations between subjects in the process of acquiring knowledge, attribute feature of those involved in education, as well as marking means through which higher education quality is reached. This further leads to a conclusion that it is difficult if not impossible to differentiation between the means and the results, so that, as it will turn out later, quality is contained by both process and its result (Vlahovic, B. 1996: 98). At this point there is a space to consider learning styles as indicators of higher education teaching quality. In other words, learning styles have a twofold role in the process of acquiring knowledge, from the angle of observing its quality.

2. Quality of Education and Learning Styles of Students

Higher education quality and, consequently, university teaching is the first issue in the changes being made in higher education. The changes introduced through the Bologna process are marked by a whole range of moves whose purpose, apart from standardization striving for harmonization of European space of higher education, is to improve the quality of studies. Quality of university studies is considered a complex phenomenon, so that it seems that there is no issue in realization of teaching concepts not regarding quality (Nikolic, Paunovic, according to Bojovic, Z. 2012: 36-37). The reaches of reform currents in higher education teaching and of the intentions of the Bologna process have up to now been mostly limited to structural changes, leading to the coherence of European higher education space, as a precondition for greater mobility of professors and students... Essential changes that should have directly contributed to the quality of studies are still not visible enough; consequently, higher education didactics has found itself in a position to have to reconsider its concepts, as well as teaching methods within them, since
they are directly related to quality of studies. An important place here belongs to learning styles as indicators of the level of higher education teaching quality. Various approaches to defining quality of education are multi-layered and permeated by emphasized social-interest fragmentation (Djermanov-Kostovic 2006: 253). Significant observation also seems to be the fact that in various fields quality is differently defined; due to such relativity, it is used more as a descriptive than as a normative notion (Ibid). When quality is in question, literature offers various standpoints, e.g: quality as an attribute in broader and narrower sense; as a degree of excellence; as a value and as assessment (Djermanov, Kostovic 2006: 254). The statement that diversity in approaches to quality understanding leads to complex conceptual definitions is also significant for quality of education. So, under the influence of one of them, quality is viewed as well-being education provides, through the value education has as qualitative determinant of pedagogic process and achieved results, and also as an attribute feature of subjects involved in educational process (Djukic 2002: 51). Since the efforts within higher education quality traced by Lisbon convention dating from 1997 emphasized the question of quality of aims, actor program, processes and results, a need appeared to more clearly determine the notion of quality; it has turned out that this is not a simple question. Some authors have pointed out that quality is “impossible to seize”, unreachable ideal, in a sense “moving target” (Goddard, according to Djukic 2002: 56). Analyses have indicated that there is no generally accepted definition of education quality, but the term could imply value education has; in other word, it could refer to value determinants of pedagogical work, as well as attributive feature of the subjects involved in educational process (Vlahovic 1996). Three categories of definitions of higher education quality are found in education. First refers to quality as measure of values, the second to research of the level the targets have been met, and the third refers to quality as a measure of standard fulfilment (Djukic 2002: 510). It is inevitable to include multidimensionality in considerations of quality essence and majority of authors hold that it is a significant feature being in the grounds of complexity conditioned by numerous factors and their permeatedness at individual and social level. All this leads to the fact that a consensus has already been reached today that individual quality indicators cannot lead to reliable and valid indicators for relevant evaluation of higher education quality (Tunijnman, Batani 1994: 76).

Educational indicators are considered to be the data talking about functioning of educational system, indicators of stated, indicators enabling assessments of the current state of affairs and functioning of the system of education. A standpoint is
found in the literature (Djukic 2002: 512) that there is agreement about the following features of educational indicators:

- they are quantitative, but they are more than a mere numeric expression;
- they give summary information on relevant aspects of educational system functioning;
- they inform interested actors;
- as diagnostic means, they are grounds of evaluation;
- in certain cases they can be a glimpse, a solid representation of a broader circle of other indicator meanings; in other words, in a sense it can be an indicator of interaction of a number of factors, their interrelations, thus having a great informational value (Tunijnman, Batani 1994: 56).

Three groups of indicators can be identified in consulted literature as relevant for higher education:

- input indicators: material and professional (professional and pedagogical teacher competencies);
- process and indicators of performances (curricula, content sources, students' activities, assessment of students' success…);
- output indicators (specific knowledge, abilities, skills, values, attitudes, motivation, independent learning abilities…)

The third group of indicators seems rather significant for the title of the text, having in mind that it could encompass learning styles as indicators of higher education teaching quality. In what sense? If we start from the generally accepted standpoint that education quality implies the value education itself has, or can reach, i.e. value determinant of pedagogical process and teachers' work, which is a essential feature of the relationship among subjects in the process of learning and an attributive feature of those involved in education, a conclusion can be made that it is difficult, if not impossible to differentiate between means and results. As a consequence, it can be concluded that quality involves both process and its result (Vlahovic 1996: 98). At this point we can consider learning styles as indicators of higher education teaching quality. Considering education quality, learning styles have a twofold role in the process of acquiring knowledge, since, on one hand, they are the means leading to quality knowledge and other attributes of quality knowledge and, on the other hand, they are the effect of the process of education,
efforts of teachers to form research approaches and learning strategies in their students, i.e. explorative logics of thinking.

Various efforts and approaches to the notion of quality, as a set of significant dimensions (features) manifested within education, is in question, are caused, among other things, by differences in ways quality is considered, conditioned by differences in theoretical standpoints permeating the grounds of theoretical analyses (Antonijevic 2012: 25). Majority of starting points in the attempts to determine the essence of education quality deal with what quality of education is and what it involves (Anderson, according to Antonijevic 2012: 25), while the answers to the previous questions are in accordance with theoretical orientation underlying the search for the answers to the raised questions; thus the following dimensions have been emphasized in the reform of the system of education in Serbia, which started in 2000: openness, measurability and verifiability, efficacy, effectiveness, righteousness, legislative regulations, sustainability, coherence, etc (Kovac-Cerovic 2004). It could be concluded according to the previous dimensions of education system quality what quality is and how it is defined, what determines the essence and the phenomenon of quality of education, and how it is possible to incite quality improvement, what are the dimensions according to which the general level of quality within the system of education could be encouraged. However, according to the previously stated, it could be concluded that in the mentioned dimensions there are no unambiguous indicators that the system would go towards essential changes of studies, ensuring the culture of teaching and learning, which could be taken as the basic, essential dimension, directly leading to quality of higher education.

Dimensions conceived in such a way, i.e. neglecting the culture of learning and teaching and changes university itself could come to from within, involving emancipatory approaches to learning and teaching, could not have had a different impact on changes. After ten years of the mentioned reform of higher education, which was in the sing of raising quality, analyses have pointed to the fear that what has been created through the structural reform is university of “III secondary level” (continuation of secondary school) with studies being to the great extent made school-like. It is considered that as the reform develops it has become more obvious that it essentially refers to the structural and organizational side of the courses with the consequences that, from the standpoint of higher education didactics, stand in the way of the development of science and studies. The task that “higher education institutions should pay more attention to the development of innovation strategies,
in regard to the organization of learning contents, teaching materials and teaching methods” (Cre/Unesco-Cepes, 1997: 11; according to Eberhardt, op. cit.) has not been noticeable so far. In other words, the efforts made in the domain of teaching have been limited to mere structural changes. At the same time, what has been an assumption of the success of the Bologna process project, i.e. the demands to establish “the culture of teaching” that “recognizes and acknowledges the results in teaching to the same extent it recognizes research results that can contribute to reputation” (Council of Europe for Science 2008: 8), has been scarcely perceptible. The critical tones from Europe reflect dissatisfaction with partial disappearance of both European and national university traditions and scientific structures, e.g. the unity of research and teaching, postulated by Humboldt (Eberhart, op. cit.). Namely, what is needed are new didactic impulses to mitigate the criticisms resembling the sentence of Konrad Paul Liessman in his Theory of Non-Education: “The misery of European higher education institutions has one name: Bologna” (Liessman 2006: 104). The situation in Serbia is similar. The criticisms refer to the decrease of the level of demands at academic studies, professors and students being limited by the broadness of studies, limitations regarding the scope of learning material, i.e. literature through the number of ECTS, the lack of differentiation between academic and professional studies, structural changes according to which studies have become increasingly more school-like, fragmentation of fields to modules, terms…, emphasising the negative aspect of functional knowledge, technocratic approach to knowledge (knowledge as goods, manufactured to be materialized in a new value…), as well as the agreement with the criticisms heard in Germany pointing out that the predominant issue of the reform refers to administrative and organizational side, i.e. structural changes. On the other hand, this should be redirected towards the issues of teaching, instruction and studying, the aspects of the development of quality of higher education didactics that have still been kept in the background. According to the modest opinion of the authoress of these reflections, insufficient attention has been paid to higher education didactics, which would be in the function of reaching the aims leading to self-organized learning of students. self-responsible and self-determined characteristics whose purpose is for students to acquire the competences young people are expected to have not only in the world of labour, but according to contemporary social currents. In other words, what is needed is to integrate the aspect of emancipatory didactics into formulation and design of university courses in such a way that special attention is paid to the fact that the contents of university studies are generated form research and that
they need to undergo a didactic transformation by the very scientist who teaches. According to this, it is necessary for subject contents to transform into a subject of educational process of a student. This imposes the need for the competence for didactic reflection and creation of one’s own teaching methodology, in accordance with higher education didactics nowadays acknowledging the need to innovate the organization of learning contents, teaching materials and teaching methods (Cre/Unesco-Cepes 1997: 11), in order to establish “culture of teaching”. Arguments in favour of such a standpoint could be found in the findings of one of the previous studies conducted by the authoress of these modest reflections, which will, after a short dealing with learning styles, could be taken as indicators of quality of higher education; they could seen as having a twofold role in the process of acquiring knowledge, since, on one hand, they are the means leading to quality knowledge and, on the other hand, they are the results of learning and teaching, since they reflect on quality by facilitating learning process and making in more qualitative. As a consequence, they could be considered suitable for consideration of quality of the process and effects of learning, and finally, of higher education quality in general. Before we deal with the findings of the research providing arguments in favour of previously emphasized critical tones of the efforts up to now invested into the changes of the system of higher education, we will briefly sketch the essence and importance of learning styles of students.

It is considered that learning styles are cognitive, affective and physiological personality features appearing as relatively stable indicator of perception and relation towards the environment that serves as the source of knowledge (Keefe J, W. 1987: 7). According to many other authors (ibid), learning styles reflect genetic laws, development of personality and its adjustment to the environment; they help a person to get to know oneself better, to understand the importance of differences among individuals; as such they can be appreciated in teaching. Learning styles are thought to be structures broader than cognitive styles (Gojkov, G. 1995: 20), involving affective, as well a group of physiological styles. According to many other authors, they also include environmental factors, i.e. individual’s reaction to the differences arising out from the environment. Cognitive styles are only one area within learning styles, only conditionally having clearly expressed cognitive, affective and physiological dimensions, having in mind that the process of learning implies integral activity form (Gojkov, G. 1995: 21). Having this in mind it can be concluded that I have chosen to consider learning styles due to comprehensiveness characterizing them; as such they encompass individual differences of students.
in their approaches to learning; in other words, learning styles involve cognitive characteristics of knowledge acquisition or cognitive style, as well as strategies or techniques, approaches to contents.

Theoretical context the research could rely on is rather broad and involves a number of psychological: humanistic and phenomenological psychology, Jung’s view on the dynamics and typology of personality, contribution of cognitive psychology to research on cognitive styles, contemporary views on cognitive abilities – Sternberg, Gilford, as well as mediation theory dealing with structures mediating between a stimulus and a reaction. Due to these structures, the subject is active in his adjustment to context, i.e. learning, leading to emancipatory approaches to learning, i.e. this is a direct line towards qualitative learning.

Humanistic interpretation of learning process and motivation has pointed to personal freedom of choice of an individual, self-determination and striving for self-actualization (Maslov: 82, according to Stojakovic, P. 2000: 35). This theoretical orientation has emphasized the importance of intrinsic motivation, which is in the basis of the choice of discourse method, whose reception by students has been considered in the research. Theoretical framework includes emancipatory didactics, as well, within which it has nowadays been considered that cognitive style, as a construct, and learning styles can significantly facilitate emancipation of students, using pluralistic cognitive style as a basis of pluralistic educational concept (Bojanovic-Djurisic, M. 2009). Apart from M. Bojanovic- Djurisic, numerous other authors consider that pluralistic cognitive style, as well as learning styles can contribute to the realization of an important task of modern upbringing, nurture and education, thus supporting the increase of quality level and higher education teaching, as well as at other levels of education. Emancipatory didactics is based on pluralistic educational concept, grounded on democratic values, on ontological and gnoseological assumptions of pluralism in philosophy; within pedagogy it is grounded on the postulate of functional and critical process of democratization in school and society, leading to “student-oriented didactics” whose aim is to practice self-determination and self-responsible and co-responsible action. Therefore the paper considers reactions of students to possibilities of finding one’s way in the situations implied by the method of discourse, referring to cognitive functioning, which should be characterized by flexibility, creativity, readiness to risk-taking, etc. What is significant for learning style is didactical orientation towards the students, his/her autonomy implying participatory approach to learning. The guidelines of the Bologna process have put special emphasis on this.
3. Learning Styles as Indicators of Higher Education Quality

Methodological outline of the research whose findings will be used for reflections on the indicators of quality of higher education, in the shortest, refers to the following: explorative character; intention: to consider the importance of learning styles for students managing in the method of discourse in higher education, i.e. the place of learning styles of students within participatory approach to learning; another question was to what an extent discourse method, i.e. its efficacy depends on learning styles and the formed learning strategies. The question has actually tested the thesis on the influence of learning styles on the acceptance of discourse as a method in higher education teaching and what has been considered is the efficacy of discourse method, its motivational and cognitive aspect, leading to the insights into the ways higher education didactics tries to give its contribution to more comprehensive self-observation and self-reflective, self-managed learning towards self-changes that would ensure freedom of person’s actions according to contemporary philosophical discussions leading to the creation of competences expected in working and social context today.

Learning styles have been screened according to a questionnaire construed for the purpose of the research; the sample is non-probable including 114 2nd and 3rd year students studying at Teacher Training Faculty of Belgrade University – teaching department in Vrsac. They filled the questionnaire expressing their opinion on discourse as an instruction method within higher education didactics at the end of lectures, i.e. in 2011 and 2012, while their cognitive and reactions in learning were monitored by the researcher. The independent variable is learning style of students and the dependent variable refers to opinion on discourse as a teaching method within higher education teaching and cognitive reactions. The method of systematic non-experimental observation was used in the research. Manipulation of variables in order to change them on purpose was not carried out, but statistic replacements were undertaken through statistic analyses for experimental controls; systematic approach was used in the research according to the synthesis of the data; non-linear canonical correlation analysis was used as a statistical procedure, and additional validation of correspondence was conducted according to cluster analysis. Out of all the findings of the briefly outlined research, those referring to learning styles and their relation to discourse method will be dealt with here, according to the order of their manifestation:
### Learning Style Components

<table>
<thead>
<tr>
<th>Learning Style Components</th>
<th>Opinion on the Method of Discourse</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Superficial; Learning to Memorize</td>
<td>discourse facilitates understanding</td>
</tr>
<tr>
<td>- Unsystematic learning</td>
<td>Large groups make it difficult to express oneself</td>
</tr>
<tr>
<td>- Poor concentration</td>
<td></td>
</tr>
<tr>
<td>- Revision, repeating one's lessons aloud</td>
<td></td>
</tr>
<tr>
<td>- Reading several times until memorizing</td>
<td></td>
</tr>
<tr>
<td>2. Learning Drafts and Abstracts Made from Text, Mechanically</td>
<td>The terms are better explained</td>
</tr>
<tr>
<td>- Reading, learning what has been underlined,</td>
<td></td>
</tr>
<tr>
<td>- Revision, repeating one's lessons aloud</td>
<td></td>
</tr>
<tr>
<td>- Reading aloud, underlining, repeated reading;</td>
<td></td>
</tr>
<tr>
<td>- Learning some parts with understanding, others by heart</td>
<td></td>
</tr>
<tr>
<td>- Making notes after reading a complete text</td>
<td></td>
</tr>
<tr>
<td>- Memorizing during lectures and additional reading</td>
<td></td>
</tr>
<tr>
<td>3. Meaningful Style</td>
<td>Possibility to explore</td>
</tr>
<tr>
<td>- Searching for the essence and understanding of sense</td>
<td>Discussions, checking one's own thesis</td>
</tr>
<tr>
<td>- Searching for new pieces of information, analysis, synthesis, asking questions, expressing one's own ideas, exchanging and confronting ideas</td>
<td>Knowledge lasts longer</td>
</tr>
</tbody>
</table>

The above overview of the order learning styles appear shows that most often students have expressed the style of learning characterised by reading until memorizing; they repeat aloud, learn parts, some of them even by heart. There is a small number of students whose learning styles characteristics are: reading the text as a whole, raising questions after reading the text, making syntheses, comparing with other ideas, positioning new knowledge in the context – finding examples, search for the better ways of presenting contents, regroupings of ideas, questions referring to the ways of easier ways to solve a problem, acquire new knowledge, critically reconsider contents, evaluate one’s own learning strategies (except the awareness
on unsystematic learning, learning by memorising texts, without getting into the essence, sense or message of the text).

This very outcome leads to the conclusion that students have poorly developed metacognitive components, or that they do not pay sufficient attention to them in learning: they learn from notes, abstracts, thesis and in some case even by heart, aiming at memorizing drafts; understanding, connecting, comparisons, synthesis and other learning styles are rarely met. It could be also concluded that motivation is low, extrinsic, oriented towards getting more points, a better grade.

The table above also shows that the opinions students have expressed on discourse as a teaching method in higher education didactics is in accordance to learning styles. As a consequence, students who have meaningful learning style expressed the most positive attitude towards discourse; it is most suitable to those who learn through search for the essence and according to understanding of the essence; they assess discourse as a good method, since within it they exchange thoughts, connect ideas, raise new questions, etc. However, according to their number, they are in the last place (about 15%).

4. Interpretation and conclusions

Modest reference to only one finding of the explorative research is given to stress the observation on the connection between learning styles of students and their reactions to the method of discourse. What is also significant for the title we are dealing with is that this can be considered indicative for quality of higher education, since it shows that what is expected from emancipatory didactics, i.e. self-responsible and self-organized learning leading to autonomy, has not been expressed by a majority of students; majority of students do not have intrinsic motivation, they have expressed neither meta-cognitive abilities nor learning strategies which would ensure orientation towards self-organized search for information, making independent conclusions according to the information they gather, creating their own standpoints accordingly, expressing their observations on the problematic issues science has still not offered undisputable answers for, expressing their opinions, discussing... As a consequence, a conclusion could be made that a small number of students have reached practical expression of participative epistemology, self-determined and self-organized learning, along with mentor guidance of a teacher who is in the function of realization of emancipatory potentials of students. In this sense, it seems that the realization of basic intentions of the Bologna process
is still not visible enough, while a step further, contributing to conceptual changes in accordance with contemporary philosophy of knowledge, as a framework of pluralistic concepts in emancipatory didactics and empowerment of emancipatory potentials of students as subjects in learning process, is still rather small. Beyond all this, we are ready to accept the assessments according to which what can be noticed in regard to quality when Bologna process is in question is nothing more but structural changes. Quality of education is recognized according to indicators showing that we are getting closer to participatory epistemology, self-determined, self-organized learning process, as a basis of creative potential of an individual, of encouragement of flexible knowledge structures, creativity, ways of observing, thinking, learning, problem solving, readiness to take risks, those expected in the conditions of highly competitive global market. The Bologna process is characterised by an emphasized note of innovative development, based on the management of changes that do not stop at the level of adaptive responses to the environment, but rather emphasize new competences for the world of employment. Among these a special place belongs to readiness for change, which means specific cognitive, affective and conative functioning of a person. In cognitive sense, this competence refers to flexible, creative thinking which is not dogmatic, as well as to ability to accept pluralism of ideas; in affective sense, it refers to the ability to tolerate suspense and uncertainty, while in conative sense, it refers to taking initiative, being innovative and ready for risk taking (Djurisic-Bojanovic, M. 2008). As a consequence, we are facing the idea that it is necessary to prepare young people for the world of work and life in general in pluralistic educational concept that should involve flexibility of educational models, with greater number of optional courses, along with the creation of personalized programs and multi-perspective teaching. The following didactic means of the flexible educational model are usually mentioned: team work, cooperative and individualized work, dialogic methods, nominal methods, the "brainstorming" method (Ibid). The text also deals with discourse method and the findings have shown that a great number of students have not expressed readiness to accept them. Discourse method is correspondent with the characteristics of learning style referring to learning with understanding, raising questions and searching for answers, and all this proves the ways leading closer to the "culture of learning" are to be found in emancipatory higher education didactics.

Even though there have been numerous discussions on quality, it is beyond dispute that there are difficulties to clearly determine what is it quality actually refers to. A statement is often found in literature that quality is socially construed concept
LEARNING STYLES AS INDICATORS OF HIGHER EDUCATION QUALITY

(Stancic 2012: 289), dependant on the context in which it is talked about it (Stancic 2012: 289). In contrast to such a viewpoint, there are approaches to quality in education nowadays in Serbia, relying on standardization, unification of measures and procedures, with an intention to ensure better result through these arrangements. Assessment culture grounded on the external control of the outcomes is considered to be oriented towards utilitarian values and mechanistic-technicistic approaches, normative philosophy and, finally, economic logics. On the other hand, the research findings referred to in the text support the standpoints of sociocultural and critical movement within pedagogy, pointing out the need to consider the problem of quality bearing in mind uniqueness, comprehensiveness, development, complexity, dynamics, context and unpredictability as fundamental characteristics of educational process; this means a different concept of quality. Such an approach implies that all the actors should create a shared understanding of quality and search for more adequate ways of reaching it (Stancic 2012: 302). In the situation in which majority of students manifests learning characterized by reading to memorization, by learning according to repeating parts of the contents, some of them even mechanically; in which a small number of students have learning styles characterised by: reading the text as a whole, raising questions after reading the text, making syntheses, comparing with other ideas, positioning new knowledge in the context – finding examples, search for the better ways of presenting contents, re-groupings of ideas, questions referring to the ways of easier ways to solve a problem, acquire new knowledge, critically reconsider contents, evaluate one’s own learning strategies...; in which majority of students do not search for the essence, sense, messages of the text – what can be concluded but that they are all actors of studies at the same track when quality is in question, certainly not searching for more adequate ways to reach higher level of quality. Learning styles manifested in the mentioned research are indicative, since they have shown that students’ learning is still far from emancipatory pedagogy. Self-determined, self-organized learning of students would be recognized according to learning style enabling development of creative potential of individuals, encouragement of flexible knowledge structures, creativity, observation, thinking, learning and problem solving, readiness to take risks, expected in the conditions of highly competitive global society, which has been rarely met in the outlined findings. A step further leads to a conclusion that the current approaches to quality in higher education, expected from the changes outlined by the Bologna process have not been manifested. Changes have not penetrated deeper than structural changes, and mechanisms expected to install quality
culture actually are techicistically standardized approaches (accreditations, external evaluations of organizational forms...), making a culture of external quality. Essential indicators (with learning styles being only one of them) have been put aside, while they should make the essential guidelines in changes of learning and teaching quality in higher education. It could be also said that the existing ways of quality control, as it is noticed by Stancic (Stancic 2012: 303) impose the perspective of dominant social groups on understanding quality and the ways it should be reached, blurring different opinions in order to achieve obedience and adjustment to bureaucratic authority. So, it would be significant to introduce the issue of educational aims, key ideas and values permeating their paradigms, which is, also one of rather important factors of defining quality. Having all this in mind, it could be said that understanding of education quality is oriented in teleological manner. It seems that in the case of Serbia quality assessment found in other parts of Europe and the world has not been implemented yet (standardized knowledge tests...), but a tendency could be sensed that quality indicators are considered to be the acquired level of academic contents proscribed by a curriculum, tests results and exam marks at institutional and social level. Test score in these cases is the purpose of education; teachers and students are focused on achievements and adjust their activities to indicators; thus, measure becomes the aim, which, in the case of higher education due to its complexity, dynamics, multidimensionality... can be only partially considered. Therefore learning styles as quality indicators seem to be effective change of teaching and learning strategies leading to emancipatory learning. Who is to have most benefit are both individuals and society, and, in such a way the world of labour, as well.

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ABSTRACT

As Croatia is nearing its accession to the EU, it is facing a process of implementation of a number of newly introduced legal frameworks which also act to enable access to new market opportunities for certain industries. The most important Directive concerning healthcare providers is Directive 2011/24 on cross-border healthcare, which grants the patients freedom of choice of providers in another EU member state given that the necessary standards of quality and safety are met. A member state is entitled to restrict rights and set rules for reimbursement of the costs of cross-border healthcare with the aim of protecting its own health system. Similarly, prior authorisation by the patient’s insurer is a precondition for reimbursement of costs of certain procedures across the border. We can observe a successful model of cross-border healthcare in Euregio Meuse-Rhine (Belgium, the Netherlands, Germany), which has been active since 1992 and has demonstrated that borders are not obstacles to successful organization of medical experts, hospital and pharmaceutical systems, insurers, patients, local administrative offices, universities and information systems. There is strong emphasis on the need to implement and monitor equal quality standards in all EU member states. For the very purposes of monitoring the effective levels of patient protection, healthcare systems in 34 European countries have undergone assessment. Croatia ranked 17th in regard to 42 indicators of quality (ECHI) in 2012. In the previous year, the level of satisfaction of healthcare consumers with the public health system was monitored by the Croatian Institute for Health Insurance (CIHI), while this year the author conducted a research in patient satisfaction which also included attitudes toward private healthcare. The results of the two researches are in parts almost identical, defin-
ing the crucial issues of the Croatian healthcare system: long waiting lists, shortage of finance and corruption. The research, which was conducted by the author and included 386 respondents from several Croatian health institutions, showed that the health insurance system needs to be reformed with the emphasis on the promotion of competitiveness (abolishing CIHI’s monopolistic position and introducing new privately owned insurers) as well as freedom to choose a provider according to service quality and regardless of the ownership (thus supporting privately held providers in their capacity as a welcome competition to the state-owned ones). Croatian legislation will be subject to amendments in order to accommodate and implement this Directive. The amendments should be completed by October this year when the Directive is scheduled to come into effect. Privately held health institutions are undoubtedly prepared for the EU market when it comes to the level of safety and quality of the services rendered, but in order to capacitate cross-border health services provided in Croatia and turn them into regular business, support from the national system is also needed. Due to the problems noted in the Croatian national health system, public health institutions shall require substantial financial means and a significant period of time to adopt standards required by the Directive on cross-border healthcare, so it is reasonable to expect that state institutions will recognize the importance of including private healthcare providers in this important new segment of the medical market which will open up with the accession to the EU.

JEL Classification: I15, I18

Keywords: Cross-border healthcare, Euro Health Consumer Index, Croatian Institute for Health Insurance, patient satisfaction, quality, safety, private healthcare

1. Cross-border healthcare

This year, on 1st of July, Croatia will become the 28th member state of the EU and adopt the acquis communautaire including Directive 2011/24 EU regarding cross-border healthcare regulation, which will come into effect on October 25, 2013. Cross-border healthcare accounts for approximately 1% of total health expenditures in the EU (which in turn amounts to 7.6% of GDP, i.e. approximately 1.000 billion euros). Having in mind that as much as 53% of EU citizens are willing to look for healthcare services abroad, and that it is estimated that 8-10% of those indeed do so, the vast potential of that market segment can easily be appreciated. This market segment with its 10-billion-euro annual turnover and ap-
proximately 20 million customers of cross-border health services is of great interest to Croatian healthcare. Due to its undeniable advantages, such as first-rate medical experts and its attractiveness in sense of travel destinations, Croatia is uniquely poised to pursue those venues.

Which are the basic propositions of the Directive on cross-border healthcare? First of all, every citizen of the EU, should there be such a need, has the right to use healthcare services provided in any of the EU member states if necessary standards of quality and safety, valid and equal for the entire EU, are met. At the same time, cooperation between healthcare systems and institutions across the entire Union is encouraged. Although the data show that most EU citizens prefer being treated in their own country of residence (especially when EU15 members are concerned), there does nevertheless occasionally occur a need for treatment in another member country (the fact is especially noted in bordering regions and in cases of certain special conditions and/or illnesses). Consequently, it is of the essence that patients are well informed about actual procedures as well as institutions providing the required services. For that reason, each EU member state is required to have established by October 25, 2013, a National Contact Office, which are then planned to provide the patients coming from other states with transparent and independent information they need. It is of great importance that visiting patients are provided with high-quality and efficient healthcare, at least at the level of quality enjoyed by the patients resident in the member state providing the treatment. It is for this reason that healthcare quality standards and patient safety requirements have been clearly defined. First and foremost, this refers to complications and/or contingencies that may occur in the course of the treatment and, secondly, the strict standards are applied to handling sensitive medical information and the protection of patients’ personal data.

One of the objectives of the Directive on cross-border healthcare is to encourage connections between healthcare systems and institutions for the purposes of cooperation, sharing knowledge, experience and innovations, also aiming to establish European centres of excellence which would build patient databases. This would make way for European EMR (Electronic Medical Record) which would contain medical history available wherever the patient needed to receive treatment in the EU, which should in turn increase cost efficiency and efficacy of treatments. These improvements would also allow more intensive application of new technologies in medical science so, for instance, an ailment might be diagnosed in one member state while the patient could be treated in another (telemedicine). The Directive
Nevenka Kovač

does not regulate the management of healthcare systems, rather it enables patients to seek and receive healthcare (if they require it) in a country other than their country of residence and that the provided care will adhere to the accordant safety and quality standards of service.

Under this Directive the provided cross-border healthcare will be subject to reimbursement up to the amount that might be available for the same treatment in the country of residence. There are two methods of reimbursement: either the insurer will cover the costs of treatment directly to the institution providing the treatment or the patients who cover the costs themselves can be reimbursed for the costs incurred. In order to protect its own healthcare system, a member state is allowed to set certain restrictions on rights and regulate the procedure for reimbursement of cross-border medical costs. Also, a prior authorisation issued by the patient’s insurer is in some cases a prerequisite of later reimbursement of cross-border medical costs. Above all, this can be expected to apply in cases of treatments involving hospitalization (patients required to stay in hospital, as opposed to treatments in day hospital), treatments performed with the use of high-tech equipment and medical infrastructure, treatments that may pose a risk for the patient or population, and for treatments in an institution not certain to provide a service that is up to the standards of safety and quality. The Directive deals with the rights of patients to obtain prescription drugs (if a drug is registered in the country, a visiting patient can get it in a pharmacy in accordance with national regulations), but not if the drug or another medical product is to be acquired over the Internet, nor does it deal with donations of live organs for transplantation purposes.

The amendments to Croatian legislation required to implement the propositions of Directive 2011/24 need not be extensive, but attention must be paid to translate the provisions of the Directive that regulate rights of insured persons which Croatian legislation currently leaves unregulated. All the changes should be implemented by October this year when the Directive is due to come into effect.

2. Cross-border healthcare model

In 1992 the European Commission introduced project INTERREG I that brought together five hospitals from five autonomous regions of the Netherlands, Belgium and Germany (Euregio Meuse-Rhine6). The region’s population is 3.7 million strong falling into three different legal systems and belonging to three different cultures. Another program named INTERREG II added 10 insurers working in
the region to the collaborative project of the hospitals, followed by INTERREG III which brought aboard more hospitals into this cross-border healthcare cooperation. Insurance companies introduced a special patient ID - the International Health Card, which enabled the patients to access services across the region. The card was a predecessor of the later unified European Health Insurance Identification (EHIC) introduced in 2004 by thirteen EU member states, while after the Directive on cross-border healthcare comes into effect, every member state will issue an EU health insurance card for their residents/patients. The overall positive experience of the INTERREG programs has involved all the entities which are important to healthcare systems: hospitals, insurers, medical associations, patient groups, the public health system, local authorities and administration. The associated entities entered multilateral contracts on cross-border cooperation in more than twenty projects (information exchange between healthcare professionals, hospital infection control protocols, support services for the elderly and disabled, oncology protocols, cooperation in education etc.). Their collaboration yielded a number of benefits: patients used it for ease of access (25.3%) and because they were in a position to enjoy advanced treatment methods (15.7%). The most sought-after treatments fell into categories of surgical (17.5%), gynaecological (15.3%) and orthopaedic (13.1%) interventions. Reasons for seeking cross-border medical services also included shorter waiting time for required procedures. Hospitals found their interests in this collaboration program in the fact that it enabled them to provide a wider choice of high-tech procedures and treatments that they would not have been able to provide on their own and they also found it easier to provide healthcare targeted at specific groups of patients (clinical genetics, neurosurgery, paediatric cardiology etc.). The region also implemented an on-line medical reporting system covering all the parameters of interest to public healthcare and allowing permanent access to everybody from residents to politicians.

All of the above implies that borders are not obstacles to successfully interconnecting medical professionals, hospital and pharmaceutical organizations, insurers, patients, local administration offices, universities, information systems and platforms. It is this very successful model that encouraged the European public to consider applying this model to the entire EU territory in order to address ever louder voices demanding that patients be granted the right to choose to be treated outside their country of residence if such a need arose. The conclusion was reached that this could be accomplished in the most rational, effective and safe manner only through cooperation among healthcare systems, institutions and employees regardless of
borders, thus creating a unified networked collaboration on all levels, along with introducing the common electronic personal medical record and making every patient a European patient wherever they received healthcare services.

The Croatian healthcare system has many lessons to learn from the experiences of the region (which is slightly smaller than Croatia): how to connect various institutions of the system (hospitals-universities-insurers), reduce the number of professionals by specialization of each hospital and sharing knowledge and resources, reform the health insurance system and thus increase competitiveness on the EU healthcare market. Above all, this would also allow Croatia’s own patients the opportunity to choose to be treated abroad as well as in their own country.

3. Euro Health Consumer Index

The assessment of performance of healthcare systems and their continual improvement in order to ensure that they match the patients’ needs to the greatest possible extent are of great concern to the institutions and governments of the world. For this purpose, a new assessment tool for healthcare evaluation was developed in Brussels in 2005 - the Euro Health Consumer Index - EHCI. The collected data are used to derive information concerning the status of healthcare institutions in the countries in question, as well as to provide guidelines for future development, taking special care to take into account how the system is perceived by the patients themselves. Furthermore, the concept of patient safety assumes the efforts and actions undertaken to make the patient’s environment and undergone procedures within the healthcare system most conductive to achieving the desired treatment outcome. As the safety and quality of healthcare services are the most important elements of the EU Directive on cross-border healthcare, implementing the monitoring of certain indicators of healthcare service quality becomes a necessity for any institution that hopes to offer these services to patients from other countries. In the process of patient safety evaluation, a number of indicators may be used to assess, monitor and improve healthcare provided to patients and in order to foresee and avoid possible complications which may arise from the process of using services provided by the healthcare system. The indicators used may vary according to the perspective of the interested party - one set of indicators may be taken into consideration by a hospital, whereas the state may opt for others. In research of underlying causes of incidents in healthcare it was revealed that 60% of serious incidents occur as a consequence of poor communication between doc-
tors and nurses\(^4\). Inefficient and insufficient communication make for a significant factor in the occurrence of adverse incidents during patient care. European Healthcare Consumer Index (EHCI) is designed and published by the Health Consumer Powerhouse, a non-profit institution promoting consumer aspects of healthcare in Europe and consumer rights of patients. Systematic analysis of patients’ consumer rights performed by the institution is designed as a semi-quantitative assessment in five categories with different number of indicators making a total of 42 (Table 1).

**Table 1** Categories and the number of indicators of the European Healthcare Consumer Index

<table>
<thead>
<tr>
<th>Categories</th>
<th>Number of indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient rights and information</td>
<td>15</td>
</tr>
<tr>
<td>Waiting time for treatment</td>
<td>5</td>
</tr>
<tr>
<td>Outcomes</td>
<td>8</td>
</tr>
<tr>
<td>Range and reach of services provided</td>
<td>10</td>
</tr>
<tr>
<td>Pharmaceuticals</td>
<td>7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>42</strong></td>
</tr>
</tbody>
</table>


Each indicator may be valued at three levels: good (3 points), moderate (2 points), or poor (1 point), when data are not applicable, the value is set to “moderate” (2 points), and 1 point is awarded for unknown values. Analysis conducted for the year 2012 included 34 European countries. Overall ranking of Croatia was 17\(^{th}\) with 655 points scored, which is a marked progress in comparison to 2009 when it was ranked 23\(^{rd}\). The leader on the list is the Netherlands with 872 points while Serbia is last with 451 points.

**Table 2** Comparison of Croatia to four countries according to the ECHI data, in total and in selected categories

<table>
<thead>
<tr>
<th>Categories</th>
<th>The Netherlands</th>
<th>Czech Republic</th>
<th>Croatia</th>
<th>Slovenia</th>
<th>Serbia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient rights and information</td>
<td>170</td>
<td>107</td>
<td>146</td>
<td>112</td>
<td>102</td>
</tr>
<tr>
<td>Waiting time for treatment</td>
<td>200</td>
<td>183</td>
<td>133</td>
<td>133</td>
<td>117</td>
</tr>
<tr>
<td>Outcomes</td>
<td>263</td>
<td>225</td>
<td>200</td>
<td>213</td>
<td>113</td>
</tr>
<tr>
<td>Range and reach of services provided</td>
<td>163</td>
<td>117</td>
<td>128</td>
<td>99</td>
<td>82</td>
</tr>
<tr>
<td>Pharmaceuticals</td>
<td>76</td>
<td>62</td>
<td>48</td>
<td>81</td>
<td>38</td>
</tr>
<tr>
<td><strong>Total points</strong></td>
<td><strong>872</strong></td>
<td><strong>694</strong></td>
<td><strong>655</strong></td>
<td><strong>638</strong></td>
<td><strong>451</strong></td>
</tr>
<tr>
<td><strong>Rank</strong></td>
<td><strong>1</strong></td>
<td>15</td>
<td>17</td>
<td>19</td>
<td>34</td>
</tr>
</tbody>
</table>

In the overall ranking of countries, Croatia is located in the midst of the gap between the leader, the Netherlands and the last, Serbia, and in the middle of the range between the Czech Republic and Slovenia, which are the countries selected by the Croatian Ministry of Health as reference countries for Croatia (Table 2). The warnings issued regarding the possible influence of the economic crisis seem exaggerated. For decades the talk of the hour in healthcare circles was about funding cuts and deteriorating quality yet in reality the situation has been developing in the opposite direction. However, the Index did reveal three areas of special importance that were influenced by the crisis: waiting lists for the most expensive surgeries are increased and particularly so in the countries that were most severely hit by the economic crisis, increased necessity to finance a number of treatments, absence of improvements and reduced access in regard to new generation of medical drugs. Croatian healthcare has yet a long way to go to improve the patients’ consumer rights, especially when it comes to shortening the waiting period for treatments. Since only public healthcare providers, who were likely to have long waiting lists due to insufficient funding, were subject to assessment, the overall Index score for Croatia can hardly be relevant from the point of view of visiting patients as they pay for medical services and can avail themselves of the private healthcare system with no waiting lists and with enough free capacities at their disposal.

4. Patients’ satisfaction with the healthcare system in Croatia

Euro Health Consumer Index (EHCI) assessed the Croatian health system and consumer rights of Croatian patients and placed them as average (17th place out of the analysed 34 states). And where do actual beneficiaries stand on the Croatian healthcare system and the satisfaction with medical services? To answer this question, in February and March, 2013, a survey was conducted among patients in several Croatian healthcare institutions. The study was a questionnaire with 27 questions answered by 386 patients (150 patients of the Zabok General Hospital Policlinic, 143 family practice patients from Koprivnica and 93 patients from the private St. Catherine Specialty Hospital in Zabok).

The respondents mostly (238 or 62%) came from the actively working population (between 30 and 60 years), 16% were younger than 30 years while 22% of them were older than 60 years. Most respondents were female (236 or 61%). The patients gave the Croatian health system an average grade (3.3) as well as the work of specialized services (3.5). They were much more satisfied with their family medi-
cine physician (average score 4.1). The patients see crowds, long waiting lists and doctor overbooking as the biggest problems both in primary (61%) and secondary (57%) healthcare, while every seventh patient believes it is the poor organization of work. Poor communication, lack of interest or motivation and corruption are perceived as the biggest problems in general practice by 20% of respondents, and in specialist healthcare services by 17%. Despite bringing up the issue of long waiting lists, approximately half of all the patients did not wait longer than 3 months for their first specialist examination or diagnostic test (MRI, CT, ultrasound), while 17% had to wait from 6 months to even a year. Every third respondent sees better work organization as a way to improve the overall healthcare system, while the greatest problems in the system remain to be the long waiting lists (35%), insufficient healthcare funding (30%), and as many as 16% believe the biggest issue are the doctors who work in public hospitals as well as private practices.

**Chart 1** What do patients believe is the greatest problem in Croatian healthcare? (1).

<table>
<thead>
<tr>
<th>Problem</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long waiting period</td>
<td>35%</td>
</tr>
<tr>
<td>Insufficient funding</td>
<td>30%</td>
</tr>
<tr>
<td>Too expansive patient rights</td>
<td>3%</td>
</tr>
<tr>
<td>Poor work organization</td>
<td>15%</td>
</tr>
<tr>
<td>Doctors working in both public and...</td>
<td>16%</td>
</tr>
</tbody>
</table>

Source: author

About two thirds of all respondents (62%) took advantage of private healthcare services, 61% of which paid for them fully from their own pockets while 29% used a CIHI referral with or without additional charge. As much as 57% of the respondents annually set aside HRK 1,000 for medical services in the private sector, and only 27% up to HRK 3,000. However, private healthcare services are not frequently used (69% of respondents use them 1-2 times a year); the most common reason for using them being the shorter wait to receive the service (34%). When it comes to healthcare
services, the most contributing factor for choosing a private medical practitioner is a “friend’s recommendation” and as much as 22% of patients state that they received a recommendation for the appointment with a private doctor from a public hospital doctor. Almost three quarters of the respondents (73%) believe that private healthcare provides a higher quality of healthcare services, and 69% thinks that the abolition of CIHI’s monopoly would improve the quality of healthcare services across the entire Croatian healthcare system. As for health insurance, very few respondents hold a private health insurance policy (12%), and as much as 78% (302) of them have supplemental health insurance in addition to the basic one. If we look into the participating patients where the analysis took place, we can establish that most of the supplemental health insurance holders are found among public health beneficiaries (GH Zabok 81%, GH Koprivnica 84%), while the least can be found among those who use private medical services. (St. Catherine Specialty Hospital in Zabok, 60%, and Zagreb, 77%). Based on this study, it is evident that the private health insurance market is underdeveloped because only 3% of the respondents (10) hold this policy, while 7% (26) have both the private and the supplemental health insurance. Most patients with a private health insurance policy are patrons of Croatia Health Insurance (22 respondents or 42%), followed by Sunce Health Insurance (17 respondents or 32%). Other private health insurance providers like Basler (7 respondents or 13%), Unica (2 or 4% of respondents), Mercury and Grawe (5 respondents or 9%) have a smaller user base. Nearly three quarters of respondents (236 or 72%) believe that aside from CIHI other health insurance providers should cover the basic health insurance as well. Sixty nine per cent are ready to pay extra for a medical service they would be satisfied with and as much as 94% of respondents (306) believe that their health insurance should allow them to choose a health facility where they wish to be treated, regardless of whether the institution was public or private. The quality of healthcare service should be the decisive criteria when selecting an institution, not whether it is in public or private ownership. For this reason 61% of respondents are willing to monthly set aside up to HRK 300 per person for the voluntary health insurance, 24% of respondents would be willing to pay HRK 300-500 for these purposes, and 9% of them would be willing to set aside HRK 500-1,000. The results of this study are similar to the results of the study conducted in December, 2012, by the Ipsos Public Affairs agency, at the request of CIHI. This telephone public opinion poll (CATI, random, two-stage stratified, representative sample) showed that patients see long waiting lists as the biggest problem of Croatian healthcare (36% of respondents), next to lack of funding (14% of respondents). The respondents see the corruption in the system as equally trouble-
some (14% of respondents). The patients are largely satisfied with their family physician and the level of satisfaction with private doctors is at a high level as well. More than one in five patients (22%) has presented a doctor or medical personnel with a token of appreciation for their work in the last 3 years.

**Chart 2** What do patients believe is the greatest problem in Croatian healthcare?

<table>
<thead>
<tr>
<th>Problem</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do not know / Nothing</td>
<td>12,6%</td>
</tr>
<tr>
<td>Other</td>
<td>13,7%</td>
</tr>
<tr>
<td>Complete disaster, nothing seems to work</td>
<td>0,6%</td>
</tr>
<tr>
<td>Conflicted interests (doctors work in both public and private...</td>
<td>0,8%</td>
</tr>
<tr>
<td>Unequal treatment of patients</td>
<td>0,9%</td>
</tr>
<tr>
<td>Unavailability of pharmaceuticals</td>
<td>1%</td>
</tr>
<tr>
<td>Insufficient funding from the national budget</td>
<td>1,4%</td>
</tr>
<tr>
<td>Lack of proper care for patients</td>
<td>1,7%</td>
</tr>
<tr>
<td>Underpaid staff</td>
<td>2,2%</td>
</tr>
<tr>
<td>Excess paperwork and administrative activities</td>
<td>2,2%</td>
</tr>
<tr>
<td>Outdated and poorly maintained hospitals</td>
<td>2,6%</td>
</tr>
<tr>
<td>Lack of medical equipment</td>
<td>4,9%</td>
</tr>
<tr>
<td>Costs of participation and insurance surcharge</td>
<td>5,5%</td>
</tr>
<tr>
<td>Lack of organisation</td>
<td>5,6%</td>
</tr>
<tr>
<td>Shortage of skilled labour</td>
<td>6,4%</td>
</tr>
<tr>
<td>Indecent or rude staff behaviour</td>
<td>6,7%</td>
</tr>
<tr>
<td>Costs of pharmaceuticals, surcharges</td>
<td>7,2%</td>
</tr>
<tr>
<td>Staff performance</td>
<td>8%</td>
</tr>
<tr>
<td>Corruption, bribery, nepotism</td>
<td>14,1%</td>
</tr>
<tr>
<td>Money shortage, too big focus on money, too high prices</td>
<td>14,5%</td>
</tr>
<tr>
<td>Excessive waiting</td>
<td>36,3%</td>
</tr>
</tbody>
</table>


All of these studies, conducted by entirely different and unrelated persons or institutions (the Health Consumer Powerhouse, author, CIHI), emphasize the same issues in the Croatian healthcare system: long waiting lists, lack of funding for healthcare, poor work organization, instances of corruption, bribery and using personal connections to circumvent the system’s rules. All this results in resorting to the alternative healthcare system - the private one - which the patients see as a possible template / model for the state health system. Consequently, the need for competition is increasingly emphasized, in addition to the importance of freely choosing one’s place of treatment based on the quality of the service and regardless of the public or private ownership of the institution in question. This is why most patients support abolishing CIHI’s health insurance monopoly and support the initiative to involve other private insurers into the field. Many hope that Croatian accession to the EU will accelerate the process. The Directive on cross-border healthcare could also contribute to this because as a member state Croatia will need to assure that the
patients enjoy the minimum rights when choosing where they wish to be treated. This means it will have to enable the patients to receive treatment in other countries regardless of whether they will be treated in public or private hospitals. This is the reason why the same freedom to choose where they wish to be treated should be granted to patients in their own country.

5. What is missing?

In terms of patient safety and quality of service, private healthcare institutions are undoubtedly ready to enter the European market, but they lack the support of the system which is necessary if the cross-border healthcare wishes to emerge as a viable business endeavour in Croatia. Health insurance system is essentially a monopoly, there aren’t enough low-cost flights, no support for marketing activities (the promotion and presentation of healthcare institutions is financially demanding and advertising themselves on the European market for most medical institutions would represent an insurmountable investment), ways of establishing cooperation with intermediaries and travel agencies that organize patient arrivals from European destinations, as well as those who may be able to offer packaged medical and tourism services, are still underdeveloped. Individual healthcare institutions are left to their own devices, reliant on independent initiatives to establish associations (a soon to be founded medical cluster). The public health sector, due to its organization and funding models will not be able to measure up to the demanding European market (especially considering the introduction of quality standards and accreditation). All healthcare providers need to have a professional liability insurance policy (which most of our public healthcare institutions do not have), as well as a quality standard certificate or appropriate accreditation. The National Agency for Accreditation is still not authorised to grant accreditations (and it will be at least a year until it is), which makes the implementation of international accreditation programs extremely difficult. It is necessary to establish a National Contact Office at the state level. This is planned to be organized within the framework of CIHI which brings into question its operative functionality: CIHI is a state insurer, exclusively representing the state healthcare. It is unclear what stand will CIHI take towards private healthcare which is singularly capable of satisfying the criteria set by the Directive on cross-border healthcare. Legislation needs to be adapted according to new market conditions, and as long as the state does not see that healthcare is the “21st century business” Croatia will struggle to become a top destination for both health and medical tourism, all
the opportunities to make better use of professional, geographical and climatic potentials, as well as other resources and capacities, notwithstanding.

Conclusion
Croatia has a highly-educated and professional medical staff and a number of health facilities that are up there with the best European health centres. However, the organization and functioning of the Croatian healthcare system cannot satisfy the needs that will arise with the Croatian accession into the European Union. Firstly, there is the issue of enabling free choice of treatment for patients in other countries, in healthcare institutions which meet all the required standards in terms of quality of health services and patient safety. Research shows that patients wish to be able to choose where they will be treated according to the quality of medical services provided and regardless of the public or private ownership of the institution in question. Croatia needs to tailor its legislation accordingly, especially in terms of CIHI reform, opening the market to private insurers, facilitating the accreditation of healthcare institutions, establishing modes of professional liability insurance and treatment guarantee, etc. Considering the time we have left to make these adjustments is quite short (half a year) it is of particular importance to recognize and utilize the potentials of the private healthcare sector. The synergy of public and private healthcare (which requires far less adaptation than public healthcare and is insomuch more prepared to participate in the market) is the very prerequisite of rational utilization of the resources the overall healthcare system has to offer. Furthermore, it can help to put Croatia on the European map of desirable medical destinations within the cross-border healthcare, and provide a higher-quality healthcare to its own citizens. Croatia thus has great potential to take part in medical tourism trends. The key factor in choosing a destination for medical tourism, apart from the price, is primarily the standard of medical service, high level of expertise and the state of equipment in hospitals which offer these services, in addition to the attractiveness of the location in terms of tourism in its broader sense. Finding and addressing these niche markets provides Croatia with an excellent opportunity to circumvent serious oscillations in the tourism sector and launch its own more systematic, organized and dynamic initiative to join in the world’s medical tourism market. However, all of the above necessitates a continuous and well-directed support of the authorised institutions, especially the Ministry of Health, whose agency is required if these many issues and obstacles are to be overcome. First of all it is necessary to:
• Change the Compulsory Health Insurance Act
• Define what is basic health insurance (define which services are encompassed by basic health insurance)
• Initiate CIHI reform
• Open the market to private insurers for both voluntary and compulsory health insurance
• Make the Ministry the authority in charge of all healthcare institutions (both public and private)
• Define all the existing health resources (equipment, personnel, facilities) regardless of ownership (state and private)
• Create a master plan for all hospitals regardless of their ownership
• Accelerate the adoption of the necessary legislation in order to enable the Agency for Quality Assessment and Accreditation to accredit health institutions
• Establishing a National Contact Office independent from CIHI
• Mediate in negotiations with insurance companies for professional liability insurance on behalf of groups of healthcare institutions
• Make a strategy for the promotion of health and medical tourism in cooperation with the Ministry of Tourism
• Negotiate the possibility of more low-cost airline routes in collaboration with the Ministry of Tourism and the Ministry of Maritime Affairs, Transport and Infrastructure
• Change the regulations pertaining to residence permits with the Ministry of the Interior
• Change the way of obtaining work permits with the Ministry of Labour

**Literature:**

Eurostat 2007

Eurobarometer 2007


Available at: www.ebusiness-watch.org (accessed: 25/03/2013)
E-LEARNING – A FUTURE TREND SINCE 2002

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Abstract:

Not only business companies but also Universities are subject to change. This change leads to a development of these institutions or rather an assimilation to changing surrounding conditions. Due to reduction of school years for passing the German Abitur and the abolition of compulsory military service a massive growth of students is registered. This high-level of students is expected to stay in the near future. These circumstances lead Universities to create possibilities for dealing with masses of students under given resources. E-Learning could be the method of choice but certainly not the exclusive one.

JEL Classification: D83

Keywords: Change Management, E-Learning, University Strategy, Additional Didactic Benefit, Organisational Development

1 Preface

Not only business companies but also Universities are subject to change. This change leads to a development of these institutions or rather an assimilation to changing surrounding conditions. Due to reduction of school years for passing the German Abitur and the abolition of compulsory military service a massive growth of students is registered. This high-level of students is expected to stay in the near future. These circumstances lead Universities to create possibilities for dealing with masses of students under given resources. E-Learning could be the method of choice but certainly not the exclusive one.
E-Learning\textsuperscript{1} is offered and used for more than 10 years at the University THM (Technische Hochschule Mittelhessen). During the years 2002 to 2007 a MBA course for Project Management was implemented and successfully realized at the University. This forms the basis for expert knowledge. This knowledge and its results of usage has been presented and discussed at various congresses. The MBA course has been created to give students all over Germany the possibility to study part-time. This course was reliant on a successful E-Learning concept. The Hessian Ministry for Science and Art promoted back in 2007 a project which should prove the transferability of the part-time course to undergraduate courses at the industrial engineering faculty of the THM. Some Results of this 2-year project will be a part of the following Article.

2 Strategy and the road to success

Due to the characteristics of the specific organization \textsuperscript{2} the realization of an E-Learning strategy, which is only a part of a general strategy for the University seems, to be a problem. The Implementation is only possible in smaller steps which are not necessarily embedded in the part-strategy.\textsuperscript{3} Euler/Seufert stated as a success factors of sustainable implementation of an E-Learning concept a general strategy all over the University\textsuperscript{4}. This strategy is not yet affixed but an orientation framework is set in form of a vision. Within the progress of developing a strategy this instrument is seen as a fundamental guideline.\textsuperscript{5} Within this Guideline a significant step towards the direction of an E-Learning strategy is named: „Our professional and organizational framework stands for a solid foundation. This foundation will be permanently reviewed and further developed. Various teaching and learning methods form the basis for life-long-learning”.\textsuperscript{6}

According to Euler/Seufert 5 dimensions and their interdependencies are relevant for a successful and lasting performance of an E-Learning concept at Univer-

\textsuperscript{1} E-Learning includes in this definitions the usage of an interactive whiteboard as well as the elements of Blended-Learning.
\textsuperscript{2} cf. Euler & Seufert; 2005, p. 5
\textsuperscript{3} cf. Euler & Seufert; 2005, p. 6
\textsuperscript{4} cf. Euler & Seufert; 2003, p. 9
\textsuperscript{5} Müller-Böling & Krasny; 1998, p. 20
\textsuperscript{6} n.p; 2007
sities. These dimensions will be used in the following as an explanation framework and are in detail:

**economical dimension:**
stands for an economical measurement of the E-Learning concept

**pedagogical-didactical dimension:**
stands for a measurement of the “additional didactical benefit”\(^7\) of the implemented E-Learning contents

**organisational-administrative dimension:**
stands for the necessary adjustment of all processes within the University

**technical dimension:**
stands for securing of a working E-Learning from a technical scope of view

**socio-culturally dimension:**
stands for the necessary changes of the attitude and behavior of the E-Learning users.\(^8\)

### 3 E-Learning since 2002

E-Learning is present since 2002 and is installed in various fields among the University. In some of these fields accompanying scientific research was made and issued in a 5-year-interval. Several articles were published within the last 11 years, which focused on the successful usage by teachers and students. Here the premise is the organizational-administrative dimension as well as the technical dimension. The last mentioned dimension won’t be an object of this article. In the project report back in 2009 the organizational level was defined as a superior success-related component within the MBA course and its E-Learning concept. Contrary to the dimension-concept of Euler/Seufert the organizational level included the economical consideration as well.\(^9\)

Grau/Vossebein published their first research results concerning the usage of E-Learning in the MBAS course back in 2004 and 2005.\(^{10}\) The successful implementation of a concept which made use of E-Learning methods and especially the support

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\(^7\) Euler & Seufert; 2005, p. 12

\(^8\) cf. Euler & Seufert; 2005, p.11 et seq.

\(^9\) cf. Grau & Vossebein; 2009, p. 20

\(^{10}\) see Grau, N. & Roth, R. &; Vossebein, U.; 2004 and Grau, N. & Roth, R. &; Vossebein, U.; 2005
belonging to organizational issues was subject of this analysis. It was proved that the organizational element primary causes the success of the E-Learning concept.

Especially for achieving an additional didactical benefit in the meaning of the didactical dimension of Euler/Seufert. The project which was promoted by the HMWK should prove wether the E-Learning concept of the MBA course is transferable to undergraduate course or not. The results shows that a sustainable success is only possible if the organizational element is included in the undergraduated courses.  

Along with the researches if the concept is transferable to undergraduated courses, further study was made concerning current teaching and learning methods within the lecture Project and Process Management. These methods all belong on the guideline of the THM which is also relevant to this article. Already at the IPMA Congress (International Project Management Association) in Istanbul in 2010 as well as continueve research for the IMR congress in Porec-Osijek in 2011 these experiences was published.

The core research of this current teaching and learning methods is an interactive whiteboard which is seen as a part of E-Learning even it is not based on an E-Learning platform. The so called voting equipment are subject of the teaching concept and allows students to answer individually on the asked questions. The given possibilities of the whiteboard and its voting equipment provides the ideal conditions to activate the students and therefore provide a knowledge basis on a “playful learning” level. At a second step the appliance of the knowledge was tested in prepared exercises. In a last step the students should reflect their knowledge in an oral exam. This leads in an ideal case to the favored effect – operational competence. And consequently to the fulfilling of the essential dimension of Euler/Seufert, the creation of additional didactical benefit.

In this illustrated case it is clear that a high administrative effort for reaching the benefit has to be done. Students recognize a continuously learning stretched all over the semester in a positive way. Statements like this prove the concept right:

“Due to permanent repetition of the lecture content within the voting significantly more is learned”. These thoughts need to be implemented in the didactic concept and demands a permanent support of the organizational part. Over the last 10 years valuable insights were created which lead to the following questions.
Is E-Learning a part of the strategic component at the University? Which path in learning and teaching has to be taken and is there any potential for optimization?

Which change has to be done to integrate E-Learning fully into the didactic concept of the University? Could Change Management be one of the supporting solutions?

4 The current usage of E-Learning at the University

The integration of an E-Learning environment in the teaching concept of a public university can be done in 2 ways, the top-down or the bottom-up concept. Sengstag/Schmuki-Schuler believe that it makes sense to choose the bottom-up concept, if there is no time pressure from the university administration to implement a concept. This approach also leaves open which platform/soft- and hardware should be used.\(^{13}\)

The E-Learning environment of the THM has been developed over 10 years, leading to the choice of the learning platform “Moodle” as a solution all over the university. The University supports “Moodle” in form of material and human resources for administrating the platform internally as well as providing training courses.

In the project report 2009 the use of different platforms was confirmed by an evaluation of teaching staff.\(^{14}\) The biggest groups were the users of the platform “Moodle”, “estudy” and “PMW-VU”. At this time the only supported platform at the University is “Moodle”. For this purpose, there are three research assistants for educational support, for example to implement the teaching concept of individual courses as well as to support in operational issues. In addition there is an employee who has to ensure the availability of the platform at the technical level. These are considered in the organizational-administrative and technical dimension by Euler/Seufert, but will not discussed any further at this point. The current use at the THM can be stated as follows.

Currently there are 1211 courses in “Moodle” at the 11 faculties of the THM as accompanying elements for classroom teaching. Of these, 1180 are assigned to the lectures. 31 courses explicitly serve the organizational dimension. This information leads to the conclusion that a didactic value by using the “Moodle” platform is trying to be made. On average, there are 110 courses per faculty available, the maximum of

\(^{13}\) cf. Sengstag & Schmuki-Schuler; 2005, S. 125

\(^{14}\) cf. Grau & Vossebein; 2009, S. 36
292 courses is used all over the university, the minimum is 36 courses. 5 of 11 faculties have a number of courses between 110 and 144. In the following the statements refer to the faculty of industrial engineering with 135 courses. This is a representative average of all faculties at the THM. In this example is examined whether the conclusion of the dominance didactically processed E-Learning courses is valid.

The purpose of an E-Learning platform is to provide contents of lectures as well as the possibility of communication between professors and students. To create a complete learning environment for students it is necessary to combine didactic elements with appropriate methods. To create the additional didactical benefit it needs more than just the provision of documents for lectures.

“Moodle” provides 18 so-called activities, which relate solely to the field of didactic dimension. They are different in their scope and opportunities they offer. The activity “test” for example, which is self-explanatory targets to assisting the lectures by tests and their evaluation directly on the platform, according to the “Moodle” help. These activities are intended for a two- or more-way communication. Furthermore there are 7 working materials, primarily referring to the provision of documents and information in various forms, for example, text pages or uploaded files. Those work materials mark the unilateral provision of informations.

The following the consideration refers to the courses for the faculty industrial engineering in the summer semester 2013 as well as courses that have the status “active”. “Non-active” courses indicate that these were used in the past. This leads to 57 relevant courses. The use of the elements in these courses is shown in the following figure.

Tab. 1 Usage of “Moodle” elements

<table>
<thead>
<tr>
<th>Usage of didactic elements</th>
<th>Usage of administrative elements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assignment</td>
<td>File</td>
</tr>
<tr>
<td>Choice</td>
<td>URL</td>
</tr>
<tr>
<td>Database</td>
<td>Label</td>
</tr>
<tr>
<td>Forum</td>
<td>Page</td>
</tr>
<tr>
<td>Feedback</td>
<td>Folder</td>
</tr>
<tr>
<td>Glossary</td>
<td></td>
</tr>
</tbody>
</table>

Author’s calculation

15 cf. Euler & Seufert; 2005, S.5
16 cf. n.p; n.d.
From the 18 available activities only 6 are used. The high usage of the forum with 54% overall is due to the fact that this element is automatically entitled to dispose. There are used 4 of 6 elements in the organization area, which are being considered for administrative support by “Moodle”.

The use of administrative elements is used conform to the system, which means that the elements are used how it is intended by “Moodle”, e.g. providing documents and lecture related informations. On the side of the didactic elements, a different picture emerges. Of the 57 activities which are used, only about 16% are used conform to the system. All other activities are “transformed” by the instructors for other organizational purposes. Taking a closer look e.g. to the activity “vote”. There is to see that all instructors use this for dividing into work groups instead of using it, like the “Moodle” developers intended for getting opinions from the members or which topic should be deepened or where is a need for explanation.

Just from this brief consideration, the following result can be read. There are active didactic activities “transformed” into organizational activities. That means they are not used in their original sense that “Moodle” provides. The majority of usage suggests that “Moodle” is currently used as an additional management tool for teaching. Therefore it could be considered just to host a download area on another server, so you can work there in simplicity.

The ambition of the THM is to make the use of “Moodle” more attractive and to offer support in the implementation and design of courses. The “internal advanced training” as an division within the THM, offers the opportunity to qualify lecturers in the field of E-learning. They offer courses that deal with both, the educational opportunities as well as the administrative component. These internal courses exist since 2000 whereat until the year 2007 not more than one course per year has been provided. Since 2008 the amount of the courses steadyly rises and shows a clear focus to didactical courses as shown in the figure below.

17 n.p.; n.d
Tab. 2 E-Learning training at the THM

<table>
<thead>
<tr>
<th></th>
<th>training in didactic elements</th>
<th>training in administrative elements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Courses 2000 - 2007</td>
<td>0,0% 100,0%</td>
<td></td>
</tr>
<tr>
<td>courses 2008 - 2012</td>
<td>28,8% 71,2%</td>
<td></td>
</tr>
<tr>
<td>courses 2013</td>
<td>30,8% 69,2%</td>
<td></td>
</tr>
</tbody>
</table>

Author’s calculation

This obtains a contrary picture to the actual use of the “Moodle” activities. It seems that the internal advanced training division goes into a different direction to the lecturers. Within the field of teaching rather the administrative skills than knowing the didactic background seems to be at the forefront. At this point it is highly questionable whether this is an active decision of the teaching staff or arose from a lack of knowledge what “Moodle” offers.

5 Future prospects - Quo Vadis E-Learning?

Several questions have to be answered in the following research concerning the topic of E-Learning. Which path will E-Learning go in the near future? How has the staff to be trained to gain sustainable results? What has to be done that professors tap the full potential of an E-Learning platform to create an effective learning and teaching environment?

As explained above the benefit of an E-Learning platform is not yet recognized throughout the teaching staff. A possibility to increase the recognition of a benefit could be to create an incentive scheme. This scheme should cover the massive administrative and conceptual effort that has to be done to support classroom teaching with the possibilities of an E-Learning platform. For this it is necessary to consider the Change Management approach for Universities.

Explained in short there are 3 phases to get through. First one is “unfreezing”. In this all the persons concerned should be brought in and activated to change their attitude in accepting innovations. The second phase “moving” is about the first steps towards assessing the potential of innovations within the persons own
environment. The third phase “freezing” consolidates the changes in everyday work throughout the organization. A sustainable change could only be established if the innovation “E-Learning” and its interdependencies get through all these phases.\textsuperscript{18} This means for an implementation of an E-Learning at the University that the teaching staff needs to understand and realize the change in their everyday work. As mentioned above a strategic framework is more than necessary to give the persons concerned a definite and certain direction.

This change can lead to an adequate usage of the E-Learning possibilities. Teaching staff would no longer use “Moodle” as an organizational help for their lectures but rather change their E-Learning concept on a didactic way of use.

The next steps referred to this idea will be an analysis of the teaching staff and students about their ambition to change. Along with this comes a research about the demands that needs to be fulfilled throughout the University to create a sustainable E-Learning concept.

**Bibliography**


\textsuperscript{18} cf. Seufert, 2005; p. 54


ENROLMENT CHALLENGES IN HUNGARIAN HIGHER EDUCATION MARKETING – A CASE OF A BUSINESS AND ECONOMICS FACULTY

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Abstract

In today’s Hungarian higher education market, more and more Universities, especially Faculties of Business and Economics are challenged by the fact that previously applied enrolment methods do not generate sufficient level of applications among secondary school students. Due to the new education policy of the Hungarian government they are facing a drop in demand and financial risks. This paper identifies various factors that influence secondary school student’s University application and selection decisions. Their preferences have been basically re-ordered because of the new external conditions. As a result, based on an empirical research, we highlight new directions for marketing communication initiatives aiming at achieving and recruiting students more effectively.

JEL Classification: M30

Keywords: higher education, marketing communication, University, student enrolment

1. Introduction, higher education marketing

In recent decades, the intention of using marketing orientation has spread, after many, in the field of higher education as well. Marketing usually begins to be essen-
tial when an organization plans strategic changes or faces serious threats regarding the diminishing resources, uncertainty of the demand or high competition. These factors highly characterize today’s Hungarian higher education system. Now it is unambiguous that the subsistence and development of institutions are depending on adaptation to the outside requirements, the forces of micro and macro environment and their changes. (Pavluska; 2010) Now, in response to these, the value, effectiveness and potential benefits of using marketing, being effective in the business world, are applied by many universities: with a view to gaining competitive edge, a larger share, winning the potential students and keeping the existing ones.

According to Hayes (2007), the higher education marketing emerged in the mid-1980s as an offshoot of the field of health care marketing. At that time, many marketers of higher education were focusing on its being a physical product, but gradually they came to understanding that it is a service (Rekettye; 2010), as the education is people based and there is a high importance of relationships with all the stakeholders. Kotler and Fox were the first ones defining higher education marketing in 1985, stating that it is “the analysis, planning, implementation and control of carefully formulated programs designed to bring about voluntary exchanges of values with a target market to achieve organizational objectives.” (Kotler & Fox; 1995, 6) Marketing in this term involves designing offers that meet the given needs, using effective prices, communication and distribution to inform, motivate and serve these markets. (Hemsley-Brown & Oplatka; 2006, Filip; 2012)

By applying specific research marketing tools, the University is able to identify the real needs of all stakeholders, that are, according to Kotler and Fox (1995), current and prospective students, faculty, parents of students, administration and staff, alumni, suppliers, competitors, government agencies, business community, mass media, foundations, trustees, accreditation organizations, local community and general public. Research marketing tools can provide indispensable information in some cases, as the behavioral changes of students, for example, have to be considered not only during its functioning but also in the phase of developing an identity of the institution. For that, the behavior, reactions, motivations and role (and changes of all listed) of the numerous stakeholders have to be monitored continuously. (Törőcsik, 2010) Besides that, researches can be useful in case of a possible goal of having a sustainably good reputation of the University, or improvement of its current, possibly harmed image, gaining quality information regarding its offers, programs, tutors, or the opportunities of getting a better appeal, higher loyalty of ex-students or even their support. (Kuráth, 2010)
After a long way of adaptation, today’s Universities are both forced and willing to highly accept and practice principles of marketing.

2. Research objective and methodology

The conducted exploratory empirical research consists of three main parts. Firstly we focused on secondary research with the aim to reveal main challenges (e.g.: unpredictable demand) due to the new education policy of the Hungarian government. The other goal was to briefly present currently applied enrolment methods of a well-known Business and Economics Faculty. On the basis of the secondary research we conducted a primary research that consists of two main parts: a qualitative and a quantitative method. As qualitative technique we used 10 in-depth interviews with parents whose children are 11th or 12th class students (before last or last year students) and think of applying to a higher education institute. Another 6 in-depth interviews were conducted with secondary grammar school form masters and further education consultants. Beyond in-depth interviews we conducted two psychodrama groups with 7-7 first year students, who made decisions in similar circumstances a year before. The objective of these interviews and psychodrama groups was to discover main decision habits and questions arising for the quantitative research. We focused primarily on insights in the decision-making process as well as on parents’ and first year students’ different initiatives. Based on the results of these qualitative parts an online questionnaire (CAWI) was compiled. The objective of this quantitative research was to reveal secondary school students opinions and habits in connection with higher education, University selection methods and decision-making process. Main topics of the survey covered the following fields: demographics, including study related information; information gathering habits; ways of spending time; higher education expectations; main stations of their decision-making process and interest towards current enrolment initiatives. We reached 262 respondents with a judgement based sampling method considering strategic potential target audiences of students. This implies that our quantitative part of research is not representative for the given population and can only be regarded as an exploratory survey. We used SPSS statistics software to analyse data.

3. Secondary research results

In order to realize macro-environmental effects we conducted a brief STEEP analysis. Along major social trends in Hungary the South Danube region faces as
well a decline in the number of population. In this manner the number of youngsters in their 18th year was altogether 5,578 women and 5,886 men in the region and in the city of the given Faculty this means respectively 811 and 895 in 2011. Simultaneously the number of the population of 15-17 year old men and women decreased between 14-15% compared to 2006 (KSH 2012). Altogether 15,136 students handed in first ordered application to bachelor level degree programs in the field of Business and Economics studies in 2012, which is 10,166 less than a year before. The given University Faculty received 544 applications in 2012, which means approximately a 46% drop. Considering the most important technological trends we have to highlight the rapidly increasing penetration rates of the Internet and IT devices, services between the younger generations. Along with this e-learning opportunities and new technology driven solutions emerge in higher education as well as new challenges arise addressing enrolment marketing communication methods. Out of major economic trends net income and price levels play a vital role. Although statistical data shows an average increase in net income by 2% (in Baranya County only 1.7%), inflation reached a 5.7% average growth rate in 2012. Student loan opportunities have been expanded and two major offers exist. One is a general purpose credit (6% interest rate), the other can be spent only for tuition fees (2% interest rate), and both have to be paid back after getting a job out of the salary. Ecological effects have an indirect influence, basically as new regulations arise towards every institution. The given Faculty means a leading-edge due to the adaption of blue economy values and approaches. Political and legal measures have the most important direct effects in today’s higher education market. Actions of the education reform indicated major changes in the funding system of Universities (the state is decreasing available sources), and the introduction of tuition fees instead of state financed studies means a real market shock. In this regard volatility (overwriting of previous political decisions in 1-2 weeks) is enormous, and created an unpredictable future for student expectations. Demonstrations against reforms took place on a daily basis. As a result students applying to Business and Economics BA degree programs reaching more than 460 points out of 500¹ do not need to pay a tuition fee, but everyone else has to, which is approximately an amount of at least one and a half of the current monthly Hungarian average net income in a semester (half year time). Beside this, students receiving state funding have to sign a contract in which they agree to work only in Hungary after getting a degree for twice as long.

¹ 200 points depend on previous studies, 200 points on graduation degree and 100 points on extra activities, extraordinary sport performances, language certificates, etc.
as the duration of their studies. As well as, if students are not able to finish their studies within 1.5 times more than it is stated in the educational requirements, they have to pay back 50% of the received public funds raised by a certain interest rate.

Beside macro-economic effects we have to sum up previous marketing communication efforts of the given Faculty. These can be addressed as a 360° communication strategy, building on the advantages of both ATL and BTL media. It is timed to the application period starting from November ending in February or early March. It is partly dependent on the success of the communication campaign initiatives for the University level and not just for the Faculty level. Print advertisements appear in a Hungarian weekly economic journal. Daily local and regional newspapers are used as well for image communication purposes. Main messages focus on scholarship opportunities, high quality of education and international study possibilities. Compared to ATL, BTL mediums in previous campaigns have been diverse. One of the main “drivers” is a “roadshow” which takes place in every targeted secondary school in the catchment area. Brochures are handed out, personal conversations can take place at a well organised display stand and specialties can be won when someone fills out a questionnaire. Direct emails are sent to head of schools, form masters and further education consultants. An important and well attended event is the open day at the Faculty. Banners can be found on major educational portals. Beside this the web page is the main information provider for interested high school students and their parents. As well as a Facebook profile has been created to enhance conversation opportunities between potential students, their influencers and the Faculty.

Regarding marketing communication another important information source is the result of the annual standard PAPI questionnaire of the central marketing department of the University. We briefly summarize some important results of this survey. 56,2% of the 1,674 respondents plan to apply to a BA degree program, 24,4% to vocational education programs at universities and 18,8% to traditional (5-6 year long, ungraded) programs. But 39,7% of the respondents will not apply in this year, they are awaiting the results of the educational policy reforms. Among this survey the most popular information sources (measured on a scale of 1 to 5) are the followings: ‘Felvi.hu’ (one of the major educational portals) (4,05), ‘Friends and acquaintances’ opinions’ (3,87), ‘Faculties’ websites’ (3,73) and the ‘printed preliminary brochure’ (3,70). The open days at the different Faculties are still popular (3,58), and it was ranked on the 2nd place, when answering the question which information source is the most important. However social media sites only got a
value of 3.01 and it was ranked on the 11th place in connection with importance, which is bit surprising. The most influential personal sources are the students of the University (current and graduated students with values 3.47 and 3.67) which is followed by the parents (3.41). Analysing preferences in students’ decision making, the result indicate that the most important factor is “own interest fields” (4.66) and “the degree provides good job expectations” comes next with 4.42. On the 3rd place stand the “good reputation of the University or Faculty” (4.31). Money has also great importance in decisions, because “state funding opportunities” finished on the 4th place with 4.19.

Considering these implications, macro-economic effects and potential promotion activities the main strategic goals for the Faculty can be formed in the following points:

- Reach the enrolment level of the break-even point in 2013.
- Position the Faculty with the expected tuition-fee at a higher price level among big regional Universities in Hungary.
- Reach out for secondary grammar schools that serve as main sources of potential students and tie relationships even closer.
- Conduct general changes in the organizational operations and focus more on other potential markets (e.g.: R&D, consultancy) beside education.

4. Primary research results

4.1. Psychodrama results

Two psychodramas with 7-7 members took place among first year Faculty students.

Participants first of all have been asked to describe as top-of-mind associations, how they feel about being and studying at the Faculty. Most of them shared words in connection with their previous “big decisions” (where to continue their studies) about responsibility and fear but they agreed to feel reassured, safe and relaxed thanks to the companionship at the Faculty. As results show major expectations are touchable towards the younger generations to get a higher education degree. Participants had to shed light over their way to the Faculty and they mainly started at their child years, in elementary school. Those, who are grown up in a family where parents have higher education degrees take it as self-evident to continue their stud-
ies. Those who experience differences between graduates and non-graduates feel motivated and rise to the challenges. However in secondary school years they get confused and do not feel usually confident enough to know where to head next. In their 11th and 12th years they prepare for the matriculation and study some subjects in advanced levels. Their first decision about the direction of their future studies is about these subjects. Although they do not always stick to that, make changes or apply to other fields of interest in their 12th year, when University application deadlines are getting closer. Basically their first grown-up decision is about what to do, where to continue their studies. They feel the risks and their future rests on their shoulders, so they become information seekers and try to find trusted advisors (parents, friends, etc.).

4.2. In depth interview results

10 parents and 6 secondary grammar school form masters and further education consultants have been interviewed. Parents verified that choosing a secondary grammar school was basically their conscious decision, with respect to further educational goals of their children. However, choosing the advanced subjects to learn from 11th year was based upon interest and abilities of the youngsters, who could now fill the role of decision-makers at that time. In parents’ eyes a higher education degree is regarded as “expected” nowadays in order to make a living although they state, that none of them forced their kids to further studies against their wills. Nevertheless major concerns rise due to the funding requirements of higher education studies. Respondents confirm previous results that decisions upon further studies rest in elementary school, but final “directions” are traced out only just before application deadlines. These are however basically in connection with advanced subjects, but the exact University (City) or Faculty or major isn’t really clear until the 12th year of studies. The city of the probable Universities is preferred when it is geographically closer to their homes. It is based upon emotional factors (attachment, familiarity to the city, etc.) and rational factors (cheaper living costs, etc.) as well. The given Faculty is recognized by them as a high quality education institution and most of them do not prefer to apply to other Universities in Hungary just because of better “quality expectations”. However on an international basis, institutions from other countries (mainly Germany, England) rise as new competitors due to the new government regulations. Out of 22 elements, the five most important factors influencing further education decisions had to be chosen. For parents the most important 5 included: prospective job opportunities, the reputation of the institu-
tion, abilities in connection with studies (which subject is one good at), entrance difficulties (minimum points level) and the tuition fee rates. It is spectacular, that none of them choose the factors: student life in the given institution or offered gifts to new students into the 5 most important ones.

4.3. Quantitative results

Demographics of the sample are listed in the following table with respect to the 262 respondents.

Table 1: Demographics of the sample

<table>
<thead>
<tr>
<th></th>
<th>33,6% male</th>
<th>59,5% female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age 17,25 year (average)</td>
<td>2,95 year standard deviation</td>
<td></td>
</tr>
<tr>
<td>Year of study 48,9% (11th)</td>
<td>44,3% (12th)</td>
<td></td>
</tr>
<tr>
<td>Higher education degree ratio of mothers 28,6%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Higher education degree ratio of fathers 25,2%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family’s financial state 48,1% average 17,9% little above average 9,2% little below average 3,1% well above average 0,8 well below average</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Authors’ calculations

We asked all participants to answer several questions about their decision making procedure and focused on three main milestones: applying for higher education, choosing a Faculty and choosing a University. Altogether 67,2% of respondents applied for higher education in this year (12th grade) or are planning to apply next year (11th grade). Out of them, 64% have already decided about further studies by the application to secondary school, 19,5% knew it before the 10th year, 10% in the 10th year and 6% in the 11th year. These results indicate that secondary school students are generally conscious about their willingness to continue studies in higher education. However different approaches exist in the decision about the Faculty. 50,5% of the respondents knew which Faculty to choose before selecting advanced classes, so before the 10th year and 17,5% decided about it in the 10th year. 32% of the potential students made up their minds later (in the 11th year: 22%, in the 12th year: 7%) and 3% still does not think about the possible Institution. The participants are less conscious in connection with Universities. Only 16,25% of the prospect students decided about the University or Universities before the 10th year.
and 11.75% knew it in the 10th year. Most of the respondents will choose it later (in 11th grade: 33%, in 12th grade: 21%) and many of them (18%) do not even think of a University.

On the basis of these results, we created three different groups. The first group is called ‘conscious students’. 33% of the respondents, who are willing to continue their studies, belong to them. They make a decision on studying in higher education and on the exact Faculty very early (before secondary school and before the 10th year). 33% of them choose the University also very early (before the 10th year). The second group is the group of ‘typical decision makers’. Most participants belong to this group (55%). This group makes a decision on the Faculty and University in their 10th or 11th year, and many of them knew earlier to continue with higher education. The last cluster is called the ‘impulsive group’, because they decide in the last moments, typically in the 12th grade, mainly on an impulsive basis. However this is a small group, the proportion of ‘impulsive’ decision makers is only 6%. Analysing other answers of these three groups we can set up the following decision tree and with it we are able to model major routes to higher education institutes:

Figure 1: Decision process modelling

Source: Authors’ calculations

5. Conclusions

Results of the quantitative research indicate that Universities need different communication strategies for each group, especially in connection with timing
and messages. The “conscious group” needs early and continuous communication, while the “impulsive group” needs a latter and intensive communication with a different message. Probably the typical decision makers need continuous communication as well as intensive marketing campaigns.

**Literature**


STUDENTS’ PERCEPTION SURVEY ON UNIVERSITY EDUCATION QUALITY WITH THE PURPOSE OF UNIVERSITY EDUCATION DEVELOPMENT

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Abstract:

One of the most important issues when it comes to university education institutions is the issue of quality assurance. Quality assurance of teaching procedure, study programs and all other procedures that are under way in university education are commitments taken by Bosnia and Herzegovina at the Ministry Conference in Berlin 2003 joining the Bologna process. Those obligations have created many challenges and the need to react accordingly to everyone taking part in university education, with special attention to students.

Students’ requests and the survey about their perception of university education quality have their purpose in improving and developing the teaching procedure. This aim becomes greater when considering the fact that there are 45 university education institutions in Bosnia and Herzegovina and growth tendency is evident year by year. Strong competition and the process of mass use of university education sets new functioning demands according to models of business organizations with focus on quality in all its segments.

In this work an insight on students’ perception about quality of Business and Technical College in Doboj has been given, acting as an indicator of quality of that institution.

JEL Classification: I21, I25, L15

Keywords: students’ perception, quality, university education institution, development
1. INTRODUCTION

Since the end of war the system of university education in Bosnia and Herzegovina has been in constant state of reformation. One of the basic objects of the reformation of the university education is reaching the high quality of education. Providing the quality and development of the university education in Bosnia and Herzegovina is important because of three basic reasons:

1. Development of the university education is very significant for the economical, social and cultural development of the country. Strengthening the university education and implementing developed skills and knowledge preconditions for permanent and sustainable economic growth are made. Knowledge makes new knowledge and opens the possibilities for domestic and foreign investments, which will therefore create new working places and increase the living standard and prosperity.

2. Joining the Bologna process in 2003, which is in the process of implementation, Bosnia and Herzegovina is obliged to certain activities and reforms which will improve its university education and provide quality education in order to join the European education market. An important push in the right direction to the reform was given by the foundation of Agency for university education and providing quality assurance in Bosnia and Herzegovina in 2007. The Agency is in charge of defining the standards which define the minimum quality standards of university education, analysing the quality and implementing accreditation of the national universities, which is in process.

3. Founding new public and private universities has significantly improved the market of Bosnian university education. Providing good quality during the entire process of development at universities can strengthen its position and provide advantage when it comes to competition.

Providing quality assurance is an obligation in order to implement reforms which are obligatory according to the Bologna process and it is necessary to successfully accomplish the process of accreditation. On the other hand, providing good quality assurance is an obligation of the universities in order to survive on the market creating advantage against competition.

The most interesting way of evaluating quality of university institutions is providing surveys. In this work students of the Business and Technical College in Doboj have been surveyed in order to get their perception of the importance of the quality work in university education and its institutions.
2. UNIVERSITY EDUCATION MARKET IN BOSNIA AND HERZEGOVINA

According to the information of the Agency for university education and providing quality assurance in Bosnia and Herzegovina, there are 45 university institutions in Bosnia and Herzegovina. There are 10 public institutions which enclose eight universities with more than 100 faculties and academies and six colleges. The private institutions enclose 18 universities with 95 faculties and academies and 15 colleges. Overview of the university institutions is presented in the table No 1.

Table 1. The overview of the university institutions in Bosnia and Herzegovina according to the organisational districts, entities and ownership.

<table>
<thead>
<tr>
<th>Organizational unit</th>
<th>Colleges and academies</th>
<th>Organizational unit</th>
<th>High schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serbian Republic</td>
<td></td>
<td>Federation of Bosnia and Herzegovina</td>
<td></td>
</tr>
<tr>
<td>Federation of Bosnia and Herzegovina</td>
<td></td>
<td>Brcko District</td>
<td></td>
</tr>
<tr>
<td>Public sector</td>
<td>31</td>
<td>69</td>
<td>-</td>
</tr>
<tr>
<td>Private sector</td>
<td>40</td>
<td>42</td>
<td>13</td>
</tr>
<tr>
<td>Total colleges and academies</td>
<td>195</td>
<td>Total high schools</td>
<td>21</td>
</tr>
</tbody>
</table>

The source: developed by the author according to data the Agency for the development of higher education and quality assurance of Bosnia and Herzegovina

The amount of university education institutions in Bosnia and Herzegovina is constantly increasing, especially the amount of private university education institutions. During the period from 2004 to 2012, private university education institutions have reached the increase of 22 %, which is presented in the diagram No 1.

Diagram No 1. Private university education institutions in the period from 2004 to 2012.

The source: developed by the author according to data the establishment of private higher education institutions
During the same period the total amount of university education institutions, including public and private ones, grew at the rate of 10-12%. Diagram No 2 presents the data.

Diagram No 2. All university education institutions from 2004 to 2012.

The source: developed by the author according to data the Agency for Statistics of Bosnia and Herzegovina

On the other hand, the amount of enrolled students at the university education institutions in Bosnia and Herzegovina, for the same period, grew at the rate of 3,45 %, as it is presented in the diagram No 3.

Diagram No 3: Students enrolled in university education institutions in Bosnia and Herzegovina according to the grade they are attending.

*All students who study according to the previous curriculum and students who study according to the Bologna curriculum are involved (first cycle) Students of the second and third cycles of the Bologna curriculum are not involved.

The source: developed by the author according to data the Agency for Statistics of Bosnia and Herzegovina
The displayed information present the structure of the university education market in Bosnia and Herzegovina. The number of university education institutions has constantly been on the increase since 2004. It is mostly due to the growing number of private university education institutions. Demand for the university education which is expressed with the amount of enrolled students does not have growing rate at the same level. It has actually remained unchanged from 2007/2008 to 2011/2012. In fact, the average growing rate of students enrolled at university education institutions for that period is just 0.5%. Therefore, it is logical conclusion that university education institutions in Bosnia and Herzegovina constantly have to struggle to remain on the education market. Strong competition and vast number of university education institutions demand functioning of university education institutions in accordance to business organisations focusing on quality assurance. This is the precondition to remain on the university education market in Bosnia and Herzegovina.

3. STUDENTS’ PERCEPTION OF UNIVERSITY EDUCATION QUALITY IN BUSINESS AND TECHNICAL COLLEGE IN DOBOJ

The purpose of this study is to gain insights into students’ perception of the importance of university education quality. The main goal of this research, which was conducted in Business and Technical College in Doboj, was to get insights into students’ attitudes toward university education quality. These insights are necessary for the university’s further development and survival on educational market.

3.1 Research methods and participants

The research was conducted among the first-year business economics students. A random sample of seventy-four students (n=74) was selected during lectures at the end of the winter semester 2012/2013.

The questionnaire consisted of two parts. The first part is designed to gather general information about the student (sex). The second part comprised a list of various Likert items. All the statements referred to the students’ attitudes toward the university education in general and their university. The remaining close-ended questions in the questionnaire referred to the factors that affect and determine the quality of a university. Mean, standard deviation, variance and rank were calculated using descriptive statistics. The chi-square test of independence was used to determine the statistical significance of the difference in perceptions between genders.
3.2 Results analysis

The insights into levels of agreement with statements referring to the students’ attitudes toward the university education in general and their university were attained by use of descriptive analysis. The following table (table 2) represents the highest-ranked statements about the students’ attitudes toward university education.

Table 2 Students’ perception of university education

<table>
<thead>
<tr>
<th>Statement</th>
<th>Mean</th>
<th>Std.Dev.</th>
<th>Variance</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>3. A high quality education fosters the development of good work habits in students</td>
<td>4.162</td>
<td>0.833</td>
<td>0.693</td>
<td>1</td>
</tr>
<tr>
<td>5. More developed countries (MDC) offer higher-quality university education</td>
<td>4.162</td>
<td>0.957</td>
<td>0.915</td>
<td>2</td>
</tr>
<tr>
<td>6. A student graduating from a high-quality university will have better chances of getting employed.</td>
<td>3.459</td>
<td>1.303</td>
<td>1.697</td>
<td>3</td>
</tr>
<tr>
<td>1. The majority of knowledge acquired in university is applicable in real life.</td>
<td>3.444</td>
<td>0.998</td>
<td>0.996</td>
<td>4</td>
</tr>
<tr>
<td>8. The majority of students is capable of finding employment in their field of expertise.</td>
<td>3.243</td>
<td>1.011</td>
<td>1.022</td>
<td>5</td>
</tr>
</tbody>
</table>

The presented data shows that there are two high-ranked statements: that high-quality education develops good work habits (M=4.162, s=0.833), and that more developed countries offer better university education (M=4.162, s=0.957). The remaining three statements that were similarly ranked refer to the students’ view on the relationship between education and employment. Students’ responses to these statements show that they share their belief (M < 3.5) that high-quality education raises the chances of finding a job and being given an opportunity to use their knowledge in the field of their expertise. Hence, the students have a similar positive opinion about university education, but are less optimistic about finding a job in their field of expertise and being able to put their knowledge into use. Such an attitude can be seen as a kind of criticism directed toward both the present university education system and institutions that make it. On the other hand, the economic situation in Bosnia and Herzegovina is extremely poor. So the end of 2012. The unemployment rate was 44.5 percent. This indicator, as well as some others are saying that Bosnia and Herzegovina is not (enough) a developed country. It follows that neither its system of higher education, then it is not enough good quality which is discussed in the high level assertion that indicates the quality of higher education in developing countries.
Further research examined the attitudes of students toward simplifying factors, in terms of how important they are for the very quality of higher education institutions and quality delivery of courses. The data obtained are shown in rank and relative frequencies in table No 3.

Table 3 Factors that indicate the quality of higher education institutions

<table>
<thead>
<tr>
<th>Factors that indicate the quality of higher education institutions</th>
<th>Frequencies (in %)</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Using the latest breakthroughs and discoveries in science</td>
<td>56.76</td>
<td>1</td>
</tr>
<tr>
<td>Variety of courses and majors</td>
<td>40.54</td>
<td>2</td>
</tr>
<tr>
<td>Lectures by experts from abroad</td>
<td>29.73</td>
<td>3</td>
</tr>
<tr>
<td>Mentorship monitoring students during their studies</td>
<td>16.21</td>
<td>4</td>
</tr>
<tr>
<td>A small number of students per professor</td>
<td>13.51</td>
<td>5</td>
</tr>
</tbody>
</table>

It is evident that the most common factor that determines the quality of higher education institutions that referring to the use of the latest achievements of science and knowledge. Specifically, 56.76 percent of the surveyed students rated this factor as very important. Factors that relate to the diversity of subjects and courses to students is also an indicator of the quality of higher education institutions (F = 40.54%). Next ranked factor is the one that talks about organisation lectures by experts from abroad (F = 29.73%). The three best evaluation factors indicate that most students benefit primarily knowledge. Using the latest developments and monitoring of developments in science, as well as the engagement of eminent professionals from abroad to significantly raise the quality of teaching and the university. The result is the introduction of new courses and subjects that follow the development of science, but also recognize the needs of the market.

However, for research, it is especially interesting to see how the students rate the last two factors. Factor who talk about monitoring the mentoring of students (f = 16.21%) and a small number of students per professor (f = 13.51%) students are not identified as indicators of the quality of the university. Although it is quite clear that the two factors are components of higher education in order to ensure quality, the perception of the students they are not. There is statistically significant difference for the factor mentorship monitoring students during their studies. Specifically, the female part of the population of students rated this factor lower (x²=18,538) than their male counterparts. A factor of the number of students per professor is not a statistically significant difference between the sexes (x²=5,145).
The assumption, however, is that students are the last two factors are relatively poorly evaluated from the simple fact that they do not know them so they do not see it as important for the quality of higher education institutions. This can be singled out as a weakness, but as an opportunity for this institution for higher education in order to increase quality and improve its market position. Organizations continue to monitor Mentorship students, and fewer students per professor mean an individual approach to each student. In this way, the possibility of raising the quality of work with the students for what the student does and better education. On the other hand, the above factors go in favor of the quality of the university. Students are, in fact, very often identified with the institution of higher education where they are educated. Assuming the quality of their education, and higher education institutions will be shared as such from the perspectives of the employer, the environment, the public. Reverse is true of course.

4. CONCLUSION

One of the main goals of higher education reforms in Bosnia and Herzegovina is quality assurance. As the signatory of the Bologna Declaration, Bosnia and Herzegovina has committed itself to the process of higher education reforms that will contribute to the higher education development and quality improvement.

The higher education development and the improvement of the teaching process quality are even more meaningful when taking the great number of higher education institutions in Bosnia and Herzegovina into consideration. The increasing number of private universities only adds to the importance of the reform.

Questionnaires are commonly used to determine the quality of a higher education institution. The participants in this study were the students at the Business and Technical College in Doboj. The study provides the insights into their perception of university education in general and their university. Several basic results were attained by use of descriptive statistics. The participants share positive attitudes toward university education, but are not sure what opportunities upon graduation, to education offers because they know bad economic situation in the country. You are convinced that the developed countries have better systems of higher education. As the most important factors that speak about the quality of higher education institutions, students see the use of the latest findings in science, the variety of subjects and courses, and lectures from abroad. Mentorship monitoring students during their studies and fewer students per professor, students are recognized as
factors that speak about the quality of the university. The reason lies in the fact that these methods work in teaching students do not know. This can be singled out as a weakness, but as an opportunity for this institution in terms of strengthening the quality and enhance market position.

These evaluations are merely one aspect of evaluating a higher education institution. They present students’ attitudes toward higher education quality and the higher education institution itself. Undertaking appropriate corrective measures will bring forth the development of this institution and its survival on a highly competitive educational market.

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EVALUATION OF CROATIA’S REGIONAL HOSPITAL EFFICIENCY: AN APPLICATION OF DATA ENVELOPMENT ANALYSIS

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Abstract

Due to expenditure increases that can be attributed to several reasons, healthcare systems throughout the world strive towards cost containment. In order to conduct it in a satisfactory manner, it is necessary first to determine the sources of inefficiency in the process of providing healthcare services.

In this paper regional healthcare efficiency of Croatian counties is measured based on hospital performance in three-year period (2007-2009) using Data Envelopment Analysis (DEA). The set of inputs and outputs consists of six indicators. Four of them are directly related to the healthcare efficiency, while two are external/uncontrollable factors included in order to take into account great regional socio-economic disparities. Analysis is carried out using models with assumption of variable returns-to-scale (BCC). Since the hospitals have little control over their outputs and more opportunities to reduce inputs used to produce them, input-oriented models are used.

In terms of providing hospital healthcare services, DEA identifies efficient counties as examples of good operating practices (benchmark members) and inefficient counties that are analyzed in detail to determine not only the sources but also the amounts of their inefficiency in each source. To enable proper monitoring of efficiency dynamics and make conclusions on behaviour of the county (whether its efficiency has improved, deteriorated or stagnated), window analysis is applied. Based on the results, guidelines for implementing necessary improvements to achieve efficiency are given. Analysis reveals great disparities among counties.

JEL Classification:I11, I14, I15

Keywords: regional hospital efficiency, county, data envelopment analysis, window analysis
INTRODUCTION

Healthcare systems worldwide are increasingly the subject of analysis aimed at defining, measuring and improving their efficiency. However, despite the importance of efficiency measurement in healthcare services, the more frequent use of advanced econometric and mathematical frontier techniques in this field started only in 1990’s (Worthington, 2004).

This paper is the outcome of a research related to multicriterial evaluation of the achieved regional levels of the Croatian healthcare system. The purpose is to present the results of the analysis of regional hospital efficiency in Croatia using Data Envelopment Analysis (DEA) and its extension in the treatment of the same problem.

DEA is a non-parametric productive efficiency measurement method for operations with multiple inputs and multiple outputs. This approach first establishes an efficient frontier formed by a set of decision making units (DMUs) that exhibit best practices and then assigns the efficiency level to other non-frontier units according to their distances to the efficient frontier. In this way the method combines and transforms multiple inputs and outputs into a single efficiency index.

The study of Liu et al. (2013) surveys the DEA literature by applying a citation-based approach and testifies to numerous DEA applications in a variety of contexts and countries. An interesting and cited example in the international literature is evaluation of the efficiency of regional public healthcare delivery in Greece, in which the efficiency levels of the Greek prefectures were compared and analyzed by using DEA and FDH (free disposal hull) models for the year 2005 (Halkos & Tzeremes, 2011).

According to author’s knowledge, DEA has not yet been used in the measurement of regional hospital efficiency in Croatia, which is one of the aspects that make this research original.

DATA AND METHODOLOGY

Croatian counties represent 21 entities whose relative hospital efficiency is evaluated in this paper. The choice of indicators for the purpose of this study was guided by the following principles: covering key natural indicators of hospital performance; exact measurability of indicators; availability and accessibility of data on indicators. In addition, in any DEA application, it is suggested as rule of
thumb that the number of entities should be at least three times the number of indicators (Banker et al., 1989).

Accordingly, four indicators are included into analysis. The inputs are represented by the number of hospital beds and the number of hospital doctors, while the outputs are the number of inpatient care days and the number of medical examinations in specialist offices. Great disparities among the counties, regarding all here selected indicators, may be explained by different population sizes that also lead to different economic potential. For that reason, two external variables have been also used in this analysis. These are population as non-controllable input and gross domestic product (GDP) as non-controllable output. Again, it can be realized that Croatian counties are characterized by great dissimilarities, both in terms of population size and GDP. All these inequalities are expected to have a major impact on the health provision.

Data for selected six indicators are relating to the period 2007-2009 and were taken from Croatian National Institute of Public Health and Croatian Bureau of Statistics.

Basic DEA models commonly used in applications are CCR (Charnes et al., 1978) and BCC (Banker et al., 1984). CCR model is built on the assumption of constant and BCC model on the assumption of variable (either increasing or decreasing) returns to scale activities. In addition, the DEA model can be adjusted to the strategy chosen by management and therefore oriented on input reduction (input-oriented model) or on output augmentation (output-oriented model).

Let us consider the set of \( n \) DMUs. Each of them (DMU\(_j\), \( j = 1, 2, \ldots, n \)) produces \( s \) outputs and for their production uses \( m \) inputs. Let us denote \( x_j = \{x_{ij}, i = 1, \ldots, m\} \) the vector of inputs and \( y_j = \{y_{ij}, r = 1, \ldots, s\} \) the vector of outputs for the DMU\(_j\). Then the data set is given by two matrices – the matrix of inputs: \( X = (x_{ij}, i = 1, \ldots, m, j = 1, \ldots, n) \) and the matrix of outputs: \( Y = (y_{ij}, r = 1, \ldots, s, j = 1, \ldots, n) \).

The basic principle of DEA models in evaluation of efficiency of the DMU\(_o\), \( o \in \{1, 2, \ldots, n\} \), consists in looking for a virtual DMU with inputs and outputs defined as the linear combination of inputs and outputs of the other DMUs in the decision set, i.e. \( X\lambda \) and \( Y\lambda \), where \( \lambda = (\lambda_1, \lambda_2, \ldots, \lambda_s) \), \( \lambda > 0 \) is the vector of weights (coefficients of

\(^1\) Unlike controllable variables that management can control and change, non-controllable variables are given and cannot be influenced by management.

\(^2\) GDP was taken at constant prices of the year 2007.

\(^3\) The following procedure is based on Cooper et al. (2006, pp. 87-89).
linear combination) of the DMUs. The virtual DMU should be better (or at least not worse) than the analysed DMU \( o \). The problem of looking for a virtual DMU can generally be formulated as standard linear programming problem:

\[
\begin{align*}
(BCC – I_o) & \quad \min \theta_y \\
\text{subject to} & \quad \theta_y x_o - X\lambda \geq 0 \quad \text{(1)} \\
& \quad Y\lambda \geq y_o \quad \text{(2)} \\
& \quad e\lambda = 1 \quad \text{(3)} \\
& \quad \lambda \geq 0 \quad \text{(4)}
\end{align*}
\]

where \( e \) is a row vector with all elements equal to 1. Condition (1) consists of \( m \), condition (2) of \( s \), and condition (4) of \( n \) constraints. In our case, \( n = 21 \), \( m = 3 \), \( s = 3 \). Vector \( \lambda \) shows the proportions contributed by efficient DMUs to the projection of DMU \( o \) onto efficient frontier. The optimal objective value \( \theta_y^* (0 < \theta_y^* \leq 1) \) is the efficiency result, and for inefficient DMU \( o \) also the input reduction rate.

It is obvious from constraints (1) and (2) that \((X\lambda, Y\lambda)\) outperforms \((\theta_y^* x_o, y_o)\) when \( \theta_y^* < 1 \). With regard to this property, the input excesses \( s^- \in \mathbb{R}^n \) and the output shortfalls \( s^+ \in \mathbb{R}^s \) are defined and identified as „slack“ vectors by

\[
s^- = \theta_y^* x_o - X\lambda, \quad s^+ = Y\lambda - y_o,
\]

with \( s^- \geq 0 \), \( s^+ \geq 0 \) for any feasible solution \((\theta_y, \lambda)\) of \((BCC – I_o)\).

To discover the possible input excesses and output shortfalls, a two-phase procedure is used. In the first phase, \( \theta_y \) is minimized and, in the second phase, the sum of the input excesses and output shortfalls is maximized keeping \( \theta_y = \theta_y^* \) (the optimal objective value obtained in the first phase).

Definition 1 (BCC-Efficiency): If an optimal solution \((\theta_y^*, \lambda^*, s^-, s^+)\) obtained in this two-phase process satisfies \( \theta_y^* = 1 \) and has no slack \((s^- = 0, s^+ = 0)\), then the DMU \( o \) is called BCC-efficient, otherwise it is BCC-inefficient.

Definition 2 (Reference Set): For a BCC-inefficient DMU \( o \), its reference set \( E_o \) is defined based on an optimal solution \( \lambda^* \) by \( E_o = \{ j \mid \lambda^*_j > 0 \} \) \((j \in \{1,2,...,n\})\).

An optimal solution can be expressed as

\[
\theta_y^* x_o = \sum_{j \in E_o} x_j \lambda^*_j + s^-^*, \quad y_o = \sum_{j \in E_o} y_j \lambda^*_j - s^+^*.
\]

These relations suggest that the efficiency of \((x_o, y_o)\) for DMU \( o \) can be improved if the input values are reduced radially by the ratio \( \theta_y^* \) (thus removing technical inefficiency) and the input excesses recorded in \( s^-^* \) are eliminated, and if the output values are augmented by the output shortfalls in \( s^+^* \) (thus removing mix inefficiency). Described improvement can be expressed by the following formula known as the BCC-projection:

\[
x_o = \theta_y^* x_o - s^-^*, \quad y_o = y_o + s^+^*.
\]

---

4 The constraint in conditions (1) or (2) relating to non-controllable input or output becomes equality while all remaining constraints and conditions do not change.
The need for the monitoring of regional healthcare development dynamics, which is extremely important for healthcare policy makers, leads to the use of window analysis as one of the extensions to DEA models. In that case, data for several periods for each DMU are included into analysis, and each DMU is regarded as if it were a different DMU in each of the reporting periods.

**EMPIRICAL RESULTS**

Knowledge of the production frontier characteristics for the process to be analyzed is crucial for model type selection. Since that could not be determined with certainty in the case of regional healthcare performance, the analysis was carried out under both (constant and variable returns-to-scale) assumptions. It appeared that differences between the results obtained by CCR and BCC model were significant. They may be attributed to the return effect with respect to the range of activities thus making the BCC model more suitable for describing the analyzed hospital activity.

Since input quantities appear to be the primary decision variables and therefore the management has greater control over the inputs compared to the outputs used, input-orientation is utilized (Coelli et al., 2005).

The assessment of Croatian counties’ relative hospital efficiency is based on empirical data on six healthcare indicators and computed by program package DEA-Solver-Pro 7.0F (Saitech, Inc.). Due to the nature of selected indicators, comparisons of the counties were made on a yearly basis.

At first, we shall observe the middle year of the period studied. According to the analysis of obtained results, average relative efficiency in 2008 is 0.9582. This means that an average county should only use 95.82% of the currently used quantity of inputs to produce the same quantity of the currently produced outputs, if it wishes to reach the efficiency frontier. In other words, if it wishes to do business efficiently, it should produce \((1-0.9582)/0.9582 \approx 4.36\%\) more output with the same input level.
Table 1: The reference set frequency (2008)

<table>
<thead>
<tr>
<th>Efficient county</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>City of Zagreb (2)</td>
<td></td>
</tr>
<tr>
<td>Zagreb (5)</td>
<td></td>
</tr>
<tr>
<td>Žagreb (5)</td>
<td></td>
</tr>
<tr>
<td>Krapina-Zagorje (5)</td>
<td></td>
</tr>
<tr>
<td>Sisak-Moslavina (0)</td>
<td></td>
</tr>
<tr>
<td>Varaždin (0)</td>
<td></td>
</tr>
<tr>
<td>Koprivnica-Križevci (6)</td>
<td></td>
</tr>
<tr>
<td>Primorje-Gorski kotar (0)</td>
<td></td>
</tr>
<tr>
<td>Virovitica-Podravina (3)</td>
<td></td>
</tr>
<tr>
<td>Požeč-Slavonia (0)</td>
<td></td>
</tr>
<tr>
<td>Slavonski Brod-Posavina (3)</td>
<td></td>
</tr>
<tr>
<td>Lika-Senj (2)</td>
<td></td>
</tr>
<tr>
<td>Osijek-Baranja (0)</td>
<td></td>
</tr>
<tr>
<td>Vukovar-Sirmium (0)</td>
<td></td>
</tr>
<tr>
<td>Split-Dalmatia (0)</td>
<td></td>
</tr>
<tr>
<td>Istria (1)</td>
<td></td>
</tr>
</tbody>
</table>

Source: Author’s calculations

All six inefficient counties showed efficiency below average: Šibenik-Knin (0.6786), Dubrovnik-Neretva (0.8587), Zadar (0.8677), Međimurje (0.8873), Karlovac (0.8988) and Bjelovar-Bilogora (0.9311). Fifteen counties proved to be relatively efficient which makes 71% of the total number. County that was rated efficient usually appears in the reference sets of inefficient counties. The frequency of its occurrence in those sets can be considered an indication of whether it is a role model to other counties. Table 1 displays these frequencies for every efficient county.

County of Koprivnica-Križevci can be considered the most efficient, because it serves as a reference for all six inefficient counties.

Among the obtained results are the projections of all counties against the efficiency frontier, i.e. the values of inputs and outputs that they should come up with to achieve relative efficiency. When it comes to efficient county, empirical data and their projections do not differ. The differences between empirical and projected values of every input and output and their averages for all counties are displayed in Table 2.
Table 2: Sources and amounts of inefficiency (2008)

| Inefficient county | Proposed improvements (%) | | | |
|---------------------|---------------------------|---------------------------|
|                     | Hospital beds | Hospital doctors | Inpatient care days | Medical examinations |
| Karlovac            | -10.12        | -25.81             | 0.00                | 7.42                 |
| Bjelovar-Bilogora   | -6.89         | -6.89              | 0.00                | 36.34                |
| Žadar               | -13.23        | -24.33             | 0.00                | 8.24                 |
| Šibenik-Knin        | -32.14        | -32.14             | 0.00                | 7.89                 |
| Dubrovnik-Neretva   | -14.13        | -14.13             | 0.00                | 11.99                |
| Međimurje           | -11.27        | -29.96             | 0.00                | 41.58                |
| Average per county  | -14.63        | -22.21             | 0.00                | 18.91                |

Source: Author’s calculations

Significantly greater average influence of inputs rather than outputs is predetermined by selection of model orientation.

On average, hospital doctors have the strongest influence on inefficiency. At the same time, the major needed modifications are concerning medical examinations in the case of Bjelovar-Bilogora and Međimurje. It is also evident that the number of inpatient care days is not a source of inefficiency. Although the number of inpatient care days is controllable, it is evidently not a source of inefficiency. Some of these facts indicate the need for deeper consideration of the causes of such results and introduction of measures for their improvement.5

Sources and amounts of relative inefficiency and proposed improvements are extremely valuable information on which authorities can set goals and make decisions leading to them. The importance of reference set should also be emphasized because it provides information on the role models for each inefficient county.

The next step of this research was carried out using window analysis. Since a three-year period 2007-2009 is chosen, the window (i.e. the period within which the comparisons are performed) ranges from one to three years. For the purposes of this study, one window that includes all three years is used. The relative efficiency results are listed in Table 3. Among 63 observed entities, 33 turned out to be efficient. The highest efficiency results were achieved in 2007. Five counties were efficient during the entire period. The worst efficiency results, according to both

5 As non-controllable variables, population and GDP do not change.
number of efficient counties and lowest average efficiency, were achieved in 2008. Although the average efficiency is quite high, the differences between the average and worst efficiency results, especially prominent in 2008, suggest large regional disparities in Croatia concerning healthcare.

**Table 3: Window analysis results**

<table>
<thead>
<tr>
<th>County</th>
<th>Relative efficiency results</th>
<th>Average per year</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2007</td>
<td>2008</td>
</tr>
<tr>
<td>Grad Zagreb</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Zagrebačka</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Krapinsko-zagorska</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Sisačko-moslavačka</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Karlovačka</td>
<td>0.97656</td>
<td>0.89568</td>
</tr>
<tr>
<td>Varaždinska</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Koprivničko-križevačka</td>
<td>0.95386</td>
<td>0.91917</td>
</tr>
<tr>
<td>Bjelovarsko-bilogorska</td>
<td>0.96544</td>
<td>0.91679</td>
</tr>
<tr>
<td>Primorsko-goranska</td>
<td>0.97955</td>
<td>0.91475</td>
</tr>
<tr>
<td>Ličko-senjska</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Virovitičko-podravska</td>
<td>1</td>
<td>0.97443</td>
</tr>
<tr>
<td>Požeško-slavonska</td>
<td>0.99998</td>
<td>1</td>
</tr>
<tr>
<td>Brodsko-posavska</td>
<td>1</td>
<td>0.97900</td>
</tr>
<tr>
<td>Zadarska</td>
<td>0.91304</td>
<td>0.86446</td>
</tr>
<tr>
<td>Osječko-baranjska</td>
<td>1</td>
<td>0.97828</td>
</tr>
<tr>
<td>Šibensko-kninska</td>
<td>0.89895</td>
<td>0.65902</td>
</tr>
<tr>
<td>Vukovarsko-srijemska</td>
<td>1</td>
<td>0.80432</td>
</tr>
<tr>
<td>Splitsko-dalmatinska</td>
<td>1</td>
<td>0.99875</td>
</tr>
<tr>
<td>Istarska</td>
<td>1</td>
<td>0.98279</td>
</tr>
<tr>
<td>Dubrovačko-neretvanska</td>
<td>0.83447</td>
<td>0.85234</td>
</tr>
<tr>
<td>Međimurska</td>
<td>0.86488</td>
<td>0.87773</td>
</tr>
<tr>
<td>Average per year</td>
<td>0.97080</td>
<td>0.94208</td>
</tr>
<tr>
<td>Minimum efficiency result</td>
<td>0.83447</td>
<td>0.65902</td>
</tr>
<tr>
<td>Number (%) of efficient counties</td>
<td>12 (57%)</td>
<td>9 (43%)</td>
</tr>
<tr>
<td>Number (%) of inefficient counties</td>
<td>9 (43%)</td>
<td>12 (57%)</td>
</tr>
</tbody>
</table>

Source: Author's calculations

In window analysis model, each county is represented by three entities – one for each of the observed years. Due to the need of their mutual distinguishing,
the name of each entity should consist of the county name and the corresponding year. Table 4 displays the reference set frequencies for every efficient entity. Although inefficient in 2007 and 2009, Koprivnica-Križevci in 2008 sets an exemplar by serving as reference for the largest number of inefficient counties in each of the observed years.

The average differences per inefficient county between empirical and projected values in every input and output are displayed in Table 5.

Table 4: The reference set frequency according to window analysis

<table>
<thead>
<tr>
<th>Efficient county</th>
<th>Reference set frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2007</td>
</tr>
<tr>
<td>Grad Zagreb-2007</td>
<td>0</td>
</tr>
<tr>
<td>Zagrebačka-2007</td>
<td>0</td>
</tr>
<tr>
<td>Krapinsko-zagorska-2007</td>
<td>0</td>
</tr>
<tr>
<td>Sisačko-moslavačka-2007</td>
<td>0</td>
</tr>
<tr>
<td>Varaždinska-2007</td>
<td>1</td>
</tr>
<tr>
<td>Ličko-senjska-2007</td>
<td>0</td>
</tr>
<tr>
<td>Virovitičko-podravsko-2007</td>
<td>3</td>
</tr>
<tr>
<td>Brodsko-posavska-2007</td>
<td>0</td>
</tr>
<tr>
<td>Osječko-baranjska-2007</td>
<td>0</td>
</tr>
<tr>
<td>Vukovarsko-srijemska-2007</td>
<td>0</td>
</tr>
<tr>
<td>Splitsko-dalmatinska-2007</td>
<td>1</td>
</tr>
<tr>
<td>Istarska-2007</td>
<td>1</td>
</tr>
<tr>
<td>Grad Zagreb-2008</td>
<td>2</td>
</tr>
<tr>
<td>Zagrebačka-2008</td>
<td>6</td>
</tr>
<tr>
<td>Krapinsko-zagorska-2008</td>
<td>5</td>
</tr>
<tr>
<td>Sisačko-moslavačka-2008</td>
<td>0</td>
</tr>
<tr>
<td>Varaždinska-2008</td>
<td>0</td>
</tr>
<tr>
<td>Koprivničko-križevačka-2008</td>
<td>8</td>
</tr>
<tr>
<td>Primorsko-goranska-2008</td>
<td>1</td>
</tr>
<tr>
<td>Ličko-senjska-2008</td>
<td>2</td>
</tr>
<tr>
<td>Požeško-slavonska-2008</td>
<td>1</td>
</tr>
<tr>
<td>Grad Zagreb-2009</td>
<td>2</td>
</tr>
<tr>
<td>Zagrebačka-2009</td>
<td>0</td>
</tr>
<tr>
<td>Krapinsko-zagorska-2009</td>
<td>0</td>
</tr>
<tr>
<td>Sisačko-moslavačka-2009</td>
<td>1</td>
</tr>
<tr>
<td>Primorsko-goranska-2009</td>
<td>0</td>
</tr>
</tbody>
</table>
On average, the number of medical examinations has by far the strongest influence on inefficiency. On the other hand, the number of inpatient care days does not affect the efficiency, with the exception of 2008 where its improvement is required but quite negligible. That is particularly interesting because it was not at all the source of inefficiency when the year 2008 was observed separately. The reason lies in the fact that the overall performance of counties is better in the other two years. Specifically, best average values of all indicators at the state level are recorded in 2007 and 2009 (naturally, smaller amounts for inputs and larger amounts for outputs are preferable).

Table 5: Sources and average amounts of inefficiency according to window analysis

<table>
<thead>
<tr>
<th>Inputs/Outputs</th>
<th>Proposed input and output improvements (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2007</td>
</tr>
<tr>
<td><strong>Inputs</strong></td>
<td></td>
</tr>
<tr>
<td>Hospital beds</td>
<td>-6.81</td>
</tr>
<tr>
<td>Hospital doctors</td>
<td>-12.81</td>
</tr>
<tr>
<td><strong>Outputs</strong></td>
<td></td>
</tr>
<tr>
<td>Inpatient care days</td>
<td>0.00</td>
</tr>
<tr>
<td>Medical examinations</td>
<td>12.10</td>
</tr>
</tbody>
</table>

Source: Author’s calculations

CONCLUSION

The analysis in this paper, conducted using the DEA method, shows quite high average regional hospital efficiency scores of Croatian counties. However, some counties are lagging far behind, particularly Šibensko-kninska with the worst overall average score and Dubrovačko-neretvanska with the worst scores in 2007 and 2009. The analysis identified inpatient care days as the minor source and medical examinations in specialist offices as by far the largest source of inefficiency. This result is consistent with the disproportions of these indicators among counties.
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GESUNDHEITSFÖRDERLICHE FÜHRUNG

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Abstract

Health-promoting leadership has won more important than ever. These include, for example, contribute to the changing workplaces, the demographic development and the variety of change processes in companies.

A holistic understanding of health and scientific findings offer a number ways to align leadership behavior beneficial to health. For success it requires not only financial goals, anchoring occupational health promotion in the company is also necessary.

This paper addresses key findings from science and business practice, explains contexts and backgrounds and develops practical guidance for health-promoting leadership.

JEL Classification: I15

Keywords: Leadership, health, health promotion, neuro leadership, change management skills, salutogenesis

Einleitung

- Veränderte Arbeitsbedingungen und berufliche Gesundheitsgefahren bringen stärkere psychomentaler Belastung bzw. höhere Überlastungsgefährdung mit sich.

- Grenzen der (psychischen) Leistungsfähigkeit wurden und werden von Mitarbeitern/innen und Führungskräften häufiger erreicht.

- Gesundheit als Ausdruck von Lebensqualität hat an Bedeutung gewonnen.

- Die Lebensarbeitszeit und das Alter der Beschäftigten steigen (späterer Renteneintritt und längere Lebenszeiten).

- In Deutschland werden weniger Menschen geboren, der Altersdurchschnitt der Bevölkerung wächst (demographische Entwicklung), weniger Fachkräfte „rücken nach“.

Der positive Einfluss gesundheitsförderlicher Führung auf die Leistungsfähigkeit von Beschäftigten ist zunehmend bekannt.


Selbstverständlich kann das Thema in diesem Rahmen nicht umfassend behandelt werden. Der vorliegende Aufsatz zeigt aber folgend wesentliche Aspekte, wie gesundheitsförderliche Führung praktiziert werden kann, erläutert Hintergründe und zeigt Zusammenhänge auf. Gleichzeitig werden konkrete, praktische Hinweise für Führungskräfte und Mitarbeiter/innen gegeben, wie sie sich gesundheitsförderlich im Arbeitskontext verhalten können.

1. Bezugssystem und Konsequenzen

Um bewusst gesundheitsförderliche Führung praktizieren zu können, braucht es ein Verständnis darüber, in welchem Kontext Führung stattfindet und was dies für Führungshandeln bedeutet. Unter dem Focus Gesundheitsförderung werden in diesem Abschnitt Antworten gegeben.

1.1 Begriffsbestimmung

Zum besseren Verständnis der Ausführungen seien zunächst die drei zentralen Aspekte der Themenstellung definiert: Gesundheit, Gesundheitsförderung und Führung.
In der Einleitung wurden Gründe für die Aktualität des Themas „Gesundheitsförderliche Führung“ genannt. Diese korrespondieren mit der Entwicklung des Gesundheitsbegriffs. Noch vor 40 Jahren war das Gesundheitsverständnis weitgehend auf die Abwesenheit von körperlichen Erkrankungen beschränkt, obwohl die Weltgesundheitsorganisation (WHO) schon mit ihrer Gründung 1946 eine neue Qualität einführte. Das Verständnis von Gesundheit wurde neben den körperlichen Aspekten um seelische und soziale Faktoren erweitert: „Health is a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity“ (WHO 1946). Dabei ist Gesundheit, so verstehen es auch heute führende Gesundheitswissenschaftler (Badura/ Münch/ Ritter 2001), kein statischer Zustand, sondern veränderbar und verbunden mit Fähigkeiten:

- zur Problemlösung
- zur Gefühlsregulation
- zum Erhalt bzw. zur Wiederherstellung unterstützender sozialer Netzwerke und Beziehungen. (ebenda)


Beinhalten die Unternehmensziele (ggf. auch die Leitbilder o. ä.) Aspekte zur Gesunderhaltung bzw. Gesundheitsförderung der Beschäftigten, ist für gesundheitsförderliche Führung neben den gesetzlichen Vorgaben ein wichtiger Grundstein gelegt. In der Umsetzung bewegt sich gesundheitsförderliche Führung im Spannungsfeld von bestimmten Arbeitsbedingungen, bestimmten Mitarbeiter/inne/n und bestimmter Führungskraft (vgl. Abbildung 1) und ist entsprechend zu gestalten. Führungshandeln kann und muss sich dann daran messen lassen, in wie weit es eben die Gesundheit der jeweiligen Mitarbeiter/innen (incl. Führungskräften) fördert, unterstützt, stärkt etc.


Abbildung 1: Kontext Gesundheitsförderlicher Führung

1.2 Arbeitsbedingungen

An dieser Stelle kann und soll nicht auf die vielfältigen Arbeitsstrukturen und Arbeitsorganisationsformen, Abläufe, Verfahren, Gegenstände etc. eingegangen werden. Vielmehr sollen Charakteristika moderner Arbeitswelten, die besonders
die verstärkte psychomentale Belastung bedingen, benannt und kurz beschrieben werden. So ist die Arbeitswelt für die darin tätigen Menschen gekennzeichnet durch eine Reihe von Ambivalenzen:

- **Komplexität versus Vereinfachung:** So werden zum Beispiel Computersysteme und -programme immer komplexer. Gleichzeitig sind die weitreichenden Vernetzungen und Zusammenhänge an der Bedienungsoberfläche nicht ersichtlich, sondern ggf. ist nur ein Haken zu setzen oder eben nicht. Die Auswirkungen werden ggf. erst an anderer Stelle oder anderen Stellen (zum Teil) sichtbar. Ein anderes Beispiel sind global vernetzte und abhängige Mark geschehnisse, die zu berücksichtigen sind, in ihren Auswirkungen aber nur ver einfacht und begrenzt erfasst werden können.


- **Entgrenzung von Arbeitszeit versus Verlangen nach Erhalt der Arbeitskraft, Erholungs- und Freizeit:** Nicht zuletzt durch die Globalisierung werden zum Beispiel Geschäfte weltweit abgewickelt, die nicht „nur“ in einer Zeitzone stattfinden und es erfordern, hier oder dort abends oder nachts tätig zu sein. Gleichzeitig sollen Arbeitszeit und Freizeit in einem (getrennten) ausgewogenen Verhältnis stehen. Ein weiteres Beispiel ist die durch Email und Handy ermöglichte, zum Teil geforderte permanente Erreichbarkeit. Die wiederum Erholungszeiten verkürzt, durchbricht oder gar nicht erst ermöglicht. Gleichzeitig besteht aber die Anforderung, die Arbeitskraft zu erhalten oder gar zu steigern.

Konsequenzen aus den eben beschriebenen Ambivalenzen gibt es neben der verstärkten psychomentalen Belastung von Beschäftigten sehr viele und zum Teil sehr unterschiedliche. Hier seien Gesichtspunkte herausgegriffen, die in Bezug auf die Themenstellung des Aufsatzes als besonders relevant erscheinen.

Zentral sind sicher die Konsequenzen, dass die Anforderungen an die emotionale Intelligenz insbesondere die Gefühlsregulation und die Kommunikationskompetenzen gestiegen sind. Unter emotionaler Intelligenz wird allgemein die Fähigkeit verstanden, eigene und Gefühle anderer (richtig) wahrzunehmen, zu verstehen und zu beeinflussen. Kommunikationskompetenz meint die Fähigkeit, konstruktiv, bewusst und effektiv zu kommunizieren. Unter dem Blickwinkel „Veränderungskompetenz“ werden Aspekte davon unter Punkt 2.2.2 aufgegriffen.


1.3 Mitarbeiter/innen

Der/ die Mitarbeiter/in ist die zentrale Person neben der entsprechenden Führungskraft selbst, auf die gesundheitsförderliche Führung ausgerichtet ist. Individuell zu berücksichtigen sind unter anderem:
- Persönlichkeit, Alter, Familienstand, Gesundheit, Eigenfürsorge, …
- Berufliche Kompetenzen (Befugnisse, Aufgabenbereiche, …)
- Soft Skills (Team- und Konfliktfähigkeit, Veränderungs- und Lernfähigkeit bzw. -bereitschaft)
- Berufliche und persönliche Entwicklung und Zielsetzungen
- Leistungsgerechtigkeit.

Gerade der letztgenannte Aspekt (Leistungsgerechtigkeit) sei wegen seiner hohen Bedeutung aber geringen Berücksichtigung in der betrieblichen Praxis (Erfahrung des Autors) näher erläutert. Leistungsgerechtigkeit bedeutet, dass nicht allein das Ergebnis einer Arbeit zählt/ bewertet wird. Leistungsgerechtigkeit setzt sich zusammen aus:
- Leistungsfähigkeit (Qualifikation, zur Verfügung stehende Ressourcen, …),
- Leistungsbereitschaft (Motivation, Arbeitszufriedenheit, …)
Leistungsergebnis (Arbeitsergebnisse, Arbeitspensum, …)

Erst die Berücksichtigung und die Zusammenschau der drei Aspekte begründet, in wie weit eine Leistungsbeurteilung und damit im besten Fall Anerkennung als gerecht und angemessen empfunden wird oder nicht. Das Maß der Anerkennung wiederum ist ein wesentlicher Teil, ob sich ein/e Mitarbeiter/in über-, unter- oder angemessen gefordert fühlt, was wiederum gesundheitsrelevant ist. 2008 fühlten sich 64% der Beschäftigten „selten“ anerkannt. Im Jahr 2011 waren es 51,8% (Haubl/ Voß 2012, S.8). Das heißt, hier hat eine deutliche Verbesserung stattgefunden, auch wenn es keinen Grund zur „Entwarnung“ gibt.

1.4 Führungskraft


- Wille
- Persönliche Kraft (kein Selbstmitleid, …)
- Selbstbewusstsein
- Respekt und Wertschätzung
- Kraftvolle Bilder
- Verantwortungsübernahme für Tun und Lassen
- Sehen, was ist (Realismus, …)
- Zugang zu Stille (innere Einkehr halten können, …)
- Teamfähigkeit
- Fähigkeit des Übens.
Die Ausprägungen entscheiden mit über eigene Gesundheitsrisiken von Führungskräften, ihre gesundheitsbezogene Vorbildwirkung und ihr gesundheitsförderndes Führungsverhalten.

### 2 Gesundheitsförderliche Führung

Standen bisher Rahmenbedingungen und Schlussfolgerungen daraus in Bezug auf gesundheitsförderliche Führung im Mittelpunkt, erfolgt nun die Konkretisierung. Zunächst gibt es ausgewählte Zahlen, Daten und Fakten zum Thema (Punkt 2.1), anschließend drei einschlägige Hintergrundtheorien (Punkt 2.2), die dann in ganz praktischen Hinweisen münden (Punkte 2.3).

#### 2.1 Zahlen, Daten, Fakten


Nach einer empirischen Studie der Wirtschaftsuniversität Wien, Abteilung Personalwirtschaft führen durch Vorgesetzte gegebene Aufgabenunklarheiten in 23% der Fälle zu psychosomatischen Beschwerden. 11% der befragten Mitarbeiter/innen entwickelten diese Beschwerden bei zu geringem Handlungsspielraum. Fehlende Unterstützung durch Vorgesetzte wiederum führte bei 14% zu Selbstwertproblemen und bei 7% zu psychischen Beeinträchtigungen. Darüber hinaus ist „Flucht in Krankheit“ häufig Folge von übertriebenen Leistungserwartungen. (Westerhoff 2007)

Prof. Dr. Dr. Rolf Haubl und Pro. Dr. Günter Voß vom Sigmund Freund Institut Frankfurt bzw. der Technischen Universität Darmstadt geben auf Grund ihrer Untersuchung an, dass die Erschöpfung bei einem Großteil der Beschäftigten stark bis sehr stark ist (Haubl/ Voß 2012). Dies muss als Warnzeichen vor der Entwicklung von psychischen und psychosomatischen Erkrankungen verstanden werden. Zwischenzeitliche Entlastung ist hier zur Vorbeugung notwendig.
2.2 Hintergrundtheorien

Um die Konsequenzen für das gesundheitsorientierte Führungsverhalten aus eben genannten Fakten besser zu begründen, folgen zunächst kurze Erläuterungen dreier Theorieansätze.

2.2.1 Menschliche Grundbedürfnisse


- Lustgewinn und Unlustvermeidung
- Selbsterhöhung und Selbstwertschutz
- Orientierung und Kontrolle
- Bindung.
(vgl. Abbildung 2: Menschliche Grundbedürfnisse)

2.2.2 Veränderungskompetenz

Um neue Verhaltensweisen zu zeigen, das gilt für Führungskräfte und Mitarbeiter/innen, bedarf es gewisser Fähigkeiten. Im Zuge von sich stetig und schnell verändernder Arbeitswelt sind diese besonders wichtig. Wolfgang Wittwer beschreibt drei Kompetenzebenen (Wittwer 2008):

- Fachliche Kompetenz – Sie umfasst u. a. Flexibilität, Lernbereitschaft, Eigeninitiative und Fähigkeit zur Selbstorganisation.
- Institutionell-organisatorisch Kompetenz – Diese beinhaltet die Fähigkeit, Situationen zu strukturieren, Integrationsbereitschaft, Offenheit für Veränderungen, Einstellung zur Unsicherheit und Mobilitätsbereitschaft.

Spätestens hier wird deutlich, dass Soft Skills wesentlich an Bedeutung gewonnen haben.
2.2.3 Salutogenese


- Verstehbarkeit („Ich verstehe, warum dies so ist“),
- Handhabbarkeit („Ich kann das bewältigen“),
- Sinnhaftigkeit und Bedeutsamkeit („Was ist tue, ist wichtig“).

Die Arbeitsbedingungen sind nach Möglichkeit, entsprechend zu gestalten. (vgl. Abbildung 3: Grundprinzipien gesunden Arbeitens). Dazu wurden die folgenden fünf Handlungsfelder definiert:

- Handeln der Unternehmensleitung
- Handeln der direkten Führungskraft
- Kooperation im Team
- Organisation der Arbeit und Rahmenbedingungen
- Eigene Haltung und eigenes Verhalten der Beschäftigten.
2.3 Führungshandeln konkret

Aus den bisherigen Ausführungen lässt sich festhalten: Gesundheitsförderliche Führung ist eine strategische und operative Aufgabe. Sie ist quasi eine Handlungsmaxime, die die Gesundheit der Beschäftigten als zentrale Ressource und Voraussetzung für Leistungsfähigkeit und Leistungsbereitschaft versteht, und sich für betriebliche Prävention als nachhaltiges Handlungsprinzip einsetzt.

Vier Ebenen sind eingeschlossen:

A) das persönliche gesundheitsförderliche Verhalten der Führungskraft,
B) die Vorbildwirkung der Führungskraft,
C) den Führungsstil bzw. das Führungsverhalten,
D) die Arbeitsstrukturen und -verteilung.

Es würde den Rahmen sprengen, hier die einzelnen Ebenen auszudifferenzieren. Konkrete Hinweise für gesundheitsförderliches Führungsverhalten hingegen sollen ausdrücklich abgeleitet werden. Gesundheitsförderliches Führungsverhalten beinhaltet dem zufolge:
• Wertschätzung gegenüber den Beschäftigten unter besonderer Berücksichtigung von Leistungsgerechtigkeit und sinnstiftende Kommunikation werden praktiziert.

• Mitarbeiter/innen haben das Gefühl, sie werden nicht nur als Arbeitskraft sondern auch als Mensch gesehen und es wird sich um ihn/sie gekümmert.

• Persönlichkeit und sozialen Gegebenheiten des/der Mitarbeiters/in finden Berücksichtigung.


• Vertrauensvolle Kommunikationskultur wird gepflegt, z. B. in Form von regelmäßigen Mitarbeiter/innen-Gesprächen, bei denen auch Gesundheitsverhalten thematisiert wird.

• Handlungsspielräume sind eröffnet.

• Herausfordern findet statt, nicht Über- oder Unterforderung.

• Soziale, methodische und fachliche Kompetenzen werden gefördert, z. B. Persönlichkeitsentwicklung, Zeitmanagement, Projektmanagement, Konfliktmanagement.

• Attraktive Ziele werden gesetzt, wobei eine Beteiligung des/der Mitarbeiters/in erfolgt.


Die Europäische Agentur für Sicherheit und Gesundheit in der Arbeit (European Agency for Safety and Health at Work, EU-OSHA) formuliert in ihrer Publikation „Management Leadership in Occupational Safety and Health – a practical Guide“ folgende praktische Beispiele für Führung:
• (Visiting work stations to) engage with staff about health concerns
• Taking personal responsibility and showing that you care
• Leading by examples
• Making available, as far as possible, money and time.
• (EU-OSHA 2012, S. 11)

Fazit

Gesundheitsförderliche Führung setzt Selbstfürsorge und Verankerung im Unternehmen voraus. Das Führungsverhalten (Stile, Techniken, Haltungen etc.) orientiert sich an einem ganzheitlichen Gesundheitsverständnis und sucht Gesundheit und Wohlbefinden aller Beschäftigten zu erhalten und zu fördern. Zentrale und immer wieder neu zu beantwortende Fragen der so handelnden Führungskräfte sind:

- Wie gehe ich mit meinen Mitarbeiter/inne/n um?
- Wie gehen diese mit mir und untereinander um?
- Wie sind die Arbeitsbedingungen?
- Ist dies jeweils gesundheitsförderlich?


Auf Grund der erhöhten psychomentalen Belastung bei Veränderungsprozessen gewinnt gesundheitsorientierte Führung an Bedeutung.

Zum Abschluss fasst folgende Graphik der Fachzeitschrift „Steine + Erden: Technik, Arbeitssicherheit und Führung“ das Thema ganz pragmatisch zusammen.
Abbildung 4: Care-Kultur (BG RCI 2012)

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Namokel, Herbert/ Rösner, Dieter (Hg) (2010): Lexikon Change Management. Symposion Publishing Düsseldorf
THE INFLUENCE OF HUMAN CAPITAL ON EDUCATIONAL SYSTEM EFFICIENCY

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ABSTRACT

Every national economy and its long-term development depends great deal on the quality of human capital. The quality of human capital has been determined by the quality of educational system, investments in education and participation in education. Backwardness in development of educational system and insufficient investments in human capital can become limiting factor of long term sustainable development of every country. Croatian system of upbringing and education has been faced with great challenges such as decreased number of inhabitants, global and national changes in economy. Contemporary labour market demands fast acquisition of knowledge and skills, fast changes in economy and society, the application of knowledge and lifelong learning. Social challenges require available, adaptable and vertically connected educational and scientific system which is continuously being adjusted to the need of the economy socially sensitive and based on the principle of lifelong learning. In order to ensure the sustainable establishment of such system considerable financial resources and competent human capital are necessary in the whole region of Croatia. Motivating environment for sustainable innovative scientific-technological activities aimed at acquiring and developing of competences needed for competitive markets should be also taken into consideration. Educational resources, for the insurance of mentioned needs, have been reduced recently and such fact indicates that there is a specific crisis of the education in Croatia and the necessity of its reform.

JEL Classification: H52, I25

Keywords: quality of human capital, quality of educational system, financial decentralisation, lifelong learning, investments in education
1. Preliminary considerations

Human capital is one of the most significant global development resources which is influenced by the quality of the educational system in the acquisition of competence necessary for the labor market. Quality educational system must be based on high-quality funding. One of the problems that occur is the disparity between the educational needs and capabilities of their financing. Special emphasis is on decentralized financing (primary and secondary education), the amount of which is determined by the Croatian Government each year, by its Resolution on standards and criteria, to ensure the minimum financial standards in education, and that is due functioning of the system. The amount of funds for the improvement of working conditions of schools established by the Resolution has not been changed since 2001. In such conditions it is not possible to additionally improve the competence and competitiveness of human capital, which affects not only the quality but also the educational output that does not meet the needs of the labor market.

The latest research conducted in elementary schools of Brod-Posavina County in the school year 2012./2013. presented in this paper, indicates the necessity of significant investments in the development of human capital through education, continuing education and the continuing education system. This would contribute an increase of efficiency and competitiveness in the educational system.

2. International experiences - decentralization of education and investments in education

The International Institute for Education Planning discussed the decentralization of education by three basic principles: political legitimacy, the expertise and market efficiency. Each of these principles has special reasons for granting different levels of authority. Comparison between countries showed the existence of large differences in the way that the educational system is organized. For example, the difference in the levels at which the responsibility for certain decisions related to education in fourteen OECD countries (Austria, Belgium, Denmark, Finland, France, Germany, Ireland, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, USA) indicates the existence of different types of decentralization leading to excellent results. Educational systems in these countries are examples of well-organized and efficient systems, and provide high quality education. The budget and funding for education affect the educational efficiency and academic achievement. According to data from the United Nations Educational, Scientific and Cultural
Organization (UNESCO), Cuba, with 12.9% of the total consumption of GDP for the educational sector, takes first place in the world. Until now it has been thought that the primacy belongs to the Scandinavian countries and New Zealand, however, they had to cede that position to the country which deals with the problems caused by the financial and economic sanctions. I am noting here that Iceland allocates 7.8% of the total GDP (Gross Domestic Product), Sweden 7.3%, New Zealand 7.2%, Norway 7.3%, and Finland 6.8%.

Graph 1: The share of public expenditure for education in GDP


School culture also affects the quality of academic achievement. According to Moos et. al.; (2005, 563-572) schools that take care about the dignity and the rights of individuals in school, “common good”, achieve better results in the development of pupils’ personal and social competences. School principals and other professional experts at school show a great confidence in the teachers’ competences and expertise, and democratically make decisions in order to improve teaching and learning (Ikoyi, 2006, 190-203). The important role in knowledge management is that the school has all necessary ICT support and access to information, to professional domestic and foreign literature, but also the required level of teacher education (Cevat Celep bouquet, Çetin, 2005, 102-117).

3. The problem of financial decentralization of education in Croatia

Decentralization of the primary and secondary educational system should contribute to increasing its efficiency. The fact that local and regional governments do not have equitable capacities, the discrepancy between regions is a serious problem in the educational decentralization (Ikoyi, 2006, 190-203). That is why; the role
of the central government in providing adequate assistance (increased distribution from the fund), is very important. Some authors consider that one of the reasons for the decentralization of education, specific to developing countries, is precisely the problem of funding education at the central level. Namely, the central government transfers to lower levels of authority to conduct activities related to education because it alone cannot finance their implementation. Decentralized funding should allow more rational use of financial resources from the state budget with the help of funds raised locally through various forms of local taxation.

Table 1: Shares for decentralized functions in percentage of income tax.

<table>
<thead>
<tr>
<th>Shares for decentralized functions</th>
<th>Cities and Municipalities</th>
<th>City of Zagreb</th>
<th>Counties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary schooling</td>
<td>3,1%</td>
<td>3,1%</td>
<td>3,1%</td>
</tr>
<tr>
<td>Secondary schooling</td>
<td>2,2%</td>
<td>2,2%</td>
<td></td>
</tr>
</tbody>
</table>


There is a lack of positive effects if the units of local self-government have no resources to implement them and if they are not prepared to take over the new tasks, such as is the case in the Brod-Posavina County due to the very low GDP per capita and fiscal capacity. 95% of revenue, to ensure minimum of financial standard in elementary schools, is generated from the income reconciliation (25,523,095.00 kn), and only 5% of the revenue from the additional share of income tax (1,375,412.00 kn). So, the original revenue budget of Brod-Posavina County does not contribute to the improvement of the educational system in its area, but its mere survival.

Graph 2: Decentralized functions of primary schooling of Brod-Posavina County in 2012.- revenue structure

Source: Budget Brod-Posavina County in 2012.
3.1. Budget allocations for education, investments in human capital

The Ministry of Science, Education and Sport in the Draft budget for 2013 has the most significantly reduced budget expenditure from the beginning of the decentralization process in the educational system. The budget for the MSES in 2011, in total, was 11,906 bkn, in 2012-11,963 bkn, in 2013 it plans to spend 11,297 bkn, a decrease of 666 million kn compared to the year 2012. Reducing expenses for employees is the main cause of the decrease in the total allocation for MSES. The share of budgetary allocations for the Ministry of Science out of GDP is decreasing, and not just in the next year, according to the Government projections, it will also be the same in the coming years. If that happens, there will be a reduction in the share of the budget for the Ministry of Science out of GDP, from 3,6% in 2011 to 3,2% in 2013, 3,05% in 2014 and in 2015, as low as 2,95%.

Graph 3: Budget allocations for the MSES

Graph 4: Material and financial expenses, prim.ed. BP county in 2012.

Source: MSES, author’s processing

Graph 5: On-balance calculation of material and financial expenditure in primary education in Counties and in the City of Zagreb (in kunas)

Source: MSES, author’s processing
As indicated, fund reductions include allocations for material and financial expenditures of the decentralized school system functions. It is the same with allocations for employees by reducing their substantive rights (tenure compensation, reduced compensation for transport, reduced jubilee awards and reduced per diem for official travels). Here, we cannot talk about the additional investment in human capital in education in the frame of so far secured funding, such as professional training and further education of employees.

4. The results of research of investments in human resources in primary schooling in Brod-Posavina County

The indicators of current investments in human resources in education tell us about the efficiency of the education system that should enable us to enter into the society of knowledge. We are presenting the state of investments in human resources in primary education of Brod-Posavina County, in the part that is responsible for the educational process in general. This is results of research of investment to the development of human resources in the school system conducted in all elementary schools (years 1-8) in the County in the year 2012.

**Table 2: Professional development of class teachers (years1-4) in the institutions of primary schooling in Brod-Posavina County in 2012**

<table>
<thead>
<tr>
<th>Class teachers</th>
<th>Seminars organized by MSES</th>
<th>Professional meetings organized by B-P County</th>
<th>Professional in-trainings organized in schools</th>
<th>Professional developments organized abroad</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not participated</td>
<td>103</td>
<td>13</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>Participated in one</td>
<td>82</td>
<td>48</td>
<td>20</td>
<td>0</td>
</tr>
<tr>
<td>Participated in more than 1</td>
<td>54</td>
<td>136</td>
<td>144</td>
<td>0</td>
</tr>
<tr>
<td>Participated in all</td>
<td>46</td>
<td>253</td>
<td>251</td>
<td>0</td>
</tr>
</tbody>
</table>

Source: author’s processing

- 27, 9% class teachers didn’t take part in any form of professional development
- 34,6% class teachers took part in one professional development training during the year, of which 18,93% organized by the MSES, 11,8% organized by the County and 4,6% organized by the schools.
- 77% class teachers took part in more than one professional development training during the year, mostly organized by the schools 33,25%, then 31,4% organized by the County and 12,47% organized by the MSES.

- 78, 72% class teachers took part in all forms of professional trainings, mostly organized by the County 58,4%, and by the schools 57,97%.

- Class teachers in the primary schools of Brod-Posavina County didn't participate in professional development trainings organized abroad in the year 2012.

Table 3: Professional teacher development of school subject teachers (years 5-8) in primary schooling of Brod-Posavina County in the year 2012

<table>
<thead>
<tr>
<th>School subject teachers</th>
<th>Seminars organized by MCES</th>
<th>Professional meetings organized by the B-P County</th>
<th>Professional in-trainings organized in schools</th>
<th>Professional development organized abroad</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not participated</td>
<td>229</td>
<td>83</td>
<td>12</td>
<td>0</td>
</tr>
<tr>
<td>Participated in one</td>
<td>153</td>
<td>87</td>
<td>27</td>
<td>4</td>
</tr>
<tr>
<td>Participated in more than one</td>
<td>130</td>
<td>399</td>
<td>278</td>
<td>0</td>
</tr>
<tr>
<td>Participated in all</td>
<td>49</td>
<td>213</td>
<td>358</td>
<td>0</td>
</tr>
</tbody>
</table>

Source: author’s processing

- 26,4% subject school teachers didn't participate at all in any professional development training of which 18,7% organized by the MSES, 6,78% organized by the B-P County, 0,98% organized by the schools.

- 22,12% subject school teachers took part in one professional development training during the year, mostly organized by the MSES 12,49%, 7,10% organized by the B-P County, 2,20% organized by the schools, and 0,32% organized abroad.

- 65,88% subject school teachers took part in more than one professional development trainings mostly organized by the B-P County 32,57%, 22,69% professional in-trainings in schools, 10,61% organized by the MSES.

- 50,5% teachers took part in all organized forms of professional development trainings mostly organized by professional councils in schools 29,22%, then 17,39% organized by B-P County and 4% organized by the MSES.
Due to such data, it is evident that more class teaching staff participated in all forms of organized training, 78.72%, which is certainly a good indicator. However, the participation of the subject teachers in all forms of professional development is much smaller, 50.5%; the same as those teachers who participated in professional development training only once during the year, and that is a matter of concern. Increased presence of teachers would enable the adoption of new knowledge and skills in teaching and therefore the results would be at a higher level. The reason for lower participation of teachers in professional development trainings can be found in many years of reduced allocations for education in Croatia.

The results of educational output were recorded by PISA 2009 (Eurodice, 2011), the world’s biggest educational research, in which Croatia was among 65 countries ranked between positions 36 and 40. More than 20% of Croatian students did not meet the basic level of reading, mathematical and scientific literacy, and average competence in all three areas of Croatia is placed well below the average of OECD countries and countries in the region such as the Czech Republic, Slovakia and Slovenia. Leading positions belong to the Eastern Asian countries. They took part in the PISA survey for the first time. Finland is still at the top as the most successful country in Europe. For this study, Croatian students showed significantly poorer performance compared to the last PISA survey, conducted in the year 2006. In reading literacy we fell from 30th to 36th rank, in mathematics from 36th to 40th rank, and in natural science from 26th to 37th rank.

5. CONCLUSION

Since education is the foundation of social progress, the future of our society depends on the generations we educate today. Therefore, the concern justified by the PISA survey is vindicated in every respect. Overall trend of reduced fund in education in Croatia (decentralization and the budgets of local and regional government), have a direct effect on the quality of human capital, and hence the quality of the education system. In the society of knowledge, the access to opportunities to acquire the required knowledge, skills and competencies, is essential for social progress and economic growth within the country. Additional investments in the acquisition of new knowledge through education represent welfare for the individual and for the national economy. Raising educational standards and better motivation of teachers are important for a successful and competitive education system.
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THE OBLIGATIONS OF THE FINANCIAL SERVICE PROVIDERS IN THEIR RELATIONSHIP WITH THE CONSUMER: FOCUS ON THE ROMANIAN REGULATION ON THE PAYMENT SERVICE PROVIDERS’ OBLIGATIONS

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Abstract

The domain being under research comes within the paradigm already laid down by us since 2009, concerning the legal regime of the professionals’ liability regulated by the laws on consumer protection. It comprises the professionals’ specific obligations and liabilities instituted *ex legis*, in their relationship with the consumer and are also regulated in the field of financial services.

The research into the obligations instituted *ex legis*, in the field of payment service for professionals such as payment service providers in their relationship with the consumer implies an analysis of the regulations that resulted following the transposition and implementation in the national legislation of the Directive 2007/64/EC of the European Parliament and of the Council of 13 November 2007 on payment services in the internal market.

The desideratum aimed by setting forth these regulations is to set up an internal community market in the field of payment services in order to assure a unitary regulation framework at European Union level, subordinated to the principle of free movement of these services.

One of the main obligations that professionals who are payment service providers have in their relationship with the consumer is that of informing the consumer in different stages of this relation, and this obligation has different content for each of these stages.
The general regulation framework regarding consumer information carried by the professional, at national level, is heterogeneous, being statutory in all the fields in which consumer protection is regulated, hence in the field of payment services as well.

Highlighting, synthesizing and explaining the information obligations that the providers of payment services have in their relationship with the consumer is a requirement for assuring the transparency, accuracy and for raising responsibility in providing payment services. This is required even more as the opening of the payment services market allows the traditional payment service providers such as the credit institutions to join other new bodies to provide such services.

Consequently, indicating the reference points regarding the obligations of the payment service providers in their relation with the consumer, is what the present study intends to achieve, together with the purpose of being the precursors of a Codex in the field, at national level, that would represent a work instrument for both the provider and the consumer, make whole the premises for the transposition of the Directive 2007/6/EC to become effective and efficient.

JEL Classification: E42, J33

Keywords: payment services; payment institutions; payment service providers; payment service users; consumer protection;

(1) Introduction

For the establishment of the EU internal market, the good functioning of the single market in payment services is of capital importance, needing a modern and coherent legal framework for payment services. This framework is constituted by Directive 2007/64/EC\(^1\) of the European Parliament and of the Council of 13 November 2007 on payment services in the internal market amending Directives 97/7/EC, 2002/65/EC, 2005/60/EC and 2006/48/EC and repealing Directive 97/5/EC.

By means of this legal framework, the provision of payment services is subject to the same rules and conditions within the European Union, thus guaranteeing equal competitive conditions for the payment service providers, and at the same time ensuring the safety, effectiveness and low costs of the payment service transaction.

\(^1\) Published in the Official Journal L 319 , 05/12/2007 p. 0001 - 0036, consolidated version of 7.12.2009, hereinafter called Directive 2007/64/EC;
Directive 2007/64/EC was transposed into national legislation through the Romanian Government Emergency Ordinance 113/2009. The approach applied by Directive 2007/64/EC is that of full harmonization, but the Member states may regulate more favourable provisions for the payment service user.

GEO 113/2009 regulates a broader domain focusing on three interconnected pillars: (i) instituting a new category of payment service providers which are the payment institution, regulating the conditions of access towards providing payments services on Romanian territory as well as regulating the requirements for prudential supervision of payments institutions; (ii) instituting transparent conditions and requirements for the information of the user by the provider on payment services; (iii) regulating the rights and obligations of the payment users and providers.

The perspective of this study is that of the relationship between the payment service provider who provides the consumer – natural person, with professional payment services and the user of the payment service that uses the service in his capacity of payer, that is to say the holder of a payment account, as well as in his capacity of payee, meaning the expected receiver of the funds that were the object of a payment transaction. Hence, the payment service provider can provide payment service to a payer or to a payee. For the accuracy of the present study we will appoint the consumer with the terms of „user”, „payer” or „payee”, in relation with the concrete situation we are referring to.

We emphasize ab initio that one of the benefits brought by regulating the financial services at EU level are the provisions on the speed of the payment transactions

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2 Published in the Official Gazette of Romania, Part I, no. 685 of October 12, 2009, amended and adopted through Law no. 197/2010, hereinafter called GEO 113/2009;
4 Where there isn’t a payment account, by the person who issues a payment order;
5 Considering that consumers need a high level of protection, an increased protection in relation with the enterprises, the Directive 2007/64 contains on the one side imperative dispositions that cannot be waived through the contracts concluded with the consumers, dispositions that can be comprised in the contracts concluded between the payment services providers and the enterprises, and on the other hand dispositions applicable independent of the user’s status.
6 But obviously not the only one;
performance. Therefore, the payment transaction execution time by the provider, calculating from the moment the payment order is received, shall be, at the latest, the end of the following workday, for all the payment orders initiated by the payer and made in Euro or in the official currency of a Member State that is not part of the Euro zone, term by which the operated sum is credited in the account of the payee’s provider.

As early as 2009 we have laid down the new paradigm on the legal regime of the professionals’ liability regulated by the laws on consumer protection. It consists of instituting _ex legis_ specific obligations ans liabilities for professionals, in their relations with consumers, in various fields in which consumer protection is ensured, among which the field of payment services as well.7

One of the obligations the payment service provider has in relationship with the user is the obligation to provide information to the latter in different stages, pre-contractual and during the execution of the contract, and this obligation has a different content in each of these stages. The study focuses on the payment service provider’s obligation to inform the user before concluding the contract. The premise of the study is the protection ensured for consumers through the mechanism of the informational formalism, as mechanism that ensures legal security and protects the contractual parties found in a weak position.8

(ii) Payment service providers

The capacity of payment service provider can be held by: - credit institutions; -institutions which issue electronic money; - payment institutions; - the national central bank when not acting in its capacity as monetary authority. GEO 113/2009 institutes a new category of financial service providers that is the payment institutions, generating the payment market to open up allowing the traditional payment service providers such as the credit institutions to join other new bodies to provide such services.

The GEO 113/2009 also regulates the conditions of access to carrying out payment services provision on Romanian territory, as well as the requirements for

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8 Developed in H. JACQUEMIN, Le formalisme de protection de la partie faible au rapport contractuel, in Annales de Droit de Louvain, vol. 70, 2010, no 1;
prudential supervision of their activity correlated with the operational and financial risks these bodies face during their activity.

The minimal requirements for access to this activity for any entity that intends to provide payment services on Romanian territory are those of obtaining authorisation before beginning to carry out the activity. The authorisation is granted by the National Bank of Romania for Romanian legal persons only if the required information and documents annexed to the application comply with the requirements and regulations in the field. The notification procedure for carrying out activity on Romanian territory by payment institutions from other Member States and the notification procedure for carrying out activity outside Romania by payment institutions that are Romanian legal persons is in compliance with the „European Passport” principle.

(iii) Transactions listed as payment services

The transactions that, in accordance with the provisions of art.8 of the GEO 113/2009 are listed as payment services, and which determine, according to this criterion of the nature of transactions, the scope of the regulation, are the following: - services that allow depositing, withdrawing cash and those for operating the payment account; - performing the following payment transactions when the funds are/are not covered by a credit line open for a payment service user: credit-transfer transactions, including scheduled payment orders transactions, direct debit, including single direct debits, card payments or similar device payments; - issuance and/or acceptance of payment instruments; - money remittance (paying bills); - issuance and/or acceptance of certain payment instruments (e.g. card); - performing payment transactions for which the consent of the payer is given by way of any telecommunicational, digital or informatic means and the payment is executed by the operator of the informatic system or network who acts only as an intermediary between the payment service user and the supplier of the goods or services.

Negative scope in view of the activities that by their nature fall under the payment service notion, as indicated above, without making and exhaustive listing, are the following: - payment transactions made exclusively in cash directly from the payer to the payee, without any intermediary intervention; - money exchange business, where the funds are not held on a payment account; - Payment transactions initiated through paper based payment instruments and card such as cheques, bill of exchange, promissory note, vouchers, traveller’s cheques, postal money orders;
- payment transactions carried out within a payment or settlement system with financial instruments or related to financial instrument asset servicing.

**(iv) The contractual rapport between the payment service provider and user**

The contractual rapport between the payment service provider and user can take the form of a single payment transaction or that of a framework contract, which includes a number of payment transactions. The framework contract is defined by the GEO 113/2009 as being the payment service contract that regulates the future execution of single payment transactions, and it can contain the obligation and the conditions of setting up a payment account.

The payment transaction is an act, initiated by the payer or by the payee, of placing, transferring or withdrawing funds, irrespective of any underlying obligations between the payer and the payee. Consequently, a number of payment transactions are to be operated under the framework contract, hence the high economic importance of the framework contract up against the single payment transactions, which have a occasional character, and will not fall under the incidence of a framework contract.

At national level, the doctrine draws the landmarks of the notion of framework contract for banking services and shows that its object „consists of determining the types and categories of services attached to the opened account. These services materialize through the receipt of unreimbursable deposits, payment and payment collection, cheque issuance, card issuance, credit granting” 9

The *de facto* way in which the notion „payment services framework contract” regulated by GEO 113/2009, was materialized by the credit institutions demonstrates that at national level this notion has achieved a *sui generis* architecture.

The findings are based on the recent analysis of the websites of ten credit institutions that provide payment services in Romania, and that posted on their websites the following: - „the framework contract for banking services” – one case; - „the

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9 Turcu I., in „Theoretical and practical treatise on Commercial Law”, vol.IV, C.H.Beck Publishing House, 2009, pp.476-477, points out the three aspects on establishing the relationships between the client and the bank, that together form the „framework contract for banking services”: „The technical registration in the bank's records of the account that will hold the future transactions, opening the account that allows the settlement of the mutual debts that will arise between the bank and the client through the current account, the same account will be used for the number of services the bank will operate for the client”;
general framework for banking services – general business conditions” – two cases; -„the general conditions of business” – 8 cases.  

Each of the contracts and conditions indicated above are drawn in a new, updated version, including the regulation made to payment services through GEO 113/2009.

The analysis of the concrete ways in which the providers understood to apply the provisions of GEO 113/2009 denotes the following: -„the framework contract for payment services” has a complex composition, regulating a good number of banking services 11. A separate chapter is assigned to bank account operations and the regulation on payment services”; - „the framework contract and general conditions of business” contains only clauses on the provision of services related to payment transactions and account functioning; - „general conditions of business” covers clauses on various categories of banking services as well as on payment services.

In relation to these heterogenous solutions adopted in practice by the payment service providers when applying GEO 113/2009, we intend to analyse whether they are in accordance with the regulation on the providers’ obligation to inform the users, prior to concluding the contract, and we present the regulation below.

(v) The payment service provider’s obligation to inform the user on the payment service framework contract, prior to concluding the contract

The provider’s obligation to inform the user prior to concluding the framework contract12 is conceived to have as outcome, the user’s possibility to compare the services offered by the payment service providers, their conditions and costs, so as to be fully informed when choosing the payment service provider.

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10 We will continue to use these terms;

11 Saving products, crediting operations, etc.

12 As we indicated in chapter IV, the contractual relationship between the payment service provider and user can take the form of a single payment transaction or the form of a framework contract, which includes a number of payment transactions, therefore we will exist an information obligation before concluding the contract for a single payment transaction, another before concluding the framework contract and before each payment transaction finalized during the progressive execution of the framework contract. The content of the information obligation covers specific elements for each of these cases. Only the obligation to inform the user prior to concluding the framework contract is studied here.
The holder of the obligation to inform the user\textsuperscript{13} prior to concluding the framework contract is the payer’s provider.\textsuperscript{14}

The obligation to inform prior to concluding the framework contract individualizes and at the same time takes specific elements with regard to the aspects on which the provider will inform the user, provided by art. 99 of the GEO 113/2009.

The importance of the information obligation resides in the influences it can have on the entire basis of the framework contract, as it can be observed from the mandatory elements of its content: the payment service provider’s identification data, the identification data of the supervisory authority and those of the public registry of authorisation; the payment service and its characteristics, the maximum execution time for the payment service to be provided; all charges payable; the interest rate and exchange rate to be applied to the payment transaction or whether there are to be used the reference interest rate and the reference exchange rate; the means of communication between the parties; the security requirements, the conditions under which the payment service provider reserves the right to block a payment instrument and how and within what period of time the payment service user is to notify the payment service provider of any unauthorised or incorrectly executed payment transaction; the legal regime of the provider and user’s liability; the conditions for changes in and termination of the framework contract, the right of the payment service user to terminate the framework contract, procedures for the settlement of disputes, the out-of-court complaint and redress procedures and the competent authorities available to the payment service user.

The information obligation can be fulfilled by the provider also by remitting the user a copy of the framework contract draft. It is also regulated the user’s right to request the provider, prior to concluding the contract, to provide the user with a copy of the framework contract, a right that corresponds with the provider’s correlative obligation to provide the user with the requested information. It is mandatory for the provider to remit the user a paper-based or durable means document, by which it fulfills its obligation for prior information on framework contract.

The deadline by which the obligation for prior information on framework contracts shall be met by the payment service provider, respectively the deadline by

\textsuperscript{13} Which in this case can the only the payer;

\textsuperscript{14} The obligation of pre-contractual information and the obligation of information during the contract execution are shared by the payer’s provider and by the user’s provider.
which the information will be made available to the user shall be no later than 15 days before the user becomes the party of a framework contract. The 15 days period can be reduced with the user’s explicit agreement.

Regarding the form in which the provider will inform the user prior to concluding the framework contract, art. 97, paragraph 3 of the GEO 113/2009 stipulates the rule of providing the user with the information on paper or other durable means.

Other information requirements stipulated by the legislative act shall be: easily understandable words and in a clear, complete and comprehensible form, the information shall be provided in Romanian of any other language agreed between the parties.15

The burden of proof regarding the fulfillment of the provider’s information obligation is inverted and falls on the payment service provider; the information shall be given free of charge, but the provider and the user can agree on charges for additional information delivered on user’s demand.

Supporting the de facto way in which the payment service providers materialized the application of the GEO provisions on the notion “payment service framework contract”, with the regulations on the provider’s obligation to inform the user prior to concluding the framework contract, we draw the following conclusions:

The first aspect undergoing analysis is related to the legal technique applied by the providers, rethorically asking ourselves which of the three means employed are in accordance with the regulation, reason and aim of the regulation in the GEO 113/2009: „the banking service framework contract”; „the framework contract and general conditions of business” or „general conditions of business”?

Stricto-sensu, the providers’ use of the „banking services framework contract” appears to be the closest to the provisions of GEO 113/2009, but is is obvious that its content is the most relevant16, mentioning that the inclusion of the parties’

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15 Provisions of art.97, paragraph (1) on the 15 days deadline, and the provisions of paragraph (3) of the same article, on the form in which the provider’s prior information will be provided to the user, paper-based or on any other durable means, are applicable also to the case in which the user receives from the provider an offer for a payment transaction that falls under the incidence of the framework contract;

16 The content of the clauses comprised in the framework contract/general conditions of business, posted on the 8 payment service providers’ websites, will be subject of a subsequent research.
rights and obligations in a contract concerning other banking services, is in principle a viable solution.

As we have underlined above GEO 113/2009 does not stipulate the provider’s obligation to remit the project of the framework contract to the user. In order to be in accordance with the legal provisions on the provider’s obligation to inform the user, where the provider does not remit, because it is not mandatory by law, the project of the framework contract on paper or other durable means, he shall inform about the project of the framework contract, through a distinct notification on paper or on other durable means.

Consequently, when the user expresses the intention of concluding a framework contract, the obligation of prior information will be fulfilled by the provider, in accordance with the legal stipulations, only by remitting the user, on paper or other durable means, either the project of the framework contract or a distinct notification. The notification shall have the content indicated by art. 99 of the GEO 113/2009, but in our opinion it would be most effective for this notification to have a title and a pre-established template.\(^\text{17}\)

The title as well as the template of the above mentioned notification should be included in a Codex of Good Practice on the relationships between payment service providers and users. The Codex would to contribute with the proper remarks in areas where the regulations of the GEO 113/2009 left space for manoeuvre to the payment service providers.

The analyzed payment service providers stipulated in the contract/conditions that they would be permanently available to the user at all territorial units or on their websites or that they would be communicated on demand. We consider that the prior information on framework contracts carried by posting the contract/conditions of business on the provider’s site, although is useful is insufficient as sole solution for achieving the aim provided by GEO 113/2009.

Since GEO 113/2009 stipulates that the form in which the prior information on framework contracts is to be carried out is on paper or other durable means, remitting a notification or the project of the framework contract is necessary and mandatory in order to have an effective user information.

\(^{17}\) We assess that a model to be followed in the relationships between payment services users and providers is that of the information carried in the field of consumer credit through the form „Standard information at European level on consumer credit” comprised in Annex 1 of Directive 2008/48/EC.
If the provider used the „general business conditions” technique in order to apply the GEO 113/2009 stipulations, there is a possibility for the set out of payment service providers’ and users’ rights and obligations to become an appendix of another banking service and so they would not be self-defining.

It is well-known that in banking practice the general conditions of business are not communicated individually, but they are communicated simultaneously with concluding a contract on a banking service, and GEO 113/2009 does not provide the provider’s obligation to communicate the general conditions of business to the user.

Having in view the heterogenous character of the solutions adopted in practice by the credit institutions at national level in applying the provisions of the GEO 113/2009, our plea is for the enactment of a Codex of Good Practice in the field, that would also constitute a work instrument for both the payment service providers as well for the users.

In our view, this Codex is even more necessary as the opening of the payment service market allows the traditional payment service providers such as credit institutions, to be joined by other new bodies that provide such services, thus supporting the activities they carry out but also the users.

**Bibliography**

ABSTRACT

Achieving the long-term economic growth rate and development is the aspiration of all economic policy makers. Contemporary economic theory recognizes institutions as fundamental sources of economic prosperity. According to Douglas North (1991), institutions represent designed limitations that manage political, economic and social interactions. Precisely, institutions are the rules of behavior in a society, or more formally speaking, the restrictions on which man has figured out how to shape human interaction (North, 2003:13). Besides formal institutions, i.e. constitutions, laws, property rights, informal institutions encompass customs, traditions and codes of conduct. Although more attention in developed economies is devoted to formal institutions, many authors deal with informal institutions as objects of their research.

The purpose of this paper is to present institutions through the function of economic growth and development. Besides, the purpose is also to consider the relationship between formal and informal institutions. Informal institutions are thoroughly presented through a series of examples which define and analyze their impact on development outcomes.

JEL classification: E26, O17

Keywords: institutions, informal institutions, growth, development
1. Introduction

Achieving high rates of economic growth and development is the desire of every modern economy. Because of that, the focus of contemporary economic theory is often directed towards the issue of poverty, the achieved degree of democracy and the achieved degree of economic rates of individual economies. Different theories explain the causes of various economic development and social stability. Lately, there have been two hypotheses (geographical and institutional) that explain why some economies achieve higher growth rates, while others stagnate or are on a downward trajectory. According to the geographic hypothesis, the underlying reasons for the differences in the development are exogenous differences in the environment, whereas the institutional hypothesis determines a social organization and is focused on institutions as the rules of the game. The importance institutions have has increased, providing the reasons for the difference in economic growth and development of certain areas. Institutions are usually defined as the humanly devised constraints that structure political, economic and social interaction of people. There are formal (constitutions, laws, property rights) and informal institutions (customs, traditions, codes of conduct, etc.) whose rules have been changing throughout history in order to reduce uncertainty in the process of economic exchange (North, 1991). Economic institutions significantly affect economic incentives in society and the achievement of certain economic outcomes, that may be formed through formal or informal institutions. Through formal institutions, individuals may, e.g. because of the structure of property rights, be encouraged to invest in human and physical capital, and thus improve the achievement of certain economic outcomes.

By increasing human and social capital certain communities reach a more efficient use of the institutional framework (Glaeser et al., 2004). Institutions are increasingly becoming the result of various studies (Farrell & Héritier, 2003; Hodgson, 2006; Casson et al., 2008). However, the observation of the institutional framework is most frequently focused exclusively on formal institutions. In addition to formal institutions, a significant impact is achievable through informal institutions as well. There are numerous ways in which institutions are defined. One of the definitions implies that institutions are established and embedded social rules governing social interactions. Also, it is necessary to specify that institutions differ significantly from the rules, agreements, organizations or habituation. When classifying institutions into formal and informal, we refer to the impact non-legal rules and unclear standards have on formal institutions. Thus, legal or formal institutions that do not have strong “informal” supports are unsupport-
ed legislative declarations rather than real institutions (Hodgson, 2006). A much broader definition implies under institutions the rules of the game or humanly devised constraints that shape human interaction (North 1990). Institutions help to reduce uncertainty in decision making and behavior. Furthermore, in the world without institutions we would not know how to behave in mutual human interactions. Therefore, institutions may be deemed success factors in achieving their daily business activities and effective problem solving. However, with the exception of a stimulus to certain behavior and decision making in the economic domain, they also affect the political and social activity (North, 2003). Economic development can be achieved through institutions by different economic and social conditions. In doing so, it can be said that the hypothesis on the impact of institutions on economic development is presented by affecting humans. This position is focused on supporting the rule of law, investment in machinery, human capital, and an improved version of technology (Acemoglu et al., 2003).

Formal institutions and their influence are discussed more often, and in relation with formal institutions, the impact of informal institutions is often neglected and marginalized. However, positive examples of synergy of formal and informal institutions have also been recorded. The classification of formal and informal institutions was developed by Douglass C. North, who uses two criteria by which a distinction between the institutions is made: i) the degree of formalization of institutions (written and unwritten), and ii) their emergence and change (Theurl & Wicher, 2012). The classification of institutions is most frequently done based upon the criteria of content coverage in four different categories of institutions: i) political, ii) legal, iii) economic, iv) cultural/social institutions (Theurl & Wicher, 2012; according to Acemoglu & Johnson 2005:949).

Apart from the positive examples of synergy of formal and informal institutions, we are also familiar with some other different cases, whereby the outcome of the institutional framework itself is much worse. As an example, we can mention the situation in which there have been attempts aimed at implementing the policy of New Public Management, that might shake the established informal forms of influence, with the possibility of endangering social stability (De Soysa & Jütting, 2007). Within the framework of the definition, informal institutions refer to extension, argumentation and codification of formal rules that go beyond the official limits, socially punishable norms of behavior, including behavior, customs, adopted rules of behavior and tradition. In relation to informal institutions, formal rules and institutions refer to constitutions, laws, property rights, contracts, books
of rules, legal provisions and regulations (De Soysa & Jütting, 2006). A stronger influence of informal institutions in relation to the rule of law commonly occurs in certain periods of crisis, such as war (Cousins, 1997; according to Thompson, 1991). Simply put, the institutions are formed according to the official rules, informal constraints and their enforcement characteristics. Formal rules are usually always very clearly defined assuming specific rules covering laws, constitutions and regulations and all other well-defined specific rules. Informal rules of behavior are much more complex and they include the way in which certain things are done, whereby the norms as part of an informal institutional framework become almost more important than formal rules of behavior (North, 2003).

The structure of the paper is as follows. The introductory part of the paper presents the role, significance and influence of institutions as one of the factors of long-term economic development. In addition to formal institutions whose meaning is supported by the economic literature and research, the central part of the paper considers the activity, effects and importance of informal institutions. This structure of the paper provides the conditions for drawing conclusions.

2. The impact of institutions on economic development

The literature of economics, just like the literature of other social sciences, speaks in favor of positive effects generated by institutions on economic development (North, 2003; Acemoglu, Johnson & Robinson, 2004; Chang, 2005; Williamson, 2009). Economic theory that emphasizes the importance of economic development often considers the institutions to be the engines of economic development. The geographical position of a country is an additional element that may participate in the initiation of economic development and the effects of the geographical position oppose the effects of the institutional framework. The impact of the geographical position on economic development is confirmed by the fact that most of the areas around the equator are characterized as less developed, and they are condemned to a small amount of agricultural activity and production. When considering the effects of geographical location in relation to the role of institutions, it is necessary to point out that economic development of the country is observed through the natural effects, while the impact of institutions is analyzed through the man-made effects.

Some institutions, as well as well-defined and secure property rights, the rule of law, and political constraints, are of great importance in ensuring economic development. In doing so, the way in which the meaning of institutions is formed is of-
The inability to establish a uniform rule under which it is possible to achieve economic development stems from the limitations of establishing a uniform definition of institutions. However, several different formats and functions of institutions are found in the service of achieving economic development. Chang (1998) identifies three basic functions by which economic development is affected by means of an institutional approach: i) coordination and administration, ii) learning and innovation, and iii) redistribution of income and social cohesion (Chang, 2005). Some suggestions that may be used for achieving economic development are achievable through mapping of formal rules to informal, but in the existing institutions (Williamson, 2009; according to Boettke et al., 2008).

When talking about specific examples of some of the effects of institutions on economic development, the examples of South and North Korea, West and East Germany, and the differences between institutions and economic development in the north and the south of Italy are pointed out (Barković & Lucić, 2010). By 1945, North and South Korea were part of the same history and culture. Thus, North and South Korea were ethnically, culturally, geographically and economically homogenous. After the changes, North Korea adopted a socialist model that was followed by the abolition of private property and capital. On the other hand, South Korea adopted a model of private ownership and management. An example of significant differences created by institutions can be found in the paper written by Acemoglu et al. (2002) on the African country Botswana. In comparison to other African nations, the presumption for success of this country through the exercise of long-term economic growth lies in good institutions (Acemoglu et al., 2002). Furthermore, a reference to good institutions relates to: i) enforcement of property rights for a broad cross-section of society that would enable a variety of individuals to have incentives to invest and take part in economic life, ii) constraints on the actions of elites, politicians and other powerful groups such that these groups cannot expropriate the income and investments of others in the society, creating in this way a highly uneven playing field, and iii) creation of equal opportunities for the whole population to enable simple investments, especially in the segments of human capital and participation in certain productive economic activities (Acemoglu et al., 2003).

Although good institutions include constraints on the actions of elites, politicians and other powerful groups and limiting effects of unequal conditions, different groups and individuals have different benefits from the effects of certain
economic institutions, and that is achievable through the segment of political influence. Thus, it can be said that economic institutions determine the incentives of and constraints on economic actors, and shape economic outcomes (Acemoglu et al., 2004). Also, those institutions that meet a predetermined function and purpose for which they were created excluding thereby other negative effects may also be considered good institutions. Good institutions can remain characterized as such, including those effects that go beyond the limits of functions they were designed for. Thereby the problem of measurability of the effects generated by the institutions is encountered. An example of the IMF, which is considered a good institution can be used as an example of the deviation of effects of that institution in relation to initial assumptions the institution should have performed. It was created to promote economic stability worldwide and help to achieve full employment in some economies. However, there have been examples where countries were pushed into recession, and the situations in which countries were encouraged to liberalize their markets that led to global economic instability. By observing this institution through a functional perspective, according to the segments of what it was envisaged for, it could no longer be claimed that it implies and is subject to the criteria of a good institution. However, it should be stressed that this way of seeing the institution as a good or a bad one is only one of the possible approaches to functional assessment of institutions (Stiglitz, 2000). Although the IMF is an institution (Blanco & Carrasco, 1999), sometimes it is put into the context of an organization. Organizations include households, businesses, government, established in accordance with certain preferences and goals, while institutions include formal and informal social constraints, i.e. certain rules of the game. Furthermore, when making a difference between organizations, economists usually speak about either individuals with their own goals or artificial structures serving the goals of members of a certain organization (Khalil, 1995).

In addition to effects produced by informal institutions, it is also necessary to mention the way in which certain rules are governed, and the way of governing, as well as institutions, can refer to both formal and informal (Table 1).
Table 1. Differences between Relation-Based and Formal Rule-Based Governance

<table>
<thead>
<tr>
<th>Relation-Based Governance</th>
<th>Rule-Based Governance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relying on private and local information</td>
<td>Relying on public information</td>
</tr>
<tr>
<td>Complete enforcement possible</td>
<td>Enforcing a subset of observable agreements</td>
</tr>
<tr>
<td>Implicit and non-verifiable agreements</td>
<td>Explicit and third-party verifiable agreements</td>
</tr>
<tr>
<td>Person-specific and non-transferable contracts</td>
<td>Public and transferable contracts</td>
</tr>
<tr>
<td>High entry and exit barriers</td>
<td>Low entry and exit barriers</td>
</tr>
<tr>
<td>Requiring minimum social order</td>
<td>Requiring well-developed legal infrastructure</td>
</tr>
<tr>
<td>Low fixed costs to set up the system</td>
<td>High fixed costs to set up the system</td>
</tr>
<tr>
<td>High and increasing marginal costs to maintain</td>
<td>Low and decreasing marginal costs to maintain</td>
</tr>
<tr>
<td>Effective in small and emerging economies</td>
<td>Effective in large and advanced economies</td>
</tr>
</tbody>
</table>


There are significant differences arising from the two governance mechanisms which contradict governance based on trust in persons and governance based on trust in rules. Informal governance mechanisms are based on trust in persons rather than on a formal set of rules. In the given governance mechanism, there is a high degree of autonomy from economic and civil society and no strong formal state authority regulating the market, enforcing contracts and ensuring property rights. Although it is impossible to determine a unique orientation of governance in a particular country, it generally holds that in developed countries the economy and the state are dominated by formal rules, while developing nations are focused more on informal governance mechanisms. Singapore and South Korea are examples of countries where informal governance has significantly complemented or even entirely substituted formal governance (OECD, 2007).

3. Informal institutions

Various analyses and research studies (e.g. Seyoum, 2009; Puffer et al., 2010; Beyer & Fening, 2012) place emphasis exclusively on the presentation of impacts and activities of formal institutions and the rule of law, property rights or patent rights. The impact of informal institutions was often entirely neglected in the above mentioned studies. Informal institutions also express their (huge) importance through the ability to slow down or speed up the process of economic development. But, in order to fully understand the impact of institutions on the process of
economic development, it is necessary to observe the mutual interaction of formal and informal institutions. The rule that could be applied to development policies of specific countries refers to situations in which formal institutions that have been well-proven cannot be transferred easily to another country with different informal institutions. Therefore, it is essential that reforms of formal institutions be included in order to be compatible with local informal institutions, which are subject to change, but they change more slowly (Domjahn, 2012). There follows an example of the case of unsuccessful transfer of the formal institutional framework to some other economy. In the early 19th century, Latin American countries declared their independence and as part of their formal institutions they took over the US Constitution. Since completely different informal rules are valid in Latin America, there was no success in applying the Constitution which applies in the USA. Hence it is impossible to determine unique formal rules for each economy, given that informal rules governing economy are an important factor. According to Williamson (2009), achieving economic development is even more powerful through informal rather than formal institutions.

The existence of both formal and informal institutions is beyond question, but their natures differ significantly. Formal institutions are oriented towards public scrutiny and provide a framework of recognizable forms of the society as a whole, whereas informal institutions are harder to identify, partly because their rewards are less well articulated. However, success of informal institutions are usually certain specific behaviors determined by a particular social group (Alonso, 2009). Impacts of informal institutions are not subject to any measurement in the same scope as is the case with the influences created by formal institutions (Knowles & Weatherstone, 2006). Countries with a lower level of democracy are usually associated with the informal institutional framework, while countries with a high level of democracy are oriented towards ethics and political factors that are associated with the written rules. A poorly developed system of the rule of law is commonly present in countries with a lower level of democracy, and it is often set depending on the application of personal rules or community rules. Also, the influence of formal institutions may be weakened due to equalization of certain political factors with common practice examples (Bratton, 2007). By observing the mutual relationship between formal and informal institutions with respect to consideration of their political influence it is possible to notice a typology and a framework based on the model of the interaction of formal/informal institutions. The given model includes the following possible interactions: complementary, accommodating, competing...
and substitutive (Table 1). A common mistake occurs in relation to a definition and the content of informal institutions, whereby they are sometimes also considered as a category that includes all of those situations and behaviors deviating from the written and well-defined rules. For example, they are sometimes misinterpreted as weak institutions, mixed up with some other informal forms of behavior, and informal organizations, forms or concepts of culture. Examples of misconceptions are directed towards ineffectiveness of formal institutions, which is manifested by a poor application of predetermined rules. However, weak implementation of the formal institutional framework is not necessarily equivalent to the informal institutional framework. An example of the distinction between informal institutions in relation to other forms of informal behavior is focused on the situation, e.g. like removing a hat in church as a result of the activity by an informal institution, while removing a coat in the restaurant is an example of an informal form of behavior. Leaving a coat on during your stay at a restaurant is likely to cause feelings of uneasiness, but this does not lead to social disapproval or sanctions. Behavior in accordance with the informal institutional framework entails behavior corresponding to certain rules or instructions, and a violation of certain behavior results in certain external sanctions. Furthermore, there follows the distinction between informal institutions in relation to informal organizations. What is referred to within the given classification is the existence of differences between formal organizations (political parties) and formal rules as well as between informal institutions (the tribe, the mafia) and informal rules. In addition to the above examples, informal rules are embedded in the concept of culture, which also has an impact on the formation of informal institutions. The two opposing categories can be set when the question arises as to the functioning of formal and informal institutions. On the one hand, informal institutions can be seen as functional or those that offer solutions to certain social problems related to interaction and coordination, and those that emphasize efficiency and behavior of formal institutions. In addition to this dimension, the second dimension is focused on the effectiveness of relevant formal institutions, bearing in mind the level to which the rules and regulations that were implemented administratively are actually involved in the practice. A typology of informal institutions and the interaction of formal and informal institutions can be seen in Table 2 (Helmke & Levitsky, 2004).
Table 2. A typology of informal institutions

<table>
<thead>
<tr>
<th>Outcomes</th>
<th>Effective formal institutions</th>
<th>Ineffective formal institutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Convergent</td>
<td>Complementary</td>
<td>Substitutive</td>
</tr>
<tr>
<td>Divergent</td>
<td>Accommodating</td>
<td>Competing</td>
</tr>
</tbody>
</table>


In the case when informal institutions complement formal institutions (complementary), they are striving towards the same goal (convergent) and are effective. As an example, we can take the introduction of an enhanced version of the anti-corruption law in a particular country. Thereby the creation of a useful outcome is taken as the final goal, understanding at the same time the anti-corruption law through the interaction of rules and laws, informal and formal institutions. The other existing form that may arise is when informal institutions adjust to formal institutions (accommodating), that is, they operate simultaneously with formal institutions and create an outcome that is not fully subordinate only to formal rules. Furthermore, there is a case when informal and formal institutions diverge, and the inefficiency stems from the fact that informal institutions compete with formal institutions. This situation occurs in cases where formal laws are poorly involved or completely ignored, and as an example we can mention here a case of poor countries where, although many laws protecting human rights may exist in the books, customary laws contravene these rights in practice. There is another possible relationship between formal and informal institutions, and it refers to the case when informal institutions can substitute for the lack of effectiveness of formal institutions. Like complementary institutions, informal institutions are designed to achieve what formal institutions aim to do, but they are ineffective or ignored by official sources. We may take as an example informal credit markets and insurance schemes which might be thought of as substitutes for formalized markets or state agencies that usually provide this type of services, and they are usually subsidized by the state agencies since most voluntary associations pose no threat to formal institutions. An assessment of the effectiveness of formal institutions in relation to informal institutions can be made on the basis of the relationship of effectiveness in relation to a degree of justice (De Soysa & Jütting, 2006). With the exception of
the institutional framework, governance mechanisms in a particular economy can be considered in the same way (OECD, 2007).

The relationship between formal and informal institutions can also be defined through the strength of formal or informal institutions in a certain economy (Table 3).

Table 3. Strength of formal and informal institutions

<table>
<thead>
<tr>
<th>Quadrant</th>
<th>Formal Strength</th>
<th>Informal Strength</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Strong</td>
<td>Strong</td>
<td>(Canada, New Zealand)</td>
</tr>
<tr>
<td>2</td>
<td>Weak</td>
<td>Strong</td>
<td>(The Netherlands, Sweden)</td>
</tr>
<tr>
<td>3</td>
<td>Strong</td>
<td>Weak</td>
<td>(Pakistan, Uganda)</td>
</tr>
<tr>
<td>4</td>
<td>Weak</td>
<td>Weak</td>
<td>(South Africa, Turkey)</td>
</tr>
</tbody>
</table>


This classification of formal in relation to informal institutions is done based upon four distinct categories with respect to the strength. Thereby, the strength of an institution implies either well-developed constraints (strong institutions) or a lack of constraints (weak institutions). For example, the existence of a strong formal institution implies the presence of well-developed political constraints, whereas weak formal institutions indicate a lack of political constraints. Quadrant (1) represents the category with strong formal and informal institutions. Within this category there are strong political constraints and strong informal constraints. Quadrant (2) describes the existence of less developed formal institutions and a higher existence of informal constraints. Quadrant (3) describes the situation where strong formal but weak informal institutions exist. Countries attempting to adopt certain western style institutions currently not in place within the countries themselves fit into such institutional framework, and regardless of how well they performs, they are classified as having a strong formal institutional framework. Quadrant (4)
represents countries with weak formal and informal institutions, whereby strong political constraints and strong informal constraints are lacking. The survey proved that regardless of the strength of formal institutions a country achieves higher levels of economic development if it has strong informal institutions. The best results in the realization of economic development were recorded in countries with prevailing weak formal institutions and strong informal institutions (see Table 3). Also, economic development is not necessarily determined by a mismatch of institutions, but the actual strength of formal or informal institutions.

4. Conclusion

The institutional framework in economic theory can be used as a framework to explain significant differences existing between individual economies. The effectiveness of the institutional framework, apart from the economic activity, is set by both social and political activities. To achieve successful and effective functioning of the economy it is necessary to integrate levels of these activities. Furthermore, institutions do not imply only formal rules and their firm footing in the legislative framework. Significant impacts are realized through less solid forms as informal frameworks of operation. An informal way of behavior is extremely important in everyday life and activities. Also, their importance in recent times has been increasingly recognized as an important determinant of economic progress.

Institutions imply a factor which causes deprivation of uncertainty issues enhancing thereby business activities and achieving long-term rates of economic growth. The prerequisite to implement the institutional framework is focused on the creation of good institutions. Good institutions include the enforcement of property rights, while ensuring the promotion of investment and general participation in economic life, limiting the action of certain powerful groups to ensure equality in society, and providing opportunities for easier investment, with a focus on specific segments of human capital and participation in relevant production activities. A successful institutional framework involves the interaction of formal and informal institutions, as well as the conditions to which the institutional framework applies. Playing a game can be used as an excellent example of the interaction of these institutional frameworks and enforcement modes. In this case you know the rules by which the game is played, but the course of the game need not be explicitly identified only by formal rules. It is important to indicate that the outcome of the specific situation may not be the rule in the next iteration. In addition, the imple-
mentation and success achieved by some level of a formal/informal framework of one economy does not necessarily bring success in other economies. In the paper, this rule was exemplified by an example of Latin America and the USA.

In this paper, special emphasis is placed on the importance and the place of the informal institutional framework when it comes to the impact on economic development. The hypothesis on the impact of informal institutions on economic development is thereby supported by secondary data in the empirical research. Economic development will occur if a country has strong informal institutions, regardless of the strength of formal institutions. The best results in the realization of economic development were recorded in countries with predominantly weak formal institutions and strong informal institutions (Table 3). Thus, it is confirmed that economic development of a certain economy is caused by activities of institutions, i.e. by the strength of formal and informal institutions.

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LEGAL AND PRACTICAL IMPLICATIONS OF THE PROPOSED COMMON EUROPEAN SALES LAW

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Abstract

As sales contracts performed within EU are governed by national contract laws, differences between them result in costly and complex cross-border trade. In order to remove this barrier to smooth functioning of the Single Market, in October 2011 the European Commission has proposed a Regulation on a Common European Sales Law. This optional legal instrument would become effective only when by express agreement parties of a cross-border sales contract choose to apply it. Such single set of rules for cross-border contracts in all 27 EU member states is claimed to be beneficial both for companies and consumers.

Objective of this paper is to address the ratio, nature and overall context in which the proposed Regulation appears. Emphasis is placed in particular to the relation of this optional 28th regime to current system of European private international law, as well as to its relation to Vienna Convention on International Sale of Goods. Paper would briefly address the content and main line of Common European Sales Law provisions, in order to test its feasibility to enable favourable legal environment both for traders and consumers.

JEL classification: K10, K33

Keywords: Common European Sales Law, cross-border sale, EU, private international law.
1. Introduction

The key concern of the European Union is to ensure the smooth functioning of the common market. It follows that it is crucial to remove all legal barriers to the free movement of goods, and to provide legal certainty to all entities that use market freedoms. In this regard the EU has been trying for a long time to ensure an adequate legal framework of contractual relations with an international element. As sales contracts currently performed within the EU are governed by national contract laws, the differences between them result in costly and complex cross-border trade. In order to remove this barrier to the smooth functioning of the Single European Market, in October 2011 the European Commission proposed a Regulation on a Common European Sales Law. This optional legal instrument would become effective only when, by express agreement, parties to a cross-border sales contract choose to apply it. Such single set of rules for cross-border contracts in all 27 EU Member States is claimed to be beneficial both to companies and consumers.

The purpose of this paper is to address the ratio, nature and overall context in which the proposed Regulation appears. One should bear in mind that this optional 28th regime comes side by side to the current system of European private international law, as well as to the Vienna Convention on the International Sale of Goods. The paper briefly addresses the content of Common European Sales Law provisions in order to test its feasibility to enable a favorable legal environment both for traders and consumers.

2. The existing legal milieu for international transactions

As economic integration presents the heart of the EU, contract law has been the focus of European legislative initiatives for a long period of time. The main harmonization technique since the 1980s and the 1990s has employed directives that have been targeted at certain aspects of national contract laws, particularly consumer law. Dispersed European contract law has now been overwhelmed by the

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Consumer Rights Directive of 2011. Second legislative development in this arena started once the EU was given internal competence to regulate European private international law, i.e. with the Amsterdam Treaty in 1999. The existing framework of international conventions concluded among Member States has been replaced by regulations. In this context, Regulation No. 593/2008 on the law applicable to contractual obligations, the so-called Rome I, was adopted. Despite the existing unification instruments, there is no body of uniform case law in the area of international agreements, nor do Rome I regulations cover all contractual matters. The method practiced by both the Rome Convention and the Rome I Regulation is a method of unification of the rules of conflict of laws. Member States still retain their national systems of contract law and harmonization is achieved only insofar as the application of the same acquis conflict of laws rule refers courts of each Member State to apply the same national substantive contract law. These conflict of law rules correspond to uniform rules on international jurisdiction, and ultimately bring a certain degree of legal certainty to internationally labeled contractual relations. Nevertheless, it remains true that individuals and companies use a range of different types of contracts in mutual trading to which various national regulations apply in the end. Application of 27 different national regimes increases transaction costs. It is disadvantageous to the extent that it increases legal uncertainty and reduces consumer confidence in the entire system. All this discourages both entrepreneurs and consumers from cross-border trade. In addition to the Rome I Regulation, i.e.

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6 For more details, see: Lookofsky, J., Hertz, K., EU-PIL, European Union Private International Law in Contract and Tort, Copenhagen, 2009, pp. 65-93.

A regulation on international contractual relations, the Rome II Regulation, i.e. a regulation on damage claims arising from tort, also applies in the EU. The list of legal sources does not end here either, and we will only mention wide implementation of the UN Convention on Contracts for the International Sale of Goods. Significant efforts have been made in the field of “soft-law” unification of substantive law, but given the existing competence of the EU, adopting a European Civil Code is not likely.

3. A way forward – new options and new solutions

Due to the great importance of this sector, EU institutions are systematically trying to find space in which they would provide a higher level of international unification of contract law. In the European Union’s ten-year growth strategy “Europe 2020 Strategy Paper”, the Commission encourages the project on European Contract Law as a component of economic development of the common market. Hence in the mid-2010, the European Commission presented an optional instrument of European Contract Law as the optimal means to strengthening the internal market and full empowerment of freedom of movement. Further to this, the Proposal for a Regulation of the European Parliament and of the Council on a Common European Sales Law was issued at the end of 2011. The Regulation Proposal consists of 15 articles, whereas an Annex to the Regulation contains another 186 provisions which introduce legal rules of substantive level.

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The Commission undertook a wide consultation process in order to find the most optimal path to accomplish the intended objectives of the European Contract Law project, and yet to stay true to principles of subsidiarity and proportionality. Legal ground referred to by the Proposal for a Regulation is Art. 114 of the Treaty on the Functioning of the European Union, which is used to “adopt the measures for the approximation of the provisions laid down by law, regulation or administrative action in Member States which have as their object the establishment and functioning of the internal market.” The doctrine openly questions the merits of the legal basis and warns of Tobacco Advertising III that ended up before the European Court of Justice because of a similar issue.

CESL is referred to as “an optional instrument” or “the 28th Regime”. It means this is a supranational legal instrument which provides an alternative model for doing business, and leaves national laws untouched. CESL is not intended to replace the existing national sales laws, but it would exist together with and next to national contract systems. CESL would exist autonomously, and it is to be embedded into national systems as a “second national contract law”. We should point to a different character of the optional instrument in relation to the models already known to us. Unlike the UN Convention on Contracts for the International Sale of Goods, which has an optional character insofar as it applies “as a default system” when it comes to international agreements for the sale of goods, and that may be excluded by the parties in accordance with Art. 6 of Convention. Quite on the contrary, CESL will only apply if both parties voluntarily choose this set of rules, and they do so in form of an exclusive choice!

14 Explanatory Memorandum to the CESL, COM(2011)635 final, p. 4.
4. Cost and benefits of CELS

In its Proposal for a Regulation, the Commission claims CESL would create a legal environment that stimulates the intra-Community trade and is adapted to the most appropriate manner to cross-border trade. It is claimed that CELS maximizes benefits both to consumers and companies.\(^\text{20}\)

Companies would be able to choose one legal regime specially created for cross-border transactions and set aside uncertainty of a variety of national contractual regimes. Small and medium-sized enterprises (SMEs) would expand more easily to new markets. Their costs would also be reduced as the need for legal practitioners having knowledge of each national contractual system would vanish. Consumers would be more confident in engaging cross-border contracts. They could rely on CESL regarding a free choice of remedies in case they buy a defective product, which is nowadays provided for only in national laws of few Member States. Consumers’ expectations of the Single European Market would be fulfilled, as traders would no longer refuse to sell and deliver goods across borders. Legal uncertainty in cross-border transactions discourages them from such actions. Confirmation of these advantages is found in figures.\(^\text{21}\)

In a hypothetical case, we may present a scenario with CESL usage. A Polish baker buys a machine from a Hungarian firm that later on appears not to be in full conformity with the contract. The Hungarian firm admits the mistake and accepts the remedy by replacing the machine. Once the Polish firm sends the machine back, the Hungarian firm rejects to pay for transport costs and requires the Polish firm to pay for the usage of the machine in the period of 2 weeks (i.e. the time that took the Polish firm to realize they received a machine not conforming to a contract). The Polish firm claims that in the regular course of business these costs are to be paid by the seller. According to contemporary legal instruments provided by the EU acquis, we must see if the parties have agreed on applicable law (Art. 3, the Rome I Regulation). If there is a valid choice, one should resort to the relevant

\(^{20}\) Proposal for a Regulation, op.cit.

\(^{21}\) Currently only 9.3% of all EU companies sell across EU borders and thereby forego at least €26 billion per year. It is notable that average prices for consumer goods differ across EU Member States cca 24% (Eurostat, Statistics in Focus 50/2009). Only 7% of consumers buy online from another Member State, compared to 33% who buy by internet in their own country (Flash Eurobarometer 299, Consumer attitudes towards cross-border trade and consumer protection, p.15).
substantive regime for the answer to the aforementioned disputed questions. If the parties fail to agree on applicable law, Rome I would use the criteria of characteristic performance and lead to the law of the habitual residence of the seller. One must bear in mind that Polish and Hungarian law respectively may provide completely opposite legal solutions to this situation. If CESL were applied, the answer deriving from Art. 110\textsuperscript{22} and Art. 112\textsuperscript{23} would be immediate and clear.

Numerous pages suggesting improvement of this draft have been written.\textsuperscript{24} Simulation of its accurate implementation has been conducted, and analyses may suggest outcomes on its cost and benefits that somewhat differ from the ones of the Commission.\textsuperscript{25} First of all, CESL is limited in its scope of application.\textsuperscript{26} Regarding the material scope, it covers sales between professional sellers and consumers as well as sales between professional traders only if one of them is a small or medium-sized enterprise. CESL is not intended to be a sales regime for all international sales transactions, but to provide a protective sales regime for consumers and smaller enterprises.\textsuperscript{27} Regarding the territorial scope, it is confined only to cross-border contracts.

Such limitation in the scope of application suggests that the primary aim of the Regulation is easily abandoned, and that many issues remain again for the private international law technique and diverse national contract rules.\textsuperscript{28} And there is

\begin{itemize}
\item \textsuperscript{22} Art. 110. The buyer is entitled to require performance of the seller’s obligations. The performance which may be required includes the remedying free of charge of a performance which is not in conformity with the contract.
\item \textsuperscript{23} Art. 112. 1. Where the seller has remedied the lack of conformity by replacement, the seller has a right and an obligation to take back the replaced item at the seller’s expense. 2. The buyer is not liable to pay for any use made of the replaced item in the period prior to the replacement.
\item \textsuperscript{24} A really substantial and voluminous comment is provided for in the Statement of the European Law Institute on the Proposal for a Common European Sales Law, European Law Institute 2012. Available at: http://www.europeanlawinstitute.eu/projects/publications/
\item \textsuperscript{26} Schwenzer, I., op.cit., p. 461.
\item \textsuperscript{27} Magnus, U., CISC and CESL, op.cit., p. 227.
\item \textsuperscript{28} E.g., the issue of precontractual obligations, proprietary effects of a contract of sale of goods. Cravetto Ch., Pasa, B., Reflections on the Proposal for a Regulation on a Common European Sales Law. CDCT Working Paper 7-2012. European Legal Culture 6, pp. 8-10, available at: http://www.cdct.it/Pubblicazioni.aspx
\end{itemize}
also the issue of coexistence of CESL with an already established framework of private international law and uniform sales law.\textsuperscript{29} The debate starts with the fact that this new and unique instrument is introduced into a national system side by side to the regime of the Rome I Regulation\textsuperscript{30} and the rules of CISG.\textsuperscript{31}

From the consumer point of view, pluralism of legal sources still exists and the major concern for consumer rights protection lies in fragmentation of EU law that would remain even once CESL is enacted. A consumer would still be faced with the governing law which will to some extent be unknown or hardly accessible.

SMSs do not find this piece of legislation beneficial or cost-effective. Due to its complexity, they would still have to hire a lawyer. Hence from their point of view, emphasis should be given to shift the approach of EU intervention towards using standardized/model contracts!\textsuperscript{32}

CESL should be further supplemented by work on supporting actions such as alternative dispute resolution, online dispute resolution, organization of databases of court decisions, improved judicial cooperation and organization of training programs.\textsuperscript{33}

5. Conclusion

Equalization of international contract law is a challenge not only to European academic and political circles, but also to the EU institutions. The Commission has decided to remove legal barriers to the smooth functioning of the market by using solutions contained in the Proposal for a CESL Regulation. Compared to the

\begin{itemize}
  \item Piers, M., Vanleenhove, C., Another Step, op.cit., p. 12 \textit{et seq.}
  \item Behar-Touchais, M., The Functioning of the CESL within the framework of the Rome I Regulation, European Union, 2012.
  \item Kornet, N., The Common European Sales Law and the CISG – Complicating or Simplifying the Legal Environment?, Maastricht Faculty of Law Working Paper No. 2012/4; Magnus, M., CISG and CESL, op.cit., p. 225 \textit{et seq.}
\end{itemize}
existing legal regime, the Proposal for a Regulation introduces many advantages for both consumers and small and medium traders. An introduction of CESL is a component in the creation of a European identity! “The European model of justice between private parties” is realized through this Europeanization of private law. The CESL Proposal has caused a wide-ranging debate which points to a number of uncertainties, ambiguities or shortcomings of this Regulation. Despite all efforts, the Commission is again facing a dilemma of the balance between consumer protection and protection of company’s legitimate interests.

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Business Administration and Business Economics
BRAND EXPERIENCE –
HOW IT RELATES TO BRAND PERSONALITY, CONSUMER SATISFACTION AND CONSUMER LOYALTY.
AN EMPIRICAL ANALYSIS OF THE ADIDAS BRAND.

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Abstract

Brand experience has attracted a lot of attention in the Marketing practice. With consumers seeking not only functional benefits of a brand but also emotional experiences, brand experience theory attempts to provide answers on how brand experience can be measured and how it affects consumer behavior. This article examines the relationship between Brakus et al.’s (2009) four brand experience dimensions – sensory, affective, intellectual and behavioral – and customer satisfaction and loyalty for the Adidas brand. The authors conducted empirical research during December 2012 and January 2013 through an online questionnaire. The model of Brakus et al. (2009) could be only partially verified: The findings show that the brand experience items developed by Brakus et al. (2009) may encompass some short-comings that returns biased results. Severe deviations were discovered in the factor analysis especially for the behavioral and intellectual dimension of the brand experience scale. However, the empirical results support the claim that brand experience has a significant positive correlation with brand personality, consumer satisfaction, and consumer loyalty. In addition, a significant correlation between
brand personality with consumer loyalty and consumer satisfaction could have also been validated.

JEL classification: M31

Keywords: experience marketing, experiential marketing, brand experience, Adidas

1 Introduction

Adidas is one of the highest regarded brands in the sports-and lifestyle industry with tremendous consumer acceptance and admiration. Consumer tests have shown that people wearing Adidas felt more comfortable and were able to show a higher performance – even if the products were counterfeit products with the Adidas logo (so-called placebo-effect) (WDR, 2012). For a company it is essential to understand the essence of its brand and the experiences consumers have with it. But is there a way to measure the brand experience of the consumers? And if so, is it connected to consumer satisfaction and consumer loyalty?

Brakus et al. (2009) aim to explain brand experience and have invented a model to measure it. They have shown that brand experience positively affects consumer satisfaction and loyalty. In addition, they have developed an empirically validated brand experience scale based on the dimensions sensory, affective, intellectual and behavioral. The scale is meaningful in academic research, but even more important “as marketers engage in projects to understand and improve the experience their brand provides for their customers, they can use the scale for assessment, planning, and tracking purposes” (Brakus et al. 2009). It however leaves the question behind whether their model can be validated by further studies and whether the model can still be improved.

This article attempts to examine the relationship between Brakus et al.’s (2009) four brand experience dimensions and customer satisfaction and loyalty for the Adidas brand. However, the findings of this research reveal that, when applied to the Adidas brand, the questions developed by Brakus et al. (2009) encompass some short-comings and return biased results. In this paper the model will be modified making it more descriptive. Then the modified model will be tested on a survey about the brand experience of Adidas, examining its relation to brand personality, consumer satisfaction and consumer loyalty.
2 Literature Review

30 years ago Holbrook and Hirschman (1982) published their “iconic paper” (Tynan and McKechnie, 2009) “The Experiential Aspects of Consumption: Consumer Fantasies, Feelings, and Fun”. The authors identified new consumption behaviors “that relate to the multi-sensory, fantasy, and emotive aspects of product use” (Holbrook and Hirschman, 1982). They claim that the existing theory of the rational consumer needs to be supplemented by emotional components of buying behavior. This pioneering article launched an academic debate and encouraged further research on this subject. Since then, experience marketing has established itself within marketing theory and nowadays plays an essential role within consumer marketing.

The grounds for this growing phenomenon are based on three reasons: Firstly, overexposure to advertising from traditional media channels forces communication to focus on new ways to gain consumers’ attention and reach them with their messages (Mortimer, 2009). Secondly, globalization and saturation of markets has led to fierce competition for limited market share and increased level of competition. This is driven by the fact that functional product benefits are becoming interchangeable which makes it more difficult for companies to differentiate on functional product features (Fransen and Lodder, 2010). Pine and Gilmore (1998) claim that since “goods and services become commoditized, the customer experiences that companies create will matter most”. Thirdly, consumers with more hedonistic lifestyles are seeking consumption that recognizes their need of new and exciting experiences (Fransen and Lodder, 2010).

Although experience-based marketing has received continuous attention, there is no common definition or usage of a dominant term. Several terms have been proposed, such as “experiential consumption” (Addis and Holbrook, 2001; Lofman, 1991), “experience marketing” (Pine and Gilmore, 1998), “experiential marketing” (Schmitt, 1999) or “brand experience” (Brakus et al. 2009). Brakus et al. (2009) define brand experience as “subjective, internal consumer responses (sensations, feelings, and cognitions) and behavioral responses evoked by brand-related stimuli that are part of a brand’s design and identity, packaging, communications, and environments”.

Various studies have analyzed the effect of experience marketing and tried to measure its outcomes. Fransen and Lodder (2010) have empirically examined the effects of experience marketing communication tools on consumer responses, and
identified a positive influence on brand attitude and brand relation. Tsaur et al. (2006) confirm in their study on the Taipei Zoo that experiences have positive effects on emotion and emotion has a positive effect on the behavioral intention – through the means of satisfaction. Brakus et al. (2009) confirm that “brand experience affects consumer satisfaction and loyalty directly and indirectly through brand personality associations”. Sands et al. (2008) found that in-store experiential events positively influence perceived shopping value and shopping behavior intention.

In addition to analyzing the impact of experience marketing, various efforts have been made to develop operational typologies for experiences. “These dimensions provide a frame-work by which companies and brands can engage consumers in an experiential manner” (Sands et al. 2008). Pine and Gilmore (1998) sort experiences into four broad categories according to where they fall along the spectra of the two dimensions “level of active/passive participation” and “level of immersion versus absorption”: the entertainment, educational, aesthetic and escapist realm. These are well suited to analyze to explore retail settings (Sands et al. 2008). Schmitt (1999) identifies five different types of experiences: sensory experiences (SENSE), affective experiences (FEEL), creative cognitive experiences (THINK), physical experiences, behaviors and lifestyles (ACT) and social-identity experiences that result from relating to a reference group or culture (RELATE). These categories are especially suitable to create brand experiences (Sands et al. 2008). Brakus et al. (2009) constructed a brand experience scale with four dimensions: sensory, affective, behavioral and intellectual. In contrast to Pine and Gilmore (1998) and Schmitt (1999), Brakus et al. (2009) did not derive their four factors from literature, but gathered them by empirical evidence through explorative and confirmatory factor analysis. In addition to the factor analysis, six further studies were conducted to prove the reliability of the scale.

In conceptualizing brand experience, Brakus et al. (2009) concluded that brand experience is shaped by brand-related stimuli that constitute “subjective, internal consumer responses”, such as sensations, feelings and cognitions, as well as behavioral responses. They began with five dimensions selected through literature review, namely, sensory, affective, intellectual, behavioral and social. Through data collection and analysis the authors reduced their findings to four dimensions – sensory, affective, behavioral, and intellectual. As Figure 1 depicts, each of the four dimensions are tested by three items, to gauge the intensity of the consumers’ brand experience. The research findings also led the authors to conclude that “brand experience seems to be a stronger predictor of actual buying behaviour” compared to
brand personality, a more effective measure of customer satisfaction (Brakus et al. 2009).

**Figure 1: Confirmatory Factor Analysis: The Four-Factor Model**

Source: Brakus et al. (2009, p.60)

Brakus et al. (2009) provide a well-defined framework from which more confirmatory research can be conducted to measure the intensity of consumers’ experience with brands and its effects on satisfaction and loyalty. Should this framework prove to be valid and consistent after further testing, the implications for marketing practitioners could be significant. Not only would it lend credence to brand expe-
rience as an independent attribute of the brand construct, moreover, the linkage between brand experience dimensions and loyalty could help marketers improve customer retention. In addition, the brand scale with the four dimensions would give significant guidance on how to create and measure brand experience.

This report attempts to validate the relationship between the four brand experience dimensions – sensory, affective, behavioral, and intellectual – and customer satisfaction and loyalty.

3 Research Objectives and Hypotheses

Brakus et al. (2009) have created a brand experience scale that includes four dimensions – sensory, affective, behavioral and intellectual – and is consisting of 12 items. In their research paper they furthermore state that brand experience has an influence on consumer satisfaction and consumer loyalty – both directly and indirectly (through brand personality associations). Their empirical finding is however, that brand experience is a stronger predictor of consumer loyalty and brand personality and in turn is a stronger predictor of consumer satisfaction (see Figure 2).

Figure 2: Discriminant and Predictive Validity of the Brand Experience Scale

Source: Brakus et al. (2009, p.66)
However, Walter et al. (2013) used the explained brand experience scale on brand experience for BMW and found neither an influence of brand experience and brand personality on consumer satisfaction, nor an influence of consumer satisfaction on consumer loyalty. Furthermore they discovered deviations of the behavioral dimension during the factor analysis. Against this background, this study aims to test whether brand experience affects consumer satisfaction, consumer loyalty and brand personality – looking at a specific brand, namely Adidas. Adidas seems to be an ideal brand for this study, as it is widely used worldwide and is known to be a brand with intense consumer experience.

Being able to examine these relationships, the same hypotheses Brakus et al. (2009) used need to be tested. In this study, they will be used specifically on Adidas. The first two hypotheses consider the direct influence of brand experience on consumer satisfaction and consumer loyalty.

**H1: Brand experience positively affects consumer loyalty for Adidas.**

**H2: Brand experience positively affects consumer satisfaction for Adidas.**

For being able to examine the indirect relationship through brand personality, it is necessary to test the third hypothesis.

**H3: Brand experience positively affects brand personality for Adidas.**

Furthermore, the direct influence of brand personality on consumer loyalty and consumer satisfaction needs to be investigated.

**H4: Brand personality positively affects consumer loyalty for Adidas.**

**H5: Brand personality positively affects consumer satisfaction for Adidas.**

In addition, it is interesting to test whether consumer satisfaction and consumer loyalty are correlated.

**H6: Consumer satisfaction positively affects consumer loyalty for Adidas.**

If those hypotheses show statistically significant results it would demonstrate the relationship between brand experience, brand personality, consumer satisfaction and consumer loyalty.
Another objective of this study is to make the brand experience scale of Brakus et al. (2009) more expressive and descriptive, since it currently seems to be quite abstract and general. More tailor-made and individual statements for the specific brand Adidas are needed to increase clarity and to avoid ambiguity.

Considering the objectives of this study, the method used in this research needs to be consistent in a way with the model of Brakus et al. (2009). That implies the four dimensions of brand experience. However, the single statements need a rewording to make them more expressive.

4 Data Collection and Measurement

For data collection an online questionnaire had been used (see Appendix 1). The link of the questionnaire had been sent out via e-mail to personal contacts of the authors and had been put on a social network (convenience sampling). The goal was to reach respondents from all around the world with a wide age group. Using an online survey seemed ideal to achieve this goal, as it is the most efficient and most convenient way to reach international respondents. As the circle of acquaintances of the researches doesn’t only consist of students, also the second objective could be achieved this way.

The questionnaire has been distributed in English and German. A total of 114 respondents completed the survey within a time period of 11 days in December 2012 and January 2013. Before the distribution of the online survey, it had been pre-tested by three people to check the time needed to fill out the questionnaire. For achieving a low rate of abandonment a time slot of up to five minutes has been aimed for. Apart from that no more detailed pre-testing could be performed due to a strict time schedule.

The survey itself consists of four parts. In the first part general information is queried. The second part comprises statements referring to brand experience. The third part consists of statements referring to brand personality. And the forth part comprises of statements regarding consumer loyalty and consumer satisfaction. In the second, third and fourth part of the survey the respondents have the possibility to comment the given statements on a 5-point Likert scale (1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly disagree). To not force respondents to an answer and thereby possibly distorting the results another option is given to the respondents: I don't know/no comment.
The first part asks about general information of the respondents and consists of three questions: the age, the nationality and the gender. This gives the researchers the possibility to differentially analyze the results of the survey (e.g. German vs. non-German). In the second part the focus is on brand experience. For finding out about the brand experience people had with Adidas sports products, the four-factor-model of Brakus et al. (2009) serves as a basis. For each dimension – sensory, affective, behavioral and intellectual – three statements are formulated. To make the brand experience scale more vivid and descriptive the 12 statements were re-worded. Considering the dimension sensory, the statements focus on the visual (fashionable) and tactile (fit and touch) senses, as those are considered to be the important ones for Adidas sport products. The dimension affective is represented by positive feeling towards the Adidas sports products itself, the atmosphere within the Adidas shops and the attraction to products with the Adidas logo on it. Within the dimension behavioral it is tested if wearing Adidas sports products and/or the atmosphere within Adidas shops make people want to work out. Furthermore the survey checks if the respondents are frequent purchasers of Adidas sports products. The dimension intellectual tests if Adidas advertisements (and their basic message) and Adidas’ innovation are in the mind of Adidas customers. The formulated statements about brand experience can be found in Appendix 1. The third part comprises statements implying the five brand personality dimensions of Aaker (1997). However, as the focus of the research is on brand experience, the original 15-item scale has not been used. It is not the goal of this paper to examine the brand personality scale. Instead one statement for each of the dimensions sincerity, excitement, competence, sophistication and ruggedness has been formulated. These statements about the Adidas sports products’ brand personality can be found in Appendix 1. The fourth part focuses on consumer loyalty and consumer satisfaction. Also in this case the questionnaire has been shortened and simplified – compared to the one Brakus et al. (2009) used. The five consumer loyalty questions proposed by You and Donthu (2001) and the five consumer satisfaction questions proposed by Oliver (1980) have been compromised to one question. The formulated statements about the Adidas sports products’ consumer loyalty and consumer satisfaction can be found in Appendix 1.
5 Results

In January 2013 the data collected was analyzed for the n=114 respondents. Because the respondents had the option to choose from a 5-point Likert scale which included a sixth option of “I don’t know/No Comment”, the analysis included forcing this sixth option to be considered as a missing value as to not skew the results. We then analyze the data by replacing missing values with the mean. Finally we preformed our initial exploratory factor analysis on the 12 questions of brand experience using the Principle Component extraction method. For more precise results we used the Varimax Rotated Component Matrix. Consistent with Walter et al. (2013) we yielded the same type of scattered results. Of the 4 dimensions of brand experience, the sensory and affective dimension provided stable results, cumulating into one factor. The remaining 2 factors, behavioral and intellectual, had split results into multiple factors (see Figure 3).

To provide a clearer view of the 4 dimensions of brand experience and to be consistent with the research methods of Brakus et al. (2009) and Walter et al. (2013), we loaded the first two dimensions, sensory and affective, into one factor, and loaded behavioral and intellectual dimensions into their own separate factors using three different factor analyses. Grouping the dimensions into these factors resulted in each scenario providing a one factor solution for all three. The inherent difference in the dimensions behavioral and intellectual is similar to the issue represented in Walter et al. (2013) where the behavioral dimension needed to be independently loaded into its own Principal Component Analysis (see Figure 4).
An exploratory factor analysis of the 5 brand personality questions was conducted next. The results only loaded onto one factor, a different finding from 2 factor results from Walter et al. (2013). As was the case in Walter et al. (2013) when comparing the relationship brand experience has on brand personality, only one factor from brand personality could be used as the dependent variable in the regression model. Our analysis also used only one dependent variable, but in relation of brand personality with loyalty and satisfaction, we will only use one independent variable of brand personality (see Figure 5).

Regression analysis was then conducted to determine the validity of the research hypotheses. First, the three brand experience factors were used as independent variables against the single dependent variables of brand personality, consumer satisfaction and consumer loyalty.
In the case of the first research hypothesis (positive correlation between brand experience and consumer loyalty) our data analysis confirms the hypothesis of a statistically significant model, with a p-value for the model at $p<0.05$. The adjusted $R^2$ was found to be $R^2=0.472$ (see Appendix 2, Figure 7). It is interesting to note that the p-value of the intellectual dimension was $p=0.281$ and the p-value of the coefficient behavioral was found to be $p=0.086$. They are higher than $p=0.05$, the determinate of whether a coefficient is a predictor of loyalty (see Appendix 2, Figure 8). This means that the correlation between the intellectual dimension and the consumer loyalty could not be verified. The same applies to the behavioral dimension. The model as a whole does represent significance, which suggests that the sensory and affective dimensions play a large role in predicting loyalty in Adidas consumers. This conclusion is also supported by the coefficients B. The factor sensory/affective has a coefficient B of 0.537, whereas the coefficients B for behavioral and intellectual are only 0.159 and 0.089 (see Appendix 2, Figure 8). The findings of the overall model are very comparable to that of Walter et al. (2013) which found a statistically significant model of $R=0.450$.

The second research hypothesis was found to have a different outcome than the first. Here we were able to confirm the findings of Brakus et al. (2009) of rejecting the null hypothesis that brand experience affects satisfaction positively. Walter et al. (2013) found not enough statistical evidence to not reject the hypothesis because the p-value was $p=0.387$. Our analysis yielded a p-value less than $p=0.05$ with an adjusted $R^2$ of $R^2=0.242$ (see Appendix 2, Figure 9). This leads us to conclude that the rejection of the null hypothesis from Brakus et al. (2009) to be correct. Again we saw issues with the dimensions intellectual and behavioral. Whereas the overall model yielded a p-value below $p=0.05$, the coefficients of intellectual and behavioral were $p=0.610$ and $p=0.431$ respectively (see Appendix 2, Figure 10). Again we must conclude that the positive correlation between brand experience and satisfaction is coming from the first factor, sensory and affective. This again can be proved by looking at the coefficients B, with the factor sensory/affective being much greater than the other two. In addition we will note that the coefficient B of behavioral was negative (-0.059) (see Appendix 2, Figure 10). As the significance is too low we therefore excluded these dimensions. As a result, a regression analysis was conducted removing the factors individually – one analysis with only the variables sensory-affective and intellectual and another one with only the variables sensory-affective and behavioral. However, this lead the results to yield only a slight increase of the adjusted $R^2$. 
The third hypothesis, brand experience positively affects brand personality for Adidas, yielded a p-value less than p=0.05 and an adjusted R² of R²=0.501 (see Appendix 2, Figure 11). Therefore, there is enough statistical significance for the model and it shows that brand experience does positively affect brand personality. Once again, as seen in the regression analysis for brand experience in consumer loyalty and consumer satisfaction, the behavioral dimension has a p-value above p=0.05. The same applies for the intellectual dimension. An examination of the B coefficients leads to the conclusion that – also in this case – the positive correlation between brand experience and brand personality is mainly coming from the factor sensory/aff ective (see Appendix 2, Figure 12).

Hypotheses 4 and 5 state how brand personality affects consumer loyalty and consumer satisfaction. Brand personality has a similar relationship as brand experience on both consumer loyalty and consumer satisfaction. Brand personality has enough statistical evidence for both models (p-value below p=0.05 in both models) to confirm that there is a positive affection between brand personality and consumer loyalty (adjusted R²=0.390) and to reject the null hypothesis of brand personality having affection for consumer satisfaction (adjusted R²=0.166) (see Appendix 2, Figure 13 and 14).

The sixth hypothesis is how consumer satisfaction positively affects consumer loyalty. As with all the previous analysis, there was enough statistical evidence (p-value < 0.05) to conclude that there is a correlation between consumer loyalty and consumer satisfaction. For this analysis the regression showed an adjusted R² of R²=0.193 (see Appendix 2, Figure 15). This is consistent with the results from the previous analyses that there is a high correlation between brand experience and loyalty and high correlation between brand personality and loyalty, but low correlation between brand experience or brand personality and consumer satisfaction. In conclusion from the six hypotheses analyzed, we can see summary of the results in Figure 6 provided below.
A few interesting analysis arose from the data collected. When comparing different scenarios of regression runs, the comparison of German national responses and Non-German national responses gave a different review on the results, at least compared to brand experience and satisfaction. The brand experience has a higher correlation for consumer satisfaction for those who consider themselves German compared to those who do not. Where the overall correlation was of medium size (adjusted $R^2=0.242$), the correlation for the German consumers was much higher (adjusted $R^2=0.363$) than the correlation for the Non-German consumers (adjusted $R^2=0.130$). This would suggest a fundamental difference in the Adidas consumer base between Germany and other countries. When comparing the results from the two data sets (German versus Non-German), the brand experience and consumer loyalty correlation was almost identical. As both have a regression with a p-value less than $p=0.05$, the adjusted $R^2$ for Germans was found to be $R^2=0.458$ versus the adjust $R^2$ of Non-Germans was found to be $R^2=0.447$ (see Appendix 2, Figure 17 and 18). Therefore there is a higher correlation for Germans, but the difference is very little. This is also consistent with an overall correlation for everyone at an adjusted $R^2=0.472$. 

**Figure 6: Brand Experience Scale of Adidas**

![Brand Experience Scale Diagram](image-url)
6 Conclusion and Implications

In conclusion, the brand experience of Adidas in this research paper can be used to support some of the results reached in Brakus et al. (2009) and Walter et al. (2013). This model can support the claim that brand experience has a moderately high positive correlation to brand personality as stated in Brakus et al. (2009) and in Walter et al. (2013). Also this model supports the claims from Walter et al. (2013) only as to the degree of correlation between brand experience and consumer loyalty and the correlation between brand personality and consumer loyalty – being close to $r=0.45$ in both cases for both correlations. However, the model from Brakus et al. (2009) found that there was low correlation between brand experience and consumer loyalty and between brand personality and consumer loyalty.

Although the model of Walter et al. (2013) could not find statistical evidence to not reject the null hypothesis of brand experience on consumer satisfaction, the null hypothesis of consumer satisfaction on consumer loyalty, and the null hypothesis of brand personality on consumer satisfaction, our model did have enough statistical evidence. We were able to verify all three hypotheses. This again is consistent with what Brakus et al. (2009) found. Our finding that the correlation between brand experience and consumer satisfaction is low ($r<0.25$) also matches the one of Brakus et al. (2009). However, our findings about the amount of correlation between brand personality and consumer satisfaction and between consumer satisfaction and consumer loyalty differ from those Brakus et al. (2009) made. There was a high correlation for their study (about $r=0.6$), whereas in our study on Adidas there was only a low correlation ($r<0.2$).

There were similarities in both this research and Walter et al. (2013) from certain dimensions. Whereas Walter et al. (2013) issues only arose from the behavioral dimension, we saw the same issue with both the behavioral and intellectual dimension. It was not stated whether this issue arose in the model from Brakus et al. (2009), but in future studies this problem should be addressed and tested to see whether the four dimension model of brand experience holds true.

Lastly it is interesting to see the results when using only German national responses and when only using non-German national responses. As the correlation between brand experience and consumer loyalty did not yield any interesting facts, the correlation between brand experience and consumer satisfaction yielded an extraordinary result. The correlation was at 36% for German nationals whereas only 13% for non-Germans. This suggests there could be a higher correlation of brand
experience on consumer satisfaction than argued earlier in the paper if another dimension like knowledge of the product (or frequency of brand experience) may have been introduced. Adidas, a German company, may have a larger reach to consumer knowledge in Germany than in foreign countries. Additional research should follow up on this analysis.

7 Limitations and Future Research

The biggest limitation to the validity of this research report is the applied sampling method and the small sample size. Because of convenience sampling, the survey was directed at a limited pool. The survey was given mostly via email and social media, which implies that the respondents were acquainted with the surveyors to some degree. This may or may not have provided bias results. The respondents may have felt obligated to answer the questions different than if administered by an independent party. However, this should have played a minor role because the instructions were given to honest opinions.

The second limitation seen in the research was issues with the dimensions behavioral and intellectual. The coefficients sometimes did not represent enough significance. These issues may have come from interpretation of the questions being answered. Therefore additional research could be conducted to validate the types of questions that represent the dimensions of behavioral and intellectual. In addition, some respondents have given feedback that the questions involving their store experiences were limited or did not exist as they were mainly shopping online for Adidas. Also, that the advertisements were not well known, and therefore they could not accurately represent their opinions on the respective questions. The option for “I do not know/no comment” was available, and used more frequently for these questions than for the rest of the questions. This could explain some of the issues we saw involving these dimensions.

A third limitation of this research paper was the wording of the questions. Since the items of Brakus et al. (2009) were kept fairly vague and general, we rephrased the items with the goal to be more precise so that people could give more accurate responses. However, this approach could not guarantee to match the meaning of the original items fully and it could have skewed the results. Future research should consider continue to develop a clear understanding of the four dimensions of brand experience.
This paper also considers brand experience only as applied to Adidas. Due to the kind of image that Adidas exudes it may result in biased findings when compared to consumer experience analysis of other brands. Further research should consider continuing to test the consistency of the brand experience model of Brakus et al. (2009) with a wider range of brands.

References
Mortimer, R. (2009), Getting the right attention, Brand Strategy, December, 55.


### Appendix 1

**Appendix 1a: Questionnaire in English**

**Age:**

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<tr>
<th>Nationality:</th>
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**Gender:**
- Male
- Female

#### Brand Experience

<table>
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<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Strongly Agree</th>
<th>I don't Know / No Comment</th>
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<tbody>
<tr>
<td>I think Adidas sports products are very fashionable.</td>
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<td>Adidas sports products are comfortable and fit very well.</td>
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<td>The material used for Adidas sports products feels good to the touch.</td>
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<td>While wearing Adidas sports products I feel inspired to start working out.</td>
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<td>Using Adidas sports products makes me feel good and hip.</td>
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<td>I feel attracted to products with the 3 stripes (Adidas logo) on it.</td>
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<td>I enjoy the atmosphere in Adidas sports shops.</td>
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<td>Visiting Adidas sports shops makes me want to work out more often.</td>
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<td>As I enjoy shopping for Adidas sports products, I am frequently going to Adidas sports shops or sports shops which sell Adidas products.</td>
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<td>The Adidas advertisement “Impossible is Nothing” makes me think about not giving up or about fighting for success.</td>
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<td>The Adidas advertisement “Adidas is all in” shows me plainly how diverse Adidas products are.</td>
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<td>I like the fact that Adidas is carrying out a lot of research to improve their products and introduce new technologies to the market.</td>
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#### Brand Personality

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<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Strongly Agree</th>
<th>I don't Know / No Comment</th>
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<tr>
<td>If Adidas says the sports shirt offers outstanding breathability, I trust in the correctness of this statement.</td>
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<td>I look forward to new products.</td>
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<td>I prefer buying Adidas products because of their good quality (deriving from good research they are doing).</td>
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<td>The style of Adidas sports products makes me feel sophisticated while working out.</td>
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<td>Adidas sports products have a good durability.</td>
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#### Loyalty

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<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Strongly Agree</th>
<th>I don't Know / No Comment</th>
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<tbody>
<tr>
<td>The next sports product I am buying will most likely be from Adidas.</td>
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#### Satisfaction

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<th>Statement</th>
<th>Strongly Disagree</th>
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<th>Neutral</th>
<th>Strongly Agree</th>
<th>I don't Know / No Comment</th>
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<tbody>
<tr>
<td>I am fully satisfied with my Adidas sports products.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Appendix 1b: Questionnaire in German

#### Nationalität:

<table>
<thead>
<tr>
<th>Geschlecht</th>
<th>männlich</th>
<th>weiblich</th>
</tr>
</thead>
</table>

#### Meinung

<table>
<thead>
<tr>
<th>Meiner Meinung nach sind Adidas Sportprodukte sehr modisch.</th>
<th>stimme überhaupt nicht zu</th>
<th>stimme eher nicht zu</th>
<th>stimme neutral</th>
<th>stimme eher zu</th>
<th>stimme voll zu</th>
<th>weiß ich nicht / keine Antwort</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adidas Sportprodukte sind sehr bequem und passen hervorragend.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Das für Adidas Sportprodukte verwendete Material fühlt sich gut an.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wenn ich Adidas Sportartikel trage, fühle ich mich ansprechend mit dem Training zu beginnen.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wenn ich Adidas Sportprodukte trage bzw. verwende, fühle ich mich wohl und modern gekleidet.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Produkte mit den 3 Streifen (dem Adidas Logo) sprechen mich an.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In Adidas Geschäft fühle ich mich wohl.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Atmosphäre

| Die Atmosphäre im Adidas Geschäft führt dazu, dass ich plane in Zukunft aktivier zu sein und mehr zu trinken. |                           |                      |                |                |                |                                |
| Da ich gern Adidas Sportprodukte trage, bin ich regelmäßig in Sportgeschäften, welche Adidas-Produkte verkauft. |                           |                      |                |                |                |                                |
| Die Adidas Werbung "Impossible is Nothing" sporn mich an nicht aufzugeben und für den Erfolg zu kämpfen. |                           |                      |                |                |                |                                |
| Die Adidas Werbung "Adidas is all in" führt mir vor Augen, wie vielfältig Adidas Produkte doch sind. |                           |                      |                |                |                |                                |
| Ich mag die Tatsache, dass Adidas viel Forschung betreibt, um seine Produkte zu verschärfen und neue Technologien auf den Markt zu bringen. |                           |                      |                |                |                |                                |

#### Markenpersönlichkeit

| Wenn auf einem Social Media hervorragende Abläufe und Aktivitäten des Adidas T-Shirts beworben wird, dann vertraue ich diesem Aussage |                           |                      |                |                |                |                                |
| Ich kann es immer kaum erwarten, bis die neue Kollektion von Adidas auf dem Markt erscheint. |                           |                      |                |                |                |                                |
| Ich bevorzuge es Adidas Sportprodukte zu kaufen, da sie aufgrund der guten Forschung, die Adidas betreibt - eine hervorragende Qualität bietet. |                           |                      |                |                |                |                                |
| Ich trage beim Training gerne Adidas Sportartikel, die sich zum einen hochfunktional sind, jedoch auch edel wirken. |                           |                      |                |                |                |                                |
| Adidas Produkte sind strapazierfähig und halten sehr lange. |                           |                      |                |                |                |                                |

#### Loyalität

| Der nächste Sportartikel, den ich kaufen werde, wird wahrscheinlich von der Marke Adidas sein. |                           |                      |                |                |                |                                |

#### Zufriedenheit

| Ich bin mit meinen Adidas Sportprodukten hochzufrieden. |                           |                      |                |                |                |                                |
Appendix 2: Statistical Results

Figure 7: Linear Regression: Model Summary and ANOVA tables from Brand Experience and Consumer Loyalty

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.697</td>
<td>.486</td>
<td>.472</td>
<td>.705</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Factor_Intellectual, Factor_Sensory_Affective, Factor_Behavioral  
b. Dependent Variable: Loyalty

ANOVA

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Regression</td>
<td>51,560</td>
<td>3</td>
<td>17,163</td>
<td>34,608</td>
<td>.000**</td>
</tr>
<tr>
<td>Residual</td>
<td>54,648</td>
<td>110</td>
<td>.497</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>106,229</td>
<td>113</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Factor_Intellectual, Factor_Sensory_Affective, Factor_Behavioral  
b. Dependent Variable: Loyalty

Figure 8: OLS Regression: Coefficient table of Brand Experience vs. Consumer Loyalty

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>2.489</td>
<td>.696</td>
<td>37.854</td>
<td>.000*</td>
<td></td>
</tr>
<tr>
<td>Factor_Sensory_Affective</td>
<td>.537</td>
<td>.679</td>
<td>.551</td>
<td>.000*</td>
<td></td>
</tr>
<tr>
<td>Factor_Behavioral</td>
<td>.159</td>
<td>.092</td>
<td>.161</td>
<td>.173</td>
<td>.086</td>
</tr>
<tr>
<td>Factor_Intellectual</td>
<td>.009</td>
<td>.002</td>
<td>.000</td>
<td>.104</td>
<td>.291</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Loyalty

Figure 9: OLS Regression: Model Summary and ANOVA tables from Brand Experience and Consumer Satisfaction

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.512</td>
<td>.262</td>
<td>.242</td>
<td>.572</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Factor_Intellectual, Factor_Sensory_Affective, Factor_Behavioral  
b. Dependent Variable: Satisfaction

ANOVA

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Regression</td>
<td>12,802</td>
<td>3</td>
<td>4,267</td>
<td>13.049</td>
<td>.000**</td>
</tr>
<tr>
<td>Residual</td>
<td>35,971</td>
<td>110</td>
<td>.327</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>48,772</td>
<td>113</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Factor_Intellectual, Factor_Sensory_Affective, Factor_Behavioral  
b. Dependent Variable: Satisfaction
Figure 10: OLS Regression: Coefficient table of Brand Experience vs. Consumer Satisfaction

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
<th>Coefficient Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>(Constant) 3.851, .004</td>
<td>71.812, .000</td>
<td></td>
<td></td>
<td>Tolerance, VIF</td>
</tr>
<tr>
<td></td>
<td>Factor_Sensory_Affective .355, .004</td>
<td>5.514, .000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Factor_Behavioral -.019, .000</td>
<td>-.700, .431</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Factor_Intellectual .034, .006</td>
<td>.511, .010</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Satisfaction

Figure 11: OLS Regression: Model Summary and ANOVA tables from Brand Experience and Brand Personality

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std_Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.717</td>
<td>.514</td>
<td>.501</td>
<td>.70320807</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Factor_Intellectual, Factor_Sensory_Affective, Factor_Behavioral
b. Dependent Variable: Factor_BrandPersonality

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>57,605</td>
<td>3</td>
<td>19,202</td>
<td>38,830</td>
<td>.000</td>
</tr>
<tr>
<td>Residual</td>
<td>54,395</td>
<td>110</td>
<td>.455</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>112,000</td>
<td>113</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Factor_Intellectual, Factor_Sensory_Affective, Factor_Behavioral
b. Dependent Variable: Factor_BrandPersonality

Figure 12: OLS Regression: Coefficient table of Brand Experience vs. Brand Personality

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
<th>Coefficient Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>(Constant) -7.744E-17, .000</td>
<td>.000, 1,000</td>
<td></td>
<td></td>
<td>Tolerance, VIF</td>
</tr>
<tr>
<td></td>
<td>Factor_Sensory_Affective .539, .079</td>
<td>.539, 6.803</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Factor_Behavioral -.038, .097</td>
<td>-.073, .287</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Factor_Intellectual -.256, .080</td>
<td>-.256, .009</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Factor_BrandPersonality

Figure 13: OLS Regression: Model Summary and ANOVA tables from Brand Personality and Consumer Loyalty

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std_Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.629</td>
<td>.395</td>
<td>.390</td>
<td>.757</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Factor_BrandPersonality
b. Dependent Variable: Loyalty

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>41,991</td>
<td>1</td>
<td>41,991</td>
<td>73,211</td>
<td>.000</td>
</tr>
<tr>
<td>Residual</td>
<td>64,238</td>
<td>112</td>
<td>.574</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>106,229</td>
<td>113</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Factor_BrandPersonality
b. Dependent Variable: Loyalty
Figure 14: OLS Regression: Model Summary and ANOVA tables from Brand Personality and Consumer Satisfaction

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.418*</td>
<td>.173</td>
<td>.166</td>
<td>.000</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Factor_BrandPersonality
b. Dependent Variable: Satisfaction

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>8,451</td>
<td>1</td>
<td>6,451</td>
<td>23,473</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>40,322</td>
<td>112</td>
<td>.360</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>48,772</td>
<td>113</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Factor_BrandPersonality
b. Dependent Variable: Satisfaction

Figure 15: OLS Regression: Model Summary and ANOVA tables from Consumer Satisfaction and Consumer Loyalty

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.447*</td>
<td>.200</td>
<td>.193</td>
<td>.893</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Satisfaction
b. Dependent Variable: Loyalty

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>21,252</td>
<td>1</td>
<td>21,252</td>
<td>27,261</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>84,976</td>
<td>109</td>
<td>.780</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>106,229</td>
<td>110</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Satisfaction
b. Dependent Variable: Loyalty
Figure 16: The descriptive statistics for all the brand experience, brand personality, consumer loyalty and consumer satisfaction questions

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Analysis N</th>
<th>Missing N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensory1</td>
<td>3.69</td>
<td>.804</td>
<td>113</td>
<td>3</td>
</tr>
<tr>
<td>Sensory2</td>
<td>3.96</td>
<td>.719</td>
<td>113</td>
<td>13</td>
</tr>
<tr>
<td>Sensory3</td>
<td>3.80</td>
<td>.718</td>
<td>113</td>
<td>11</td>
</tr>
<tr>
<td>Behavioral1</td>
<td>2.94</td>
<td>.889</td>
<td>113</td>
<td>0</td>
</tr>
<tr>
<td>Affective1</td>
<td>3.33</td>
<td>.879</td>
<td>113</td>
<td>8</td>
</tr>
<tr>
<td>Affective2</td>
<td>3.10</td>
<td>1.118</td>
<td>113</td>
<td>3</td>
</tr>
<tr>
<td>Affective3</td>
<td>3.14</td>
<td>.863</td>
<td>113</td>
<td>29</td>
</tr>
<tr>
<td>Behavioral2</td>
<td>2.61</td>
<td>.652</td>
<td>113</td>
<td>23</td>
</tr>
<tr>
<td>Behavioral3</td>
<td>2.25</td>
<td>1.097</td>
<td>113</td>
<td>11</td>
</tr>
<tr>
<td>Intellectual1</td>
<td>2.06</td>
<td>1.082</td>
<td>113</td>
<td>19</td>
</tr>
<tr>
<td>Intellectual2</td>
<td>2.58</td>
<td>.932</td>
<td>113</td>
<td>25</td>
</tr>
<tr>
<td>Intellectual3</td>
<td>3.96</td>
<td>.744</td>
<td>113</td>
<td>7</td>
</tr>
<tr>
<td>Personality1</td>
<td>3.84</td>
<td>.561</td>
<td>113</td>
<td>3</td>
</tr>
<tr>
<td>Personality2</td>
<td>2.46</td>
<td>1.245</td>
<td>113</td>
<td>2</td>
</tr>
<tr>
<td>Personality3</td>
<td>3.00</td>
<td>1.052</td>
<td>113</td>
<td>5</td>
</tr>
<tr>
<td>Personality4</td>
<td>3.04</td>
<td>1.077</td>
<td>113</td>
<td>8</td>
</tr>
<tr>
<td>Personality5</td>
<td>3.85</td>
<td>.760</td>
<td>113</td>
<td>13</td>
</tr>
<tr>
<td>Loyalty</td>
<td>2.49</td>
<td>.874</td>
<td>113</td>
<td>8</td>
</tr>
<tr>
<td>Satisfaction</td>
<td>3.85</td>
<td>.660</td>
<td>113</td>
<td>12</td>
</tr>
</tbody>
</table>

*This is to note that the “Missing N” includes missing responses and “I do not know/No Comment” responses

Figure 17: OLS Regression: Model Summary and ANOVA tables from Brand Experience and Consumer Loyalty for German nationals

Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.701</td>
<td>.492</td>
<td>.458</td>
<td>.744</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Factor_Intellectual, Factor_Sensory_Affective, Factor_Behavioral
b. Unless noted otherwise, statistics are based only on cases for which Nationality = deutsch
c. Dependent Variable: Loyalty

ANOVA

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>22,183</td>
<td>3</td>
<td>7,394</td>
<td>14,516</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>22,923</td>
<td>45</td>
<td>.509</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>45,106</td>
<td>49</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Factor_Intellectual, Factor_Sensory_Affective, Factor_Behavioral
b. Dependent Variable: Loyalty
c. Selecting only cases for which Nationality = deutsch
ACCOUNTANTS’ PERCEPTION OF ORGANIZATIONAL DECLINE ON AN EXAMPLE OF AN INDUSTRIAL DINOSAUR

Blaženka Hadrović Zekić, Ph.D.¹

¹Faculty of Economics in Osijek, Republic of Croatia, hadrovic@efos.hr

Abstract

The role of accountants within a business enterprise is of key importance. Not only that they record business transactions (bookkeeping), but they also have a complete, overall view of the business process of an enterprise, starting from business decisions and their implementation, over preparing financial statements, to the insight into employee fluctuation and technology usage. However, accountants in Croatian companies are rarely involved in decision making processes.

In this paper the author explores the accountants’ perceptions of organizational decline on an example of an industrial dinosaur through monitoring internal business factors – organization’s financial indicators, fiscal control system, technology and human resources. Research questions were tested by surveying a sample of 126 accountants in Croatia in a scenario-based study. The results showed that there is no reason for marginalization of accountants as decision makers in Croatian business environment. The paper also provides some of possible solutions on how to confront the problem.

JEL Classification: M41

Keywords: accountants, organizational decline, business enterprises, experimental design, Croatia

INTRODUCTION

From an idea (beginning) until the end of a company’s life, events to the largest extent depend on the management who is able to make business decisions based on a good accounting information system providing good and timely information. Monitoring the life cycle phases of a company is of extreme importance to management and accountants, so that development of the company could be monitored
in a proper way, as managements are not able to make a good decision at critical moments without good accounting information.

This paper provides an overview of a conducted empirical research on accountants’ perception of organizational decline considering internal business factors.

LITERATURE REVIEW

Most research has been focused on organizational decline as the first of at least three phases of the downward spiral (e.g. FitzPatrick; 1934 & 1936, Miller; 1977, Hambrick & D’Aveni; 1989, Guy; 1989, Weitzel & Jonsson; 1989). All these authors have researched the decline process itself and warned about the possibility of a turnaround. However, none of these authors have analysed the origins of organizational decline and real seeds or causes of organizational decline which lies in misconceptions (Levine; 1978) and overconfidence (Argeni; 1976, Ahmed & Duellman; 2013) of managers, because it is the least documented.

Based on the research by Levine (1978) on decline of governmental organizations, which is, with small modifications (involving the role of accounting, i.e. finances) also applicable to enterprises (Whetten; 1987) and by connecting Argenti’s trajectories of corporate collapse (1976) and Bibeault reasons for decline (1998, 28-47), a model of causes of organizational decline was developed, as shown in the Table 1. Problem of the organizational decline is centered on three key factors: fiscal policies (Argenti; 1976, 126-128, Bibeault; 1998, 43-44), technology (Argenti; 1976, 128, Bibeault, 1998, 32-33) and human resources (Argenti; 1976, 129-130, Whetten, 1987; Bibeault, 1998, 31-32).

Figure 1. Seeds of organizational decline: a model

<table>
<thead>
<tr>
<th>Nature of problem</th>
<th>Internal origins</th>
<th>External origins</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fiscal policies</td>
<td>(mis) management accounting</td>
<td>Macroeconomic disruptions</td>
</tr>
<tr>
<td>Technology</td>
<td>Industrial dinosaur</td>
<td>Niche extinction</td>
</tr>
<tr>
<td>People</td>
<td>Brain Drain</td>
<td>demographic changes</td>
</tr>
</tbody>
</table>


In spite of the importance of correct prediction and successful management of ideas of decline, that is, success of business, only two studies directly explored the way in which these ideas are formed. The studies by Adler and Hall (1996) and Adler (1996) discovered that public accountants mostly rely on financial indicators.
These scholars have warned about mixing of early signs of organizational decline with the origins of decline. According to these authors, accountants have misplaced early warning symptoms of decline (financial control) with origins of decline (fiscal control system, technology and human resources). Scenarios used in the research (Adler & Hall; 1996, Adler; 1996) with small modifications1 were used as the starting point for this research.2

METHODOLOGY

Management and stakeholders are aware of the fact that entrepreneurs are like live beings, whereas decline is a disease. In other words, the earlier organizational decline is noticed, the easier it is to solve the problems, thus reducing the need for drastic measures of a turnaround process. The aim of this research is to confirm the following research hypothesis:

H 1: Based on accountants’ perception of decline it is possible to determine the order of importance among four decline determinants (financial indicators, fiscal control system, technology and human resources).

To achieve the above research goals, a survey was conducted to determine internal factors on accountants’ perception of decline/grow of business enterprise and the order of importance of these factors. Data were gathered by means of judgement and random sampling from accountants all over the Republic of Croatia. Statistical analysis of the gathered data was conducted by means of a software package IBM SPSS ver. 19.0.

The aim of descriptive statistical analysis was to present accountants’ perception of organizational decline. Methods of multivariate statistical analysis were used to explore latent relationships among variables (factor analysis). Descriptive approach was used to explore the observed cases of business operations that require application of observation techniques as the key way of data gathering.

Research was conducted on an example of a scenario of a medium sized manufacturer. In terms of methodology, the research was based on a survey. Questions in the survey were formed based on seven offered modalities of the Likert type, from 1

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1 Compared to the original scenario, modification referred to size (based on tangible assets) which was reduced from 750,000,000.00 to 75,000,000.00, which corresponds to a medium sized enterprise in Croatia

2 Representation of the cases were published in appendices of the articles.
(very good) being the characteristic of a healthy and good business to 7 (very poor) being the main characteristic of a poor/unhealthy business, i.e. good and poor factors of financial indicators, fiscal control system, technology and human resources. Dependent variable is accountant’s perception on organization decline, which was measured by Likert scale, ranging from 1 (very good) to 7 (very poor).

RESULTS AND DISCUSSION

Survey of the influence of organizational factors on accountants’ perception of decline, based on Likert scale, was conducted in two iterations during 2010 and 2011 respectively, on a sample of 127 respondents. As the research was carried out on the entire Croatian territory, 18 respondents provided information in December 2010, whereas final results were collected during May and June 2011.

Figure 1. Characteristics of responding accountants

![Bar chart showing the distribution of respondents based on gender, age, and work experience.]

Source: Author’s calculation

Respondent sample is made of 61.4% of female accountants in relation to 47 male respondents. In terms of respondents’ age, the largest share of the respondents are between 46 to 54 years old, which accounts for 37% of the total number of respondents (n = 47). It should be noted that the average length of work experience of the accountants was 20.43 years (the arithmetic mean), with maximum recorded length of work experience of 50 years. The average age of the sample is 44.29 years of age (the arithmetic mean), with the oldest accountant being 70 years old.
Accountants’ perception of Case of industrial dinosaur

Highlights of key financial statistics of case of industrial dinosaur are: interest coverage ratio is 7.50, return on assets is 0.15, earnings stability is stable, current ratio is 2.00, size (based on tangible assets) is 75 million, but ratio of retained earnings/total assets is 0.2.

Company’s fiscal environment highlights inadequate diversification. Product costing is adequate like and internal financial statement reporting. Amount of leverage is satisfactory so budgetary controls are adequate and management/control of company assets.

Technological environment of the company highlights inadequate utilization of automated technologies like MIS system. Layout of plant facilities is not efficient, however coordination and technical support of new product development is adequate. Office equipment and plant equipment is mostly new. Funding of R&D is adequate.

Highlights of company’s people environment characterize that management techniques are not adequately coordinated with the company’s culture. Company’s board of directors is not participative but employees seek out new ways for accomplishing tasks. Company displays adequate ability for developing new goals and management typically acts with studied reflection. Amount of communication/coordination among employees is adequate and employees possess functionally segregated and efficient job responsibilities. Management depth is adequate like recruiting, selection, training and motivation of employees.
Table 2. Frequency distribution of the observed variables in %

<table>
<thead>
<tr>
<th></th>
<th>Very good</th>
<th>Good</th>
<th>Slightly better than adequate</th>
<th>Adequate</th>
<th>Slightly less than adequate</th>
<th>Slab</th>
<th>Very poor</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Based solely upon the financial statistics presented, what is your overall rating of the company's key financial statistics?</td>
<td>11.8</td>
<td><strong>34.6</strong></td>
<td>23.6</td>
<td>19.7</td>
<td>7.9</td>
<td>1.6</td>
<td>0</td>
</tr>
<tr>
<td>2 Based solely upon the fiscal characteristics presented, what is your overall rating of the company's fiscal environment?</td>
<td>3.9</td>
<td><strong>43.3</strong></td>
<td>20.5</td>
<td>24.4</td>
<td>5.5</td>
<td>1.6</td>
<td>0</td>
</tr>
<tr>
<td>3 Based solely upon the technological characteristics presented, what is your overall rating of the company's technological environment?</td>
<td>2.4</td>
<td>7.9</td>
<td>25.2</td>
<td>18.9</td>
<td><strong>30.7</strong></td>
<td>11.8</td>
<td>1.6</td>
</tr>
<tr>
<td>4 Based solely upon the people characteristics presented, what is your overall rating of the company's people environment?</td>
<td>9.4</td>
<td><strong>30.7</strong></td>
<td>22.8</td>
<td>23.6</td>
<td>9.4</td>
<td>0.8</td>
<td>0</td>
</tr>
<tr>
<td>5 Based upon your impressions of the company's financial statistics, fiscal environment, technological environment, and people environment, what is your overall rating of the company's current pronounce?</td>
<td>3.1</td>
<td>29.1</td>
<td>25.2</td>
<td><strong>32.3</strong></td>
<td>7.9</td>
<td>1.6</td>
<td>0</td>
</tr>
</tbody>
</table>

Source: Author’s calculation

It is easy for an accountant to recognise when a company is doing well. This can be concluded from variables of evaluation of financial indicators in the observed case, where 34.6% accountants chose the rating good (2). The importance of good fiscal control system is reflected in a high percentage (43.3) of cases in which business was evaluated as good (2). The rating good (2) based on financial indicators and fiscal control system was expected because the entire Case of industrial dinosaur is based on good company performance. What is interesting is that none (0%) of the respondents evaluated well-described factors (financial indicators, fiscal control system, human resources) as very poor (7).
Human resources were evaluated by accountants with the rating good (2) in 30.7%. The Case is characterised by poor application of technology in business operations of a company, so that the technology variable was evaluated by 30.7% as *Slightly less then adequate* (5).

As it can be seen from evaluation of business factors, fiscal control system as well as human resources have great influence on business assessment, which is in agreement with past research on organizational decline (e.g. Cameron, Whetten & Kim; 1987). Financial indicators were not neglected, but their influence on the overall evaluation of business is lower. Poor application of technology in business as described in *Case industrial dinosaur* shows that technology is almost neglected, i.e. the rating *Slightly less better then adequate* (3) gives a possibility to improve the situation with application of technology in business.

**Table 3.** Descriptive statistics of the observed factors of the *Case of industrial dinosaur*

<table>
<thead>
<tr>
<th>Based solely upon the financial statistics presented, what is your overall rating of the company’s key</th>
<th>Financial indicators</th>
<th>Fiscal control’s system</th>
<th>Technology</th>
<th>Human resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>very good</td>
<td>Mean</td>
<td>1.25</td>
<td>1.75</td>
<td>2.00</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Std. Deviation</td>
<td>.500</td>
<td>.500</td>
<td>.816</td>
</tr>
<tr>
<td>good</td>
<td>Mean</td>
<td>2.03</td>
<td>2.11</td>
<td>4.35</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>37</td>
<td>37</td>
<td>37</td>
</tr>
<tr>
<td></td>
<td>Std. Deviation</td>
<td>.645</td>
<td>.658</td>
<td>3.498</td>
</tr>
<tr>
<td>slightly better then adequate</td>
<td>Mean</td>
<td>2.87</td>
<td>2.75</td>
<td>4.00</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>32</td>
<td>32</td>
<td>32</td>
</tr>
<tr>
<td></td>
<td>Std. Deviation</td>
<td>1.185</td>
<td>.762</td>
<td>1.295</td>
</tr>
<tr>
<td>adequate</td>
<td>Mean</td>
<td>3.29</td>
<td>3.37</td>
<td>4.37</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>41</td>
<td>41</td>
<td>41</td>
</tr>
<tr>
<td></td>
<td>Std. Deviation</td>
<td>1.031</td>
<td>.994</td>
<td>1.240</td>
</tr>
<tr>
<td>slightly less then adequate</td>
<td>Mean</td>
<td>3.90</td>
<td>4.30</td>
<td>4.90</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Std. Deviation</td>
<td>1.524</td>
<td>1.059</td>
<td>1.197</td>
</tr>
<tr>
<td>poor</td>
<td>Mean</td>
<td>4.50</td>
<td>5.00</td>
<td>6.50</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Std. Deviation</td>
<td>.707</td>
<td>.000</td>
<td>.707</td>
</tr>
<tr>
<td>Total</td>
<td>Mean</td>
<td>2.82</td>
<td>2.89</td>
<td>4.27</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>126</td>
<td>126</td>
<td>126</td>
</tr>
<tr>
<td></td>
<td>Std. Deviation</td>
<td>1.209</td>
<td>1.097</td>
<td>2.203</td>
</tr>
</tbody>
</table>

Source: Author’s calculation
Poor usage of technology in *Case of industrial dinosaur* with average rating of technology (4.27) has no influence on the rating of human resources (2.95). These ratings indicate low influence of technological factors on human resources and fiscal control system (2.89), whereas the lowest influence was detected on financial indicators.

According to the Table 4, statistically significant difference was determined among the factors of financial indicators, fiscal control system and human resources where reliability was .000. Namely, in the observed case, fiscal control system (F=19.020) is extremely important for accountants in assessing company performance.

Indicator of *F*-test variable of human resources was 18.521 and in terms of importance it is the second factor of influence on business in *Case of industrial dinosaur*. It is interesting to observe the factor of financial indicators whose F value of ANOVA analysis was only 11.637. The reason for this is that when a company is doing good, more attention is given to fiscal policy of a company (for example, determining a product price, diversification of production). According to this research, Croatian accountants think that fiscal control system first reflects on human resources and through the synergy effect it reflects on financial reports, i.e. financial indicators of a company. This statement is confirmed by F parameter shown in the Table 4. No statistically significant difference was determined for the variable of technology rating.

**Table 4.** Summary output table including F statistics, significance levels and η² value

<table>
<thead>
<tr>
<th>Variable</th>
<th>F</th>
<th>Sig. (p&lt;)</th>
<th>ETA Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial indicators (FIN)</td>
<td>11.637</td>
<td>.000</td>
<td>0.327</td>
</tr>
<tr>
<td>Fiscal control system (FIS)</td>
<td>19.02</td>
<td>.000</td>
<td>0.442</td>
</tr>
<tr>
<td>Technology (TEH)</td>
<td>1.580</td>
<td>.171</td>
<td>0.062</td>
</tr>
<tr>
<td>Human resources (ZAP)</td>
<td>18.521</td>
<td>.000</td>
<td>0.442</td>
</tr>
<tr>
<td>FIN * FIS</td>
<td>18.972</td>
<td>.000</td>
<td>0.442</td>
</tr>
<tr>
<td>FIN * TEH</td>
<td>1.991</td>
<td>.062</td>
<td>0.106</td>
</tr>
<tr>
<td>FIN * ZAP</td>
<td>5.402</td>
<td>.000</td>
<td>0.188</td>
</tr>
<tr>
<td>FIS * FIN</td>
<td>21.103</td>
<td>.000</td>
<td>0.468</td>
</tr>
<tr>
<td>FIS * TEH</td>
<td>1.168</td>
<td>.327</td>
<td>0.065</td>
</tr>
<tr>
<td>FIS * ZAP</td>
<td>7.842</td>
<td>.000</td>
<td>0.251</td>
</tr>
<tr>
<td>TEH * FIN</td>
<td>1.061</td>
<td>.368</td>
<td>0.042</td>
</tr>
</tbody>
</table>
Observing the total F statistics of the parameter ANOVA, analysis of the variable \( \text{FIS*FIN} \) recorded a high value (21.103) with real statistically significant difference, which confirms the above mentioned fact that the internal factor of fiscal control system has impact on financial indicators, because, through cash flow management and determining of product price, a good fiscal control system has direct influence on company performance, financial reports, and therefore also on financial indicators. In accordance with previous research (Miller; 1977), human resources to some extent have lower influence on fiscal control system (ZAP*FIS), which is confirmed with a high F-test result (7.815, otherwise 7.842).

Observing the total statistics of observed variables, the lowest F value at \( p = .000 \) is recorded for the \( \text{FIN*ZAP} \) variable, where \( F = 5.402 \). Variables that are not considered in this case are those whose \( p \) value exceeds \( .005 \), and these include: \( \text{FIN*TEH, FIS*TEH, TEH*FIN, TEH*FIS, TEH*ZAP and ZAP*TEH} \).

According to the above information, a conclusion can be made that the order of importance of factors on organizational decline was determined based on the research of the aims related to the hypothesis \( \text{(H1)} \) and on the analysed case of industrial dinosaur and average ratings of factors which are based on analysis of variances (ANOVA). According to Croatian accountants’ perception, in case of industrial dinosaur significant influence on organizational decline is exerted by fiscal control system, human resources, and financial indicators, whereas technology has the lowest influence.

**CONCLUSION**

From foundation to the end of a company’s life, business stability depends to the greatest extent on owners or the management, their business abilities and skills and good accounting information system that provides good and timely information to the management for the purpose of making business decisions. Business problems come into existence long before they are recognised through crisis, and
bankruptcy prediction models provide reliable results in short term period – up to three years, almost too late. To successfully avoid decline, that is, to reduce the risk of decline and maintain business efficiency, entrepreneurs need to successfully meet expectations of key stakeholders, who continuously shape and reshape their ideas about the health of a company they are doing business with.

Research was focused on exploring the perception on organizational decline between accountants considering internal factors. According to average rating of factors based on the analysis of variances of the analyzed case of industrial dinosaur, the order of factors of influence on the Croatian accounting perception is as follows: fiscal control system, followed by human resources and financial indicators, whereas technology has the lowest influence on organizational decline.

Based on the results of this research, it can be observed that accountants, due to their conservatism, recognise organizational decline. Managers should therefore involve accountants more actively in everyday business through organizing internal audit or control in business. Future studies should research perceptions of other stakeholders especially management and bankers and compare it with results of this research.

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DIE NEUREGELUNG DES IFRS 10 ZUR ABGRENZUNG DES KONSOLIDIERUNGSKREISES – DIE ANWENDUNG DES EINHEITLICHEN BEHERRSCHUNGSMODELS AUF DIE ERFASSUNG VON STRUKTURIERTEN UNTERNEHMEN IM KONZERNABSCHLUSS

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Abstract

In the past entities varied in their application of the control concept (IAS 27 and SIC-12) in circumstances in which a reporting entity controls another entity but holds less than a majority of the voting rights of the entity, and in circumstances involving agency relationships (IFRS 10.IN3). This conflict between IAS 27 and SIC-12 had led to inconsistent application of the concept of control. IAS 27 required the consolidation of entities that are controlled by a reporting entity, and it defined control as the power to govern the financial and operating policies of an entity so as to obtain benefits from its activities. SIC-12, which interpreted the requirements of IAS 27 in the context of special purpose entities, placed greater emphasis on risks and rewards (IFRS 10.IN4). The new Standard defines the principle of control and establishes control as the only basis for determining which entities are consolidated in the consolidated financial statements. This approach, which relies on IFRS 10, contributes to diminish the possibility of “off-balance” accounting and of pushing risk-taking off balance sheets and increase transparency in consolidating the involvement with ‘off balance sheet vehicles’, i. e. special purpose entities.

JEL Classification: M42

Keywords: finance, revision, control, financial statements
1. EINLEITUNG


2. ZIELSETZUNG DER NEUREGELUNG


1 IFRS 10.C1
5 IFRS 10.BC 2.
6 IAS 27.116
faktisch die Konsolidierungspflicht über zwei divergierende Konzepte. SIC 12 stellt eine Auslegungshilfe zu IAS 27 dar, in dem Anhaltspunkte für die Frage geliefert werden, unter welchen Umständen ein Unternehmen eine sog. special purpose entity (SPE, häufig auch als Zweck- oder Objektgesellschaft bezeichnet) beherrscht und damit ein Mutter-Tochter-Verhältnis i.S.v. IAS 27 vorliegt\(^7\). Aufgrund dieser divergierenden Ansätze zur Konsolidierungspflicht, d.h. der Abgrenzung des Konsolidierungskreises, war die Anwendung des IAS 27 und der Interpretation (SIC 12) teilweise nicht stringent bzw. gestaltete sich in der Praxis oftmals schwierig\(^8\) und führte so zu unbefriedigenden Ergebnissen. Das IASB spricht in seiner Basis for Conclusion zu IFRS 10 sogar von einer „als widersprüchlich empfundenen Gewichtung“ die zu einer „uneinheitlichen Anwendung des Konzepts der Beherrschung geführt“ hätte\(^9\). Anlass zur Kritik gab auch der Umstand, dass aus dieser Uneinheitlichkeit die Beurteilung der Beherrschung teilweise durch nichts anderes als durch bilanzpolitische Erwägungen veranlasst war.


Wie ist also der einheitliche Controll-Begriff nach IFRS 10 im Einzelnen zu verstehen und kann er die Unzulänglichkeiten der bisherigen Vorschriften beheben?

\(^8\) IFRS 10.BC3; IFRS 10, BC 35b.
\(^9\) IFRS 10.BC 3
\(^10\) IFRS 10.BC 4
\(^11\) Ebenda.
\(^12\) IFRS 10.BC 5
3. CONTROL NACH IFRS 10

Nach IFRS 10.6 beherrscht ein Investor eine Beteiligung, wenn er aufgrund seines Engagements bei dem Unternehmen variablen wirtschaftlichen Erfolgen (Exposure to variability in returns) ausgesetzt ist oder Rechte daran hat und die Möglichkeit besitzt, diese wirtschaftlichen Erfolge durch seine Bestimmungsmacht über das Beteiligungsunternehmen zu beeinflussen (link between power and returns). In IFRS 10 ist der Begriff der variablen Rückflüsse weit gefasst, sie beinhalten nicht nur Dividendenzahlungen oder Wertsteigerungen des Anteilsbesitzes, sondern schließt auch Synergien mit ein, genannt werden im Kontext der Konsolidierung von Zweckgesellschaften z. B. performanceabhängige Vergütungen von Fondsmanagern.


Die erste Voraussetzung für die Beherrschung ist nach IFRS 10.7, dass der Investor Bestimmungsmacht (power) über die Beteiligung hat wobei die Bezeichnung „Investor“ teilweise irreführend sein kann, da nicht in allen Fällen eine Investition im Raume steht. Gemäß IFRS 10.11 beruht die Bestimmungsmacht auf den im Appendix genannten Rechten, gemeint sind gegenwär-

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13 IFRS 10.B57c.
16 IFRS 10.BC 32.
17 IFRS 10.B5-B8; Ernst & Young: International GAAP 2013 (Volume 1); S. 403 ff.
19 IFRS 10.5.


22 In IFRS 10 bzw. IFRS 12 wird zukünftig der Begriff „structured entity“ anstelle „special purpose entity“ verwendet.
23 Vgl. auch IFRS 10.B21
24 IDW WP-Handbuch I 2012, J 553; M 59
26 Erdinger, H.; Melcher, W.; DB 2011, S. 1229 ff. (1236) s.o.
27 IFRS 10 BC 35c.

28 IFRS 10 BC 35d.

Beherrschung von strukturierten Unternehmen:

<table>
<thead>
<tr>
<th>Beherrschung des strukturierten Unternehmens?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zweck und Ausgestaltung</td>
</tr>
<tr>
<td>Rückflüsse</td>
</tr>
<tr>
<td>Aktivitäten (inkl. Ausmaß der Vorherbestimmung)</td>
</tr>
<tr>
<td>Zusammenwirken von Vereinbarungen</td>
</tr>
<tr>
<td>Einbindung von Vertretern</td>
</tr>
<tr>
<td>Möglichkeit, Einschränkungen zu ändern</td>
</tr>
</tbody>
</table>

Wie lässt sich also die Möglichkeit der Einflussnahme für die Abgrenzung des Konsolidierungskreises im Falle von strukturierten Unternehmen messen, wenn Stimmrechte für die Beeinflussung der relevanten Aktivitäten keine Relevanz besitzen? Wie ist IFRS 10.B9 auszulegen, auszufüllen, um einer Konsolidierung von Zweckgesellschaften gerecht zu werden: „Um die Bestimmungsmacht über ein Beteiligungsunternehmen zu besitzen, muss ein Investor bestehende Rechte innehaben, die ihm die gegenwärtige Möglichkeit geben, die maßgeblichen Tätigkeiten zu bestimmen.“ Anhand von zwei prägnanten Beispielen zeigt IFRS 10 ohne Anspruch auf Vollständigkeit auf, woraus sich die Möglichkeit der Einflussnahme ergeben kann, wenn keine Stimmrechte oder ähnliches im Raum stehen: Wichtig für diese Beurteilung ist der Zweck und die Ausgestaltung des Beteiligungsunterneh-

mens, weiterhin die Faktoren, die für die Gewinnmarge, die Umsatzerlöse und den Wert der Wirtschaftseinheit sowie ihrer Produkte ausschlaggebend sind. Insofern spielt auch hier wieder eine Berücksichtigung der Chancen und Risiken an der Variabilität oder wirtschaftlichen Ergebnisse aus dem Engagement bei der Beteiligung eine wesentliche Rolle, da sich die dem Investor zustehenden Beteiligungsergebnisse in direkter Weise auf seine Nettovermögensposition positiv, aber eben auch negativ auswirken können, eine rein rechtliche Beurteilung derartiger Sachverhalte scheidet zukünftig aus. Festzuhalten ist damit - in Abgrenzung zu SIC 12 - dass eine Risiken- und Chancenbeurteilung nach wie vor zu erfolgen hat, allerdings nur noch als Indizwirkung und nicht mehr als alleiniges Tatbestandsmerkmal. Aus diesem Grund sind weitere Indikatoren gleichrangig heranzuziehen, um die Entscheidungsmacht über eine Beteiligung zu prüfen, z.B. Organbestellungsrechte. Einen Sonderfall stellt der sog. Autopilotmechanismus dar: Ist in der Satzung des fraglichen Unternehmens geregelt, dass sämtliche unternehmerischen Aktivitäten im Vorhinein verbindlich und konkret geregelt sind, so ist bei wirtschaftlicher Betrachtungsweise die Geschäftstätigkeit festgelegt und ein starkes Indiz für die Beherrschung gegeben. Beispiel 11 in IFRS 10 veranschaulicht sehr deutlich eine derartige Fallgestaltung:


33 Ernst & Young; International GAAP 2013 (Volume 1); S. 418 f.
34 Theile, C.; Solewski, N.; BBK 2011; S. 177 ff. (187); Häfele, M.; Interdisciplinary Management Research VIII, S. 933 ff. (938); Mujkanivic, Robin in: StB 2008, S. 136 ff. (137); FN 21 Band 8
35 IFRS 10.B53; weiterführende Beispiele in Ernst & Young; International GAAP 2013 (Volume 1); S. 430 ff.
Nach IFRS 10 stellt die Verwaltung der Forderungen vor einem Ausfall keine maßgebliche Tätigkeit dar, da hierfür keine substanziellen Entscheidungen notwendig sind, die die wirtschaftlichen Erfolge des Beteiligungsunternehmens signifikant beeinflussen könnten – die Tätigkeiten vor einem Ausfall sind vorab festgelegt und beschränken sich auf die Einziehung fälliger Zahlungen und deren Weiterleitung an die Investoren. Für die Beurteilung der Gesamttätigkeiten des Beteiligungsunternehmens, die die wirtschaftlichen Erfolge des Beteiligungsunternehmens signifikant beeinflussen, ist demnach nur das Recht des Investors, die Forderungen bei einem Ausfall zu verwalten, relevant. Durch die Ausgestaltung der Beteiligung ist sichergestellt, dass der Investor die Entscheidungsbefugnis über die Tätigkeiten, die die wirtschaftlichen Erfolge signifikant beeinflussen, zu dem einzigem Zeitpunkt besitzt, zu dem eine solche Entscheidungsbefugnis erforderlich ist. Daher lässt sich aus den Bedingungen der Verkaufsvereinbarung, die einen Bestandteil der Gesamttransaktion bilden, zusammen mit den Gründungsunterlagen des Beteiligungsunternehmens folgern, dass der Investor die Bestimmungsmacht über das Beteiligungsunternehmen hat, auch wenn er die Forderungen nur bei einem Ausfall in Besitz nimmt und die ausgefallenen Forderungen außerhalb der rechtlichen Sphäre des Beteiligungsunternehmens verwaltet36.

4. ZUSAMMENHANG ZWISCHEN BESTIMMUNGSMACHT UND WIRTSCHAFTLICHEN ERFOLGSBEITRÄGEN


36 Ebenda.
37 IFRS 10.7c; IFRS 10.17 und 18.
Kündigungsrechte Dritter\textsuperscript{39}), der Vergütung für Dienstleistungen sowie dem für
den Entscheidungsträger bestehende Risiko der Variabilität der wirtschaftlichen
Erfolge aus anderen Anteilen, die er am Beteiligungsunternehmen hält\textsuperscript{40}. Der IASB
greift in diesem Zusammenhang auf den Erklärungsansatz der Prinzipal-Agenten
Theorie von Jensen und Meckling (1976) zurück, wonach eine Prinzipal-Agenten-
Beziehung als „eine vertragliche Beziehung, bei der eine oder mehrere Personen
(der Prinzipal) eine andere Person (den Agenten) beauftragen, in ihrem Namen
eine Leistung zu erbringen, im Zuge dessen einige Entscheidungsbefugnisse an den
Agenten delegiert werden“\textsuperscript{41}. Auch bei dieser Beurteilung ist wieder das Gesamt-
bild entscheidend (agency and de facto agency relationships\textsuperscript{42}). Hingewiesen sei
in diesem Zusammenhang auf die umfangreichen Anwendungsbeispiele in IFRS
fremden Dritten – gehaltene Rechte behandelt werden, wurden bisher durch IAS
27 bzw. SIC-12 nicht thematisiert.

5. DIE NEUEN ANHANGANGABEN NACH IFRS 12

Der IASB verfolgt mit dem neuen Standard IFRS 12 „Disclosures of Interests
in Other Entities“ das Ziel, ein Unternehmen zur Angabe von Informationen zu
verpflichten, die es Abschlussadressaten ermöglichen:

- die Art seiner Anteile an anderen Unternehmen und die damit verbundenen
  Risiken; und
- die Auswirkungen dieser Anteile auf seine Vermögens-, Finanz- und Ertragslage
  und seine Cashflows zu beurteilen\textsuperscript{43}.

Hierfür ist zunächst die Beschreibung aller wesentlichen Annahmen und Ermes-
sensentscheidungen hinsichtlich der Beherrschung oder sonstiger Verbindungen

\textsuperscript{39} Beyhs, O.; Buschhüter, M.; Schurbohm, A.; WPg 2011, S. 662 ff. (665).
\textsuperscript{41} IFRS 10.BC129; Jensen, M. C.; Meckling, W. H.; „Theory of the Firm: Managerial Behavior
\textsuperscript{42} IFRS 10.B73.
\textsuperscript{43} IFRS 12.1.
erforderlich. Darüber hinaus sind Angaben zum Einfluss nicht beherrschender Gesellschafter, zu Art und Auswirkung wesentlicher und unüblicher Beschränkungen der Beherrschungsmöglichkeit des Investors sowie zur Art der Risiken, die mit den Anteilen eines Unternehmens an konsolidierten strukturierten Unternehmen verbunden sind, verlangt. Weiterhin sind Angaben notwendig, die den Stakeholdern des berichtenden Unternehmens über die Art und den Umfang der Anteile an nicht konsolidierten strukturierten Unternehmen informiert und eine Beurteilung über die Art und Änderungen der Risiken, die mit den Anteilen an nicht konsolidierten strukturierten Unternehmen verbunden sind, ermöglicht.

6. FAZIT

Bisher konkurrierten mitunter zwei unterschiedliche Konsolidierungskonzepte: Das Control-Prinzip nach IAS 27 und der risk and rewards approach nach SIC-12 für Zweckgesellschaften, was bereits bei der Identifizierung des Anwendungsbereichs zu Schwierigkeiten führte, ganz zu schweigen von einer „unschönen diversity in practice“. IFRS 10 versucht den hierdurch verursachten Abgrenzungsschwierigkeiten durch ein universelles Konsolidierungsmodell der Beherrschung entgegenzuarbeiten, was auf der einen Seite off-Balance-sheet-Bilanzierungen verhindern soll, auf der anderen Seite natürlich durch den geringeren Konkretisierungsgrad Ermessensspielräume, Interpretationsbedarf und Gestaltungsmöglichkeiten für einen relativ volatilen Konsolidierungskreis mit entsprechenden Auswirkungen auf die Konzern-Kennzahlen bzw. für die Zinsschranke nach § 4h EStG öffnet. Asset Backed Securities, Leasing-Zweckgesellschaften, strategische Allianzen flankiert durch gesellschaftsrechtliche Konstruktionen weichen die Grenzen des Konsolidierungskreises nach wie vor auf, eine eindeutige Zuordnung wird sich weiterhin schwierig gestalten. Die Herausforderungen – und mitunter auch ein gewisser Mehraufwand - für den Konzernabschlusssteller, die Aufsichtsgremien und auch den Wirtschaftsprüfer bei der Konsolidierung von strukturierten Unternehmen bleiben. Dem neuen IFRS 10 ist allerdings zugute zu halten, dass er dem

44 IFRS 12.2a und IFRS 12.7.
46 IFRS 12.24 ff.
47 Oser, Peter; Milanova, Elitsa; BB 2011, S. 2027 ff. (2028).
48 IFRS 10.BC47; Reiland, DB 2011, S. 2729 ff. (2733); Oser, Peter; Milanova, Elitsa; BB 2011, S. 2027 ff. (2030).
Markus Häfele


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⁴⁹ IFRS 10.B.38.
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Abstract

This work will consider the development and parameters of the music industry, and present the creative connections between marketing and the music industry in light of world technological advancements. Special emphasis will be placed on defining the music industry of the Republic of Croatia, with respect to the National Classification System in contrast to relative world solutions, especially in light of the imminent entry of the Republic of Croatia to the European Union, as well as, consumer communication problems which have undoubtedly arisen from the changes occurring to the manner in which formatted music is consumed. It is to this end that this work will give special consideration to the characteristics of the music industry and music markets, as well as the specific marketing practices in the music industry with the objective of correlating the links between marketing and the music industry.

JEL classification: M31

Keywords: music industry, marketing, music markets

1. Introductory thoughts

“I've come to understand one important thing - success in this industry always depends upon how many records you sell, how much money you've made for those who run the industry.”

(Miles Davis)
The paralleled development of the music industry and marketing began with the first phonogram record when people gained the ability to listen to music, without having to necessarily be present during its live performance. Prior to that, it was impossible to perform a musical number exactly the same way twice. In that way, music was transformed from a service into a product which necessitated the usage of marketing tools to position it on the market. For more than a century, the music industry was controlled by record companies which, in seeking to satisfy customer needs, frequently imposing their wishes and tastes, and by implementing marketing tools, inevitably led to actions in opposition to the interest of music. Presently, and especially in the future, the music industry is seeking to return music to its roots and transform it once again into a service.

2. The music industry

The music industry is a business which sells compositions, in other words, their performances which are by way of recording registered in a specific format so that, in a narrow sense, the term music industry encompasses those business objects which record, produce, distribute and sell (market) recorded music, and which we shall for purposes of this work, call record companies. In a wide sense of the term, the music industry encompasses an entire list of businesses from varied branches of human resources, so that it may also encompass sound recording, music publishing, radio and TV stations, music schools and workshops, musical associations, associations for the protection of copyrights and other related rights, performers, composers, lyrisists, arrangers, musical theorists, producers, record companies, distributors, organizers and concert promoters, marketing agencies and promotional agencies etc. The vast extent of the business may be best illustrated by the categories of study offered by one of the most recognized schools of music, “Berklee College of Music”, founded in 1945. Currently, at that school, 4,447 students under the supervision and care of 450 professors and other employees may choose the study of one or more of 33 interests (www.berklee.edu).

2.1. A short history of the world-wide evolution of the music industry

Although it is often said that music, like dance, exists since the beginning of the human race, the music industry emerged relatively late. Historically speaking, the development of simple processes within the music industry until the beginning of the 18th century consisted of composing and printing music, and was predomi-
nately carried out by the aristocracy and clergy. It was then that composers such as Mozart began the gradual commercialization of their music and performances. In the 19th century music continued to be distributed by way of sheet music. On March 3, 1887, the French Academy received the patent of Charles Cilos with a description of the entire system for recording and reproducing sound, the paleophone, which based itself on the reading of markings on an soot covered vibrating membrane. In 1888, one year later, at the Franklin Institute in Philadelphia, E. Berlinger, presented, for entertainment purposes, his gramaphone which reproduced sound from a surface with the aid of a hand crank (Horvat, 2004). Not until the 20th century, 1925, exactly, did the german company Odeon at the Leipzig Fair present the first two sided gramaphone recording which reproduced 3.5 minutes of sound. That same year, in the United States experiments with electronic recording were conducted, and first such records were released by Columbia and Victor. Earlier gramophone production begins to be supplemented by the production of gramophone records. The first record companies appear and begin the mass production of records providing everyone with accessible music for consumption.

That is the instance when music became an industry in the real sense of the word, for music physically entered into industrial facilities for the production of gramophone records and became a product. Companies emerge seeking to justify the investments of their owners and make the largest possible profit for their shareholders. Until the end of the 80’s of the last century, the world of music industry was dominated by six large companies: Electric & Musical Industries Ltd. (EMI), Columbia Broadcasting System (CBS), Bertelsmann Music Group (BMG), Polygram, Warner Bros.-Elektra-Atlantic (WEA), i Music Corporation of America (MCA). In the 90’s, after Sony bought CBS, and Polygram i MCA merged to form Universal Music Group, the music industry came to be dominated by the so-called Big Five. In 2004, Sony bought BMG, and after Universal’s recent acquisition of EMI, the big three have come to “govern” the industry. The merging of record companies was effectuated in part by the vast and sudden profit loss at the beginning of the 21st century. According to the data provided by the IFPI, the music industry, in 1999, generated 38.6 billion dollars, and only a few years later, 27.5 billion dollars. Recovery has gone on for over ten years with a growth of 0.3% occurring in 2012, in relation to the figures from the year 1999.

1 International Federation of the Phonographic Industry—currently has a membership of 1,400 members in 73 countries with additional ties to various business associations in 48 countries.
3. The role of marketing in the music industry

There does not exist a great deal of literature relating to the role of marketing in the music industry, especially scant are scientifically relevant data relating to this interesting area. Presumably, the evolutionary process of the industry followed a similar course as in other industrial branches, but with a delay of a century or two. Strong technological and scientific innovations caused drastic changes during the industrial revolution of the 18th and 19th centuries and caused the first serious division of demand and consumption. That, together with the development of transportation infrastructure and the emergence of mass media, forced mass production to seek new ways to distribute goods. The first phase of industrialization and mass production was oriented around production where the greatest problem involved producing enough products for the market. That phase existed until the end of the second world war, when focus was shifted from production to sales. Supply was, at that time already significant and diverse, so that consumers became discriminating. Advertising, branding and communication made marketing more important but it was still predominantly in the service of production. Continued technological advancement increased production and effected a glut in the market and, in order to draw consumer attention, it become important to be different and recognizable.

The era of marketing management began early in the 60’s. Marketing experts place more emphasis on the importance of brand, trying to recognize and understand the needs (existing and potential) of consumers, while at the same time, locating resources necessary to satisfy those needs. We can therefore, say that marketing has passed through two important phases. In the first early phase, the introspective focus was upon production needs (from within), and at present time, in the second phase, focus is oriented mainly on the consumer and the market (outward). Therefore, it seems logical that the focus of the music industry at the end of the 1920’s, in a marketing sense, was on production and the adoption of technological processes for the making of records. All records had the same labels and differed only as to content. It has been said that in 1939, Alex Steinweiss, a designer at Columbia Records had the “crazy” idea of exchanging standardized labels on vinyl records for original artistic works (Tycun, 2013). That would, except for the fact that record companies from the beginning have tried through their released recordings to satisfy the tastes and wishes of listeners, be recognized as the first important step of marketing in the music industry. Although marginal in the development of the music industry, there has always existed an essential conflict of an artistic nature, for the interests of the music industry, are in fact not the same as
the interests of music. Especially when record making became the driving force of
the music business where someone's intellectual work or intangible good, a service,
is being materialized. The result is a product which has its own price and which
needs to be distributed and advertised. Therefore, the following shall examine the
singular elements of the marketing mix, thereby making it easier to recognize the
specificum of marketing in the music industry.

3.1. Product

The music market is centuries older than music technology and industry. Before
notation music lived in memories. Written notation allowed for some melody to
be put on paper and in that way a melody could be produced without the need of
an individual who knew the song. Mechanically speaking, music boxes existed first,
followed by the cylinders which acted as the first gramofones until the introduction
of vinyl. Then came LP-records, mono sound turns into stereo, and then mu-
sic cassettes (MC) were introduced. In fact, the MC offered consumers a greater
enjoyment of music while movement (car cassette players, walkman) providing
a difference from radio where the choice of music fell to the listener, and not a DJ.
Parallelly, VHS-cassettes with musical contents were introduced into the market. It
was the time of analog recording and reproduction.

In the 1980s, owing to developments in digital technology and informatization,
enormous changes occur in the music industry. The CD has pulled us into
the digital world in which music is one of the most represented contents. Never
in the history of the human race has music been made more available and heard.
Wherever we turn people are listening to MP3s, downloading, streaming, ripping,
“burning”, sharing, and uploading, while at the same time a home studio on their
PC enables them to create their own compositions and remix another’s work. Mu-
sic is in the automobiles, mobile phones, computers, CD-players, i-Pods, cameras
and even keychains. Music lives its most intense life ever. Music is eternal, only
the format on which it exists and which serve for its consumption, change. Bach's
Mass in B-minor, created sometime in 1720, is a masterpiece on paper and vinyl,
on cassettes and CD-s, but is also now, on some sort of modern digital format and
has remained, over 300 years later, the epitomy of artistic music. This paper is far
too short to provide deep analysis of the question what is a music industry product:
Bach’s aforementioned piece or the medium upon which that piece is found? One
thing is sure, the music industry is changing, and classical record making is with a
certainty counting its last days. The future is far from the classic model of product.
The way and format by which we shall listen to Bach is now a matter of digital technological advancement and the coordination of those advancements with legal regulation which must protect musicians’ compensation rights relating to their work and property.

3.2. Price

What is the value of music? Considering that worth is in fact connected to price, it is necessary to determine what the buyer is paying for. The record or what is on the record? Music, however, has many different worths. From time long ago it has been a means of communication, often of great sentimental value. Therefore, a theory where the worth of music is equivalent to the price of the media upon which the music is found (CD, vinyl, cassettes, USB, radio-television participation) is erroneous. All industries are founded on the exploitation of resources, and resources are finite, but in the case of the music industry there are no limitations as to its resources. The revenue generated is dependent upon the creativity of the author and the capability of the listener to recognise the meaning and message within the author’s work. Therefore, we may freely state that, the record business by using marketing tools, to record, reproduce, promote and distribute the author’s work, in reality alters the author’s passion towards musical art for financial gains.

Simplified, the music industry, especially its record company portion, monetarizes the listeners’ demand for authors’ creations and the performing capabilities of artists, through the worth of the medium, even that medium is an expense for the music which is on it. It would not be erroneous to conclude that marketing, from its introduction and especially in the form which we recognise today, has played a great and even a decisive role in the formation and successes of record companies and the music industry as a whole.

3.3. Distribution

At the very beginning of this portion is necessary (once more) to elaborate the theoretical distinctions between music, which acts as the center of the music industry at one end, and record business at the other. Namely, the music industry is not based on the realization of numbers of sold recordings and their worth. It has been an important part of the business for long time, but as illustrated in the Republic of Croatia alone, the worth of secondary use of music (royalties, publishing and phonographic rights), what includes radio and television broadcasts,
concert performances, BTL and others in the year 2012, totalled more than 150 million kunas. The number and worth of all sold recordings from year to year has fallen and is far beneath the worth of the remaining forms of revenue. The course taken by music to its final user, in a distributive sense, has changed and developed together with the developing music industry and technological achievements of all of humanity. The first distributors were, we can freely say, persons who upon hearing a melody or song would then perform it elsewhere. Therefore, travelling musicians and entertainers and trubadurs were forefathers of distribution in the music industry. With the invention of notation, distribution was carried out by hand to hand delivery of sheet music. Printing techniques advanced the number of possible copies made, while the invention of sound recording and reproduction led us to gramophone records, while the establishment of wholesale and retail sales begins the serious distribution of music. In 1887, Edwin S. Reihart opened a music and piano store and widened his inventory in 1901, to include assorted phonograms. Although controversy exists as to which store was the first in history to offer such an assortment, the fact remains, as stated by Gary Calamar and Phil Gallo in chapter two of their 2010 edition of “Record Store Days”, that: “In 1906, there were 25,000 record dealers, a total that would be cut to 7,500 fifty years later, and to below 3,000 a half century later.” (Goss, 2009). Radio and television are unavoidable and immeasurably important distributors of music. In fact, a consumer’s listening to their favorite songs over the air, in most cases, arouses within them the desire to buy records. Performers and musicians are very important links in the distributive chain of music. The average listener holds that the songs of some popular performer are his, when in reality he is just interpreting the works of other authors. In the music industry, that phenomenon is called “the curse of small letters”.2

The emergence of the Internet and the transition of sound from analog to digital form3 opened up great new possibilities for the distribution of music. On-line shopping of finished products appears and enables the purchase and receipt at one’s front door (most famous being amazon.com). Moreover, albums and individual songs can now be bought in digital format (iTunes), and downloaded onto one’s computer, and from there onto a USB-stick, CD-R, iPod, mobile telephones and

2 The largest print on record covers accentuates the name of the performer, followed by the song title in somewhat smaller print, with the name of the author being set forth in parenthesis and in the smallest of print.

3 The first CD ever made was pressed on August 17, 1982, in a factory outside of Hanover, Germany, for executives from Polygram, Sony and Philips. It was actually a pressing of ABBA’s The Visitors album.
the like. It is no longer necessary to have physical possession of music to enjoy it. The developmental architects of IT technology see the future of music distribution in a model termed “Music Like Water” (Kusek & Leonhard, 2013) by where, music which has been up till now packaged and sold like expensive bottled water, can now, thanks to the Internet, be transformed into tap water, much cheaper and accessible. It is not difficult to imagine the difference in price between a bath tub filled with bottled water and one filled with tap water. Maybe its not of the same quality, but the needs are satisfied. In place of the unit purchase of records or songs, it is already possible to make purchases with a time limitation (weekly, monthly or yearly) access to a large base of songs (Imeem, Pandora, Spotify, Rhapsody etc.) on the principle of subscription, with subscribers themselves choosing what they care to listen to (streaming, on-demand music). A similar model, the so-called “Cloud”, is based on the principle that expansion of mobile telephones are ever growing, and they are conceived so as to be on-line at every moment, if internet web is available. With that, further progress in the area of Internet speed and its expansion, along with the cheapening of services, create the assumption that in the future devices will not need to be equipped with a hard-disc because they will be constantly on-line in the great web “cloud” where everything will be accessible at all times and in every place, as would be the case with music. The concept of physical possession of a thing, in that way, will not be the same, while, the logic of large numbers opens the possibility in the music industry for the implementation of small subscriptions, allowing everyone unlimited access to music. The “Music Cloud” model has marked the end of the recording industry as we have known it.

3.4. Promotion

In the music industry money begins to roll in when a hit-single occurs. Before the introduction of the gramaphone, music was sold as written notes printed on paper (sheet music). The promotion of music has always been a difficult and expensive process. At the very beginning it was necessary to convince a performer to perform a particular song during his shows or discard a specific song or place a song in a certain music program or event. With the emergence of the radio at the beginning of the 20th century promotion becomes much easier. It was important to communicate with DJs who, in the early phases decided which songs would be

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4 In 1894, Edward B. Marks and Joe Stern sold their printed copy of the song “The Little Lost Child” in over a million copies.
performed live on a program, and sometime later which song would be played from gramaphone records.\(^5\) The introduction of television marked the turning point in many areas, as was the case with the music industry. Of course, from that moment, in a promotional sense, the visual portion of the performance became as important as the quality of musical piece and its interpretation. Somehow during that time, the juke-box came onto the scene and played its part in the promotion of music, additional promotion occurred by way of films in which music held a larger and more important role. In the middle of the 1950’s, the world was introduced to the transistor radio which increased the role of radio stations as important promotion tools in the music industry which was in constant search of new music stars. During the 70’s of the 20th century, the filming of video-spots began, and in the 1981, MTV began transmitting.\(^6\)

Promotive activities are carried out in two basic directions. The first relates to the positioning of new releases on the market, and the second involves the promotion of the release from the so-called B-catalogue. That second case regards the qualitative and complete usage of old recordings which have already been depreciated to their full extent so that all revenues are pure profit due to the minimal expense of production. This procedure is often used when there occurs a format change, so we may freely say that in fact the changes occurring throughout history have meant new wind in the sails of the music industry, and especially record companies. Consumers and music lovers like to have certain works on singles as well as LPs which were then followed by cassettes, for in such cases they could enjoy music while in motion, and then on CDs for that medium was presented as long lasting with the highest recording quality. The modern approach to the promotion of music and musical releases is understood to involve radio stations, Internet portals, social websites, printed media, television, the sending of links for download reviews, journalists and music editors, press cuts, the making of banners, web sites, quality cooperation with mobile operators with constant and unrelelnting follow up and controls of all steps taken.

\(^5\) Record companies for the most part bribed music editors, so much so that in the United States the term payola came to describe payoffs under the table. During the 1950’s in the United States much was written about skandals arising out of the bribing of music editors.

4. Closing thoughts

Marketing has, from its beginning in the middle of the last century, followed the technological evolution in the area of the music industry and has been in the function of its development. In other words, the evolution of marketing in the music industry has been simultaneously carried out with the evolution of technology in music. Furthermore, if the object of marketing is to satisfy the needs of persons, then the recording industry has made some unscrupulous marketing moves and has (and non-stop continues) done all that is necessary to fulfill those needs, even at the cost of musical artistry. Music which fulfills the undoubted needs of individuals in an emotional, communicative and cultural sense, has transformed from a service into a product. Marketing has aided record companies to promote music and make her benefits. At the same time, by manipulating not only the market, but emotions and forcing certain musical catagories and performers, for whom they believe will bring them a larger profit, marketing helped the record companies to overlook the essence of music’s existance. Modern trends have changed the direction in which the music industry is developing and is doing away with the need for classical record making. Having said that, marketing in the music industry must adjust to the current situation knowing that in the future it will be more important than ever. The only difference is that it will go back to its original role of marketing of a service, and not of a product.

Literature

ECONOMIC DEVELOPMENT, TECHNOLOGICAL CHANGE AND GROWTH
Abstract

Social responsibility has become one of the most important issues in today’s world, because more and more institutions trying to integrate social responsibility and environmental concerns in the daily activities. Consequently, the movement is spreading over the world and citizens preference for social responsibility, in order to increase awareness of sustainability issues, and because of the impact of social responsibility on the overall community.

Therefore, the aim of this paper is to examine the extent to which social responsibility is presented today. This primarily refers to the impact of transport and environmental concern to which is European Union firmly committed. Considering Croatia soon accession to the European Union it will be discussed how the application of European standards in the field of transport affected Croatia and how it responded to this change. That area of consideration will be substantiated by survey results, conducted at the University of Applied Sciences of Slavonski Brod, direction Management.

JEL Classification: M14

Keywords: social responsibility, environment, transport, Croatia, European Union
1 Introduction

Social responsibility has become one of the most important issues in today’s world because of that this paper examines the extent to which social responsibility is presented today. This primarily refers to the impact of transport and environmental concern to which is European Union firmly committed. Considering Croatia soon accession to the European Union it will be discussed how the application of European standards in the field of transport affected Croatia and how it responded to this change.

2 Social responsibility

All those who want to survive and exist in the 21st century and thereby make a profit can no operate without any concerns for the impact they have on surroundings. If they want to be accepted on the market, they have to be more socially responsible. The concept of social responsibility is closely linked with the concept of sustainable development. “Sustainable development is the development that satisfies the needs of today, without jeopardizing the needs of future generations.” (Strategy for Sustainable Development of the Republic of Croatia, the Environmental Protection Act, OG 110/07) It involves working with employees, their families, the local community and society at large to improve quality of life. Social responsibility has become very popular topic in recent years. Institutions, enterprises and individuals alike are being held increasingly responsible for their operations, as demand grows for higher standards of social responsibility. Therefore, more of them are beginning to see the values and benefits from setting up strategic social responsibility plans. Social responsibility can be observed from 7 different areas, namely: fundamental principles, mission and values, human resources, human rights, market, environment and social community. This paper will investigate environment.

3 Environment

Environment is surrounding which includes everything from a non-living to a living being. A variety of environmental problems now affect the entire world. In the recent years with population growth, urbanization and economic development, there has been a significant rise in people’s concern for the environment. “Environmental protection ensures the complete preservation of environmental quality, preservation of biological and landscape diversity, rational use of natural resources
and energy on the best way for the environment, as the basic condition of healthy life and a basis for sustainable development. “ (Environmental protection act OG 110/07) Most people are aware and concerned about damage to the environment. They strongly believe that mankind is abusing the planet and that interference with nature may produce disastrous consequences. But there is also widespread optimism that it is not too late to do something about environment and that it is possible to overcome the world’s environmental problems if individuals accept responsibility by making simple lifestyle changes. The concept of eco-friendly living is something that all need to understand and practice on a daily basis.

One of the most important dates in environmental history is 1992, when was held the UN conference in Rio de Janiero. The whole world was involved in the discussion on the interdependence of economic development and environmental protection. The result was a new principle, accepted and utilized afterwards, named “sustainable development”. This concept was directed on the long-term goals and interlinked the economic, social and environmental aspects of life. Since then the concern for the environment has become an increasingly popular not only for experts, but for the public as well.

3.1 The development of the European transport policy

The environment is one of the most demanding European Union policy areas. Environmental policy of EU does not have a sectorial character like other EU policies. On the contrary, it is a significant part of all the segments of human life. Transport system is one of them. The transport system is one of the most important economic systems of every country. „Transport is a conveying of passengers or goods over a given distance, that is, from a place of embarking/loading to a place of disembarking/unloading.“ (www.dzs.hr) In European Union increasingly strengthens environmental awareness, but at the other hand the problems created by transport are increasingly coming to expression.

Basic transport policies date back to 1957, when the European Community released the Roman agreement. The main objective was to ensure the movement of goods, services and people. But, in the 21st century transport development strategy of the EU must be based on the needs of society, not only on economic needs. So over the years, the EU has shown a great interest for environmental protection in transport system and since then, the EU has created an impressive number of policy papers related to transport and concern for the environment.
The first major policy document called White Paper, the European Commission produced in 1992 on the future development of the common transport policy. Its target was the opening-up of the transport market. This objective was achieved until 2001 (except in the rail sector). In 2001 European Commission produced its second policy document. It was the White Paper on European Transport policy. “This Paper identified some 60 specific measures to be taken to enable the completion of an integrated market in the following areas: competition, linking up all modes of transport, eliminating barriers, attracting private investors, protecting users of transportation and managing the globalization of transport.” (www.myprojectspace.eu) Keep Europe moving – sustainable mobility for our continent from 2006 draws attention to the changes in the context since 2001 – EU enlargement, the acceleration of globalization, international commitments to fighting global warming and rising energy prices. In 2007 the European Commission produced strategy called ‘Logistics: Keeping freight moving’. “This paper identified some measures to promote the freight transport logistics, make rail freight more competitive, create a framework which will allow European ports to attract investment for their modernization, put maritime freight transport on an equal footing with other transport modes and review progress made in developing Motorways of the Sea.” (http://eacea.ec.europa.eu) After that is produced The Greening transport package in 2008. The aim of this paper is to move transport further towards sustainability. In 2009 European Commission produced two policies. Maritime Transport Strategy 2018 from January presents the main strategic objectives for the European maritime transport system up to 2018. It also identifies core areas where action by the EU will strengthen the competitiveness of the sector while improving its environmental efficiency. Future of Transport from June was the basis for a preparation of a White paper on EU transport policy awaited for 2011. The latest was the White paper from 2011 called Roadmap to a Single European Transport Area - Towards a competitive and resource efficient transport system. The European Commission adopted a plan of 40 concrete initiatives for the next decade to build a competitive transport system. The aim of the system is by 2050: ”No more conventionally-fuelled cars in cities, 40% use of sustainable low carbon fuels in aviation, at least 40% cut in shipping emissions, a 50% shift of medium distance intercity passenger and freight journeys from road to rail and waterborne transport, all of which will contribute to a 60% cut in transport emissions by the middle of the century.” (http://ec.europa.eu)

Each of these policy documents contributes to the development of an integrated market in a sustainable way.
3.2 Harmonization of EU Legislation on transport system in the Republic of Croatia

Transport is one of the major environment polluting sectors. The European objective is through the common legislation to realize a common EU transport policy. As a candidate for EU membership, Croatia has been implementing changes in legislation and implementation of regulation that will significantly affect the community. These changes are necessary for Croatia to meet EU standards and be competitive in order to EU market and the global market. In the process of harmonization, environmental protection is one of the most comprehensive and demanding subjects. One of the main strategic objectives of the transport development in Croatia is better environmental protection. Ways to achieve this goal are: “Establishing an efficient protection of the marine environment against pollution from offshore production facilities, implementation of international commitments conventions ADN, ADR and RID, promotion of new environmentally friendly boat, promoting environmental friendly means of transport, equalization of environmental regulations in the countries of the Danube and the Sava river basin.” (www.mppi.hr)

An important prerequisite for the functioning of the Croatian transport system is in compliance with rigorous European standards, established by international conventions in the framework of international organizations.

Through the ISPA pre-accession instrument financed by the European Commission which assist the candidate countries in their preparations for accession related infrastructure projects in the fields of environment and transport Croatia has from 2005 taken very important investments in order to fully implement all EU legislation on the protection of the environment and achieve standards in environmental protection. The main priorities of the ISPA program were to prepare the accession countries: “meet the candidate with the policy and procedures of the EU, help the candidate countries to catch up with EU environmental standards, expand and link the trans-European transport networks.” (www.safu.hr) The EU also promotes major transport infrastructure projects, so-called Trans-European Networks (TENs) in which is Croatia in compliance.

According to notification of the European Commission from 2012 Croatia meets almost all requirements resulting from the accession negotiations in the area of transport policy and is expected to be able to implement the acquis by the date of accession.
4 Social responsibility and the environment

Social responsibility and the environment are closely related what will be demonstrated below. The research has been carried out in the beginning of 2013. Analysis of transport impact on the environment is based on survey conducted at the University of Applied Sciences of Slavonski Brod, direction Management. Altogether 100 students did respond - 81 females and 19 males. Research shows respondent’s current knowledge and understanding of the social responsibility and transport impact on the environment.

4.1 Areas of great importance for the social responsibility activities of Croatia

Social responsibility area has entered all aspects of modern society. There are a number of factors that make the issue of social responsibility in so far gained weight. Exactly these areas bring many valuable benefits but also problems, in which the institutions must deal with various and even conflicting interests. These areas in recent years gained in its importance and their importance will continue to grow up in the years ahead. Social responsibility defines more equally important dimensions (fundamental principles, human resources, human rights, mission and values, market, environment and social community). The following chart will demonstrate areas which are according to respondents the most important for social responsibility activities in Croatia.

Chart 1. Evaluate which areas are of great importance for the social responsibility activities in Republic of Croatia?

![Chart 1. Evaluate which areas are of great importance for the social responsibility activities in Republic of Croatia?](image)

Source: made by authors

Chart 1. shows that approximately 42,5 % of respondents considered listed values very important, about 46,3 % considered little important, while only 11,1 % considered not at all important.
4.2 The most negative impact of transport on the environment

Conditioned by the accelerating economic growth and development, the transport in the world as well as in Croatia is rapidly growing which reflects the increasing negative impact on the environment. There is no sector that at least in a small percentage does not negatively affect the environment. The most important types of environmental pollution by type of transport are road traffic, railroad, water traffic and air traffic. The following chart will demonstrate the traffic which according to respondents has the most negative impact on the environment.

Chart 2. Which type of traffic has the greatest negative impact on the environment?

![Chart 2](chart.png)

Source: made by authors

Chart 2 shows that approximately 92% of respondents considered road traffic as the greatest polluters of the environment. The other traffics are presented in a very small percent, only 4% for water traffic, 3% for air traffic, and only 1% for rail traffic.

Road traffic is the most important source of traffic pollution. It effects on pollution of all components of environment. The most negative impact is emission of harmful gases, noise and vibration, taking farmland and visual relegation area and waste from vehicles. It is known that the road traffic is considered one of the main causes health problems associated with toxic pollutants in the air threatening the human health.

Unlike road, rail traffic impact on the environment is much less. In comparison to other traffics have less harmful emissions, less impact on the flora and anime world. The greatest problem is the noise but still less than the others. Noise Protection in EU is given high attention, primarily in order to achieve the higher quality of life and to protect human health.
Water traffic significantly affects the quality of water and sea. The most negative impact in water systems is existence of a large amount of daily various wastes, such as petroleum, oil derivatives, and various chemicals. A special problem of water traffic in recent years is problem of ballast water.

Air traffic in recent decades is in constant increase. Negative impacts are emissions of greenhouse gases at high altitudes and noise.

Ecological damage caused by the traffic constantly increases. Therefore, today exist various models for minimizing harmful traffic impact on humans and the environment.

4.3 The greatest intensity of transport impact on the environment

The expansion of the transport system has produced a number of negative factors that constantly threaten the quality of life. It needs to allocate environmental pollution because of the large harmful emissions, generating large amounts of waste, noise generation, the use of non-renewable resources, the transportation of dangerous substances and petroleum.

Road traffic, compared with the other sectors of the traffic according to chart 2, has the most significant negative impact on the environment. The greatest threat is harmful emissions that impact on global warming, climate change, and therefore the human health.

“Hazardous wastes have the potential to contaminate land, air, and water and negatively affect human health and environmental conditions.” (http://cfpub.epa.gov)

Noise particularly affects people causing health problems, psychological and economic impacts. Road traffic has the higher contribute to the load on the environment with noise.

Non-renewable resources are natural resources which cannot be reproduced or replaced. It has caused acid rain and a great increase in carbon dioxide and pollution in the atmosphere.

Transportation of dangerous substances affects the natural, physical, chemical or biological quality of the environment which can damage waterways, marine life and plants and animals on the land.
Petroleum transportation has a number of effects on the environment. “On a basic level, petroleum will damage waterways, marine life and plants and animals on the land. An oil spill can also ruin the infrastructure and economy of a particular area with the long-term effects being felt for decades.” (www.ehow.com) Cleaning an oil spill is very expensive.

Because of all this harmful effects on the environment it is given a great attention of its protection. Often are set appropriate measures that should result in reduction or elimination of adverse effects on the environment. Well-defined measures prevent harmful effects on the environment and ensure the prevention of pollution. The following chart will demonstrate which traffic for respondents has the most intensity on the environment.

Chart 3. The negative impact of transport according to intensity on the environment

![Chart 3](image_url)

- Chart 3. shows that approximately 51.6 % of respondents considered listed factors has the most negative impact on environment. About 46.3 % considered that impact little important, while only 14 % considered not at all important. The most negative impact is considered harmful emissions, and the less noise.

4.4 Harmonization of transport system with a European Union

Within the negotiating process for EU accession, the Republic of Croatia committed to harmonize its legislation with the acquis communautaire, among others, obligation of harmonization of transport policies. Because the only way in which Croatia will continuously improve its traffic position is exactly harmonization with the European Union. The following chart will demonstrate what respondents know about harmonization.
Chart 4. Do Republic of Croatia harmonizes its transport policy with the transport policy of the European Union?

Source: made by authors

Chart 4. shows that approximately 71% of respondents are not sure and don’t know did the Republic of Croatia harmonize its transport policies with the transport policy of the European Union. Only 18% responded affirmatively and 11% negatively. This indicator shows that people in Croatia are still insufficiently informed of the dimensions, policies and terms and conditions of the European Union.

5 Conclusion

In recent decades, the concept and practice of social responsibility takes significant place. The transport system is one of the most important systems of today and also a significant bearer of economic and social development of any country. Considering the basic purpose of the transport system - connecting people and economic operators, the transport has an international dimension. From the aspect of geographical position and predicted market expansion, Croatia has a good predisposition for attracting international transport routes. In accordance with this the transport system of the Republic is impossible to create independently of the transport system of the EU, especially with regard to the harmonization processes for Croatian accession to the European Union.

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APPLICATION OF THE REGRESSION MODEL IN DETERMINATION OF THE RELATION BETWEEN THE QUANTITY OF PRODUCTION, IMPORT, EXPORT AND AVAILABILITY OF ELECTRICAL POWER AND ITS FINAL CONSUMPTION IN CROATIA

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ABSTRACT

In the framework of promotion of energy efficiency and renewable energy sources in Croatia it is aiming at achieving the objectives of energy policy that includes sustainable energy development, energy supply security and competitiveness of energy systems. In order to make a final conclusion it is necessary to identify the key factors and by scientific evidence minimize conflicting opinions in the pricing of fuel, limiting climate change and the use of various forms of energy, the possibilities of import or export of energy, all in accordance with national interests. Although the consumption of electricity in Croatia is small, inefficient usage of electricity brings structure of its available resources into a state of exhaustion.

In the paper, but not entering in the structure of production and consumption, by applying regression models, the relationship between the amount of production, imports, exports and the availability of electricity to its final consumption in the Republic of Croatia is determined. Descriptive statistical analysis in this paper is reduced to the determination of the analytical expression that in some sense the best presents empirical data on the variables shown for comparison. By simple linear regression model and multiple regression model the relationship between production, import and export of electricity are represented i.e. the total availability and its consumption. Based on obtained size it will be determined whether and in how much regression model is representative. The calculated parameters have provided a clear picture about the relationship between studied variables.

JEL Classification: C61, H42

Keywords: regression analysis, production, import, export and availability, consumption of electricity
INTRODUCTION

Energy efficiency is not observed as energy savings. Saving always entails certain sacrifices, while the efficient use of energy never violate the conditions of work and life. In addition to concerns about their own environment a precondition for economic and social development is also to meet energy demand, which is influenced by various factors such as population growth, increasing living standards of far less developed regions, the increase of modernization in agriculture and other factors. The problem of energy efficiency can reduce intersectoral measures proposed by national program of energy efficiency 2008th - 2016th (NPEU: 26). For this reason, an analysis of the availability of electricity in terms of domestic production, imports and exports and total final energy consumption was done. One of the possibilities is the usage of regression models. With the assumed linear relationship of production, import and consumption of electric energy, in this paper, a simple linear regression model has been used, and the analysis is extended to the multiple regression models to verify the representativeness of the applied models.

THE DATA USED

The paper used secondary data on production, import and export of electricity and its consumption published on the official website of Croatia Bureau of Statistics. The data presented in Table 1 represent the variables used in the regression analysis.

Table 1 Production, import and export of electricity and its consumption, GWh

<table>
<thead>
<tr>
<th>Year</th>
<th>Total gross production*</th>
<th>Imports*</th>
<th>Total gross production + Imports</th>
<th>Exports*</th>
<th>Final consumption*</th>
<th>Available for internal market</th>
<th>Transmission and distribution losses*</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009.</td>
<td>13.149</td>
<td>7.651</td>
<td>20.800</td>
<td>2.578</td>
<td>15.915</td>
<td>18.222</td>
<td>2.019</td>
</tr>
</tbody>
</table>

In this case we used total gross electricity production instead of net electricity production. Gross electricity production is the sum of the electrical energy production by all the generating sets concerned measured at the output terminals of the main generators. Net electricity production is the electrical energy supplied from a power station to a power-supply grid and it represents the difference between electrical energy produced in a generator and own supply. To ensure the required quantity of net electricity production it is necessary to include the amount of energy used by generators for their consumption.

**APPLICATION OF REGRESSION ANALYSIS**

In order to determine the relationship between the production, import and export of electricity and related to these variables total available electricity generation and consumption in Croatia, the paper used regression model. To determine, by using the regression model, analytical expression of certain features that represents the relationships between the variables paper used descriptive statistics in order to estimate the unknown parameters.

According to Šošić (2006: 384) from the perspective of statistical analysis model is linear if it is linear in the parameters. About linearity of the model and solving multiple equations with multiple unknowns wrote Proskuryakov (1978: 15). By simple linear regression model we are expressing analytically statistical relationship between the two phenomena. Simple linear regression model is:

$$y_i = \alpha + \beta x_i + e_i, i = 1, 2, \ldots, n$$  \hspace{1cm} (1)

As $\alpha$ and $\beta$ are unknown, it was determined that $a$ and $b$ are estimated parameters, and estimation of unknown variables $e$ are equal the $u_i$. Then a linear regression model is with the estimated parameters:

$$y_i = a + bx_i + u_i, i = 1, 2, \ldots, n$$  \hspace{1cm} (2)

$$\hat{y}_i = a + bx_i$$  \hspace{1cm} (3)

$$u_i = y_i - \hat{y}_i$$  \hspace{1cm} (4)

Residual discrepancies are the basis for assessing the representativeness of the regression. By using it helps to calculate the variance and standard deviation of the regression. (Šošić, 2006: 394). Using them will judge the quality of the model.
In order to estimate the parameters the method of least squares was used. Minimizing the sum of squares of residual differences it is possible to get the expression for parameter estimation:

\[ a = \bar{y} - b\bar{x} \]  
\[ b = \frac{\sum_{i=1}^{n} x_i y_i - n\bar{x}\bar{y}}{\sum_{i=1}^{n} x_i^2 - n\bar{x}^2} \] (6)

In order to determine the representativeness of the regression we start from the expression:

\[ \sum_{i=1}^{n} (y_i - \bar{y})^2 = \sum_{i=1}^{n} (\hat{y}_i - \bar{y})^2 + \sum_{i=1}^{n} (y_i - \hat{y}_i)^2 \] (7)

or developed expression

\[ \sum_{i=1}^{n} y_i^2 - n\bar{y}^2 = \left[a \sum_{i=1}^{n} y_i + b \sum_{i=1}^{n} x_i y_i - n\bar{y}^2\right] + \left[\sum_{i=1}^{n} y_i^2 - a \sum_{i=1}^{n} y_i - b \sum_{i=1}^{n} x_i y_i\right] \] (8)

\[ \sum_{i=1}^{n} (y_i - \bar{y})^2 \] – total sum of squares

\[ \sum_{i=1}^{n} (\hat{y}_i - \bar{y})^2 \] – interpreted sum of squares

\[ \sum_{i=1}^{n} (y_i - \hat{y}_i)^2 \] – unexplained sum of squares or the sum of squares of residual deviations

The sum of squares allows calculation of representation indicators, which include measures of dispersion: standard deviation and coefficient of regression variation and standard measure of the representativeness of the regression models, the coefficient of determination.

\[ \sigma_y = \sqrt{\frac{\sum_{i=1}^{n} y_i^2 - a \sum_{i=1}^{n} y_i - b \sum_{i=1}^{n} x_i y_i}{n}} \] – Standard deviation of the regression (Std Dev)

\[ V_r = \frac{\sigma_y^2}{a \sum_{i=1}^{n} y_i + b \sum_{i=1}^{n} x_i y_i - n\bar{y}^2} \times 100 \] – Coefficient of variation regression

\[ r^2 = \frac{\sum_{i=1}^{n} y_i^2 - n\bar{y}^2}{\sum_{i=1}^{n} y_i^2 - n\bar{y}^2}, 0 \leq r^2 \leq 1 \] – Coefficient of determination

\[ \hat{y}_i = a \bar{x} + b x_i \]
Square root of the coefficient of linear determination gives the linear correlation coefficient, or Pearson’s correlation coefficient, which determines the strength and direction of the relationship, a sign of him is the same as the regression coefficient b.

\[
r = \frac{\sum (x_i - \bar{x})(y_i - \bar{y})}{\sqrt{\sum (x_i - \bar{x})^2 \sum (y_i - \bar{y})^2}}, \quad -1 \leq r \leq 1
\]

— Linear correlation coefficient

### CALCULATION OF INDICATORS

Studying the officially published data (CBS, 2012: 303) the need was recognized to determine the connection between the production, import and export of electricity and its consumption, i.e. determination of model that will be able to describe the relationship between these variables. Following the economic logic it is assumed that between the variables exist the linear statistical relationship and during the analysis simple linear regression model has been applied. Pairs of variables are presented in two tables, where x is independent and y the dependent variable. Substitution of variables changes result only in a part of measures of dispersion. After tested relationship between the variables, shown in Table 2, the results are non-representative, and in Table 3 are representative model of a simple linear regression.

Table 2: Results for non-representative simple linear regression model

<table>
<thead>
<tr>
<th>Relation 1</th>
<th>Relation 2</th>
<th>Relation 3</th>
<th>Relation 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total gross production</td>
<td>Imports</td>
<td>Total gross production</td>
<td>Exports</td>
</tr>
<tr>
<td>( x )</td>
<td>( y )</td>
<td>( x )</td>
<td>( y )</td>
</tr>
</tbody>
</table>
Table 3: Results of representative models of simple linear regression

<table>
<thead>
<tr>
<th>Relation 5</th>
<th>Relation 6</th>
<th>Relation 7</th>
<th>Relation 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Final consumption</td>
<td>Imports</td>
<td>Available for internal market</td>
<td>Final consumption</td>
</tr>
<tr>
<td>$x_i$</td>
<td>$y_i$</td>
<td>$x_i$</td>
<td>$y_i$</td>
</tr>
<tr>
<td>15.915</td>
<td>7.651</td>
<td>18.222</td>
<td>15.915</td>
</tr>
<tr>
<td>$\Sigma 135.685$</td>
<td>$\Sigma 61.547$</td>
<td>$\Sigma 159.332$</td>
<td>$\Sigma 135.685$</td>
</tr>
<tr>
<td>$a$</td>
<td>-11174,33</td>
<td>$a$</td>
<td>-6406,02</td>
</tr>
<tr>
<td>$b$</td>
<td>1,195</td>
<td>$b$</td>
<td>1,213</td>
</tr>
<tr>
<td>Std Dev</td>
<td>976,78</td>
<td>Std Dev</td>
<td>911,80</td>
</tr>
<tr>
<td>$V$</td>
<td>14,28%</td>
<td>$V$</td>
<td>1,27%</td>
</tr>
<tr>
<td>$r^2$</td>
<td>0,6731</td>
<td>$r^2$</td>
<td>0,9733</td>
</tr>
<tr>
<td>$r$</td>
<td>0,8204</td>
<td>$r$</td>
<td>0,9865</td>
</tr>
</tbody>
</table>

The results in Table 2 and 3 shows the estimated parameters $a$ and $b$ required for the interpretation of the regression equation. The parameter $a$ is the value of the regression function for the value of the independent variable that is equal to
zero. Negative sign of the parameter $a$ does not change the interpretation. Such a regression model is similar to the model that examines the relationship between supply and price, which is with the mathematical term described in the book of Chaing (1994: 37) which gives the answer and graphical representation for the case where the intersection with the vertical axis negative: “If we assume that the cross section is negative, we achieve that the supply curve has a positive intersection with the horizontal axis and thereby meets previously seated condition that there is no supply until the price is not positive and high enough.” The regression coefficient $b$ shows how the linear average of GWh changes the value of the dependent variable $y$ if the independent variable increases by 1 GWh of electricity.

Results of representation indicators, standard deviation and variance $\sigma$ and variance $V$, well enough describe the model and the coefficient of determination $r^2$. As shown in Table 3 their low values show that the average and the percentage deviation of the actual values of regression very small. The value of the coefficient of determination $r^2$, closer to 1 than 0 shows the proportion of the interpreted sum of squares in the total sum of square has big deviations. For this reason, we say that the models in Table 3 are representative, as in the model in Table 2 not the case.

The calculate Pearson’s correlation coefficient $r$ shows within the representative model, according to Chadockovoj scale or Roemer-Orphal scale strong and positive correlation between the variables $x$ and $y$, while the non-representative models indicate a weak correlation.

With the aim of informing about consumption, and in connection with this and production, imports and total consumption of electricity in the Republic of Croatia and the export of electricity, there is a need to verify the relationship between those variables. Given the assumed linear relationship between them it is approached to the examinations of simple linear regression models. Starting from the economic logic of the relation between these variables, relation should be linear and closely linked. In the relationship of certain variables that assumption proved to be correct as the relationship between final consumption and imports, available for internal market and final consumption, total gross production including imports and available for internal market, total final consumption and gross production including imports. Contrary to such relation conclusion did not provide data on the relation between the total gross production and final consumption and the relation between total gross production and available electricity for internal electricity market, relation 3 and 4. There has been an attitude 7 in Table 3
where total gross production and imports have close and positive relation with the availability of electricity. In Table 3 relation 8 says that with increasing 1 GWh of final consumption, total gross production with included imports growing for 1.222 GWh of electricity, which is almost entirely attributable to the importation. It was concluded in relation to 5 where 1 GWh of electricity final consumption causes an increase in imports of 1.195 GWh. The question is why it is not 1:1. The reason is the export and transmission and distribution losses, presented in Table 1 and the cost of electricity production, which is not shown in this paper. It is further linked with relation 6 to which availability for internal market have close and positive relation with the final consumption of electricity. Although the export of electricity from the Croatian is present that has a positive relation with the total production, its impact on the availability of electrical power according to the results is present, but not crucial, noting that the model is not representative, as shown in Table 2 relation 2.

In accordance to the presented data the export variable ensures linearity of availability and final consumption. Beside simple regression analysis of indicator variables that is explained in detail by Newbold et. al. (2010: 512, 542) it is possible to extend the analysis by using multiple linear regression model, which is presented in detail by Šošić (2006: 445) and for which it is said to be the basic regression model. This model is used for analytical presentation of co variation of many phenomena, and in addition a bigger number of variables in a nonlinear model belong to the group of linear models, which are analyzed in the same way as a multiple linear regression model.

Multiple linear regression models was used to check if it affects overall production and final consumption of electricity, as independent variables, to the import of electricity, the dependent variable. For this analysis the data from Table 1 were used. In the analysis we start from linear regression model for \( n \) values:

\[
y_i = \alpha + \beta_1 x_{1i} + \beta_2 x_{2i} + \epsilon, i = 1, 2, ..., n
\]

Estimates of the parameters \( \alpha, \beta_1 \) and \( \beta_2 \) is performed by using method of the least squares, i.e. estimation of parameters is the solution of the system of three linear equations with three unknowns, since in the analysis we have two independent variables, \( K = 2 \). Solution of the equations gave estimates of the parameters:

\[
\begin{align*}
\alpha &= 3240.05, \\
\beta_1 &= 0.6197 \\
\beta_2 &= 1.2216
\end{align*}
\]

Regression model with the parameters is as follows:
\[ \hat{y} = 3240.05 - 0.6197x_1 + 1.2216x_2 \]

The obtained result confirms what has previously concluded that the import is variable that regulates the state of the electricity market in Croatia because the import of electricity is reduced by 0.6197 GWh of electricity, if the total gross production increases by 1Gwh, and it increases to 1.2216 GWh, if the final consumption of electricity increases by 1GWh.

**CONCLUSION**

All the above analysis was conducted with the aim of insight into the relation of available electricity and consumption. In order to bring a correct conclusion in the analysis are included other variables that directly affect the relation between availability and consumption. Analysis, in addition to domestic production encompassed both import and export. The result showed that the import is variable that provides sufficient electricity supply on the Croatian market. But as energy efficiency means using less power, the level of imports or their own power generation can be reduced. On the other hand, the increasing availability of energy, wider opportunities for energy resources and energy at affordable prices is a key precondition for economic and social development in all societies. In addition to financial savings, reduced energy consumption should be viewed from the point of quality of our own environment. Of course, that level of available electricity must be seen in the rate of population growth or decline, production of new and better machine consumers who work with small consumption of electricity and in the awareness of citizens about the importance of savings. Furthermore there is still the current structure of the electricity to be revised as well as possibilities of switching to other forms of energy. Relations between different energy sources and in the total availability in this paper unfortunately are not analyzed although the setting of these correlations would show interesting results.
LITERATURE


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Šošić, I. (2006), Primijenjena statistika, Školska knjiga, Zagreb
ABSTRACT

Businesses have started using Internet at the beginning of its development during the early nineties of the 20th century. Since then, the process of Internet adoption has had a significant growth for businesses especially as a new communication and distribution channel. Along with the expansion of Web 2.0 and global popularity of social networks, companies started adopting these changes and using social networks for achieving their specific business goals. Even though some sectors showed faster adoption rates, it is a general view that social networks are used for business purposes regardless of the sector those companies belong to. The same trend is apparent in Croatia, especially in the last few years as Croatian companies are using various social networks in their Internet presence strategies. The survey is focused on the most profitable Croatian companies and their Internet activities. The aim of the paper is to explore the volume of Croatian most profitable companies present on social networks and other Internet locations and to determine the main purposes of their usage with specific company goals. In addition, the paper will test the similarities between different sectors in the Croatian economy according to the usage of social networks for their business purposes.

JEL Classification: L14, L86

Keywords: social networks, Web 2.0, e-business, Croatian economy

1. INTRODUCTION

The official web site of a company is the starting point of their business presence, but is by no means the only one. The revolution that has been introduced into the
everyday Internet routine by the perception of the Internet as a media through Web 2.0 applications has greatly affected companies and their marketing strategies. By using social networks, this rather inexpensive media has become even more efficient in bringing companies closer to all target groups opening the doors of interactivity and multilateral communication. This process has enabled an interaction with target groups that is much more profound compared to traditional ways of communication, thus making Facebook, Twitter, LinkedIn and other social networks indispensable for marketing activities of companies in Croatia and throughout the world. The question then arises as to how much Croatian companies use social networks and for which specific business purposes.

2. WEB 2.0 AND SOCIAL NETWORKS

Web 2.0 marks the second generation of Internet services which enables users to cooperate and exchange information. This term represents a new philosophy of mutual increase of collective intelligence and added value for each participant by dynamically creating and sharing information (Ružić et al, 2009, 29). The fundamental characteristics of Web 2.0 are openness, freedom and collective intelligence while one of its main components is social networking and the great popularity it has generated (Strauss & Frost, 2009, 13-14).

Apart from the existence of an official web site, companies have numerous other options concerning Internet presence at their disposal. In the last few years, companies have greatly turned to social networks and have started accomplishing goals through their business profiles (Kerley, 2009). The reason for this change lies in the great popular appeal of social networks and the large growth that is still happening (Joel, 2009, 55-56). At the moment, the most popular network in the world is Facebook and by the end of 2012 it had almost a billion (more than 963 million) active users around the world (Socialbakers, 2013). Social networking media mean a lot more for e-marketing strategies than just opening a user account i.e. profile. Opening a user account or profile is just the first step in building a social networking media e-marketing strategy. The managing of these profiles is a crucial factor since neglecting a profile can have more damaging effects than not opening one in the first place. Of course, the potential that an adequately managed social network profile can generate is huge and we are not yet able to fully evaluate it. However, the existence of numerous examples of achieving business goals cannot be denied (Swallow, 2011; Smith, 2010).
The great advantage of this trend lies in the fact that we are talking of a relatively new way of communicating with consumers i.e. users and developing relations with them. On the other hand, the potential shortcoming is the inability of a holistic evaluation (sales and other goals) of results achieved through social network marketing (Chaffey & Smith, 2008, 113-114). It is also not possible to control the communication which takes place on the social network channels due to its two-way nature. For example, the chances that Facebook or Twitter company profiles with a problematic product will provoke reactions and be the focal point for unsatisfied customers are great. This discussion is not possible to control except in extreme situations: shutting down the business profile or manually approving (or deleting) each comment (Grey, 2012). None of these actions will be of benefit to the company and will only cause additional damage.

There are a few appropriate guidelines for starting and using social networking profiles which one should keep in mind in order to achieve success within the desired marketing goals (Grey, 2012):

- A consistent message on all social networking platforms,
- Consistent strategic goals on all marketing channels,
- Providing relevant messages when starting social networking profiles,
- Including consumers in the brand/product/service because we are talking about two-way communication,
- Providing relevant ideas and advice which complete the communication goal.

User involvement is the basic reason that equally big and small brands enter the social networking space (Scott, 2009, 38-41). In a time in which Internet users are almost equally the creators as they are consumers of Internet content, the potential which is imposed by motivating product or service users to nearly autonomously spread information and directly take part in promotional activities is undeniable.

3. SOCIAL NETWORKS ADOPTION IN CROATIA

Along with expansion of Web 2.0 and global popularity of social networks, companies started adopting these changes and using social networks for achieving their specific business goals. The same trend is apparent in Croatia, especially in the last few years as Croatian companies are using various social networks in their Internet presence strategies. The survey is focused on the most profitable Croatian companies and their social networks activities.
3.1 HYPOTHESES

The goal in this paper was to test 3 hypotheses directed at the presence and purpose of using social networks among the most profitable Croatian companies:

H1: The most profitable Croatian companies use social networks to achieve business goals;

H2: The most significant goals of the most profitable Croatian companies which use social networks are product/service promotion and communication with target groups;

H3: There are no significant differences in social network presence between the most profitable Croatian companies in different business field (sections).

3.2 SAMPLE

The used sample i.e. the primary data in this paper is a part of the author’s primary research within the doctoral thesis Electronic Marketing of Business Subjects in the Republic of Croatia which was conducted between May and September 2012. A quota sample with available business data from the Poslovna.hr database was created for the needs of the research. Financial data for 2010 was taken which was the most recent data at the time of sample creation. The data was not significantly different from the data for the first quarter of 2011. With the goal of better understanding and obtaining a clearer picture of the Croatian economy, the National Business Classification List was used i.e. the 21 business activity fields that it recognizes (Metodologija za statističku primjenu Nacionalne klasifikacije djelatnosti NKD 2007). 30 most profitable companies from each business field were analyzed in order to test the most successful companies by taking into account the business fields they are active in. Further analysis has shown that 2 business fields need to be excluded from the sample since they didn’t contain a significant number of subjects (2 subjects in 2 fields). A quota sample of the first ten companies from each field according to profit (190 companies) was created from individual category lists of the most successful companies. It was a matter of logic to assume that certain companies will not want to take part in the research. In that case, it was specified that the next company according to the defined criteria will be included in the sample. The described procedure resulted in a sample of 109 companies from different business fields.

If we look at the number and distribution of subjects in the sample compared to the business field they belong to, we can deduce what the findings of this paper will
refer to. They refer to the sample of the most successful companies in the Republic of Croatia chosen according to business field. 4-8 companies from each field were interviewed under the condition that they belong to the 30 most successful companies in their field according to profit. In other words, the sample does not represent the most profitable companies in the absolute sense. It represents them in a relative sense taking into account their business field. A better insight into the overall state was achieved in this way. When we talk about the most successful companies further on in this paper, it should be considered that we are talking about the most successful subjects according to individual business fields.

3.3. ANALYSIS OF COLLECTED DATA

The research work is focused on a broader Internet platform and observes on which locations the company is present apart from its official web site, whether or not the business subject has its own web site (5% of subjects in the sample did not have their own official web sites, but were present on at least one secondary Internet location). The analysis of 109 companies from the sample according to their internet presence is shown in Figure 1. The largest number of companies is present in business web directories (52%). In the majority of cases the owners of the directory index the company automatically and the company does not have control over that level of presence. It is also significant that a much larger percentage of companies are present in business web directories but they are probably not aware of it (or they do not approve entries they don't make themselves). Apart from these business directories, companies have the biggest presence with their business profiles on the social network Facebook (almost 40%), on YouTube channels (26%) and Google Maps listings (25%). Geolocation applications are used the least (4%). It is important to point out that more than half (51%) of the companies are present on at least one social network and 27% use none of the mentioned platforms. We should also note that 12% of companies don't have their own official web site and are not present on the Internet in any way which is a very serious indicator of involvement deficiency.
Apart from the presence on social networks, companies were tested according to the utilization of social networks for different business goals. The subjects were offered 9 goals for the achievement of which, they numerically expressed the significance of using social networks through the 7 point Likert scale, from insignificant to extremely significant. The graphic representation (Figure 2) shows the mean scores for business goals in social network profiles. Social network profiles are the most significant for sending information (mean score 5.27), communicating with target groups and promoting products/services (both have a mean score of 5.20). They have the smallest importance for staff recruiting (mean score 2.75).

Figure 2. Mean score of using social networks for achieving various business objectives.

Source: authors’ research.
The distribution of the 109 companies according to business field shows a very diverse picture regarding social network presence (Figure 3). In other words, there are significant differences between individual business fields. The highest social network presence have companies from group P – Education (100% presence), and the lowest from group O – Public administration and defense; compulsory social security (0%). Out of the 18(19) analyzed fields, 7 of them have a presence percentage higher than 50%. We can conclude that these fields are sensitive to social networking and that they use them more often in order to achieve business goals.

**Figure 3.** The presence on at least one social network according to business field

<table>
<thead>
<tr>
<th>Section</th>
<th>Yes</th>
<th>No</th>
<th>Presence percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A - AGRICULTURE, FORESTRY AND FISHING</td>
<td>3</td>
<td>3</td>
<td>50.0%</td>
</tr>
<tr>
<td>B - MINING AND QUARRYING</td>
<td>1</td>
<td>4</td>
<td>20.0%</td>
</tr>
<tr>
<td>C - MANUFACTURING</td>
<td>7</td>
<td>1</td>
<td>87.5%</td>
</tr>
<tr>
<td>D - ELECTRICITY, GAS, STEAM AND AIR CONDITIONING SUPPLY</td>
<td>1</td>
<td>4</td>
<td>20.0%</td>
</tr>
<tr>
<td>E - WATER SUPPLY; SEWERAGE, WASTE MANAGEMENT AND REMEDIATION ACTIVITIES</td>
<td>1</td>
<td>6</td>
<td>14.3%</td>
</tr>
<tr>
<td>F – CONSTRUCTION</td>
<td>1</td>
<td>6</td>
<td>14.3%</td>
</tr>
<tr>
<td>G - WHOLESALE AND RETAIL TRADE; REPAIR OF MOTOR VEHICLES AND MOTORCYCLES</td>
<td>2</td>
<td>3</td>
<td>40.0%</td>
</tr>
<tr>
<td>H - TRANSPORTATION AND STORAGE</td>
<td>3</td>
<td>5</td>
<td>37.5%</td>
</tr>
<tr>
<td>I - ACCOMMODATION AND FOOD SERVICE ACTIVITIES</td>
<td>4</td>
<td>2</td>
<td>66.7%</td>
</tr>
<tr>
<td>J - INFORMATION AND COMMUNICATION</td>
<td>7</td>
<td>1</td>
<td>87.5%</td>
</tr>
<tr>
<td>K - FINANCIAL AND INSURANCE ACTIVITIES</td>
<td>7</td>
<td>1</td>
<td>87.5%</td>
</tr>
<tr>
<td>L - REAL ESTATE ACTIVITIES</td>
<td>0</td>
<td>1</td>
<td>0.0%</td>
</tr>
<tr>
<td>M - PROFESSIONAL, SCIENTIFIC AND TECHNICAL ACTIVITIES</td>
<td>2</td>
<td>3</td>
<td>40.0%</td>
</tr>
<tr>
<td>N - ADMINISTRATIVE AND SUPPORT SERVICE ACTIVITIES</td>
<td>5</td>
<td>2</td>
<td>71.4%</td>
</tr>
<tr>
<td>O - PUBLIC ADMINISTRATION AND DEFENCE; COMPULSORY SOCIAL SECURITY</td>
<td>0</td>
<td>6</td>
<td>0.0%</td>
</tr>
<tr>
<td>P - EDUCATION</td>
<td>4</td>
<td>0</td>
<td>100.0%</td>
</tr>
<tr>
<td>Q - HUMAN HEALTH AND SOCIAL WORK ACTIVITIES</td>
<td>2</td>
<td>2</td>
<td>50.0%</td>
</tr>
<tr>
<td>R - ARTS, ENTERTAINMENT AND RECREATION</td>
<td>1</td>
<td>3</td>
<td>25.0%</td>
</tr>
<tr>
<td>S - OTHER SERVICE ACTIVITIES</td>
<td>4</td>
<td>1</td>
<td>80.0%</td>
</tr>
</tbody>
</table>

Source: authors’ research.
4. CONCLUSION

For the needs of hypothesis testing in this paper, the utilization of other web locations (apart from the official website) through which communication with the target group was enabled was tested along with the business subjects presence on at least one social network and web services with significant Web 2.0 elements like Google Maps, Wikipedia etc.

Based on the research we can conclude that the majority (although only by a small margin – 51%) of the relatively defined most profitable companies in Croatia use social networks in order to achieve their goals. Although we are dealing with a border line situation, the hypothesis H1 will be accepted because more than half of the business subjects use social networks.

The significance of business goals varies, but social networks are mostly used to transmit information, communicate with target groups and promote products and services. As one of the main traits of social networks is the dynamic multilateral communication, the reasons for using social networks in contrast to other media for the mentioned communication goals are apparent. Therefore we can accept the hypothesis H2.

Very significant differences were noticed in the presence of business subjects in 18(19) business fields on social networks regarding their presence in individual areas. From fields with maximum presence (100%) to fields in which none of the subjects were present on social networks (0%). Because of these differences hypothesis H3 is not accepted.

5. REFERENCES


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STRUCTURAL FUNDS IN THE FUNCTION OF REDUCING REGIONAL DISPARITIES

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Abstract

EU structural funds are available to EU member states that have the need for additional investments in a balanced and sustainable economic and social development. Structural Funds are in function of EU Cohesion Policy, which aims at achieving economic and social cohesion as well as harmonious development of the European Union. The role of structural funds are financial support of projects which will help in reducing the gap between developed and less developed parts of the EU, and promote the overall competitiveness of the European society and economy. Regional differences within countries are increasing, creating an entirely lag in the development of certain regions. EU funds are therefore a key for reducing these differences by co-financing development project which will contribute to greater stability and growth. Entering the European Union, Croatia will have on its disposal allocated funds from the EU Cohesion Policy. In this paper, it will be presented the attitude of the experts for EU funding about the importance of EU funds for reducing a regional disparities within the EU countries. Research will include perception survey on the sample of the 69 project consultants in Croatia. The aim of the research is to emphasize the importance of preparing development projects and achieving a satisfactory level of regional development as well as providing guidelines for easier absorption of available EU funds.

JEL Classification: R11, R58

Keywords: Cohesion Policy, Structural Funds, Regional Disparity, Regional Development
1. Introduction

The current process of globalization is generating unbalanced outcomes, both between and within countries. Wealth is being created, but too many countries and people are not sharing in its benefits (Stiglitz, 2006, p. 73). Widening international inequality (divergence) coexists with greater similarity in growth patterns within regions (convergence). Capabilities, attitudes, social institutions and economic potential differ across regions and explain persistent differences in economic performance which, if unchecked, perpetuate the global asymmetries (Ocampo & Vos, 2008, p. 81). The EU regional policy seeks to reduce structural disparities between EU regions, foster balanced development throughout the EU and promote real equal opportunities for all. Based on the concepts of solidarity and economic and social cohesion, it achieves this in practical terms by means of a variety of financing operations, principally through the Structural Funds and the Cohesion Fund. Regional policy aims to reduce the significant economic, social and territorial disparities that still exist between Europe’s regions.

2. Regional development in European surroundings

Although there are differences between the regional policy of the European Union and national regional policy, regional policy of the European Union has enabled identification of the regional dimension of the national institutions, thus making the region a kind of joint institutional reference point, despite the fact that a common European concept of “region” still does not exist (Mirić, 2009, p. 19-26). Regional policy aims at promoting the conditions for sustained growth in the European area, by helping weaker economies to fill the gap with the rest of the EU. Developing infrastructure network, supporting enterprises, investing in education, research and innovation activities as well as in environmental protection programmes, are all examples of regional policy initiatives (Busillo et al, 2004).

2.1. Differences between regions in the EU and Croatia

Regional problems faced by the European Union are related to inherited differences in the level of income, the rate of GDP and employment, which by its very nature causes economic inequalities between regions within the European Union. Regional Policy conducts state that wants to reduce its interference socio-economic
differences between individual areas to accelerate the overall progress of the country (Bilas et al, 2011, p. 289-309). According to GDP per capita, the most developed regions are in the urban areas of London, Brussels and Hamburg. Luxembourg is the richest country, and about seven times wealthier than the poorest countries, like Romania and Bulgaria. The objective of regional policy is to reduce these differences. The best example of Ireland shows that it is possible. When Ireland became a member of the EU, its GDP was 64% lower than the EU average, and today is among the highest in the Union (Škreb, 2009, p. 103-105).

EU has 27 member state, 270 regions and 500 million people. According to conducted research in 2011, there are very big differences between the poorest and wealthiest regions; Luxemburg = 274 % BDP pc EU27, Bulgaria = 45% BDP pc EU27, Croatia = 61% BDP pc EU27 (Eurostat, 2011).

**Graph 1.** Median of the equivalent household income in Croatia and in the EU countries (in PPS)

![Graph showing median of equivalent household income in Croatia and EU countries](image)

Source: UNDP, 2007

Material well-being and standard of living depend, overall, on the material resources that are managed by individuals and households. As it is difficult to calculate the total wealth of a household, material well-being is mostly measured through the level of available income. For comparison with the countries of the EU, household income has been converted into an equivalent income measured in PPS (Purchasing Power Standard). Since the EQLS does not collect comprehensive and detailed estimates of the various components of income, as does the ‘Household Budget Survey’, it is probable that income defined this way in Croatia (and in
EU countries) might to some extent be underestimated. However, it is possible to compare household income between countries because the same methodology was used to gather the data. Compared to the EU countries and the candidate countries at the time and based on the equivalent median of household income, Croatia is located in the lower end of the distribution. Countries that are located at the lowest end of the distribution joined the EU at the beginning of 2007 (Bulgaria and Romania), whereas Luxembourg, Denmark and Belgium are located at the highest end of the distribution.

2.2. Regional development agencies as an engine of regional development

RDAs are considered as a means to provide regional development within the framework of a new regional development. These associations are central administrative and regional strategic establishments where the decisions and the policies about the applications of regional development are made by the inhabitants of the region in a participant manner. The RDAs determine the general development problems, grasp the opportunities and solutions and support the projects that provide those solutions (Kantarci, 2010, p. 42). RDAs are also concerned with the classification of regional development tools within regional, national, supra-national level and provision of regional coordination. RDAs are involved in monitoring the developments beyond the borders of their own and support regional dynamics by transferring these developments to regional stakeholders (Emini & Görün, 2010, p. 124). The Regional Development Agencies have purpose for local development and we can also call them Local Economic Development Agencies. The main idea of the Local Economic Development Agency is to promote economic development within its territory by helping to re-establish normal conditions for economic growth and job creation, strengthening local economic and administrative capabilities and promoting local participation (Puljiz, 2003, p. 31).

3. Funds for regional development

Regional policy - or Cohesion policy - is one of the key axes of EU integration, together with single market and monetary union. Its objectives are an chored in Article 174 of the Treaty on the Functioning of the European Union (ex Article 158 TEC), which states that: “In order to promote its overall harmonious development, the Union shall develop and pursue its actions leading to the strengthening of its economic, social and territorial cohesion.
3.1. Availability of EU funds

The fundamental principle of regional policy is a financial solidarity, manifested in directing funds through structural and cohesion funds.

**Table 1. Financial allocation in EU funds 2007-2013. in billion EUR**

<table>
<thead>
<tr>
<th>EU Fund</th>
<th>Allocation</th>
</tr>
</thead>
<tbody>
<tr>
<td>European Fund for Regional Development (EFRD)</td>
<td>201</td>
</tr>
<tr>
<td>European Social Fund (ESF)</td>
<td>76</td>
</tr>
<tr>
<td>Cohesion Fund (CF)</td>
<td>70</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>347</strong></td>
</tr>
</tbody>
</table>

Source: European Commission, 2012

**Graph 2. Financial allocation of EU funds to member state 2007-2013.**

Source: European Commission, 2012

Graph 2 shows a financial allocation for each EU member state under the Operational Plan for the period from 2007-2013. It also includes the European territorial cooperation. The graph shows the allocation of funds from the European Regional Development Fund, the Cohesion Fund and the European Social Fund.
In the period from 2014-2020, the member states will be made available EUR 376 billion through the following funds: The European Regional Development Fund (ERDF); The European Social Fund (ESF); Cohesion Fund (CF); The European Agricultural Fund for Rural Development (EARDF); The European Fund for Marine and Fisheries (EMFF).

3.2. Utilization of EU funds

We have three categories of capacities crucial for absorption and use of EU funds. Administrative capacity is primarily related to the ability of stakeholders individually, but even more on the ability of the system as a whole, to perform tasks related to the preparation and implementation of all planned and delegated procedures that are related to EU funds. Financial capacity refers to the ability of stakeholders and systems to fully settle the financial procedures. Macroeconomic capacity refers to the limit, by which a country is limited in the absorption power in Structural Funds.

Table 2. Contracted and paid aid from EU funds for the countries of Central and Eastern Europe in billion EUR

<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Bulgaria</td>
<td>8.0</td>
<td>3.0</td>
<td>0.8</td>
<td>37</td>
<td>10</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>31.0</td>
<td>17.2</td>
<td>8.1</td>
<td>55</td>
<td>26</td>
</tr>
<tr>
<td>Estonia</td>
<td>4.1</td>
<td>2.5</td>
<td>0.9</td>
<td>60</td>
<td>21</td>
</tr>
<tr>
<td>Hungary</td>
<td>29.3</td>
<td>15.0</td>
<td>4.8</td>
<td>51</td>
<td>16</td>
</tr>
<tr>
<td>Latvia</td>
<td>5.0</td>
<td>3.7</td>
<td>1.5</td>
<td>76</td>
<td>30</td>
</tr>
<tr>
<td>Lithuania</td>
<td>7.3</td>
<td>5.0</td>
<td>2.1</td>
<td>68</td>
<td>29</td>
</tr>
<tr>
<td>Poland</td>
<td>82.1</td>
<td>43.5</td>
<td>13.1</td>
<td>53</td>
<td>16</td>
</tr>
<tr>
<td>Romania</td>
<td>23.3</td>
<td>10.4</td>
<td>1.5</td>
<td>45</td>
<td>7</td>
</tr>
<tr>
<td>Slovakia</td>
<td>1.4</td>
<td>7.6</td>
<td>2.3</td>
<td>57</td>
<td>17</td>
</tr>
<tr>
<td>Slovenia</td>
<td>4.8</td>
<td>2.3</td>
<td>1.3</td>
<td>48</td>
<td>27</td>
</tr>
<tr>
<td>Total CEE</td>
<td>208.2</td>
<td>110.2</td>
<td>36.3</td>
<td>53</td>
<td>17</td>
</tr>
</tbody>
</table>

Source: KPMG, 2011.

The table reveals that in the period from 2007-2010, the most contracted funds was from Poland, and Slovenia has the least, but if you look at the funds disbursed, also the first place is Poland, while the last place to Bulgaria. Most of the funds from the EU are used by Poland. However, looking at the percentage of use, the highest
efficiency is demonstrated by Lithuania of all available funds, while the least effective is Romania.

4. Importance of Structural Funds in reducing regional disparities

The aim of reducing regional disparities in the European Union is enshrined in the EU Treaty. An important aspect that takes centre stage in discussions on the EU’s so-called cohesion policy is the ranking of the Union’s many regions in terms of their levels of prosperity. This ranking largely determines whether and by how much a region will be supported from the general budget. Structural funds have a great role in helping regions to be more competitive and to reduction of regional differences.

4.1. Methods of research

Regional development experts agree that the EU funds and absorption capacities of each region is the key for reduction of regional disparities and that only ay for doing that is preparation and implementation of quality projects. The research was conducted to determine attitude about the importance of EU funds for reducing a regional disparities within the EU countries. Research includes a perception survey on the sample of the 69 project consultants in Croatia. The aim of the research was to emphasize the importance of preparing development projects and achieving a satisfactory level of regional development as well as providing guidelines for easier absorption of available EU funds.

4.2. Results and discussion

Graph 3. There is a need for increased education to prepare projects for EU funds

Source: Authors research
There is a need for increased education to prepare projects for EU funds. Only a few responders have perception that the level of education in project preparation is on the satisfactory level, while 89% are sure that more education is crucial.

**Graph 4.** There is a need to increase the financial capacity of potential applicants from EU funds

![Graph showing financial capacity](image)

Source: Authors research

There is a need to increase the financial capacity of potential applicants from EU funds. Only a few responders have perception that the level of financial capacities of potential applicants is on the satisfactory level, while 95% don’t.

**Graph 5.** There is a need to increase the number of prepared projects for EU funds

![Graph showing prepared projects](image)

Source: Authors research

There is a need to increase the number of prepared projects for EU funds. Only a few responders have perception that the number of prepared projects is on the satisfactory level, while 94% don’t.
Graph 6. There is a need to increase the rate of contracted funds from EU funds.

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Fully disagree</th>
<th>Somewhat disagree</th>
<th>I neither agree nor disagree</th>
<th>Somewhat agree</th>
<th>Fully agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>76%</td>
<td></td>
<td></td>
<td></td>
<td>3%</td>
<td>9%</td>
</tr>
<tr>
<td>13%</td>
<td></td>
<td></td>
<td></td>
<td>7%</td>
<td>1%</td>
</tr>
</tbody>
</table>

Source: Authors research

There is a need to increase the rate of contracted funds from EU funds. Only a few responders have perception that the rate of contracted funds from the EU is on the satisfactory level, while 89% don't.

5. Conclusion

Key role in the regional development has a regional authority that defines regional policy and guidelines for future development in specific country. The consequences of poor regional policy are differences within the country are inequality and uneven development. This leads to the development of only the big cities or regions and investments in already developed regions. The role of the state is with different measures have influence on combating the negative impacts and prevent uneven regional development. Education of people, more good projects led us to raising absorption of EU funds and investing in development of less developed countries and regions. We should strengthen knowledge and experience for project preparation those involved in regional development on national, regional and local level.

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ANALYSIS OF RURAL ENTREPRENEURSHIP UNDER THE THEORETICAL APPROACH OF RESOURCES AND CAPABILITIES: THE CASE OF A RURAL MICROBUSINESS

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ABSTRACT

The aim of this paper is to analyze the case of a joint venture stage to determine the successes and failures to undertake this business, based on the theory of resources and skills of entrepreneurship and business. It is intended to answer the question, what were the successes and failures committed by entrepreneurs to run the business plan in this particular case?. The answers were found relating the situations described in the case with the theories of resources and skills and entrepreneurship. The analysis concludes that the empirical knowledge of entrepreneurs, in this case were not sufficient to direct the business to success, and that the lack of structured knowledge and adequate scientific support for this project strongly directed towards the non-permanence on the market.

JEL Classification: M13,O13,O18

Keywords: Entrepreneurship, women entrepreneurs, PROMUSAG, resources and capabilities, competitive advantage.

1. Introduction

The Mexican government through the Ministry of Agrarian Reform supports rural entrepreneurship projects. One way is PROMUSAG (program for women in agriculture). This is a support program for rural women entrepreneurs, seeking their integration in the productive sector to earn income to help in the fight against poverty in this rural environment. The support consists of a sum of money to start
up the business to undertake, which is repayable but it is considered at lost funds. In 2009, hundreds of projects have benefited from PROMUSAG, one of which has been analyzed for this report. This case is featuring nine women in the municipality of San Martin de Hidalgo, Jalisco. In that year, nine women was PROMUSAG order required for each project.

The team for this project consisted of women with little or no preparation in business, but the team had a leader with knowledge and skills acquired empirically that gave the project some routing to success. PROMUSAG central requirements requested to be eligible for funding to the various proposals were teams of nine members, all participants should be female, a project to undertake the business detailing emphasizing the distribution of grant money, it is sent to be developed by an engineer in the agricultural area and the last requirement was to have an area of land sufficient to carry out the purpose of the enterprise activity.

The venture was marked by the fall in leader’s illness, which conditioned the project to a resounding lack of profitability, this, coupled with the lack of scientific preparation and support scientists generated a mismanagement of resources and capabilities that had the project, bringing this to its final termination in six months.

2. Theoretical framework and literature review

The enterprise is the basic and elemental production system of an economy, is an indivisible economic unit that is generated in the process of value creation that is the essence, purpose and function of the entire economic system (Alegre, Berne, & Galve, 1995). Strategic management is the scientific discipline that studies issues related to management of organizations and how are managed the functional areas of the firm. Just as the way the company has designed herself, to set their goals and values, and to relate to their environment.

According to Rumelt (1997), the purpose of the strategy is to provide partial support for the company to survive and be successful. Strategic management analyzes and determines the behavior of the target company specifically focuses on the determinants of competitive advantage and how it can be used to generate profits. In any organization or company, it is essential to have certain resources and capabilities that are the basis for the generation of competitive advantages, which are crucial to the achievement of the objectives of the firm, that is, to generate sales and more importantly, getting benefits.
The theory of resources and capabilities focuses on the analysis of assets owned and/or controlled by companies, as well as their differences, and the importance of this fact to explain the evolution of the results (Barney, 1991). From this approach, the company is considered as a unique set of resources and capabilities with a unique story (Castro & Lopez, 2006). In this perspective the strategy is defined as a constant search and maintenance benefits, which shows the economic approach model (Reynoso, 2005).

Achieving success in business depends on the performance of the tasks of management and internal coordination and the efficiency with which the company competes. The theory of resources and capabilities and the structural theory explain the existence of extraordinary benefits of this success, although the empirical analysis shows that the first explains even better.

The value of the company is more related to intangibles than tangibles aspects on which the valuation was done traditionally (Jiménez, 1999). In turn, intangible resources and capabilities are usually based on information and knowledge, so they have no limits in their ability to use (Guerras & Navas, 2007) and therefore it is necessary to manage knowledge, which means managing the processes of creation, development, dissemination and exploitation of knowledge to gain organizational capacity (Revilla, 1995). This makes every day more evident that the value of the company that is more related to intangible aspects than with tangible on which the valuation was done traditionally (Jiménez, 1999), and thus, with knowledge.

According to Arranz (2000), when the company discusses how to achieve competitive advantage based on resources and capabilities, should take into account that these attributes, to become forms of knowledge, are the result of merging the ideas of the hierarchy with the rest of the organization. Ferrer (1989) argues that this merger or organizational ethos contains a latent energy of known and unknown resources, used or unused, which tells the company how to progress and change, because it can build on this potential enhanced capabilities and routines. Also these attributes should have the following characteristics: be valuable, rare or idiosyncratic, imperfectly imitable and transferable, and have hardly substitutes (Barney, 1991; Peteraf, 1993 and Fernández, 1993).

Characteristics of valuable resources in the model of Barney (1991): Simplicity in use, shortages, difficult imitation, difficult to replace, analysis of managers. In addition there should be strategically equivalent resources, whose existence can be
seen as an additional amount in offering a superior resource. Reynoso (2005) mentions three definitions of company capabilities:

1. - The company’s capabilities are the skills that are equally to integrate, build and reconfigure internal and external competencies of the company in order to react quickly to the changing environment.

2. - Ability to use resources through organizational processes of the company, with the aim of obtaining a particular purpose.

3. - High level routines (or collection of routines) that, together with resource flows, provides company management a set of decision options for producing significant results.

Efficiency is manifested in three complementary aspects: strategic capabilities allow the company to perform functional activities in a better way than their competitors, will dynamically adjust to the demands of the environment and foster the enterprise to obtain strategic resources (Collis, 1994) Teece, Pisano, & Shuen (1997) mention that the capabilities of the company are supported by organizational processes, i.e., organizational routines that take place in the organizations and they have three functions: integration-coordination as static concept, learning as a dynamic concept and reconfiguration. Implications of learning: skills involves both the organization and the individual, organizational knowledge generated by activities that are performed on a daily basis in the company, reflected in new patterns of activity, in routines or a new organizational logic.

Routines are patterns of interaction that represent successful solutions to particular problems. These behavioral patterns reside in behavioral groups where some simple routines can be represented by individual behaviors. One of the determinants of the strategic position of the company is the active control, which are plants and specialized equipment and, even more, the knowledge-based assets are difficult to trade and the complementary assets. These assets determine the market share and profitability at any given time. Asset capabilities relevant to the company can be classified in different ways. One is to use the following categories: technological, complementary, financial, associated to reputation with structural, institutional derivatives market structure and organizational boundaries (Teece, Pisano and Shuen, 1997).

The orthodox explanatory scheme has eliminated the entrepreneur of this system has had its recognition throughout economic history, making it the fulcrum
(pivot) on which everything turns business (Bustamante, 2004). The Royal Academy of the Spanish Language (La Real Academia de la Lengua Española, 2012) gives the following definition of an entrepreneur: “That undertakes with resolution difficult and eventful actions”.

Entrepreneurs are considered an important part of the process of job creation and stimulating factor of growth as they create new businesses, and thus, creating more wealth and prosperity in a country (Martín, 2009). As defined by Wennekers, Sander, Thurik, & Roy (1999) the entrepreneur is linked to the manifest ability and desire of individuals, either by themselves or by teams within or outside existing organizations, to create new economic opportunities, that is, new products, new forms of organization, new methods of production, etc. and introduce their ideas in the markets, facing uncertainty and other obstacles, by making decisions on location and in the form and use of resources and institutions.

Bilbao & Pachano (2002, p. 35), proposed the following definition of an entrepreneur: “The successful entrepreneur is a person with a dream, a goal, a desire to create, to innovate, to capture a business opportunity, which is able to” see “HIS idea into finished form, which is not stopped by obstacles, so the persistence and tenacity are typical characteristics of HIS behavior. “

Malagón (2003) found that entrepreneurs meet the following characteristics:

- Constance.
- Sense or business opportunity.
- Knowledge.
- Personal responsibility.
- Leadership.

To develop entrepreneurship, according to Rojas (2003) is:

- Make things, no look for excuses or reasons to prove that you can do.
- Getting stronger every time he falls, never dig in his heels to find the reason for his failure.
- It is worthy, conscious, responsible for his actions.
- The creator of something, a home, a business.
- Understand that honest work, well there is not a need or sacrifice but a privilege and opportunity it gives us life.
• Dreaming of something, do it and discover how special and unique we are, are always positive.

3. The PROMUSAG program

The Secretary of Agrarian Reform (Secretaría de la Reforma Agraria, SRA) is the institution of the Federal Government that serves women and men who live and work in the rural communities and ejidos or community’s owned land across the country. The SRA provides legal certainty for the owners of the land and promote comprehensive rural development social justice. One of the ways the SRA supports rural development is through the promotion of entrepreneurial and productive projects in ejidos and communities through its programs Support for Productive Projects in Agrarian Nucleolus Fund (Fondo de Apoyo para Proyectos Productivos en Núcleos Agrarios, FAPPA) Program for Women in the Agricultural Sector (Programa de la Mujer en el Sector Agrario, PROMUSAG) and Young Rural Entrepreneur and Land Fund (Joven Emprendedor Rural y Fondo de Tierras, JERFT). PROMUSAG is aimed at women who are organized to develop a productive project that allows them to earn an income and thus help fight poverty in rural areas (H., L. V. 2012).

Within PROMUSAG program, projects can be installed in various areas, such as ecotourism, cattle fattening, rural stores, food production or various services. Women living in the countryside can access the program PROMUSAG women’s groups of 3-6 members, over 18 years old, who inhabit agrarian and rural areas owners of community land. The financial support is of $30,000.00 per member provided it does not exceed the amount of $ 180,000.00. Women may be benefitting from the support of PROMUSAG until they have been supported in the past five fiscal years by himself or by the FAPPA PROMUSAG (Fund for supporting productive projects in agrarian).

4. Method

The methods employed are the analytical and descriptive. The first aims to analyze the case and identify failures and successes which led the company for the ensuing year and the descriptive method to detail the situations experienced by the venture.

5. Case to analyze

The history and details of the case were provided by one of the women who undertook this business which in turn is a daughter of the initial principal leader of
the enterprise. To gather the information, a personal informal interview was conducted on May 2012. What more motivated the business venture was the fact that the main entrepreneur has a great taste and innate ability for this type of business, her personal qualities and characteristics mostly agree with those of a successful entrepreneur. The main obstacle for this business venture was the lack of funding, which it once existed, the project was launched.

In 2009 the entrepreneurial principal, was blessed with a support of $100,000.00 in cash, with the advantageous feature called “sunk” to the implementation of a rural business in the town of San Martin de Hidalgo, Jalisco, which consisted of raising and fattening cattle. Support was received from the government body called Agrarian Reform Secretariat by rural support program to women entrepreneurs “PROMUSAG”. PROMUSAG central requirements requested to be eligible for funding to the various proposals were teams of nine members, all participants should be female, a project to undertake the business detailing emphasizing the distribution of grant money, it is sent to an agricultural engineer to develop the agricultural area and the last requirement was to have an area of land sufficient to carry out the purpose of the enterprise activity.

The selection criteria for the formation of the task force were: being female is the PROMUSAG prerequisite required and indispensable, belonging to the family, time available for the project and interest in it. The skills and/or abilities that have the formed team made are the leadership, expertise in law, some livestock knowledge and empirical knowledge of small business management. The way in which it was given the work distribution between women entrepreneurs was by making meeting arrangements, where they defined their roles. The “lady” was the project leader, his daughter is bachelor in law and has the role of administrator of financial resources, and the other members would act as support staff, i.e., performing operational tasks of supplies purchase, cleaning stalls, feeding cattle and attention to situations that may arise in the production area.

The business plan prepared was paid before the monetary benefit was granted, it just detail issues relating to investment in equipment and production inputs such as instruments, equipment, food, young livestock, among others. Therefore, only was useful to structure the production plant and neither for business organization or healthy finance to sustain within inside. The way to get to the end customer and more convenient for the type of business, existing resources and the region where they conducted the enterprise, was to sell the product at a much larger broker to
sell the product it the final consumer. The project lasted only six months from commissioning to decommissioning, which corresponds to a period of fattening cattle.

6. Application of the theory to the case

It is necessary to analyze the internal aspects of the company to find the main successes and failures committed in undertaking this business, as the main reasons for the success of a company are brewing inside of it. A business venture begins with the idea and the desire of an individual undertaking, which must have certain qualities and characteristics. In this case, for the entrepreneur’s main business was a success in life, as she is a person who has the characteristics and qualities of a successful entrepreneur, which are constancy, sense or business opportunity, knowledge, personal responsibility and leadership skills.

The monetary resource was, together with the decision of entrepreneurship, the main trigger of the business. This financial resource was needed for the purchase of instruments and appliances for conditioning the production plant. These acquired assets would be tangible resources with which the company would have to begin to build a road and build competitive advantage. Unfortunately these were not innovative or special characteristics that could lead the company to take advantage of some sort as cost leadership, differentiation or focus. It really was the most common for a company to take from this type of business.

The fact that there was no proper business plan to guide this enterprise in the formation of a solid organizational structure led to the existence of a variety of situations, which the organization was not in a proper way as there is no basis for internal coordination. That is, the organization did not developed intangible resources, neither knowledge nor skills, and also did not took advantage of the existing resources in good way, and there was no strategic plan to guide the company towards a goal through proper orientation of each of the actions to be undertaken. This due to the existing empirical knowledge and not theoretical basis exists. When it happened the disease of the entrepreneurship leader in the early stages, when the project did not even started to run was one of the situations for which the organization had no way to handle properly.

The lack of evidence document-based to guide the integration of the existent resources and capabilities propelled an unsuitable an inadequate knowledge management tied to hand and feets to the organization in terms of the creation and
development of competitive advantages. There were three reasons why the venture was short-lived for only six months:

1. - Failures in the leadership capability, the main leader fell ill soon after received financing and abandoned the project, not permanently but did not have enough contact to conduct business to success, being at the head of the project the daughter of the main leader. Her daughter is Bachelor in Law as a profession, but without certainty in knowledge about business management and effective leadership skills. This created an atmosphere of des governance, which brought conflict among team members and discouragement to work and or continue in the project.

2. - Lack of capacity in the area of procurement, equipment and supplies were bought at high prices, which were not covered by the investment project. This situation created a debt in addition to the already acquired through funding from PROMUSAG, turn in a few days unviable the business that was being undertaken, as the rate of return on investment would hardly be necessary for the project to survive in the short term.

3. - Lack of marketing capacity to market the product, at the time it was possible to have a finished product, feedlot cattle in optimum conditions, the price at which it was sold was low. However, it was not possible to recover the investment in the production stage, the money raised was used to pay debts owed to suppliers and creditors, leaving the project without resources and women without encouragement to continue. This happens due to a lack of capacity in the area of negotiation and the lack of market intelligence to analyze the situation and to anticipate future price to implement the actions that were relevant.

7. Conclusions and recommendations

Empirical knowledge of entrepreneurs, in this case, was not enough to route this business to success and the lack of structured knowledge and appropriate scientific support to this project strongly directed towards not stay in the market.

The recommendation for PROMUSAG is that it needs to call for a strategic plan as a requirement to be eligible for financial support.

To start a business the entrepreneurs should also count on empirical knowledge, a scientific basis, either by the project members, or by external consultants.
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URBAN, RURAL AND REGIONAL ECONOMICS
Abstract

This paper explores the strategic framework for developing new food production system in Slavonia and Vojvodina. Although the both regions are located in the different states, they have been facing with the same transitional challenges in this area. The main aim of this paper is to unveil them having in mind the European trends. The research method is based on the analysis of the factors that block or slow down the institutional and market impulses coming from the European environment in high value added food production. An insufficient supply of authentic (regional), productive entrepreneurship and the low efficiency of regional innovation system are identified as the main barriers. According to the suggested recommendations, new food production system in Slavonia and Vojvodina should be based on auto-poiesis and co-opetition principles. The crucial precondition is that all participants should be focused on achieving the desired results in ways that benefit a variety of interests.

JEL Classification: L66

Keywords: food production system management, Slavonia, Vojvodina

1. Introduction

As a complex set of dynamic interplay of mutually reinforcing activities that generate food products for human consumption, a food production system has attracted growing interest not only among scholars in different fields, but also among politicians, media, farmers and others. This is largely a consequence of the current threats and issues related to food such as shortages of food, depletion of natural resources, climate changes, overuse of pesticides and other chemicals in food pro-
duction, etc. Furthermore, moving toward a more efficient, competitive, export-oriented, healthier and more sustainable food system is a process that involves tackling longstanding challenges and addressing more sophisticated demands at both the theoretical and the empirical level. A food production system is evolving with regards to climate conditions, natural resource endowments, innovativeness and creativeness of the participants, and by the quality of institutional structures and policies.

This paper focuses on the food production system developed in Slavonia and Baranja (hereinafter referred to as “Slavonia”) and the Autonomous Province of Vojvodina (hereinafter referred to as “Vojvodina”). Slavonia is a historical region situated in eastern Croatia. It covers around 22% of Croatia and it is inhabited by 805,998 people, i.e. 18.8% of Croatia’s population, while Vojvodina covers slightly less than 25% of Serbia and it is inhabited by 1,931,809 people, i.e. 25.76% of Serbia’s population according to their respective bureaus of statistics. Vojvodina is an autonomous province of the Republic of Serbia situated in its northern part. The economies of both regions are largely based on food and processing industry and fertile agricultural soil. With the average gross domestic product (GDP) around 8,330 USD per capita in 2010, Slavonia (which includes five Croatian counties) is lagging behind the national average (13,323 USD per capita), while Vojvodina has GDP per capita higher than Serbia (e.g. in 2007, GDP of Serbia was 5,476 USD per capita, whereas Vojvodina’s GDP is estimated to 6,848 USD per capita). Before 1991 Slavonia and Vojvodina were parts of the two socialistic republics of former Yugoslavia (Croatia and Serbia, respectively).

Although in the last two decades Slavonia and Vojvodina have been developing within the framework of two different states, their food production systems still have the same characteristics. They produce a wide range of food, from primary agricultural products to highly sophisticated ones. However, they produce these products not only in an inefficient and ineffective way, but also without taking into account European or world food needs and demands. The same holds for the related and supportive sectors and industries to the food production system, including logistics, transport, finance, telecommunication and information services, educational and R&D activities, as well as for services provided by different government institutions.

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1 Sources: for Croatia - Croatian Bureau of Statistics (2013), and for Vojvodina - Kis & Cileg (2011).
The main goal of this paper is to unveil critical issues related to the creation of a new food production system in Slavonia and Vojvodina. Consistent with the main goal, this paper also briefly analyzes new European trends and their implications on the food production system in Slavonia and Vojvodina, conceptualizes the framework for a preferred structure of the food production system, and discusses the necessary changes that will transform this system into a competitive and export-oriented one.

2. Basic characteristics of the existing food production system

The food production system in both regions has continued to develop according to the old trajectory that was established in the early phase of the free market transition in the 1990s. Over the time, the authorities that participated in this process have failed to understand the new and evolving challenges and create a friendly and fair business environment for production and exports of high value-added food products. At the same time, farmers have been more oriented to collect more and more state and local incentives and subsidies without serious considerations of new production and business management methods as well as new crops.

The ongoing recession in Slavonia and Vojvodina has only intensified the development of entropy accumulated in the food production system during the past. Certainly, the recession opened a whole range of new and more complicated issues compared with the past two decades. However, it was clear before the current recession that lots of things had to be done, starting from the essential to pure technical changes. Problems, resistance and costs, being generated in the phase of free market transition, are definitely less than the ones both regions are currently facing in the process of building a new food production system. Bearing this in mind, one can conclude that the main policy authorities of the food production system were not aware of the importance of strategic thinking and managing the food production system as well as of its orientation towards a highly competitive and innovative one. At the same time, farmers were not aware that they are primarily responsible for their own productive and financial performance.

Because of that, any significant and qualitative growth in resources, innovativeness and competitiveness did not take place, and consequently, sustainable development swings did not appear. For example, instead of increasing capital-intensive production and the share of investment in value-added food processing, chronic disinvestment and a widening gap between the value of processed food imports and
exports are recorded. Similarly, instead of multiplying, growing and improving the performance of productive entrepreneurship and human capital, unproductive and even destructive entrepreneurship has been growing even faster. Regional innovation systems are not established and continuous technological progress failed to occur in this area. The aforementioned and many other issues are the consequences of poor understanding of the transition process in food production and consumption, as well as in the new structure of the global food system that began forming in the middle of the 1980s.

3. Current European trends in the food production system and their implications for Slavonia and Vojvodina

The common characteristics of all participants in the food production system of Slavonia and Vojvodina are the insufficiency of responsibility, trust and consistency followed by excessive occupancy by the consequences of privatization and the intention for building a subsidized model of the food production system similarly to the EU. When it comes to European food production systems, food system participants in Slavonia and Vojvodina have ignored the fact that it valorizes particular natural resources and qualified work, and minimize the dependence on natural resources, improving simultaneously the quality of labor, production, products and life (Gellynk et al.; 2003; 104-105/Matthews; 2003, 53).

Following Adžić and Adžić (2011, 1710-1712), three key development trends in European food production systems can be identified.

First, technological progress will continue to have a crucial role in the transformation of the food production system in the next ten to fifteen years. The role of sophisticated mechanization in farm production, biotechnology and information technology will strengthen. A typical farm will grow and consolidate. Furthermore, it will intensify the connections with other parts of the food production system. At the same time, the role of labor will be weakening.

Second, demand for food will grow at a relatively slow pace, except in the case of significant climate disorders. Segmentation will be intensified while the trend of maintaining a healthy eating lifestyle will continue. This will have a significant and recognizable influence on the role and development of the capacity for production, storage and distribution, aiming to protect high-quality food, diabetic and organic food, in accordance with individualized possibilities and needs of final consumers.
Third, one should expect removing of market barriers to food within Europe. However, the question still remains whether the barriers in the rest of the world will be removed at all. Furthermore, the trend of reducing employment will be continued, primarily due to development and application of new technologies in food production processing, storage, transport and distribution.

Besides these trends, two groups of challenges will additionally influence the food production system in Slavonia and Vojvodina. The first is related to searching for new organizational and technological solutions for: (a) better valorization of basic resources (land, labor and primarily mechanization) considering the former pre-transition maximum, (b) land degradation, depletion of resources and environmental pollution, and (c) larger investment into the protection from any food contamination and keeping food in proper conditions for transport and distribution to the markets. The second considers opportunities opened by the accession to the EU for increasing exports of food, especially those that meet the requirements for exclusivity, naturalness, diet and health. Such requirements were relatively neglected, although it is unambiguous that they can be met in Slavonia and Vojvodina.

The aforementioned challenges influencing the food production system transition may be addressed in different ways, starting from incremental improvements of the existing organizations, businesses and technologies to development and implementation of new, highly sophisticated organizations, production and technological solutions. Usually, a transition of this system is governed by joint activities of individual participants, associations and clusters, international enterprises, as well as organized activities of national, regional, sub-regional and local administrations.

To sum up, the main implication of transition trends and challenges in European food production systems can be stated as follows: there are so many dangers originating from the European environment and threatening growth in food production and exports in Slavonia and Vojvodina, but at the same time, there are at least as many opportunities for increasing high value-added production and exports. Efficient use of resources, new methods for production and management introduction, and more stable participation in the European food market are very important for developing the food production system in Slavonia and Vojvodina above the minimum stated by the necessity of surveillance.
4. The choice of the basic methodological approach

Obviously, the food production system transition in Slavonia and Vojvodina may be reduced to the process of global commercialization on the basis of dynamic creation and development of economically self-sustaining agricultural holdings (primarily, commercial family farms) and large and diverse groups of market and non-market organizations and institutions. They should together create and promote a relatively stable and favorable business environment for the food value chain.

Therefore, framing the strategic framework for a successful transition of the food production system in Slavonia and Vojvodina should be considered as a complex interplay of mutual dependent and cross-cutting economic, technological, ecological, political and social activities. The basic condition for a successful transition is that all participants in the food production system develop the following: (1) macro, mezzo and micro organizational structures and management systems capable of efficient and competitive production, processing, storage, transport and distribution of food that will meet individual requirements regarding quality, prices and availability within the growing and unequal international competition, (2) appropriate physical resources and labor force, (3) a healthy financial structure, and (4) flexibility that enables fast and efficient reaction to the changing conditions in the domestic and foreign socio-economic and ecological environment.

In order to better understand the choice of the methodological approach, the way of solving this problem in the past is briefly described below. In Slavonia and Vojvodina, in the early 1960s, the process of building large business systems called “kombinat” started by a political decree. In the middle of the 1970s, again by a political decision, these systems were partially disaggregated, firstly by transferring financial power to subordinate business units, and then by delegating the business decision making process to them. From our current point, these systems can be defined as clusters led by natural resources. In the period of the post-socialist transition, these “clusters” vanished. The main causes for this should be linked to the fact that they lost their developmental functions even in the early 1980s. However, in the past two decades, practically nothing was done to replace them.

The current structure of the food production system in Slavonia and Vojvodina consists mainly of numerous micro, small and medium-sized agricultural holdings and enterprises that emerged on the ruins of the inherited organization structure and production capital (Kovacs, 2011, 412-414). In order to overcome develop-
ment entropy, Adžić and Birovljev (2011, 921) suggest that each participant of the (regional) food production system should be integrated into one complex hierarchy structure consisting of five levels.

The first (basic) level should comprise economically self-sustained agricultural holdings. They have to do a business in a wisely created institutional framework. The basic task of this level is to initiate and support the building process of global competitive primary agricultural producers through the complex package consisting of public goods and services of public administration.

The second level should include all food production participants that should be unified in business networks and alliances, as well as in export-oriented macro clusters organized according to the basic production lines. This level should maintain economically and technologically efficient and effective food businesses under the condition of global competitiveness and other rigidities introduced by the protectionist-oriented agricultural policy of developed economies.

The third level should include all relevant participants that should be unified in macro-productive segments. They should subordinate an optimal regional or national food organization and production as well as physical inputs (energy, basic raw inputs, intermediary products, machines and equipment) and services (business service, transport, storage and cross-border transfer) according to the best economic and technical conditions. Inclusion of big (agro) trade companies will have a significant importance no matter whether it is about the supply of inputs, or marketing, storage, transport, cross-border transfer on the target segments of the foreign markets.

The fourth level should include individual participants of the food production system within the institutional framework of regional or national socio-economic environment. Having in mind broader socio-economic goals, its task is to maintain a sustainable supply of human and financial capital, public goods, and public administration services, simultaneously creating friendly and simulative influences on behavior of the food production system.

The fifth level should include specific food production participants connected with the European and global food market. Its task is to enable realization of the economy of scale, to stimulate the production that met the necessary international level of effectiveness and competitiveness with regards to prices and quality as well as to motivate use of more newly-created than inherited resources.
For the above described food production system structure to be suitable for a successful food system transition in Slavonia and Vojvodina, one should bear in mind that the system is part of a broader regional and national system and even the European and global system, as well as that each of its parts reflects the position of the particular participant. This position is included, directly or indirectly, in the food production system and creation of (European, national, regional, sub-regional and local) economic, agricultural, technological, industrial, educational, rural and social policies. However, pace and development trajectories of a successful transition of the regional food production system are more dependent on domestic factors than on the international environment.

5. A new food production system and barriers for its implementation

A solution for creating the framework for a successful transition for the food production system in Slavonia and Vojvodina should lie in the set of mechanisms for inducement and coordination of structural changes in technological, organizational and financial performances of all participants. Related to this, a favorable business environment for development and employment of economic, technological and human potentials and a more efficient allocation of production factors is also important.

Taking into consideration the main determinants of the future progress of Slavonia and Baranja, reindustrialization of food production by clustering the human capital, productive entrepreneurship, innovations, private investment and exports, appears to be a vital part of the solution. The basics for the joint action of all food system participants are making higher value-added products and an increase in food exports. This requires a mix of institutional reforms and policies. This mix should be a function of the following: (1) development of a favorable business environment for exports and private investment, (2) improvement of all organizational forms, especially in the domain of export-oriented clusters, business networks and alliances as well as in the sector of production of public goods and services for the needs of (regional) food production, (3) creation of the conditions for more beneficial participation and maintenance of consensus between economic and social partners in the food value chain, and (4) transparent professionalization and decentralization of the functions in public regulation of the food production system.

The science, at least in its mainstream, cannot develop all methods and mechanisms required for successful solutions of all issues related to operationalization of
the suggested conceptualized transition system for food production in Slavonia and Vojvodina. Therefore, the essential questions related to formulation and implementation of a strategy for building the food production system are partially the result of interactions between the individual and group entrepreneurial and managerial initiatives. They should not be left to political voluntarism (no matter at which administrative level). For the solution to this problem, greater emphasis should be placed to accumulation and using of the following: (1) specific knowledge and skills, (2) capabilities for understanding the issues and managing them in complex and uncertain circumstances, and (3) specific abilities for creating solutions and persistence in their realization (Adžić & Birovljev; 2011, 925).

There are two additional challenges related to the development of a new food production model in Slavonia and Vojvodina. The first one arises from the fact that the main task of the frame for a successful transition of the food production system is creation of a friendly and fair environment for a sustainable increase in competitiveness and innovativeness. The transition demands not only investment in new organizations or new equipment, but also the people with new knowledge and skills, i.e. creative and innovative talents who will know how to create new resources and organize them in a way so they would be competitive in the European and global food markets. Consequently, a large number of productive entrepreneurs with broad and specific knowledge and skills is needed. However, unproductive entrepreneurship is growing dramatically in Slavonia and Vojvodina.

The second one can be found in the domain of the innovation system. At first sight, the current situation in the innovation system for food production in Slavonia and Vojvodina (taking into consideration, for example, the number and structure of the organization for education, research and development, available space and the number of experimental farms) is respectable in many aspects. However, institutional arrangements supporting this system are far from being able to protect and strengthen its modernization role. Many reasons contribute to that. For example, arrangements are inconsistent, nontransparent, uncoordinated and short-run oriented. Or, for example, reforms are more declarative and exist in name only. In this context, a regional innovation system in Slavonia and Vojvodina aiming to change the food production system and keep it competitive, innovative and transparent, does not exist.
5. Concluding remarks

Since the beginning of the free market transition process at the end of 1980s, Slavonia and Vojvodina have been facing the challenge of developing a new food production system that should be compatible with their inherited natural resources and new ones created by strategic decisions of agro-food authorities. However, they failed to create it. They neither developed a modern food market, business and institutional system, nor the desired effectiveness in doing commercial or public activities related to food.

In the last two decades, a critical mass of productive food entrepreneurs, capable to face current and forthcoming challenges, has not been reached, and a favorable institutional framework has not been created. Hence, one should conclude that the desirable framework for the successful food system transition cannot be created in the next few years. However, ambitious (but achievable) goals in the domain of high value-added food export on the macro, mezzo and business level, and the innovative ways for their achievement should be set by cooperative associations and networks consisting of entrepreneurs and managers, national, regional and local government, education system, and R&D system. Within this context, innovative ways for creating these conditions should be based on autopoiesis and co-opetition principles. The crucial precondition is that all participants should be focused on achieving desired results in ways that benefit a variety of interests.

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CLUSTERS AS AN INITIATIVE FOR A RAPID DEVELOPMENT OF RURAL TOURISM

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Abstract:

Rural tourism as a selective form of tourism is still not properly developed. This claim mainly concerns the continental part of Croatia, in which only 5% of the overall number of overnight stays is accomplished. Although nearly 88.7% of Croatia is classified as a rural area by the criteria of OECD, if the tourist traffic in coastal Croatia is excluded, it is evident that the forms of rural tourism are still not developed properly in a great part of our country. On the other hand, there is a presence of the insufficient connection of various forms of specialized business subjects that are concentrated geographically and have a potential of operating in a segment of rural tourism. By the research conducted under the name of “Clusters in the Republic of Croatia 2011”, there are 5 clusters of insufficient degree of development, the activity of which is considered to be a part of the segment of rural tourism. Clusters effect the growth of the productivity and associating into clusters actuates the growth of the competitiveness of cluster members positively. However, before the actual act of assembling the clusters, what needs to be conducted is the analysis of the basic assumptions for the emergence and development of clusters. The aim of this work is to point that the basic assumptions for the emergence of clusters exists. The work also aims at pointing that the clusters founded with the goal of connecting the prospective development coordinators of rural tourism in the area of three counties of continental Croatia- Koprivnica-Križevci, Virovita-Podravina and Osijek-Baranja can contribute to the rapid development of the rural tourism in the advised area.
Preface

National economies and regions within them constantly invest their resources in order to be competitive on the market and to adapt to the demands of globalization. Globalization creates new conditions in which it is not sufficient to continue the work that has begun long ago, but is necessary to have constant transformation. According to JM Keynes the real difficulties do not lie in the creation of new ideas, but in exiting the old ones. Transformation in the context of adapting to global environmental conditions includes complex changes permeated through all Porter’s diamond factors of competitiveness. Porter also states that it is possible to significantly increase the competitiveness of the national economy or regions using clustering. The analysis of the competitiveness of the Croatian economy only reaffirms the need of fundamental structural changes within it. Competitiveness can be defined as the ability of a country to create added value and thus increase national wealth (IMD;1996,42). However, the IMD in their Competitiveness Report highlights another, more complete definition of competitiveness as the area of economic knowledge that analyzes the facts and policies that shape the ability of nations to create and maintain a framework that allows the creation of a greater value in companies and greater prosperity to the people (IMD;2003,5). According to Feurer and Charbaghio, competitiveness is a relative but not an absolute ability. It depends on the financial strength of shareholders and consumers that determines the capacity and response to the competitive environment, the potential of people and technology in the implementation of the necessary strategic changes. Competitiveness can be achieved only if there’s a proper balance among the factors that by their nature can be in conflict.

According to Porter, national competitiveness is not inherited, it is created and constantly rebuilt (Porter;1990). Porters Diamond model of competitiveness emphasizes the sources of national competitive advantage, for which it stresses an important role of geographic proximity that is associated with the interdependence and connectivity of companies, public sector, industry and other institutions that could have an impact on innovation and economic growth. With his diamond model Porter created a method of measuring the competitiveness as a multidimensional and dynamic analysis of the factors that affect the international competitiveness of
the nation (Dragičević;2012,26). Porter stresses that creating the competitive advantage based only on the factors of production is not sufficient, it is necessary to look at the wider context (Porter;1990,12). Frequency of use of Porter’s diamond model indicates its comprehensiveness.

Critics of Porter’s diamond model of competitiveness argue that this model does, however, have some limitations. Moon, Rugman and Verbeke suggest a lack of the diamond model which does not take into account the influence of multinational companies, foreign direct investment and the human factor. They also argue that Porter’s diamond model is applicable to large national economies such as the U.S. and Japan, while the smaller economies need to implement the Generalized Double Diamond model. Figure 2 shows the generalized double diamond model, which includes the impacts that Porter’s model does not take into account.

**Croatian economy competitiveness analysis**

In this chapter some selected macroeconomic indicators are processed and compared with similar Croatian economies. In the IMD’s World Competitiveness Yearbook from 2011 Croatia is placed as the penultimate. The analysis of 20 factors of competitiveness leads to the conclusion that Croatia is best presented by the following factors: cost, health and environment, education, social environment and international trade, and the worst: management, institutions, local economy, attitudes and values, labor and employment, science infrastructure, business and foreign investment legislation. According to the DZS data it is evident that the Croatian economy has the highest proportion of residents who are not available as a labor force and on the other hand a large proportion of the so-called supported ones.

The analysis of the GDP, the basic macroeconomic indicator, shows that Croatia had the lowest growth of the GDP (a range from -6.9% to 0%) and at the same time the biggest growth took part in Estonia (a range from -14.1% to 8.3%). According to the Eurostat the trends in real GDP in absolute amount (million EUR) in the period from 2004 up to 2013 shows that Croatian GDP grew at the smallest amount (454 million), with the highest growth in the Slovak GDP (15 500 million). It can be concluded that the forecast of GDP growth per capita is the most negative for Croatia (2,500 EUR). Other analyzed economies have approximately equal growth of GDP per capita, of course with the differences in initial positions.
Table 1: Institutional indicators - total score of competitiveness

<table>
<thead>
<tr>
<th></th>
<th>2012/13</th>
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<th>2011/12</th>
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<th>2010/11</th>
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<tbody>
<tr>
<td></td>
<td>Rank</td>
<td>Rating</td>
<td>Rank</td>
<td>Rating</td>
<td>Rank</td>
<td>Rating</td>
</tr>
<tr>
<td>Denmark</td>
<td>12</td>
<td>5,29</td>
<td>8</td>
<td>5,40</td>
<td>9</td>
<td>5,32</td>
</tr>
<tr>
<td>Austria</td>
<td>16</td>
<td>5,22</td>
<td>19</td>
<td>5,14</td>
<td>18</td>
<td>5,09</td>
</tr>
<tr>
<td>Estonia</td>
<td>34</td>
<td>4,64</td>
<td>33</td>
<td>5,62</td>
<td>33</td>
<td>4,61</td>
</tr>
<tr>
<td>Slovakia</td>
<td>71</td>
<td>4,14</td>
<td>69</td>
<td>4,19</td>
<td>60</td>
<td>4,25</td>
</tr>
<tr>
<td>Croatia</td>
<td>81</td>
<td>4,04</td>
<td>76</td>
<td>4,08</td>
<td>77</td>
<td>4,04</td>
</tr>
</tbody>
</table>

Source: www.weforum.org (12.02.2013)

The indicators presented in the table suggest the poor position of Croatia, which only confirms the aforementioned poor macroeconomic indicators. Croatia is on the back of the column, with a macroeconomic trend which leaves us worried for the future. The top-ranked country is Denmark, followed by Austria, while Slovakia is also seeing a significant downward trend.

Analysis of strategic development documents in Croatia

In the context of Croatian national economy and economic policy, there are several strategic documents. As an instrument of pre-accession assistance in the year 2006., Croatian Government has created a strategic framework for the development, which defines the guidelines for the development of national economy. The previously mentioned strategy defines the circle of prosperity of the national economy. The circle of prosperity puts in focus synergy of macroeconomic stability, openness, efficient financial markets and the permanent sustainable development. Circle of prosperity also consists of the elements that need to be built and strengthened: people and infrastructure, knowledge and education, innovation and flexibility, infrastructure and information connectivity as well as the social cohesion.

The strategy also detects so-called most urgent problems. By the term most urgent problems are considered those that are the most visible and create the most obstacles for development. Three major pressing problems defined in the strategy are: 1. incomplete transformation of the state in the service of citizens and entrepre-

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1 Available on: http://www.mingo.hr/userdocsimages/konkurentnost/1.%20Strate%C5%A1ki%20okvir%20razvoj%202006-2013.pdf(10-02-2013)
neurs (unfinished building of a “new role of the state”); 2. lack of entrepreneurial climate; 3. unfinished process of privatization and restructuring. In the Ministry of Business and Trade the program Impuls 2013, one of major priorities is encouraging the connectivity and associating economic subjects into clusters in order to increase their competitiveness and stimulate innovation. This could enhance clusters to involve in international markets, as well as the further cooperation with research institutions and local and regional governments.² The Croatian Tourism Development Strategy to 2020, which was adopted in 2013, listed clusters as one of the key elements for achieving the desired objectives in the rural tourism development.³ As it can be seen from the analysis of all strategic documents, a concept of clusters is recognized as an important stakeholder for Croatian economic development. Ministry of Economy’s document “A Smart specialization” defines a list of strategic documents for strengthening the competitiveness of the Croatian economy which has to be created.

Clusters and competiveness

Encountering the concept of clusters in the economic and economic terms is very common. It is an essential concept in all recent versions of development strategies of ministries but also the local governments. However, it is important to mention the problem detected by Held in 1996. “Unfortunately, due to the rush of many governments to create clusters, they miss some of the basic assumptions of their creation, including appropriate research methods and even the very definition of cluster (Held; 1996, 249).

Several definitions of clusters can be found in the literature. Michael Porter defines clusters as geographically targeted groups of related companies and institutions in a particular sector, which bind the communion and complementarity (Porter; 1990, 8). A cluster is a specific form of an association of personal and group interests and the industry, focused on a small geographical area where it may come to the physical contacts. It is a dynamic network of specialized business and other activities of the constant change (EC; 2002, 13).

² Accessible on: http://www.minpo.hr/UserDocsImages/Nove%20izmjene/JA%C4%8CANE%20POSLOVNE%20KONKURENTE%20KLASTERA.pdf(10-02-2013)
The benefits of clusters are increasing areas of related industries and other entities important to competitiveness. Also, the benefits of clustering are increasing access and benefit to consumers and foremost to manufacturers of complementary products, as well as to companies in relation to skills, technologies, and other tangible and intangible inputs (Dragičević;2012,62).

According to Mathieson and Wall, countries should exploit their capabilities in order to improve the effectiveness of their own economies. According to them the implications of tourism clusters and investment in tourism on the economy are as the following:

- Creation of new local requests for equipment, food and other means that accelerate the growth of existing and creation of new industries and bring business and new markets;
- The growth of urbanization through the constant growth of construction and renovation of tourist facilities;
- Growth of profit by the help of foreign currencies which are essential in developing countries to reduce the current account deficit;
- Redistribution of capital between developed and developing countries;
- Multiplicative effects within the economy (Mathieson & Wall;1982,64).

The literature also suggests that clustering is possible in all sectors. In accordance with the title of this paper, further discussion will be pointed at the need and the possibility of using the concept of clusters in the development of rural tourism.

**Clusters and partnerships – impetus to the Rural Tourism development**

Tourism is the fastest growing “industry” where the number of international tourist arrivals in December last year reached one billion (UNWTO;2012,1). Faced with the increasing global competition it is therefore very necessary, if a competitive advantage and socially responsible destination management wants to be achieved, to encourage a culture of collaboration and cooperative relations among all stakeholders in the tourism industry (OECD;2010,80). Clusters and other forms of partnerships (public-private, public-public, private-private) are very useful means for raising the competitiveness of the sector of tourism.

Rural tourism in Croatia in all its forms has still not reached the importance similar to the coastal one. Moreover, the proportion of overnight stays in the conti-
nental regions in relation to the overall number of stays stands at barely 5%. The reason for this is the lack of a clear vision of development, lack of emphasis on rural destinations potentials, a small number of accommodation facilities, lack of knowledge and skills for developing a variety of activities in tourism and the disconnection of the participants in the tourism value chain (Kranjčević and all; 2010, 48-49).

Due to the complexity of the touristic value chain, key stakeholders in the world’s tourism industry have realized the need of connectivity, networking and creating different types of partnerships in order to retain the existing market segments and to increase competitiveness. Partnerships are made for many reasons. In tourism industry it is primarily due to the creation of new and distinctive products, protection and raise of the quality of tourist attractions, the introduction of standards and standardization, improvement of the image of destination, increase of marketing efficiency, introduction of new methodologies of market research, education in tourism and for tourism, investment in infrastructure and finally due to ensuring the favorable funding for the sector of tourism (KPMG, WTOBC; 2004, 1). Because of the specificity of tourism and its multiple economic and social impacts, the public sector should be an essential factor in almost all forms of partnerships in tourism. In the recent years, the concept of clusters of public-private type seems to be associated with the implementation of various projects in tourism more and more frequently (Kunst; 2011, 185; KPMG, WTOBC; 2004, 9). The way and the extent in which clustering will benefit the local community will depend on the interest of the public sector for individual projects. On the other hand, it is important for the private partners that the payback period of investment is within acceptable time frames.

Since most of providers of the services, especially in rural tourism, fall into the group artisans, small and medium entrepreneurs, it is sometimes hard to raise the public interest on innovative projects in the sector of tourism. Therefore, it is essential to connect various stakeholders in the tourist value chain for the sake of appearance before the public and finance sector. In that case, vision, stringency and persistence of the entrepreneur or the group of entrepreneurs, which will guide the project and encourage the stakeholders within the cluster, is needed.

Positive examples of associating into clusters with the purpose of creating new touristic products, recognizable tourist destinations, common marketing programs, and other can be found in the world. One such project is mentioned in the publication “Co-operation and Partnerships in Tourism: A Global Perspective”, that
was created for Canadian Tourism Commission, World Tourism Organization, World Tourism Organization Business Council by the company KPMG Canada. It is about a cluster of Wine and cultural Tourism in the Thompson Okagan. The partnership was a cooperativemarketing and product development alliance that involved both the private and the public sectors:

- Thompson Okanagan Tourism Association
- Okanagan Wine Festivals Society
- British Columbia Wine Institute
- Private sector participants including wineries, hotels, motor coach operators and a range of sponsors.

The original vision for creating the cluster was to stimulate visitations to the local wineries by organizing the autumn wine festival. The duration of the festival for the first year was planned in ten-day frame, within which 45 various events such as wine tours, wine exhibitions and grading, gastronomy events, etc. were held. Out of sixty regional vintners, six to eight of them joined the cluster within the first year. Nowadays, the autumn festival contains 50 different events which last for 15 days and during the summer a summer festival with over 45 events during five days is also held. By joining of the touristic entrepreneurs into the cluster, an ice wine fest also including food-tasting and the tour of local wineries, as well as two- or three-day stay and ski-lift tickets was held. During the summer, a package deal with three stays also includes visits of the various events connected to local gastronomy. (KPMG; 2002).

The counties Koprivnica-Križevci, Virovitica-Podravina and Osijek-Baranja, which are referred to in this paper, are neighboring counties placed between the River Drava and Bilogora, respectively Papuk, Psunj and Krndija. They are characterized by similar natural characteristics and analogous anthropogenic touristic attractions. Excluding the Baranja part of Osijek-baranja county, touristic movements on this area are almost negligible. With the proclamation of the Regional park Mura-Drava which stretches throughout all three counties, great possibilities for development of various selective forms of tourism are being created, because within few years, this area will be a part of the system of the biggest biosphere in Europe, namely Mura-Drava-Dunav. This fact will present a strong factor of attraction for a great number of potential visitors and it might be a stimulus for the development of touristic offer in the area of these three counties. Positive shifts in
the development of sustainable tourism can be expected only by good planning and cooperation, as well as affective destination management which is essential in the area of these three counties. The reasons for the deficiency of the touristic offer can among other things be seen in:

- Incoherence of the attractions in the area of the Regional Park,
- Insufficient valorization of touristic potentials,
- Lack of recognizable and attractive image of the destination,
- A small amount of accommodating facilities,
- Poor offer of accommodation on family farms,
- Insufficient knowledge and skills of providing services in tourism (Kranjčevićiostali, 2010, 48-49).

It can be easily concluded from the previously mentioned features which of the main operating fields of destination management and which stakeholders should connect into the tourist cluster in the future.

Figure 1: A hypothetical Tourist Cluster  Mura - Drava
Conclusion:

According to data about the competitiveness of Croatian economy, a considerable lag in comparison to other economies of similar size and number of residents can be seen. A somewhat better situation lays in tourism, but considering to comparative advantages that Croatia possesses, 35th place is not precisely a result to be proud of. The indicators in the sector of tourism that record growth in the last few years are mostly connected to motions in coastal areas of Croatia, (even thought they are still not at the level of competitiveness in which they could be). However, the greatest unused potential for the raise of competitiveness and the reduce of the great seasonality is precisely the empowerment of the development of tourism in continental parts of Croatia. Due to the problems of the destination management in continental parts of Croatia which were mentioned in this paper, the various forms of association of all stakeholders into clusters in tourism are just the ways for a rapid development of rural tourism. The questions that need to be the guidelines for everyone interested in touristic development of the continent: What is it what I need?, Who might my potential partner be?, and What is it that I can offer in order to accomplish the objectives of the partnership?, create numerous possibilities which are put before the participants of the touristic chain of values by “homo touristicus”, who is hungry for new touristic experiences, so distinctive from uniformed ones, the mass 3 S destinations.

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4 Sun, Sand, and Sea destinations


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ANALYSIS OF THE (NON) UTILIZATION OF FUNDS IPA PRE-ACCESSION ASSISTANCE PROGRAMS AT THE LEVEL OF EX PANNONIA CROATIAN AND POSSIBILITIES OF USING FINANCIAL RESOURCES OF THE STRUCTURAL INSTRUMENTS

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Abstract

Programs ECHO and OBNOVA was first assistance programs which the European Union pursued in the Republic of Croatia in the period since 1991 to 2000. These programs have greatly helped in the return of refugees, reconstruction of war-torn areas, humanitarian action, and freedom of speech. Assistance program CARDS and pre-accession programs PHARE, ISPA, SAPARD have been active since 2000 to 2007, when they are replaced by a single IPA program.

The main aim and purpose of the IPA program is providing assistance to candidate countries and potential candidate countries in the harmonization and implementation of legal, political and economic acquis communautaire and to prepare them for the use of the Cohesion Fund and the Structural Funds.

This paper analyses the competence of project managers, barriers to application and implementation of the projects (the inability to pre-finance and co-financing, the complexity of application procedures, the adequacy of human resources, language barriers, and lack of defined strategic priorities, not preparation of project documentation, lack of motivated managers and project team members). Research results will help organizational units in the Republic of Croatia to more effectively use the resources of the Structural instruments with the aim of further regional development.
JEL classification: R11, R38, R51

**Keywords:** European Union, Program Assistance, Ex Pannonia Croatia, Structural Instruments, regional development

1. General on pre-access assistance

First aid programme implemented in Republic of Croatia by European Union in period between 1991 and 2000 were programmes ECHO and OBNOVA. Main purpose of these programmes was mainly to ensure humanitarian aid, return of refugees, rebuilding of the Croatian infrastructure destroyed during war and strengthening of democracy and freedom of the press. Table 1 is showing help provided to Republic of Croatia by European Union in period between 1991 and 2000.

**Table 1:** Help provided to Republic of Croatia by European Union in period between 1991 and 2000 (in millions of Euros)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Humanitarian aid (ECHO)</td>
<td>243.2</td>
<td>21.15</td>
<td>14.5</td>
<td>6.95</td>
<td>8.0</td>
<td></td>
<td>293.8</td>
</tr>
<tr>
<td>Return of refugees (OBNOVA)</td>
<td>7.02</td>
<td>8.59</td>
<td>14.0</td>
<td>13.6</td>
<td>10.0</td>
<td></td>
<td>53.21</td>
</tr>
<tr>
<td>Demining</td>
<td>1.0</td>
<td>0.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.5</td>
</tr>
<tr>
<td>Democracy and human rights, media (national programmes)</td>
<td>0.77</td>
<td>1.74</td>
<td>6.59</td>
<td>5.5</td>
<td>0.96</td>
<td></td>
<td>15.56</td>
</tr>
<tr>
<td>Democracy and human rights (regional programmes)</td>
<td>0.2</td>
<td>0.2</td>
<td>0.3</td>
<td>6.44</td>
<td></td>
<td></td>
<td>7.14</td>
</tr>
<tr>
<td>Customs</td>
<td>1.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.0</td>
</tr>
<tr>
<td>Tempus (with preparatory activities)</td>
<td>0.1</td>
<td>1.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.6</td>
</tr>
<tr>
<td>Environmental protection (LIFE)</td>
<td>0.7</td>
<td>0.76</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.46</td>
</tr>
<tr>
<td>Capacity building (OBNOVA)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>Judicature (OBNOVA)</td>
<td>0.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.6</td>
</tr>
<tr>
<td>Small and medium entrepreneurship (OBNOVA)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2.34</td>
<td>2.34</td>
<td></td>
</tr>
<tr>
<td>Small range operations</td>
<td>0.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.4</td>
</tr>
<tr>
<td>Total</td>
<td>244.87</td>
<td>29.91</td>
<td>29.88</td>
<td>28.51</td>
<td>30.64</td>
<td>17.8</td>
<td>381.61</td>
</tr>
</tbody>
</table>

Source: http://www.safu.hr/datastore/filestore/10/Europski_fondovi_za_hrvatske_projekte.pdf
The data from Table 1 Help provided to Republic of Croatia by European Union in period between 1991 and 2000 (in millions of Euros) shows the amount of used financial funds from programmes ECHO and OBNOVA. In ten year period Croatia received the funds amounting 381.61 in millions of Euros. Programme ECHO was implemented in period between 1991 and 1995 while programme OBNOVA was implemented in the period between 1996 and 2000. In period between 2000 and 2004/2006 most important programme of European Union aid to Republic of Croatia was CARDS programme. Purpose and main objective of CARDS programme was to support the participation of Croatia in Stabilization and Association Process.

On 18th June 2004 European Commission awarded Croatia with candidate status thus giving Croatia access to three pre-accession programmes: PHARE, ISPA\(^1\), SAPARD. Access to pre-accession programmes enabled Croatia to implement all necessary reforms and to fulfil membership commitments appointed by European Union. The PHARE program was designed as assistance programme for national administration and institutions in implementation and harmonization of national legislation with the acquis communautaire and assistance in strengthening of social and economic cohesion.

ISPA program ensured the use of funds for the development of infrastructure projects in Croatia, especially in the field of transport and environment. The SAPARD program was solely intended for the development of agricultural and rural area of Croatia.

Programmes PHARE, ISPA and SAPARD were represented in the budget of the European Union until the end of the 2006, and in 2007 they were replaced with a one pre-accession fund IPA. The main objectives of the IPA pre-accession fund is assistance to candidate and potential candidate countries, including Croatia, in harmonization and implementation of the acquis communautaire and preparation for the use of the Cohesion Fund and Structural funds when full membership status acquired.

Republic of Croatia is also eligible applicant for Community programmes TEMPUS, LIFE etc. Within the EU programmes projects are being applied by sectors (transport, energy, environment, and research and development). In order

\(^1\)ISPA is pre-accession assistance program designed to prepare the candidate countries for membership. Intended to finance infrastructure projects in the field of transport and environment
to achieve EU community objective, and to ensure EU co-financing, it is necessary to realize a fusion of individual economic entities and institutions with assistance of relevant stakeholders or consortiums. Cross Border Cooperation Programme INTERREG, was also open to Croatia and within these initiatives it is active program with Italy. Also, within the INTERREG programs with Slovenia and Hungary are active. After becoming a full EU member Croatia will have access to the Structural Funds and the Cohesion Fund. The Structural Funds and the Cohesion Fund are instruments of regional policy of European Union and as such are intended to reduce the gap in the development of individual Member States and their regions and to establish social, economic and territorial cohesion.

2. IPA PROGRAMME

IPA programme (Instrument for Pre-accession Assistance) is unified EU pre-accession programme for Croatia for the 2007-2013. It is established by Council Regulation (EC) No. 1085/2006 and represents a continuation of first generation of EU funds: CARDS, PHARE, ISPA and SAPARD.

Main activities of IPA programme are included in following components:

• Component I - Transition Assistance and Institution Building (IPA-TAIB)
• Component II - Cross-border Cooperation (IPA-CBC)
• Component III - Regional Development – Transport, Environment, Regional Competitiveness (IPA-RD)
• Component IV - Human Resources Development (IPA-HRD)
• Component V - Rural Development (IPARD)
Table 2: Perennial indicative financial framework for IPA programme in Republic of Croatia between 2007 and 2012 (in millions of Euros)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Transition Assistance and Institution Building</td>
<td>49.61</td>
<td>45.37</td>
<td>45.60</td>
<td>39.48</td>
<td>39.96</td>
<td>40.87</td>
<td>260.89</td>
</tr>
<tr>
<td>II. Cross-border Cooperation</td>
<td>9.69</td>
<td>14.73</td>
<td>15.90</td>
<td>16.22</td>
<td>16.54</td>
<td>16.87</td>
<td>89.95</td>
</tr>
<tr>
<td>III. Regional Development</td>
<td>45.05</td>
<td>47.60</td>
<td>49.70</td>
<td>56.80</td>
<td>58.20</td>
<td>59.35</td>
<td>316.70</td>
</tr>
<tr>
<td>IV. Human Resources Development</td>
<td>11.38</td>
<td>12.70</td>
<td>14.20</td>
<td>15.70</td>
<td>16.00</td>
<td>16.04</td>
<td>86.02</td>
</tr>
<tr>
<td>V. Rural Development</td>
<td>25.50</td>
<td>25.60</td>
<td>25.80</td>
<td>26.00</td>
<td>26.50</td>
<td>27.27</td>
<td>156.67</td>
</tr>
<tr>
<td>Total:</td>
<td>141.23</td>
<td>146</td>
<td>151.20</td>
<td>154.20</td>
<td>157.20</td>
<td>160.40</td>
<td>910.23</td>
</tr>
</tbody>
</table>

Source: author processed and adjusted data available on: www.strategija.hr/lgs.axd?t=16&id=724

According to the data in Table 2 Perennial indicative financial framework for IPA programme in Republic of Croatia between 2007 and 2012 (in millions of Euros) it is visible that perennial indicative financial framework for IPA programme in Republic of Croatia between 2007 and 2012 amounted 910.23 in millions of Euros.

Financial allocations foreseen by IPA programme for 2013 for Republic of Croatia were 162.9 in millions of Euros, however Croatia will form 1st July 2013, as full member of European Union, have access to structural instruments (Structural and Cohesion funds). From total five components within the IPA programme, for components II, III, IV and V annual allocation of funds increased while component I, although allocating high sum of the funds, records decrease of annual allocated funds.

Chart 1 is showing Perennial indicative financial framework for IPA programme in Republic of Croatia between 2007 and 2012 (in millions of Euros).
Chart 1: Perennial indicative financial framework for IPA programme in Republic of Croatia between 2007 and 2012 (in millions of Euros)

<table>
<thead>
<tr>
<th>Component</th>
<th>Amount</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regional development</td>
<td>316.70</td>
<td>35%</td>
</tr>
<tr>
<td>Transition Assistance and Institution Building</td>
<td>260.89</td>
<td>29%</td>
</tr>
<tr>
<td>Cross border cooperation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Human resources development</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rural development</td>
<td>156.67</td>
<td>17%</td>
</tr>
<tr>
<td></td>
<td>86.02</td>
<td>9%</td>
</tr>
<tr>
<td></td>
<td>89.95</td>
<td>10%</td>
</tr>
</tbody>
</table>

Source: Author’s calculation based on data [www.strategija.hr/lgs.axd?t=16&id=724](http://www.strategija.hr/lgs.axd?t=16&id=724)

According to the data in graph 1, Perennial indicative financial framework for IPA programme in Republic of Croatia between 2007 and 2012 (in millions of Euros) it is visible that Component III Regional development has highest amount of allocated funds 316.70 in millions of Euros, Component Transition Assistance and Institution Building has 260.89 of allocated funds, Component V Rural Development has 156.67 in millions of Euros of allocated funds and Component IV Human resources Development has 86.02 in millions of Euros of allocated funds.

2.1 Analysis of the utilization of IPA pre-accession assistance programs

Within this research 184 respondents participated in analysis of utilisation of IPA pre-accession assistance programs. The questionnaire was gender balanced and included 97 female respondent (52.7%) and 87 male respondent (47.3%). The age range was from 24 to 64 years, and the average age of respondent was 41 years. By the level of education and qualification, the most of the respondents, 59.6% of them, had university education, 11.5% of respondents had polytechnics education, 7.7% had a secondary school, and 7.1% completed a master’s degree (mag.). Furthermore, 4.9% completed a postgraduate university degree in business administration (univ.spec.oec.), 4.4% had a master degree, 3.3% had a doctoral degree, and 1.6% had an academic title of baccalaureus.

On the preceding sample survey was conducted on whether the 2007 to present successfully implemented at least one project under IPA assistance. The research results are presented in the Table 3. Result of HI-square test shows that there is no
significant differences between respondents from different counties regarding to the realisation of projects within IPA assistance programme. Percentage of participants carrying out at least one project vary from 64.3% (Bjelovarsko-bilogorska County) to 88.9% (Karlovačka County).

Table 3: Did you participate in the process of application and implementation of IPA assistance projects between 2007 and today – frequency and percentage of respondents from various counties

<table>
<thead>
<tr>
<th>County</th>
<th>Implemented at least one project under IPA assistance programme since 2007?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>County</td>
<td></td>
</tr>
<tr>
<td>Bjelovarsko-bilogorska County</td>
<td>5</td>
</tr>
<tr>
<td>Brodsko-posavska County</td>
<td>1</td>
</tr>
<tr>
<td>Karlovačka county</td>
<td>1</td>
</tr>
<tr>
<td>Osječko-baranjska County</td>
<td>8</td>
</tr>
<tr>
<td>Požeško-slavonska County</td>
<td>5</td>
</tr>
<tr>
<td>Sisačko-moslavačka County</td>
<td>1</td>
</tr>
<tr>
<td>Virovitičko-podravska County</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>27</td>
</tr>
</tbody>
</table>

Hi-square test

<table>
<thead>
<tr>
<th></th>
<th>(\chi^2)</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5.150</td>
<td>7</td>
<td>.642</td>
</tr>
</tbody>
</table>

Symbols denote as follows: f – frequency; \(\chi^2\) - hi-square test; df - degrees of freedom; p - statistical significance

In addition to the previous survey the authors have had explored how their subjects participated in the application and implementation of the IPA assistance projects. The research results are presented in Table 4. The results of Hi-square test show that there are differences in educational level of respondents who participated in the application and implementation of IPA assistance projects. For example, 66.7% of respondents with higher education said they were preparing the projects, indicating that subjects with this level of education had the least experience with the application of projects. Most experience in application of IPA projects had the respondents with completed master’s degree or doctorate. 97.2% of respondents with master’s degree or doctorate had already participated in preparation of IPA assistance projects. Nearly 80% of the respondents with high school degree and university degree said they were participating in preparation of project (high school
degree 78.6% and university degree 78.9%). According to the results, all the coun-
ties do not apply and participate in preparation and implementation of projects in
same level.

**Table 4: Did you participate in the application and implementation of IPA assis-
tance projects – according to the education level**

<table>
<thead>
<tr>
<th>Level of education</th>
<th>No experience</th>
<th>We prepared projects so far</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Secondary school diploma</td>
<td>3</td>
<td>11</td>
<td>14</td>
</tr>
<tr>
<td>Polytechnics / Baccalaureus</td>
<td>8</td>
<td>16</td>
<td>24</td>
</tr>
<tr>
<td>University diploma</td>
<td>23</td>
<td>86</td>
<td>109</td>
</tr>
<tr>
<td>Masters / Doctorate</td>
<td>1</td>
<td>35</td>
<td>36</td>
</tr>
<tr>
<td>Total</td>
<td>35</td>
<td>148</td>
<td>183</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Hi-square test</th>
<th>$\chi^2$</th>
<th>df</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>9.675</td>
<td>3</td>
<td>.022</td>
</tr>
</tbody>
</table>

Symbols denote as follows: f – frequency; $\chi^2$ - hi-square test; df - degrees of freedom; p - statistical significance

### 2.2 Obstacles when applying and implementing projects

When comparing the arithmetic value of certain statements relating to esti-
mated obstacles when applying and implementing projects, it can be seen that the
respondents on average agreed that there are problems with pre-financing of IPA
projects ($M = 3.89$), application and implementation procedure is too complicated
($M = 3.87$), and that organisations do not have sufficient and adequate stuff re-
sources for application, technical implementation and evaluation of projects ($M = 3.69$), and finally there is a problem with co-financing ($M = 3.67$). Somewhat less
visible problems are related to the language barrier ($M = 3.27$), undefined strategic
priorities at the local level ($M = 3.15$), and the problem in a number of high-quality
sub-contractors ($M = 2.99$). According to the average responses, it can be seen that
respondents neither agree nor disagree with stated problems.
Table 5: Descriptive statistics and percentage in estimated obstacles when applying and implementing projects

<table>
<thead>
<tr>
<th>Obstacle</th>
<th>M</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Problems with pre-financing</td>
<td>3.89</td>
<td>1.165</td>
<td>5.0</td>
<td>8.3</td>
<td>18.3</td>
<td>28.9</td>
<td>39.4</td>
</tr>
<tr>
<td>Application and implementation procedure is complicated</td>
<td>3.87</td>
<td>0.994</td>
<td>1.6</td>
<td>9.3</td>
<td>18.7</td>
<td>41.2</td>
<td>29.1</td>
</tr>
<tr>
<td>My organisation does not have sufficient and adequate stuff resources</td>
<td>3.69</td>
<td>1.255</td>
<td>6.6</td>
<td>14.8</td>
<td>14.8</td>
<td>30.6</td>
<td>33.3</td>
</tr>
<tr>
<td>for application, technical implementation and evaluation of projects</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Problems with co-financing</td>
<td>3.67</td>
<td>1.25</td>
<td>6.1</td>
<td>15.0</td>
<td>17.8</td>
<td>27.8</td>
<td>33.3</td>
</tr>
<tr>
<td>Language barriers</td>
<td>3.27</td>
<td>1.228</td>
<td>9.6</td>
<td>23.5</td>
<td>27.4</td>
<td>40.2</td>
<td>25.1</td>
</tr>
<tr>
<td>Undefined strategic priorities on local level</td>
<td>3.15</td>
<td>1.228</td>
<td>9.6</td>
<td>23.5</td>
<td>27.4</td>
<td>40.2</td>
<td>25.1</td>
</tr>
<tr>
<td>Problem with high quality sub-contractors</td>
<td>2.99</td>
<td>0.969</td>
<td>6.1</td>
<td>23.5</td>
<td>40.2</td>
<td>25.1</td>
<td>5.0</td>
</tr>
<tr>
<td>Project documentation was not prepared on time</td>
<td>2.57</td>
<td>1.219</td>
<td>23.2</td>
<td>28.2</td>
<td>23.7</td>
<td>18.1</td>
<td>6.8</td>
</tr>
<tr>
<td>Insufficient motivation of project manager/project team members</td>
<td>2.53</td>
<td>1.228</td>
<td>25.1</td>
<td>27.4</td>
<td>24.6</td>
<td>15.6</td>
<td>7.3</td>
</tr>
<tr>
<td>No obstacles found and funds were utilized maximum</td>
<td>2.53</td>
<td>1.037</td>
<td>17.9</td>
<td>31.2</td>
<td>33.5</td>
<td>14.5</td>
<td>2.9</td>
</tr>
</tbody>
</table>

Symbols denote as follows: M - arithmetic average; SD - standard deviation; 1 - fully disagree; 2 – disagree; 3 - neither agree nor disagree; 4 – agree; 5 - fully agree.

Even less clear is for the statement “Project documentation was not prepared on time” (M = 2.57), and “Insufficient motivation of project manager/project team members” (M = 2.53), with the responses almost on the border between the responses “disagree” and “neither agree nor disagree”. In this area there are also responses to the statement, “No obstacles found and funds were utilized by maximum” (M = 2.53).

Table 6: Descriptive statistics and percentage for question: „Considering upcoming EU full membership and possibility of application on Structure and Cohesion funds, do you have enough knowledge on the potential application for future projects?”

<table>
<thead>
<tr>
<th>Question</th>
<th>M</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you have enough knowledge on the potential application for future projects</td>
<td>3.10</td>
<td>1.132</td>
<td>12.0</td>
<td>13.7</td>
<td>35.5</td>
<td>29.5</td>
<td>9.3</td>
</tr>
</tbody>
</table>

Symbols denote as follows: 1 - I do not have enough knowledge; 5 - I do have enough knowledge; M - arithmetic value; SD - standard deviation.
On average, respondents think that neither have nor they have enough knowledge about the possibilities of applying for future projects. In terms of percentages, 40% of respondents believe that there is sufficient knowledge, 35% of them in the middle, and about 25% were considered to have insufficient knowledge about such possibilities.

**Table 7:** Frequencies and percentages of responses to the question, “Given the recent Croatian accession to the EU and the possibility of using Structural and Cohesion funds, does your organization have the project drafts in the preparatory phase?”

<table>
<thead>
<tr>
<th>Answer</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does your organization have the project drafts in the preparatory phase for future Structural Funds and Cohesion Fund EU</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>89</td>
<td>48.9</td>
</tr>
<tr>
<td>No</td>
<td>93</td>
<td>51.1</td>
</tr>
<tr>
<td>Total</td>
<td>182</td>
<td>100</td>
</tr>
</tbody>
</table>

A little more than half of respondents (51.1%) responded that their organization does not have project drafts in the preparatory phase for the possibility of using the Structural Funds and the Cohesion Fund.

**3. Conclusion**

Given the number of inhabitants, the space coverage, GDP, employment rate, level of education, infrastructure and the small and medium enterprises it can be stated that Central and Eastern (Pannonian) Croatia has smallest number of inhabitants or 28.78% of the total population of the Croatian and its share in gross domestic product per capita in the 2008 was 7,780 euros of GDP per capita. In addition, the highest number of unemployed in January 2012 was registered in Central and Eastern (Pannonian) Croatia with 135.37 thousand unemployed people. Also this region has the most unfavourable educational structure of employees in relation to the Croatian average.

In this report we analysed the degree of utilization of IPA assistance, on the area of the former Pannonian Croatian, according to gender, age, work experience, education level, county and organizational structure of the institution. According to the HI-square test, respondents from different counties show no statistically significant difference in realization of IPA assistance projects from 2007 until today and percentage of respondents that implemented at least one project range from 64.3% (in Bjelovar-Bilogora County) to 88.9% (in Karlovac County). However, HI-square test shows the difference in education level in implementation and ap-
plication to IPA projects. For example, 66.7% respondent with polytechnics education stated that they have participated in application of projects, which shows that respondent with that education level have minimum experience in application of IPA projects. Most of experience in application of IPA projects have 97.2% respondents with masters and doctorate level of education. Respondents with high school degree or university degree had experience in preparation of IPA projects (high school degree 78.6% and 78.9% of university degree). Also, the authors of this study analysed the assessment of barriers when applying and implementing projects. According to the analysed results it is visible that average respondents agree that there is a problem with pre-financing of IPA projects (M = 3.89), application and implementation procedure is to complicated (M = 3.87), and that organisations do not have sufficient and adequate stuff resources for application, technical implementation and evaluation of projects (M = 3.69), and finally there is a problem with co-financing (M = 3.67). Somewhat less visible problems are related to the language barrier (M = 3.27), undefined strategic priorities at the local level (M = 3.15), and the problem in a number of high-quality sub-contractors (M = 2.99). The crucial problem is also lack of knowledge about the possibilities of applying for future projects. In terms of percentages, 40% of respondents believe that they have enough knowledge, about 35% are in the middle, and about 25% were considered to have insufficient knowledge about such possibilities. Also, half of the respondents (51.1%) said that their organization do not have any projects in preparatory phase for the possibility of using Structural funds and the Cohesion Fund.

Having in mind that the Republic of Croatia is on 1st July 2013 becoming full member of European Union, and by full membership Croatia will in the first half of the 2013 be entitled to 655 million euro through structural instruments the question is does Republic of Croatia have really the capacity to fully exploit these resources.

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http://www.strategija.hr/lgs.axd?t=16&id=724; Pristup: (12-2-2013)
REAL OR DECLARATIVE READINESS OF STAKEHOLDERS FOR EUROPEAN UNION FUNDS?

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Abstract

In the moment when approaching of Republic of Croatia to the European Union is pretty obvious, stakeholders on various levels, in the counties, towns, municipalities and stakeholders from various spheres of socio-economic life, are putting attention on necessity of use of the EU funds. Regarding to that fact, there is logical question, is this orientation on EU funds and EU projects only verbal and declarative, or it is supported and followed by needed capacities or readiness to build this capacities? Currently available data on funds that will be on disposal for Croatia by the end of 2013, tell us that there will be so huge amount of funds, that it will be real challenge to use most of that funds. On the other side, related to regional development which is conducting through the EU funds, we have paradox situation, that the counties of ex NUTS II Pannonia region have biggest need for regional and other development, because they are less developed, at the same time for reaching of that biggest development they need the largest and highest capacity, which they surely don’t have. Just opposite, according to their macroeconomic indicators they have smallest capacity among the other NUT II regions, at least the financial ones. While other types of stakeholder’s absorption capacity of can be building over time, it generally does not apply to financial capacity, at least for those stakeholders who do not have the aim and function of the accomplishing and maximizing profit, while they have a different role in the socio-economic environment. However that is just one of the challenges faced by stakeholders in the field, at the moment of planning to prepare projects for EU funds or when they develop their project ideas. In this paper will be presented some results of the research that was conducted through a survey among the stakeholders in the ex Pannonia region,
with aim to analyse challenges that they face in the process before and during the development of their project ideas or their projects for applying on EU funds

JEL Classification: R11, R51, R58

Keywords: Absorption capacity, EU funds, stakeholder, regional development, project

Introduction

The fact that Croatia is surely approaching to full membership of European Union, means that huge Cohesion and Structural funds will be on disposal for Croatian stakeholders. Most of stakeholders are in huge need for funds; nevertheless, many of them believe that the funds could help them to improve their financial situation, to overcome a current illiquidity, to give an injection to their daily business etc. However, the level of needs does not have to be the same as the level of possibilities, just opposite, the needs and wishes are in the most cases followed with insufficient capacities to get an EU funding, or especially to manage and operate with those funds. When we talk about huge funds that full EU membership brings, the situation is much more pessimistic. European development assistance has continued to rise in recent years. The EU is the world’s largest provider of development assistance (Hoebink; 2010; 13).

In order to get an EU support from certain EU fund, it is necessary to have certain capacities: administrative and financial. These capacities in the most usually have to be precisely define in project application form, beside that, there have to present some experience in conducting of an EU projects. This experience is not necessary precondition, but since there is huge competition for an EU funds, each criteria can be crucial.

Existing own financial sources of local and regional government units are not sufficient for completing of financial construction of their capital and infrastructure projects. Therefore, there is a necessary for municipalities, towns, and counties to find new sources of funding. A possible solution comes from public-private partnerships, borrowing, including municipal bonds, grants from state budget and the pre-accession funds. Through detailed introducing of all the instruments of the European Union for regional development of member and candidate countries, so as their government units on local and regional level, it is perceived that there exists an opportunity for development, as well as resources. The problem occurs in the
countries themselves when they are applying for EU funds. Borrowing at local and regional governments can be in the form of loans or they can issue loan stock, so called municipal bonds. A restraint on the use of external resources is the fact that the annual loan instalment should not be more than 20% of the revenues of the local or regional government has made in the previous year. Additionally, the debt of all local and regional governments must not be more than 20% of all revenues generated by government units in the previous year. That gap between the needs of self-government and resources on disposal is only one among few reasons for the need of funds that offer pre-accession funds of the European Union. In addition, public-private partnership is also one of the ways in which local and regional governments can obtain funds for the execution of capital projects (Frajman Jakšić; 2007; 4).

Public private partnership as a partnership engagement that could be a tool for realising a concrete capital projects in the Republic of Croatia is very rare used in praxis. On the other side, public private partnership is part of common and usual language of many decision makers and politicians, but only in plans, not in concrete projects that are realizing or already realized on the field. In general, this kind of partnership have to be used more, but it is not receipt for each project that is wanted to be done by local or regional authorities - just opposite, this is only one of possible solution that could be used for finalization of the projects. Which scenario will be used in concrete project, loan, European Union fund, public private partnership or any other scenario, have to be decided based on cost-benefit analysis, on feasibility studies, on communication with relevant experts etc. This taking into consideration of various scenarios has to be usual and universal approach in small so as in huge projects, no matter whether they cost few thousands or few millions of Euros.

When we talk about comparing of various scenarios, there have to mentioned that some behavioural economists believe that is in human nature to compare things, especially those which are easy to compare, and avoiding to compare those which are hard to compare (Ariely; 2008; 28).

1. Funds on disposal

Talking about funds that were available to stakeholders in Croatia among the pre-accession period, the in the first phase the most important were CARDS, PHARE, ISPA, SAPARD. In Table 1 is shown financial overview of CARDS, PHARE, ISPA
and SAPARD funds, that were available to the stakeholders in the Republic of Croatia. Table 1 shows financial data about funds that were on disposal, so as data about received funds in pre-accession period in Croatia.

Table 1 Financial overview of pre-accession programmes CARDS, PHARE, ISPA, SAPARD (in millions of EUR)

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</thead>
<tbody>
<tr>
<td>Allocated funds</td>
<td>29.37</td>
<td>46.57</td>
<td>69.52</td>
<td>60.47</td>
<td>59.00</td>
<td>25.00</td>
<td>289.93</td>
<td></td>
<td></td>
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<tr>
<td>Contracted funds</td>
<td>28.69</td>
<td>46.06</td>
<td>60.42</td>
<td>51.21</td>
<td>56.50</td>
<td>15.42</td>
<td>256.30</td>
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</tr>
<tr>
<td>Contracted/Allocated funds</td>
<td>96.78%</td>
<td>94.61%</td>
<td>86.90%</td>
<td>84.69%</td>
<td>95.76%</td>
<td>61.70%</td>
<td>88.40%</td>
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</tr>
<tr>
<td>Received EU funds</td>
<td>26.69</td>
<td>43.61</td>
<td>59.33</td>
<td>50.31</td>
<td>37.74</td>
<td>13.52</td>
<td>231.19</td>
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<tr>
<td>Payed to final beneficiaries</td>
<td>27.25</td>
<td>41.47</td>
<td>55.01</td>
<td>45.20</td>
<td>37.43</td>
<td>11.63</td>
<td>218.00</td>
<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>Payed/Contracted</td>
<td>95.00%</td>
<td>94.12%</td>
<td>91.05%</td>
<td>88.26%</td>
<td>66.25%</td>
<td>75.43%</td>
<td>85.50%</td>
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</table>

Source: Ministry of finance (2011; 9)

As you can see according the figures in table 1, Croatia was relatively successful in attracting the EU funds, with 85.50% in average. In any case, those were the early years in using of EU funds, and we can perceive them as a good school for the period that is coming afterwards. In table 2 are shown data about IPA fund, in which all the partial EU funds become unique fund of IPA.

Table 2 Financial overview of the Instrument for Pre-Accession Assistance-IPA, component I, on 31st December 2011 (in millions of EUR)

<table>
<thead>
<tr>
<th></th>
<th>IPA I 2007</th>
<th>IPA I 2008</th>
<th>IPA I 2009</th>
<th>IPA I 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allocated funds</td>
<td>44.54</td>
<td>41.37</td>
<td>42.10</td>
<td>38.62</td>
</tr>
<tr>
<td>Contracted funds</td>
<td>41.42</td>
<td>35.18</td>
<td>14.88</td>
<td>10.44</td>
</tr>
<tr>
<td>Contracted/Allocated funds</td>
<td>92.98%</td>
<td>85.04%</td>
<td>35.36%</td>
<td>27.04%</td>
</tr>
<tr>
<td>Received EU funds</td>
<td>39.35</td>
<td>28.53</td>
<td>16.14</td>
<td>10.52</td>
</tr>
<tr>
<td>Payed to final beneficiaries</td>
<td>30.47</td>
<td>17.62</td>
<td>8.00</td>
<td>9.80</td>
</tr>
<tr>
<td>Payed/Contracted</td>
<td>72.56%</td>
<td>50.08%</td>
<td>53.75%</td>
<td>93.87%</td>
</tr>
</tbody>
</table>

Source: Ministry of finance (2011; 11)

IPA is divided or contains five components: support for transition and institution building, cross-border cooperation, regional development, human resources
development and rural development. Data in table 2 shows that there is huge variation in attracting EU funds in component “support for transition and institution-building”. Years 2008 and 2009 cannot be perceived as successful, because with only 50% of used funds. Table 3 shows other components:

Table 3 Financial overview of the Instrument for Pre-Accession Assistance-IPA, components II-V on 31st December 2011 (in millions of EUR)

<table>
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<tbody>
<tr>
<td>Allocated funds</td>
<td>5,36</td>
<td>2,7</td>
<td>257,35</td>
<td>69,97</td>
<td>129,40</td>
</tr>
<tr>
<td>Contracted funds</td>
<td>4,99</td>
<td>0,47</td>
<td>90,79</td>
<td>34,56</td>
<td>19,88</td>
</tr>
<tr>
<td>Contracted/Allocated</td>
<td>93,25%</td>
<td>17,11%</td>
<td>35,28%</td>
<td>49,39%</td>
<td>15,37%</td>
</tr>
<tr>
<td>Received EU funds</td>
<td>4,60</td>
<td>0,70</td>
<td>63,22</td>
<td>22,23</td>
<td>24,96</td>
</tr>
<tr>
<td>Paid to final beneficiaries</td>
<td>3,10</td>
<td>0,28</td>
<td>30,45</td>
<td>24,95</td>
<td>2,28</td>
</tr>
<tr>
<td>Payed/Contracted</td>
<td>62,11%</td>
<td>59,71%</td>
<td>33,54%</td>
<td>72,19%</td>
<td>11,50%</td>
</tr>
</tbody>
</table>

Source: Ministry of finance (2011; 11)

Data in the table show that the programs are being used mainly in the level of 85% and more. But what is worrying, is the use of the SAPARD program in the amount of 60%, which is really quite remarkable and important, especially for rural regions and for some groups of stakeholders existing in such regions. We know that the SAPARD program, which is intended mainly the development of Croatian rural areas and, as such, was the forerunner of the IPARD program. On the other side, IPARD has similar characteristics, and recorded insufficient use of funds.

In any case, it is quite likely that the Croatian accession to full membership of the EU brings much higher amounts available funds, but also requires much more available absorption resources on disposal. What has been in the pre-accession period can be considered as a kind of preparation for the funds that are coming. For illustration, only in 2013 for various projects in Croatia, stakeholders can attract 687,5 millions of Euros (MFAEI, 2011). Various sources have been identified as explanations for the different growth experiences of countries (Grabowski; 2007; 3).

2. The attitude of potential EU funds users - research and results

In this part of paper will be presented the results of research that have been conducted in the region of Eastern (Pannonian) Croatia in 2012, and which actually aims to define the position of stakeholders in the region, but also the region as a
whole, in relation to the potential of EU funds. Position of stakeholders is largely determined by their absorption capacities, which are on the other side defined according to macroeconomic indicators of the country, according their financial strength and their management and administrative capacities. In addition, purpose of local development is to build the capacity of a defined territory, often a municipality, or region, to improve its economic future and the quality of life for inhabitants (Clark; 2010; 22).

The attitude of stakeholders about their own capacities, the possibilities of using the funds to finance their own project ideas, so as their general attitude about the whole system of attracting and use of EU funds, definitely affects the position of the stakeholders in relation to the funds. What are the real position of stakeholders and the position of the region as a whole, and even some other relevant questions got the answers in this research. The research was conducted in the phase of preparation of doctoral thesis named “New approach in management of capacities for attracting the EU funds: Concept of intelligent region Pannonia Croatia”. The research was conducted with survey technique, on example of 128 examinees, which are representatives of various groups of potential EU funds. In the next graphs are presented some attitudes of examinee, as a result of research, in which 1 means- not agree at all, 2-partially disagree, 3-no agree nor disagree, 4-partially agree, 5- fully agree.

In graph 1 is presented attitude on investing in education of own stuff.

**Graph 1 Invest more in education of own stuff**

![Invest more in education of own stuff](source: Own research (2012))
81% of examinees believe or mostly believe that it is good to invest in education of own stuff for activities related to attracting and implementing an EU funds. Only 5% believe that it is not necessary to invest in education of own stuff in that sense. It is easy to conclude that is general attitude that investment in education for preparation and implementation of EU projects has sense, we can even that it has perspective. In graph 2 presents attitude on preparation of projects.

**Graph 2 Prepare as much projects as possible**

![Graph 2](image)

Source: Own research (2012)

81% of examinees believe or mostly believe that is important to prepare projects for applying to the EU funds. Only 4% do not believe that is important to prepare many projects. According to that, the general attitude is that EU funds are perceived as a good possibility to get additional source of financial assets, and the sceptic, doubtful attitude for EU funds is minor, which is a good sign in a sense of approaching to the EU, and its huge Cohesion and structural funds. In graph 3 is presented attitude on applying on various open calls for project proposals.
Graph 3 Applying on as much as possible open calls for proposals

Source: Own research (2012)

45% of examinees believe that it is important to apply on open calls for proposals, 30% mostly agree that it is important. This is in general good attitude, in sense of getting and using an EU funds, but on the other hands tell us, that there is not much tactics in applying for funds. The open question is, whether is better to apply on each call for proposal or only on chosen one? Naturally, taking into consideration, limited absorption capacities. Graph 4 presents the attitude about improvement of planning in EU projects.

Graph 4 Improve their planning in EU projects preparations

Source: Own research (2012)
Encouraging fact is that 52% of examines thinks that they have to improve their planning in EU projects. Namely, planning and having a strategy in approaching to the EU funds is very important, especially in conditions of limited absorption capacities. Limited capacities in this sense are characteristics of many or the most of the stakeholders.

3. Conclusion

Developed areas are generally in position to launch more funds, in a more efficient way, to have better equipped teams to prepare and implement projects. They are in a position that disposes with larger budgets for funding the project. However, in terms of planning, or making good or less good development strategy, they are in the same situation as poorer regions. Because the quality of planning is not based on how rich a municipality, city or region, it is more dependent on the degree of engagement of representatives of various interest groups in society: from business sector, NGOs, farmers and all other members or representatives of the society. Therefore, clearly, stakeholders should realize that development, so as good project ideas, are not only depending on money, and simple cannot be bought with money. The management and real readiness to learn, think, and operate strategically is much more important than money.

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CULTURE AND/OR DEVELOPMENT? MANAGING OF URBAN AND REGIONAL INFRASTRUCTURE PROJECTS IN THE EUROPEAN CAPITAL OF CULTURE PROGRAMME

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Abstract

Since 2005 the budgets of European Capital of Culture programme has been significantly focused on large infrastructure projects in the title holder cities, that is, in the area of narrower or wider region. This trend of increasing infrastructure spending (particularly in Western Europe) has been followed by the tendency of assigning titles to midsize and smaller cities - from an average of 1.5 million people per host city in the first decade of the project to approximately 200,000 inhabitants per host city in period until 2012. However, some host cities faced a delay in the execution of infrastructure projects, while some projects were cancelled due to reduced cultural budget - all that as a result of the global economic crisis. Despite financial difficulties in the host cities, European Capital of Culture programme continues – in 2013 one of the two ECoC hosts is the French City of Marseille, in partnership with the region of Provence, with structural projects reaching EURO 660 million despite financial crisis. In 2020 Croatian cities have an opportunity to participate in the programme of the European Capital of Culture for the first time. This will also mean an opportunity to complete urban transformation of the designated city. Infrastructure projects will certainly be of great importance in the selection of the first Croatian ECoC. This paper provides an overview of the infrastructure dimension of ECoC programme, and it tries to predict the ECoC trends, with a particular focus on Croatia and Eastern Europe.

JEL Classification: M14, Z11

Keywords: European Capital of Culture (ECoC), infrastructure, cultural infrastructure, structural projects, urban development, regional development, Republic of Croatia
1. Introduction

From the very beginning of the project, in 1985, European Capital of Culture (previously European City of Culture) has greatly evolved. The programme that was conceived as a new model to join different European cultures emphasizing their similarity within their differences has developed into a model of new urban (and regional) development. The programme, that is, operative costs have increased through the project development, and also the trend of more intensive infrastructure investment arose in the meantime.

1.1. Budget trends in European Capital of Culture

Providing stable source of financing is imposed as one of key priorities in planning of candidature for European Capital of Culture. If the cultural programme will be in focus, or the major part of financing will be spent on long-term and visible impacts on the city, depends on each city (or region), as well as on their financial strength. Historically, certain budget trends of ECoC can be determined. Budget development in ECoC programme can be divided in three periods (Palmer & Richards; 2007:23):

- 1985 – 1994 – Early development phase of the event, in which most of Capitals of Culture were seen as prolonged cultural festivals. Most of the host cities were the capitals that had already had important cultural infrastructure.

- 1995 – 2004 – Consolidation of ECoC as an important strength in cultural and economic development in the host city. Majority of the cities were ‘second cities’ that understood the event as an opportunity to develop their cultural offer and international profit. More attention was paid to infrastructure projects and attraction of tourists.

- Since 2005 so far – increased spending in infrastructure has been obvious, and in most cases capital budgets strongly surpass operational costs. Although Western European cities regularly have higher operational budgets for events, the cities in new member countries could refer to newly available structural funds for capital budget increase, with the aim to rebuilt their cultural infrastructure.
Despite the global economy crisis, in some European Capitals of Culture trend of high infrastructure investment continues. But, some European Capitals of Culture will have to correct their projects in the future and accept less ambitious ones.

2. Capital spending in European Capitals of Culture

Capital expenditure related to European Capitals of Culture generally can be divided according to the following categories (Palmer/Rae; 2004a:96):

- new acquisition and investment into the Capital of Culture include: museums, galleries, theatres, concert halls, art centers etc.
- urban revitalization: renovation of squares, parks, streets: tree planting, development of public area, lighting etc.
- infrastructure: investment into underground, railway stations, ports, roads etc.

Investment into infrastructure projects certainly means immediate effect on development of local and regional civil engineering as well as supporting sectors. Data about capital investment in period up to 2011 are sometimes really impressive. From Copenhagen in 1996 (EURO 219 million), Salonika in 1997 (232 mil.) and Weimar (220 mil.), than Brussels in 2000 (82 mil.), Port in 2001 (168.5 mil.), Geneva in 2004 (200 mil.), and Patras in 2006 (100 mil.) we come to the year 2008 in which two holders of European Capital of Culture title allocated nearly EURO 1.3 billion for cultural investment only (Liverpool 984 million and Stavanger 293 million). Than a successful 2009 follows (Linz 300 and Vilnius 442 mil.), than Pecs in 2010 (141 mil.) and Turku in 2011 (145 mil.). (Richards&Palmer; 2010:207-208)

2.1. Pecs in 2010 – successful urban development through ECoC infrastructure

Pecs as European Capital of Culture in 2010 (with Ruhr and Istanbul) is known as the first big ECoC infrastructural development project in a new European Union member. There are some key projects:

1. Pecs conference and concert center;
2. Zsolnay cultural square;
3. Reconstruction of Museum Street;
4. Regional Library and knowledge Center in South Zadunavlje;
5. Revival of public areas and parks.

(Key Projects; http://www.pecs2010.hu/Home/Beruhazasok; access: 30.03.2010.)
At the beginning of 2010 all those projects were not completely finished, but still they were successfully realized later. Implementation of European Capital of Culture project in Pecs in 2010 requires investment in amount of EURO 201,250,000. Pecs 2010 financial sources are seen in the following Table.

**Table 1: Pecs 2010 project financial sources**

<table>
<thead>
<tr>
<th>Financial source</th>
<th>Amount (EURO)</th>
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<tbody>
<tr>
<td>Own funds of Pecs (including contribution of Republic of Hungary)</td>
<td>62,250,000</td>
</tr>
<tr>
<td>European Investment Bank loan given to Pecs</td>
<td>39,000,000</td>
</tr>
<tr>
<td>European Investment Bank loan given to Ministry of Finance</td>
<td>11,000,000</td>
</tr>
<tr>
<td>EU Subventions</td>
<td>89,000,000</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>201,250,000</strong></td>
</tr>
</tbody>
</table>

Source: Palmer & Richards; 2009: 21

European funds were implemented in infrastructure dimension of Pecs in 2010, and that makes it successful example. Capital projects were significant part of total invested funds allocated to Pecs in 2010. That certainly proves the trend that European Capital of Culture project is used as a driving-wheel in cultural and urban development and change of urban landscape.

**Table 2: Budget of Pecs in 2010 for cultural and supporting infrastructure**

<table>
<thead>
<tr>
<th>Project</th>
<th>Expenditure (EURO)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conference and concert center in Pecs</td>
<td>31,600,000</td>
</tr>
<tr>
<td>Zsolnay cultural square</td>
<td>43,600,000</td>
</tr>
<tr>
<td>Revitalization of public squares and parks</td>
<td>29,600,000</td>
</tr>
<tr>
<td>Regional library and knowledge center in South Zadunavlje</td>
<td>19,600,000</td>
</tr>
<tr>
<td>Big exhibition area</td>
<td>14,000,000</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>138,400,000</strong></td>
</tr>
</tbody>
</table>

Source: Palmer & Richards; 2009: 22
The example of Pecs 2010 presents a good model for cities in Republic of Croatia (membership of EU from 1st July 2013, ECoC in 2020), and also for the future EU member countries (and candidate countries) in Southeast Europe.

2.2. **Marseilles and Provence 2013 (MP2013) and establishment of new capital standards**

The year 2012, in infrastructure (capital) sense was not as successful as it had been expected. Slovenian City of Maribor forecasted the investment of EURO 143 million in capital ECoC investment a few years before the project, but the world economic crisis followed by political crisis in Slovenia (protests against actual prime-minister J. Janša), political crisis in the city (sometimes even violent protests against the major of Maribor), together with simultaneous cultural crisis on national level (suspension of Ministry of Culture and allocation of the department to the Ministry of Education, Science and Sport) – will certainly have negative impact on complete success of Maribor 2012 in the project evaluation. But just in 2013, the trend continues in Marseilles and Provence 2013 project (MP2013). The amount of EURO 660 million invested into structural projects seems extravagant in the period when majority of European countries highly reduce budgets in their Ministries of Culture. In the City of Marseilles itself, the coastal, that is, port part, that in the length of 1.5 kilometers includes museum of European and Mediterranean Civilizations (MuCEM), Villa Méditerranée, FRAC (Regional Contemporary Art Fund), Musée Regards de Provence, J1, Théâtre de la Minoterie i Silo have been renewed, as well as a number of other projects.

At the same time, other participants in the project from Provence, among the other things, enrich their cultural infrastructure with the following: Music Conservatorium and some other projects (Aix-en-Provence), enlargement of Museum of Arles Antiquities (Arles), Eden Theatre (La Ciotat) and a number of other minor capital investments.


Funding model of this ambitious mega-event in the south of France is unique, and it includes local and regional authorities, state budget, as well as private partners.
2.3. Why is it important to make further investment in culture?

In recent years investments in culture have been persistently reduced, but Creative Europe Programme, that comes into force in 2014, when the EU Programme Culture 2007-2013 finished, anticipates higher funds for cultural and creative sector. Creative Europe follows the general European development programme Europa 2020, and it emphasizes the following key contributions to cultural and creative sector (Creative Europe; available at: http://ec.europa.eu/culture/creative-europe/index_en.htm; access: 16.02.2013.):

- more funds for artists and cultural workers to develop their skills and provide cross-border work;
- more funds for transnational cultural activities within and out of EU;
- supports adjusted to specific needs of audio-visual and cultural sector in EU;
- easier access to private funds through guaranties that could generate loans in amount of more than EURO 1 million;
- increase of banking expertise in cultural and creative activities;
- development of European competency in culture and film together with preservation of cultural and linguistic diversity.

Some authors emphasize necessity to invest in cultural sector, especially in the times of crisis. Kern (2010) points out why European Union should allocate funds to culture, that is, to sector of cultural and creative industries:

1. European integration and mutual understanding cannot exist without cultural dialogue. (…)
2. There is a lack of spiritual and emotive dimension within Europe. Culture and art are powerful ways to create opinion and mutual European values. (…)
3. Economy of culture presents 3 percent of European GDP – that is more than automobile production
4. Economy of culture means 6 million working places and it is one of few sectors in which employment increases. (…)
5. Culture is a promoter of new technological development (broadband, smartphone…) and it contributes to relevance (and success) of technology (…)
6. Art and culture are key tools in development of social cohesion and improvement of public services (health care, security, education).
7. European cities are the most attractive in the world because of their cultural institutions and creative environment.

8. Subsidy is false excuse for absence of EU action. All important regulations related to economy of art and cultural industry are made in Brussels (…)

9. Creativity based on culture makes economy and industry more competitive (…)

10. (…) European mission is to maintain diversity in the terms of globalization.

11. (…) With mix of public/private investment/-regulative, Europe is an example of management of cultural polices.

12. Europe desperately needs branding strategy to become ‘Creative Europe’ instead of ‘Old Europe’.

13. Art in education is a key that stimulates creativity and innovations.

14. Europe has some of the best artists, designers, architects, advertisers and cultural/creative industries in the world.

15. (…) Without culture Europe cannot have a society led by imagination, solidarity, participation and poetry.


Infrastructure consumption in ECoC cities still decreases (with the exemption of extravagant MP2013 project), causes for which can be found in a lot of reasons, that is, in combination of them all:

- reduced investment in cultural sector by state budgets (due to global economic crisis and related individual economy crisis within the countries);

- combination of political and economic crisis in European Union also becomes crisis of European identity, which leads to lower faith into European cultural programmes and projects;

- unjustifiability of big infrastructural investments – overcoming of the concept of infrastructure heritage and transition to concept of infrastructure burden (after a project, there are some facilities that do not have neither economic, cultural nor social legitimacy in the city);
establishment of the new trend, with higher orientation to cultural programmes and involvement of community, and less focus on capital investment.

In the early stages, Umea 2014 (Sweden) was announced as one of ECoC projects with exceptional cultural infrastructure investments (up to EURO 690 million), but, in the meantime, ECoC programme itself was put into the focus. The cities selected in the following ECoC period (Umea and Riga 2014, Mons and Plzen 2015, San Sebastian and Wroclaw 2016), as well as pre-selected ECoC cities (Aarhus and Paphos 2017, Valletta 2018), on their Internet sites, emphasize cultural programme and implementation of community. That is why we can talk about new trend related to budgeting of ECoC cities, where big infrastructure projects finish in 2011.

New period in the programme starts in 2012, and it can be called ‘ECoC and community’, where it is trying to overcome negative economic trends and shortage of visual changes in the host city/cities through higher engagement of local community in the following way:

- participation of local and regional cultural and creative professionals from public and private sector;
- engagement of civic sector (volunteers) in the programme realization;
- engagement of local inhabitants in creating, implementation and consuming of ECoC programmes.

In this way, and mainly due to lack of funds, they try to use creative solutions that try to increase visible effects and recognition of ECoC cities, and long-term influence of ECoC programmes on the city (this time more oriented to citizens, and less to visual changes in the city).

4. European Capital of Culture from 2020 to 2033 – new infrastructure animation?

European Capital of Culture programme continues after 2019, when actual project regime finishes. Schedule of the countries included in ECoC from 2020 to 2033 is known.
Table 3: Schedule of the European Capital of Culture host countries 2020 - 2033

<table>
<thead>
<tr>
<th>Year</th>
<th>Country 1</th>
<th>Country 2</th>
<th>Country 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020</td>
<td>Croatia</td>
<td>Ireland</td>
<td>Candidate or possible candidate country</td>
</tr>
<tr>
<td>2021</td>
<td>Romania</td>
<td>Greece</td>
<td>-</td>
</tr>
<tr>
<td>2022</td>
<td>Lithuania</td>
<td>Luxemburg</td>
<td>-</td>
</tr>
<tr>
<td>2023</td>
<td>Hungary</td>
<td>Great Britain</td>
<td>Candidate or possible candidate country</td>
</tr>
<tr>
<td>2024</td>
<td>Estonia</td>
<td>Austria</td>
<td>-</td>
</tr>
<tr>
<td>2025</td>
<td>Slovenia</td>
<td>Germany</td>
<td>-</td>
</tr>
<tr>
<td>2026</td>
<td>Slovakia</td>
<td>Finland</td>
<td>Candidate or possible candidate country</td>
</tr>
<tr>
<td>2027</td>
<td>Latvia</td>
<td>Portugal</td>
<td>-</td>
</tr>
<tr>
<td>2028</td>
<td>Czech Republic</td>
<td>France</td>
<td>-</td>
</tr>
<tr>
<td>2029</td>
<td>Poland</td>
<td>Sweden</td>
<td>Candidate or possible candidate country</td>
</tr>
<tr>
<td>2030</td>
<td>Cyprus</td>
<td>Belgium</td>
<td>-</td>
</tr>
<tr>
<td>2031</td>
<td>Malta</td>
<td>Spain</td>
<td>-</td>
</tr>
<tr>
<td>2032</td>
<td>Bulgaria</td>
<td>Denmark</td>
<td>Candidate or possible candidate country</td>
</tr>
<tr>
<td>2033</td>
<td>Netherland</td>
<td>Italy</td>
<td>-</td>
</tr>
</tbody>
</table>


The year 2020 could be a new turning point in implementing ECoC programs. New economy recovery trends in the European Union could encourage a new investment cycle in the following years, and that could also start ‘re-infrastructuralization’ of ECoC programmes. In 2020 the republic of Croatia and countries (that is cities) within the region, that just start access negotiations with EU, still can expect significant capital investments in the following decade.

5. Conclusion

Success of European Capital of Culture programme is not conditioned by high capital investment, but practices in host cities, especially in period from 2001 to 2010, defined completely new trend, which with withdrawal of funds gradually loses the importance. A partial return toward big infrastructure investments can be anticipated as soon as negative economy processes in the European Union change the course. In the meantime, it is important to take care about the world projects derived from ECoC, with an emphasis on Brazilian Capital of Culture, Islamic Capital of Culture, and especially Arab Capital of Culture. Following European examples, and with more plentiful cultural budgets than those available on the
Old Continent, and with the aim to overcome achievements of their models, these projects could take at least a part of attention paid to success of the cities within European Capital of Culture in the following period.

**LITERATURE**

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ENTREPRENEURIAL ACTIVITIES IN ECONOMICALLY UNDERDEVELOPED AREAS OF CROATIA

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Abstract

Entrepreneurship activities are crucial for regional development. Croatian legislative supports regional development almost fifteen years. Acts from the late 90s are directed to separated, economically stagnated regions (areas special state concern, hill and mountain areas, islands etc.). Acts are still lawfully and still encourage entrepreneurship activity through the tax exemptions. Regional development Act and subordinate acts from 2009, defined regions with developmental disabilities, so called assisted areas. Their status is determined by development degree. Development degree is connected indirectly with entrepreneurship activity progress. Earlier regulated and economically weaker areas differ territorially with regard to assisted areas.

Considering the above, authors of this paper will analyze entrepreneurship activity indicators (entrepreneurship number, number of employees and financial results). Indicators will be compared for two groups of areas:

Areas special state concern (1st, 2nd and 3rd group) and hill and mountain area
Assisted areas at local self-government level

Research results should indicate on correlation between areas development degree and entrepreneurship success. The paper will provide the overview of entrepreneur activity indicators for areas which are not include in Croatian system of incentive measures and it will never be.

JEL Classification: O12, R11

Keywords: underdeveloped areas, indicators of entrepreneurial activity, government incentives
1. Introduction

Due to a non-existent and undeveloped regional development strategy, the Republic of Croatia has been undertaking measures for development promotion during the period of twenty years, mostly in the form of individual regional acts. Such measures have been aimed at economic and demographic development promotion, extending the capability of exploitation of existing natural resources and at the development of competitive regional values. For the purpose of solving the accumulated economic development problems, the Act on Areas of Special State Concern (OG 86/08 and 57/11) was adopted in 1996, while the Act on Hill and Mountainous Areas was passed several years later, i.e. in 2002 (OG 12/02, 32/02, 117/03, 42/05, 90/05 and 80/08). The aforementioned areas\(^1\) take up a large portion of the territory of the Republic of Croatia, which implies that the aforementioned areas should, via more significant economic development indicators, participate in large part in the overall economic development of the country. The aforementioned acts are still in force in the Republic of Croatia. Almost 20 years after the emancipation of the Republic of Croatia, legislative authorities have passed the Act on Regional Development of the Republic of Croatia (OG 153/09), and soon the Strategy for Regional Development of the Republic of Croatia for the period of 2011-2013 was passed. In the Act on Regional Development, a special category was introduced – assisted areas. Assisted areas represent the areas of the Republic of Croatia that lack behind the national average regarding the development level and whose development is to be promoted additionally (Act on the Regional Development of the Republic of Croatia, (OG 153/09, Article 3, paragraph 4). The development level is based on the development index\(^2\). The status of assisted areas is given to regional self-governing units that are in group I (development index under 75% of the national average). On local self-government level (municipalities and cities) the assisted areas are divided into group I (development index under 50% of the national average) and group II (development index between 50 and 75% of the

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\(^1\) For the purposes of this paper, the areas of special state concern (ASSC I., ASSC II and ASSC III groups) and hill and mountainous areas (HMA) shall be encompassed with the term: the areas of special state status

\(^2\) The development index is calculated, pursuant to Article 2 of the Regulation on Development Index (Official Gazette 63/10), on the basis of the following indicators: unemployment rate, per capita income, per capita budgetary income for local, i.e. regional, self-government, overall population trends and education rate
Entrepreneurial activities in economically underdeveloped areas of Croatia

For the purposes of this paper, the assisted areas will be observed on local self-government level.

Developed entrepreneurship is a significant factor in the economic development of every country, the same goes for the Republic of Croatia. The activities of entrepreneurs in the areas of special state status are encouraged by authorities via tax relieves on income tax. Entrepreneurs who have their enterprises registered in the assisted areas, and are not simultaneously a part of the areas of special state status, neither had such relieves, nor have them at present. The activity indicators of those entrepreneurs that are subject to income tax\(^3\) and that have their enterprises registered in the areas of special state status and assisted areas for the period between 2007 and 2010 will be observed further in this paper. These indicators are related to the number of entrepreneurs; the number of people employed and net financial results of their business activities.

2. Territorial determinants of the areas of special state status and assisted areas

The areas of special state status are defined according to criteria linked to war circumstances during the aggression on the Republic of Croatia, economic development, structural and demographic difficulties and natural and geographical characteristics that represent aggravated life conditions. Table 1 presents an overview of basic determinants for the areas of special state status. In the area of special state status, 66 local self-government units of the total number of 220 units were not determined as assisted areas. This means that their development index exceeds 75% of the national average. However, it is necessary to emphasize that those local self-government units have used, and are still using, certain privileges via which the government is promoting their development. Such rights are guaranteed to those local self-government units by legal regulations that are still in force and which regulate the area of special state status.

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\(^3\) Income tax payers, banks and insurance companies not included
Table 1: Basic determinants of the areas of special state status

<table>
<thead>
<tr>
<th>Area</th>
<th>Classification criteria</th>
<th>Number of encompassed cities/municipalities</th>
<th>Territory (in % of total territory of the Republic of Croatia)</th>
<th>Population (in % of total population of the Republic of Croatia)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The area of special state concern group I (ASSC I)</td>
<td>Circumstances occurred based on war aggression on the Republic of Croatia</td>
<td>6 cities, 42 municipalities and 5 settlements in 2 cities**</td>
<td>45.6</td>
<td>15.15</td>
</tr>
<tr>
<td>The area of special state concern group II (ASSC II)</td>
<td>Circumstances occurred based on war aggression on the Republic of Croatia</td>
<td>13 cities, 40 municipalities and 75 settlements in 8 cities***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The area of special state concern group III (ASSC III)</td>
<td>Economic development, structural difficulties, demographic criteria</td>
<td>1 city and 73 municipalities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hill and mountainous areas (HMA)</td>
<td>Natural and geographical characteristics that represent aggravated life conditions</td>
<td>12 cities and 33 municipalities</td>
<td>10.5</td>
<td>4.71</td>
</tr>
</tbody>
</table>

Source: Act on Areas of Special State Concern (OG 86/08 and 57/11), Articles 3-6 and 24
Act on Hill and Mountainous Areas (OG 12/02, 32/02, 117/03, 42/05, 90/05 and 80/08), Articles 7b and 7d

2 Đulabić, V., Manojlović, R., 2011, pp. 1041-1074
3 National Bureau of Statistics, 2011, pp. 14-160, data processed by the authors

** Osijek (10% of city area) and Vinkovci (25% of city area)

*** Daruvar (25% of city area), Dubrovnik (50% of city area), Karlovac (10% of city area), Sisak (10% of city area), Slatina (10% of city area), Virovitica (10% of city area), Vodice (25% of city area) and Zadar (10% of city area)
The assisted areas in groups I and II encompass cities and municipalities with the development index under 50%, i.e. between 50% and 75%, of the national average. The data listed in Table 2 refers to basic determinants for the assisted areas in the Republic of Croatia. From the table it is visible that a total of 256 local self-government units have the status of assisted areas. It is especially important to emphasize the fact that in group II of assisted areas there are 21 cities. To conclude, as much as 16.5% of the total number of cities in the Republic of Croatia has the status of assisted area. 54.8% of the total number of municipalities in the Republic of Croatia have the status of assisted area.

Table 2: basic determinants of the assisted areas in the Republic of Croatia

<table>
<thead>
<tr>
<th>Area</th>
<th>Classification criteria</th>
<th>Number of encompassed cities/ municipalities</th>
<th>Territory (in % of total territory of the Republic of Croatia)</th>
<th>Population (in % of total population of the Republic of Croatia)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group I</td>
<td>Development index under 50% of the national average</td>
<td>35 municipalities</td>
<td>35.08</td>
<td>11.29</td>
</tr>
<tr>
<td>Group II</td>
<td>Development index between 50% and 75% of the national average</td>
<td>21 city and 200 municipalities</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: 1 Act on Regional Development of the Republic of Croatia (OG 153/09), Article 2, paragraph 1
2 Decision on the classification of local (regional) self-government according to development level (Official Gazette, 89/10)
3 [http://www.hgk.hr/wp content/files-mf/potpomognuta%20podru%C4%8Dja.pdf](http://www.hgk.hr/wp content/files-mf/potpomognuta%20podru%C4%8Dja.pdf), visited on February 15th 2013, data processed by the authors

Areas marked as those of special state status and assisted areas slightly differ. Local self-government units, 139 municipalities and 15 cities, have a dual status: the status of area of special state status and the status of assisted area. Assisted areas outside the areas that have special state status encompass 102 local self-government units, i.e. 96 municipalities and 6 cities. The aforementioned local self-government units did not have certain governmental privileges that were granted to local self-government units in the areas of special state status so far.

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4 The Republic of Croatia is administratively divided into 127 cities
5 The Republic of Croatia is administratively divided into 429 municipalities
3. Entrepreneurial activity indicators in the areas of special state status and assisted areas

The entrepreneurship activity is indirectly linked to the development index. At the end of the 80s of the past century, the preconditions for the development of entrepreneurship were created in the Republic of Croatia (Company Act, OG of SFRY 77/88 and 40/89). The development of entrepreneurship activities was followed by changes in regard to creation of a large number of small and middle companies, i.e. there was a significant decrease in the number of large companies in comparison to the period of socialistic system. The information that in 2010 (according to Financial Agency, 2008 and 2011), 99.6% of the total number of the entrepreneurs that were tax payers were small or medium entrepreneurs and only 0.40% were large entrepreneurs, speaks in the favor of the previous statement. In the Republic of Croatia in 1983, small and medium entrepreneurs accounted for 79% of the total number of entrepreneurs, while 21% were large entrepreneurs (Bogović, T.; 2006, p. 38). Today Croatian entrepreneurship is faced with problems of inefficient government bureaucracy, corruption, political instability, tax burdens, expensive financing sources etc. (Centre for Global Competitiveness and Performance, 2012, p. 146).

Taking into account the prolonged period of not implementing regional policy, i.e. inadequate implementation of the same, it is important to analyze the entrepreneurial activity indicators that are active in the areas of special state status and assisted areas. The entrepreneurial activity is promoted in the areas of special state status by the government with income tax exemptions.6 The exemption in the areas of special state status accounted for almost 700 million HRK during the period of 2007-2010 (Tax Administration, 2012). Furthermore, it is important to emphasize that a part of government’s tax income (a part of tax liability from which entrepreneurs are not exempted) is returned by the government into the budgets of cities and municipalities that are in the area of special state status. During the period of 2007-2010, governmental authorities have returned 1.2 million HRK of the aforementioned amount (Ministry of Finances, 2010 and 2011, pp. 76 and 67). A majority of such funds were earmarked for the development of entrepreneurship,

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*The exemptions are defined in Articles 23 and 24 of the Act on Areas of Special State Concern (Official Gazette 86/05 and 57/11) and Articles 7b and 7d of the Act on Hill and Mountainous Areas (Official Gazette 12/02, 32/02, 117/03, 42/05, 90/05 and 80/08)*
but such funds were often used for financing other budgetary expenditures in local self-government units.

An overview of entrepreneurial activity indicators for the whole Republic of Croatia, the areas of special state status and the assisted areas is presented further in this paper. These indicators are related to the number of entrepreneurs; the number of people employed and net financial results of their business activities (Financial Agency, 2008, 2009, 2010, 2011, pp. 11, 12, 14 and 14).

Table 3: Entrepreneurial activity indicators of Croatian entrepreneurs for the period of 2007-2010

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Number of entrepreneurs</td>
<td>83,532</td>
<td>89,656</td>
<td>91,320</td>
<td>96,758</td>
<td>15,83%</td>
</tr>
<tr>
<td>2.</td>
<td>Number of people employed</td>
<td>869,013</td>
<td>933,958</td>
<td>889,396</td>
<td>859,808</td>
<td>-1,06%</td>
</tr>
<tr>
<td>3.</td>
<td>Net financial result* (000 HRK)</td>
<td>24,763,709</td>
<td>17,229,532</td>
<td>4,396,868</td>
<td>-1,663,070</td>
<td>-106.72%</td>
</tr>
</tbody>
</table>


* Net financial result represents the difference between gain after taxation and loses after taxation of all entrepreneurs

Although the number of entrepreneurs has increased on the national level during the observed period, the number of people employed is in decline. The decline of the number of people employed is especially outlined if we look at the number of people employed in 2010 in comparison with 2008. During that period, there was a 7.94% decline in the number of people employed. The net financial result was, during the observed period, reduced for as much as 106.72%.

From the data listed in Table 4 it is visible that 28.92% less entrepreneurs have registered enterprises in the assisted areas when compared to the areas of special state status. At the same time, 36 more local self-government units are included into the assisted areas than in the areas of special state status (consult Table 1 and Table 2). The number of entrepreneurs in 2010 in the assisted areas accounted for only 8.5% of the total number of entrepreneurs in the Republic of Croatia. Only 6.05% of the total number of entrepreneurs in the Republic of Croatia conducts business activities in the assisted areas. Net financial results of all entrepreneurs in the areas of special state status in 2010 represented 25.25% of the total net financial results of all entrepreneurs in the Republic of Croatia. Entrepreneurs that conduct
business activities in the assisted areas participated in the overall financial results of the Republic of Croatia with a share amounting to 17.24%. Therefore, it is visible that entrepreneurs generate highly negative net financial results in these areas.

Table 4: Entrepreneurial activity indicators of all entrepreneurs in the areas of special state status and assisted areas for the period of 2007-2010

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>I. Areas of special state status</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>Number of entrepreneurs</td>
<td>6,683</td>
<td>7,297</td>
<td>7,813</td>
<td>8,234</td>
<td>23.21%</td>
</tr>
<tr>
<td>2.</td>
<td>Number of people employed</td>
<td>64,649</td>
<td>70,755</td>
<td>68,536</td>
<td>62,834</td>
<td>-2.81%</td>
</tr>
<tr>
<td>3.</td>
<td>Net financial results (000 HRK)</td>
<td>1,069,120</td>
<td>848,239</td>
<td>-424,305</td>
<td>-419,887</td>
<td>-139.27%</td>
</tr>
<tr>
<td></td>
<td>II. Assisted areas</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>Number of entrepreneurs</td>
<td>4,610</td>
<td>5,097</td>
<td>5,503</td>
<td>5,853</td>
<td>26.96%</td>
</tr>
<tr>
<td>2.</td>
<td>Number of people employed</td>
<td>47,907</td>
<td>53,447</td>
<td>52,039</td>
<td>49,526</td>
<td>3.38%</td>
</tr>
<tr>
<td>3.</td>
<td>Net financial results (000 HRK)</td>
<td>522,196</td>
<td>275,323</td>
<td>52,436</td>
<td>-286,646</td>
<td>-154.89%</td>
</tr>
</tbody>
</table>


Furthermore, it is important to emphasize that 58.72% of entrepreneurs in the areas of special state status were outside of the assisted areas in 2010. The same entrepreneurs employed 57.16% of the total number of people employed in 2010 and participated with high 64.27% in the achieved loses of the areas of special state status. In the areas of special state status, outside the assisted area, there are 24 local self-government units that have achieved their status solely because of the consequences of war destruction. In the area of such local self-government units in 2010 there were 26.62% of the total number of entrepreneurs that operate in the areas of special state status. Entrepreneurs in the same local self-government units employed 29.81% of the total number of people employed in the areas of special state status.

Assisted areas outside the areas of special state status have not been, in the past, included into areas in which governmental incentives in the form of income tax exemption were given. The assumption is that a certain level of development existed in such areas. However, low values of the development index and adverse entrepreneurial activity indicators suggest otherwise.
Table 5: The entrepreneurial activity indicators of all entrepreneurs in the areas of special state status outside the assisted areas and assisted areas outside the areas of special state status for the period of 2007-2010

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>I.</td>
<td>areas of special state status outside the assisted areas</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>Number of entrepreneurs</td>
<td>4,046</td>
<td>4,354</td>
<td>4,598</td>
<td>4,835</td>
<td>19.5%</td>
</tr>
<tr>
<td>2.</td>
<td>Number of people employed</td>
<td>38,695</td>
<td>40,739</td>
<td>39,157</td>
<td>35,916</td>
<td>-7.18%</td>
</tr>
<tr>
<td>3.</td>
<td>Net financial results (000 HRK)</td>
<td>665,800</td>
<td>500,006</td>
<td>-541,585</td>
<td>-269,873</td>
<td>-140.53%</td>
</tr>
<tr>
<td>II.</td>
<td>assisted areas outside the areas of special state status</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>Number of entrepreneurs</td>
<td>1,937</td>
<td>2,154</td>
<td>2,288</td>
<td>2,454</td>
<td>26.69%</td>
</tr>
<tr>
<td>2.</td>
<td>Number of people employed</td>
<td>21,953</td>
<td>23,431</td>
<td>22,660</td>
<td>22,608</td>
<td>2.98%</td>
</tr>
<tr>
<td>3.</td>
<td>Net financial results (000 HRK)</td>
<td>118,876</td>
<td>-72,909</td>
<td>-64,844</td>
<td>-136,632</td>
<td>-214.94%</td>
</tr>
</tbody>
</table>


4. Conclusion

Local self-government units included into the assisted areas, according to the development index, are undeveloped in the entrepreneurial sense. In those areas, encompassing over one third of the entire territory of the Republic of Croatia, there is a small number of entrepreneurs. In the same areas, a trend of employment growth and loss generation is also evident. In the areas of special state status, despite governmental incentives in the form of income tax exemptions, entrepreneurs have, during the observed period, reduced net financial result and generated losses. Furthermore, entrepreneurs in the areas of special state status outside assisted areas do not exhibit success in their business activities. That is why entrepreneurial activity indicators should be taken into account when assessing the development level. That would mean that almost the entire territory of the Republic of Croatia should be classified as an assisted area. All observed entrepreneurial activity indicators point at the existing adverse situation, but also at the situation which does not promise better results in the near future.
Learning

Act on Hill and Mountainous Areas (OG 12/02, 32/02, 117/03, 42/05, 90/05 and 80/08)
Act on Areas of Special State Concern, (OG 86/08, 57/11).
Company Act (OG of SFRY 77/88 and 40/89).
Act on Regional Development (OG 153/09)
EU FUNDS IMPORTANCE FOR TOURISM OF VIROVITICA-PODRAVINA COUNTY

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Abstract

Virovitica-Podravina County as one of the least developed counties has an opportunity to accelerate its development, including the development of tourism, by use of EU funds. Therefore, this paper, by using the case study method, describes the role of the EU funds for tourism development in Virovitica-Podravina County. Emphasis is placed on the total amount of funds disbursed from the EU funds, an analysis of EU projects that have been implemented and their impact on the development of tourism.

JEL Classification: L83

Keywords: tourism, Eu funds, Virovitica-Podravina County

1. Introduction

Development of rural tourism in Virovitica-Podravina County is recognized as one of the most important pillars of future economic development, employment and a way of efficient sustainable management. Demand for rural tourism is in line with global trends related to the increase in leisure time and the increasing number of days and dates convenient for vacation as well as increasing interest in travel, holidays in rural areas because of the pristine natural and cultural heritage, health care and the development of technological tools, resources and equipment which maximize the use of resources that rural areas have to offer. Mentioned world trend, demonstrating the growing interest for vacation in rural areas is a factor that greatly contributes to the development and the rise of interest in entrepreneurial invest-
ments in various forms of rural tourism in Croatia, which is best seen from the examples of successful Baranja, Dubrovnik hinterland, inland of Istria, Međimurje and Zagorje. However, despite a number of prerequisites for the development of rural tourism in Virovitica-Podravina County the rural tourism offer is very poor. Fundamental reasons for such a situation are arising from the failure to recognize potential, insufficient education of entrepreneurs and local residents for tourism and hospitality, the lack of entrepreneurial initiatives in rural tourism and lack of financial resources that would encourage investment in tourism infrastructure and the development of rural tourism in general. Funds of European Union have a strong influence on the development of a particular sector, particularly through various grants from the IPA programs. EU Funds importance stems from the fact that they enable funding of a variety of projects to advance the development of rural tourism by building the necessary infrastructure, development of new educational programs for entrepreneurs in tourism and new tourism products that would complement the tourist offer. Therefore, the aim of this paper is to show the importance and possibilities of using EU funds to promote rural tourism in the Virovitica-Podravina County and to determine how many of the projects have been carried out so far, what are the main activities of these projects and how much of the funds was withdrawn from EU funds.

2. Theoretical starting points

Modern trends that occur in tourist demand, harsh competition, lack of leisure time, changes in the needs, motivations and desires of tourists, and various other factors that are present in the international tourism market are affecting the trends of vacation and traveling, diversification of activities in vacation and thus impose the need to research, plan, design and management of tourist products. Tourists today are traveling more frequently, but for shorter durations and are increasingly turning to the specific forms of tourism in search of new experiences and adventures (Čavlek et al.; 2011), tourists are well informed, seeking more individual approach to the organization of travel, are unpredictable, spontaneous, have a sense for conservation of nature and ecology, are sensitive to the quality of services, they want more comprehensive tourist experience and thus more complex tourist product (Blazević, 2007; Vrtiprah, 2006; Moutinho, 2005). These changes in the affinity of tourists, as well as more severe market competition between certain destinations, changes in the environment, adjustment the new system of market values that are conditional on demolition of traditional offers and are initiating the
appearance of selective forms of tourism that seeks to enrich the tourist offer and provide tourists with meaningful tourist product tailored to their needs. Therefore, modern tourism development that is characterized, among other things, by market segmentation and routing of tourist demand toward specific forms of tourism represents an opportunity for the development of rural tourism types.

The concept of rural tourism has been developed and changed from its beginnings to the present day. Initially it represented only one form of tourism and it was infrastructurally underdeveloped. Its meaning and role in the revitalization and transformation of rural areas are beginning to make it stand out as a special part of tourism. It is based on natural resources, rural heritage, rural lifestyle and rural activities, i.e., activities in rural areas. The importance of rural tourism is expressed through mutual relationship between agricultural production, traditional products, tradition, traditional cuisine, tourist services and the use of existing resources.

Although at first glance, it seems easy to define rural tourism but it is just the opposite. The above mentioned hypothesis is confirmed by numerous authors such as (Pearce; 1989, Ružić; 2009, OECD; 1994, Bramwell; 1994) and they say that so far there has not been reached a firm consensus on a comprehensive definition of rural tourism. It is therefore inadequate to define rural tourism as tourism that takes place in the “green” or rural area. Since the definition of rural tourism is different in scope and understanding in different countries it is difficult to determine a comprehensive definition that would apply to all rural areas. OECD (1994: 8-9) highlights the barriers that appear during the defining and states the following:

- urban tourism is not confined to urban areas but also includes rural areas;
- rural areas are difficult to define, because the criteria for the definition varies from country to country;
- tourism that is taking place in rural areas is not strictly „rural‘ and may already be „urban“ in its form when it takes place in a rural area;
- various forms of rural tourism have been developed in different regions;
- rural areas are by their nature in a complex process of change. The impact of global markets, communications and telecommunications lead to changes in

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the market conditions and orientations towards traditional products. Though some rural areas are still experiencing depopulation, others experience influx of people and development of new non-traditional jobs. Once a clear distinction between urban and rural areas has been nullified by suburbanization, better communication and a growing number of weekend houses in the countryside;

- rural tourism is a complex activity it is not limited to the tourism on the farm. Which includes a stay at the farm as well as special forms of leisure such as a vacation in nature and ecotourism, walking, hiking and horseback riding, adventure, sport and health tourism, hunting and fishing, educational travel, art and cultural tourism which increases the interest in the market for small, specialized forms of rural tourism.

Organization for Economic Cooperation and Development (OECD; 1994, 34-35)\(^2\) points out that the rural tourism is determined by rural area, i.e. its propagation, physical and socio-cultural characteristics and provides the following definition: „Rural tourism at the beginning is located in the rural areas and is primarily a function of agriculture. It is firmly based on the agricultural world with special characteristics of open space, contact with nature, rural heritage and society. Rural tourism must be in agreement with the environment and the community in which it occurs. Community has less than 10,000 people and includes farms within the area of agriculture. The focus of rural tourism is oriented towards a range of sustainable businesses and communities within the rural areas. The aim of rural tourism is to ensure long-term sustainability of life in the region, it must be a force for the preservation of rurality, not the power of urbanization“

According to the definition of the Council of Europe, rural tourism is a form of tourism, which includes all activities in the rural area or in an area that includes the land, the people and other resources in open natural areas and rural settlements, it is realized through various forms among which agritourism is specially recognized (tourism on rural economies / rural tourism), then hunting, fishing, leisure, sport - recreational, health, cultural, culinary, gastronomic, religious, ecotourism, tourism of protected natural areas, adventure, nostalgia and other forms of rural tourism (Demonja & Ružić; 2010). Given that, it can be concluded that rural tourism involves a combination of different activities that can take place in rural areas,

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depending on the structure of its attractiveness in order to meet the complex needs of modern tourists.

Republic of Croatia will soon be the 28th member of the European Union and in line with that as a candidate country has at the disposal pre-accession grant funds, which have a very important role in the further integration into the euro-zone and deepening, developing, building of relevant institutions and harmonization with the standards and requirements of the European Union. The above mentioned represents the incentive for the continuous improvement of economic and institutional preconditions for sustainable economic growth, development, democratization and objectively (pro)Europe oriented education of Croatian citizens about the pre-accession and structural funds as well as the European Union (Jakovac; 2010.). Pre-accession funds of the European Union are funds from the EU budget intended for non-member countries (so-called assistance programs - such as the CARDS program) and the candidate countries for membership in the European Union (the so-called pre-accession programs - such as PHARE, ISPA, SAPARD and IPA) with the goal of implementing political, economic and institutional reforms, pre-accession preparations for joining the EU, as well as use of the Structural and Cohesion Funds. Since 2000. The Republic of Croatia has been a beneficiary of the CARDS and pre-accession programs PHARE, ISPA, SAPARD and IPA. Croatia will gain the possibility of participation in the Structural Funds and the Cohesion Fund after accession to the European Union.

The main objectives of the IPA program are assistance to candidate and potential candidate countries in their harmonization and implementation of the acquis communautaire of EU and to prepare them for the use of the Structural Funds. Republic of Croatia has been a beneficiary of IPA program since 2007. until the moment of its accession to the EU. IPA program consists of five components: strengthening capacities and institution building, cross-border cooperation, regional development, human resources and rural development.

IPA programs intended for the area of tourism are related to IPA Component II - Cross-border and transnational cooperation, IPA component IIIc - Regional development and regional competitiveness, IPA Component IV - Human Resources Development and IPA Component V - Rural Development (rural tourism).

Regional and cross-border cooperation finances joint cross-border activities between the IPA beneficiary countries, as well as between them and the Member States of the European Union. The main priorities of IPA Component II are: en-
couraging cross-border cooperation, sustainable development, environmental protection, market development, improving the quality of life in border areas, to build the capacity of local, regional, national institutions for the implementation of EU programs. IPA component IIIc refers to the projects related to the development of new and existing business infrastructure in areas lagging behind in development. Some of the activities financed under the above mentioned projects are the preparation of architectural and construction projects, the development of business-community infrastructure within the existing commercial zones, where the lack of such infrastructure is an obstacle to SME development, the development and improvement of tourism infrastructure, the provision of support services designed to maximize the benefits of investments. IPA component V provides financing for rural tourism development through the following activities: the construction and/or reconstruction of apartments, rooms, facilities for sports and recreation, swimming pools, facilities for horse riding and keeping horses, facilities for freshwater fishing, retail space inside the winery, campsites, areas for preparation and serving of food and beverages, facilities for keeping animals for tourism purposes, marking trails and paths, old traditional houses and farm buildings, sanitary facilities, access for disabled, parking. It can also finance the purchase of equipment for the development of rural tourism, the equipment for rooms and suites, the sports facilities, equipment for the preparation and serving of food and beverages, equestrian equipment, nourishment equipment for animals, fishing platforms.

3. Methodology

For the purposes of this paper a case study was made, which included analysis of projects applied for the EU funds in the Virovitica - Podravina County which were granted funds for the implementation. Studies were conducted in the period from the beginning of March to the end of March 2013. Data was collected by using the method of semi-structured interview with the director of the Development Agency VIDRA, director of the Tourist Board of Virovitica - Podravina County and work on documents, during the qualitative analysis of the collected data, while using descriptive and comparative methods also methods of analysis, synthesis, specialization and generalization were used.

Case Study was aimed to determine how many of the projects have been implemented so far, what are the main activities of these projects and the funds withdrawn from EU funds.
A set of basic research questions have been set in accordance with defined goals:

1. To which tenders were applied projects of various stakeholders from the area of Virovitica-Podravina County?

2. How much are the projects worth and how many were approved?

3. What are the main activities of awarded projects?

In accordance with established research questions the tasks of the study have been defined:

1. Analysis of project proposals in the Virovitica-Podravina County.

2. Determine the value of the individual projects and the number of those for which the funding was granted.

3. Identify the major activities that are planned for realization during the project implementation.
### 4. Overview of EU projects in the area of Virovitica-Podravina County

**Table 1. Overview of approved projects in Virovitica-Podravina County**

<table>
<thead>
<tr>
<th>Project Number</th>
<th>Holders and project partners</th>
<th>Type of EU program</th>
<th>Value of the project</th>
<th>Main activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Virovitica-Podravina County, Town Szentlorincza and development agency VIDRA</td>
<td>IPA prekograničnog programa Madarska-Hrvatska u ožujku 2012</td>
<td>2,115,973 Euros</td>
<td>Castle restoration in Kapela Dvor into Tourism-Education Center—central point for cycling trails that will be marked on areas Pitomača – Terezino Polje, Kapela Dvor – Virovitica and Lukač – Budakovac. In castle Kapela Dvora will be a Tourism-Education Center with 20 accommodation units and other contents related to the development of cycling, as well as tourism in general.</td>
</tr>
<tr>
<td>2.</td>
<td>Croatian Waters VIDRA – agency for regional development Virovitica - Podravina County in cooperation with Hungarian waters</td>
<td></td>
<td>1,634,192 Euros</td>
<td>Building and marking of cycling trails and paths. Bicycle paths will be made at the embankment of the river Drava to Cadavica and Sopje towards Gradina and Terezino Polje.</td>
</tr>
<tr>
<td>3.</td>
<td>Towns: Orahovica, Villanya and Ilok</td>
<td></td>
<td>411,839 Euros</td>
<td>The project will support three wine festivals and reconstruct the Wine Road, a distance of 2.7 kilometers.</td>
</tr>
<tr>
<td>4.</td>
<td>Towns: Slatina, Szentlorintz, Našice</td>
<td></td>
<td>374,422 Euros</td>
<td>Tourist and cultural Route by Imperial rail Szentlorintz-Slatina-Našice linking the towns mentioned. The project will complete the restoration of Heritage Museum in Slatina, including the room of Milko Kelemen and his legacy. A museum in Szentlörincz will be restored and equipment purchased for the museum in Našice. In all three cities will be organized a tourism manifestation and exhibitions related to the period of operation of the imperial railways whose remains still exist in Slatina, Našice and Szentlorinz.</td>
</tr>
<tr>
<td>5.</td>
<td>Green associations from Osijek, nature Park Papuk and National park Drava Dunav from Hungary</td>
<td></td>
<td>159,774 Euros</td>
<td>This project in Nature Park Papuk will make a playground on Jankovac with the classroom for a school in nature and walking trails for people with disabilities. On the Orahovica part of the Nature Park it will make 3 rest stops for horses and riders on a horse riding trail, several mountain huts on top of the Točak and the Gornji Meljani will be constructed and walking, riding and hiking trails will be marked.</td>
</tr>
</tbody>
</table>

**Source:** Author
Stakeholders from the area of Virovitica - Podravina County have applied to tenders of IPA - CBC HU HR-III call (CBC Croatia-Hungary) since it was not possible to apply tourism projects earlier. Of all applied project, 5 projects were approved that are related to the IPA Cross-border Programme Hungary-Croatia from March 2012. The total value of all approved projects is 5,572,698 Euros. Main activities that are planned by projects are related to the reconstruction of castle in the Kapela Dvor into an Tourism-Education Center, which will be used as an accommodation facility with 20 accommodation units, followed by construction and marking of bike lanes, reconstruct the wine road (a distance of 2.7 kilometers), forming a cultural tourist route that will connect the cities Szentlorintz, Slatina and Našice (by Imperial railway Szentlorintz-Slatina-Našice). In addition, a children’s playground Jankovac with a classroom for a school in nature will be built, walking trails for people with disabilities, several mountain huts on top of the Točak and in the area of Gornji Meljani, marking of walking, riding and hiking trails (Table 1).

Since the previous development of rural tourism in the Virovitica - Podravina County is characterized by underutilized tourism potential, undeveloped tourism infrastructure, insufficient promotion of tourism, unrecognizable image of the county tourism, lack of funding and low level of “tourist” consciousness, the resulting projects are an opportunity for the valorization of existing tourism resources in the county, improve the tourism infrastructure and indirectly enrich the tourist offer.

5. Conclusion

Creative and innovative tourism products that are in line with the needs of modern tourists are prerequisites for the development of tourism in rural areas. Since tourism is a capital-intensive economic industry, among other things, a significant financial resources are necessary that would enable its faster development. Therefore, the development of high-quality projects and the use of European Union funds can provide a strong development of tourism. Virovitica - Podravina county has so far received five projects from EU funds in the total amount of 5,572,698 euros, which will significantly contribute to the enrichment of the current tourism offer of Virovitica - Podravina County. Also, the County Development Agency VIDRA holds annual Educations for writing projects (PCM) for tourist agents and entrepreneurs in the tourism industry in order to familiarize them with the possibilities of European Union funds and actively engage them in writing projects to maximize concreteness of County’s Rural Tourism. However, for rural tourism in the county to become a competitive tourism product it is necessary, first of all, to continue to invest and apply quality development projects and intensively use EU
funds. New projects which would be significant for the future development of tourism in the county should apply to: preserving and enhancing of natural areas and sustainable development; further development of bicycle paths and their networking with European cyclo routes; improving the offer and quality of accommodation facilities in accordance with the requirements of modern tourists in a way to avoid negative impacts on the natural and cultural environment, facilities with smaller accommodation capacity; accommodation on family farms, camps, eco villages; improvement of tourist information and tourist signs, providing more detailed information, including information about the tourism offer and information about accommodation and activities, establishment of distribution channels appropriate segment of modern tourists, development of training programs for managers, employees and the local population that is exposed to contact with tourists.

6. Literature


