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**CONTEMPORARY ISSUES IN
ECONOMICS, BUSINESS
AND MANAGEMENT**

Editors

*Petar Veselinović, Verica Babić,
Gordana Marjanović, Predrag Stančić,
Milena Jakšić, Vladimir Ranković*



**FACULTY OF ECONOMICS
UNIVERSITY OF KRAGUJEVAC**

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**FACULTY OF ECONOMICS
UNIVERSITY OF KRAGUJEVAC
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**DOES ORGANIZATIONAL IDENTIFICATION MATTER FOR ACADEMICS?
A CASE OF MANAGEMENT SCHOLARS IN SOUTH EAST EUROPE**

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**INSTITUTIONS OR CULTURE: ALTERNATIVE OR
COMPLEMENTARY EXPLANATIONS OF ECONOMIC GROWTH?**

Vadim Kufenko, Institute of Economics, University of Hohenheim, Germany

INSTITUTIONS AND INEQUALITY

PREFACE

The Faculty of Economics University of Kragujevac organized the fifth biennial International Scientific Conference on *Contemporary Issues in Economics, Business and Management* (EBM 2018). The EBM 2018 Conference provided an opportunity for all those interested in various fields of economy, business and management to discuss their research and to exchange ideas. Considering complexity and diversity of contemporary issues in economics, business economics and management, we received papers from all the following fields: *Key Issues in Management and Marketing*, *Globalization and Regionalization*, *Accounting and Business Finance* and *Applied Informatics and Quantitative Methods in Economics and Management*. This year, we brought together about 120 young and experienced researchers, Ph.D students, post-doctoral researchers, academicians, and professionals from business, government and non-governmental institutions, from ten different countries, such as Republic of Serbia, Poland, Russia, Spain, Germany, Slovenia, Japan, Croatia, Republic of Bosnia and Herzegovina, Hungary.

EBM 2018 conference included plenary session and five parallel sessions. As distinguished researchers in the relevant fields of economics and management, the keynote speakers at the Conference were as follows: Darko Tipurić, Boris Begović and Vadim Kufenko.

This book includes the abstracts accepted for presentation at the EBM 2018 Conference. Due to the high number of papers and participants included in the session *Key Issues in Management and Marketing*, this session is divided on two parallel sessions. First section referring to *Key Issues in Management and Marketing* encompasses papers dealing with various aspects of knowledge management, different aspects of organizational design, corporate governance and acquisitions, innovation management and entrepreneurship. In addition, second section dedicated to *Key issues in management and marketing*, involved papers focusing on diverse aspects of corporate social responsibility, consumers' behaviour, electronic commerce and managing conflicts. The section *Globalization and Regionalization* discusses the importance of financing the development of regional innovativeness, financial stability, challenges of transition, modern banking sector, economic policy, as well as the issues related to macroeconomic paradigm, inflation, and foreign direct investments. *Accounting and Business Finance* included the papers related to contemporary challenges of audit institutions, financial reporting, financial performance, as well as the role of IPO listing requirements, lean business concepts, zero-based budgeting, rolling budgeting and environmental management accounting. In the section dedicated to *Applied Informatics and Quantitative Methods in Economics and Management*, the papers considers application of various relevant methods, models and approaches, such as text clustering methods, ULC+ method, SEM-ANN research, DEA approach, VAR efficient portfolios, as well as the application of modern IT systems, digitalization, blockchain and land administration.

Attracting a high number of participants is a good indicator of the success and means that EBM 2018 conference serving its purpose and offer a good opportunity for scholarly exchange and networking. Therefore, we would like to thank to all authors who submitted their work for this conference in our common response to the above challenges.

Editors

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KNOWLEDGE MANAGEMENT IN ORGANIZATIONS – CASE OF SLOVENIA

Zlatko Nedelko¹, Marina Latukha², Maria Volkova³, Vojko Potočan⁴

Abstract: *The main purpose of this paper is to outline current level of knowledge management utilization in organizations in Slovenia and worldwide. In organizations, which operate in nowadays knowledge society, knowledge has become one of the key drivers of organizational success. In that context organizations put a lot of attention to the management of knowledge in order to acquire, use and disseminate knowledge. Literature offers plethora of theoretical discussions about various aspects of knowledge management in organizations, while the empirical examinations about knowledge management utilization in organizations are limited. The distinguishing feature of our paper is that utilization of knowledge management tool is considered in the context of other commonly used management tools in organizations. Keeping in the research most commonly used management tools in organizations, gives us holistic insight into knowledge management tool utilization in organizations. In this paper the focus is on current utilization of knowledge management tool in organizations, since the extent of knowledge management tool utilization significantly influence on the amount of available and gathered knowledge, which is then available in the organization for further dissemination. The paper first emphasizes the role and importance of knowledge management in nowadays organizations. Next the focus is on knowledge management utilization, where first is outlined management tools utilization worldwide. In the empirical part, management tools utilization in Slovenia is outlined. An overview of the researches of management tools, including knowledge management, reveals that knowledge management is not among top used management tools worldwide and well-developed areas, like North America and well-developed parts of Europe, while knowledge management is higher ranked in emerging economies from Central and East Europe (i.e. case of Slovenia) than other areas, like North America, Latin America, well-developed part of Europe. Results from our calculations, based on 342 responses from employees in Slovenian organizations, reveal that knowledge management is not among most used management tools in Slovenian organizations. In aggregated sample of manufacturing and service organizations is knowledge management ranked 7th, in manufacturing organizations 3rd, while in service organizations 8th. The final section of the paper outlines some starting points for discussion and practical implications for manufacturing and service organizations, as well as emphasizes future research steps.*

Keywords: *management tools, organizations, knowledge management, Slovenia, international comparison*

JEL Classification: *M00, M10, M19*

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REMEMBER NOT TO FORGET – IMPORTANCE OF MANAGING ORGANIZATIONAL REMEMBRANCE AND FORGETTING

Ana Aleksić Mirić¹

Abstract: *Organizational learning and knowledge management research and practice have gone through a remarkable transformation in the last thirty years. A review carried out by Crossan & Guatto (1996) shows that in the 1960s only 3 papers on organizational learning were published, whereas during the 1970s, the 1980s and the mid-1990s, there were as many as 64. In the course of the 2000s, interest in the field of knowledge management is becoming increasingly important (Zollo, Reuer & Singh, 2002). Lyles (2014) states that between 2001 and 2010, ISI/Web of Knowledge journals published 1,926 papers that included "knowledge creation" and "organization" among the key words. As a result, a significant body of knowledge was generated and different disciplinary perspectives were developed: we know much about the nature of organizational learning, different types of learning and learning mechanisms, the learning process itself, etc. However, something seems to be missing from the current discussions on organizational knowledge: the existing research is predominantly focused on learning per se, but real-life practice teaches us that companies don't just learn; they also forget.*

The easiest way to understand the process of organizational forgetting is to compare it to individuals – intentionally or unintentionally, people forget, usually some issues they regard as less important or unimportant, but, eventually, they sometimes forget even very important things. Organizations also go through the process of forgetting. They forget intentionally or unintentionally, and consequently lose knowledge.

An intentional process of organizational forgetting happens often in situations when organizations must unlearn old patterns and previously acquired knowledge to acquire new knowledge and skills (Nystrom & Starbuck, 1984). This comes through the process of intentional organizational "unlearning" (Hedberg, 1995; Starbuck, 1996) and requires both behavioral and cognitive changes and that organizations change their ways of doing business and their understanding of the organization and its ways of functioning in the given environment. The loss of knowledge in organizations in this case comes from a purposefully led action of rejecting outdated ways of doing business.

On the other hand, organizational forgetting might also come as an unintentional loss of organizational knowledge, which might happen, for instance, as the effect of some crisis (computer memory crash, loss of documents or systems, unintentional loss of certain repositories, or unintentional loss of knowledge held by individuals). In this case, forgetting comes as an unintentional event which eventually confronts organization with the effects of the resources lost in the process. Forgetting occurs as a result of losing a particular resource in the organizational knowledge base. There are common cases, for example, in the process of organizational downsizing, when, for various reasons, loss of organizational knowledge occurs.

Macro challenges inspired by globalization and tremendous development of information technology have changed the world we knew, patterns of organizing, and standards of performance. Organizations have faced the challenge of fast learning. However, far less attention is given to developing organizational capacities to unlearn. In this paper we will discuss organizational forgetting, its practices and importance for healthy business growth.

Keywords: *organizational forgetting, organizational learning, knowledge management, organizational memory*

JEL Classification: *M10, M14*

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KNOWLEDGE MANAGEMENT SYSTEM IN THE ENTERPRISE AND CUSTOMER KNOWLEDGE MANAGEMENT

Bogusz Mikula¹

Abstract: *Modern enterprises need to constantly develop their competences to meet market requirements. The development of these competences through the application of knowledge management (KM) and research and development works is insufficient. That is why companies are looking for new competences in their environment, among their suppliers, competitors, research institutions or universities. A still underestimated source of knowledge is the client. While the institutional client can often provide the company with access to important and valuable knowledge resources, the individual customer knowledge is often ignored in assessing the requirements for products or services. Classic Knowledge Management (KM) and Customer Relationship Management (CRM) systems collect information about the client and probably elementary knowledge from the client, but usually do not directly involve the client's potential in the creation of new knowledge. A Customer Knowledge Management (CKM) system adequately fills this gap. The aim of the CKM is to optimize the exchange of knowledge between the company and its institutional and individual clients, and to use their creative potential. In this study, the CKM is defined as the activity consisting in planning, organizing and controlling projects in relation to the knowledge and innovative potential of the client. It is aimed at acquiring and developing customer knowledge by combining it with the knowledge of the company, and also creating new knowledge together with the client for the improvement of the company's activity and creation of innovative solutions, products and services. The implementation of a CKM in an enterprise requires a specialized adaptation of the knowledge management system (KMS). Here, the KMS is defined as a set of principles, methods, means, knowledge (including information), people and their interrelationship networks, which allows to adopt and implement knowledge management strategies, functions and tasks in order to achieve the organization's goals. Based on this definition, the KMS components were characterized, i.e.: people, a network of relationships, knowledge resources, instruments and methods as well as knowledge management principles. Next, the principles of choosing the CKM implementation style were discussed depending on the adopted strategy of personalization or codification. It has been established that prosumerism and/or communities of creation should be used in a KMS based on the codification strategy. In a KMS based on personalization strategy - team-based co-learning, mutual innovation and/or joint intellectual property. The CKM focuses on the processes of: 1) acquiring knowledge about the client, 2) acquiring knowledge from the client, 3) transferring knowledge to the client (sharing knowledge, disseminating knowledge and/or sharing knowledge with the client), 4) co-creating knowledge with the client. In relation to these processes, some useful ways of their implementation have been discussed, including the level of suitability of the CRM system.*

Keywords: *knowledge management, knowledge management system, customer knowledge management, customer relationship management*

JEL Classification: *D83, L14, M19, M21, M31, O31*

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FACTORS AFFECTING INNOVATION DECISION-MAKING: A SYSTEMIC FRAMEWORK

Jelena Nikolić¹, Dejana Zlatanović², Jelena Erić Nilesen³

Abstract: *Many of the problems in managing innovation arise from the complexity and multi-meaning nature of innovation. Thus, of relevant importance is to explore how organizations deal with these complex problems, achieve collective understanding, interpret its environment, and prepare to change. The challenge of innovation decision-making is related to the fact that it is not a simple matter of selecting amongst clearly defined options. The output of the innovation process depends not only on the organization's ability to carry out activities traditionally described as part of the innovation process, but also on decision-makers' ability to deal with various factors determining organizational innovativeness. Interdependence, uncertainty, and complexity of these factors complicate the process of making "right" strategic decisions. Accordingly, as a strategic decision, decision on innovation should be researched as a problem situation, i.e. as a system of complex, interactive, dynamic, and ambiguous problems. To deal with all the situations and problems that may arise in the innovation process, systemic approach for innovation decision-making is needed. We selected System Dynamics, as a relevant functionalist systems approach to management which is focused on the problems that can be modeled as systems, essentially made of different elements and flows, i.e. inter-elementary relations that create feedback loops. The main purpose of the paper is, therefore, to introduce a systemic framework involving selected factors affecting strategic decision-making on innovation and their relationships.*

Starting from different classifications of strategic decision-making factors, we selected the following internal factors: characteristics of decision-makers, such as age, education, working experiences, risk affinity and creativity; organizational characteristics including organizational structure, culture and participation in decision-making; environmental characteristics, such as environmental velocity and volatility. An integration of these contextual domains into a wider framework looks a promising avenue for research. Such a framework must combine the following basic perspectives: an 'individual decision perspective' by characteristics of decision-makers, 'organizational context by organizational characteristics, and 'environmental determinism' by environmental characteristics. Previous theoretical and empirical research findings were the basis for building a System Dynamics' causal loop diagram for connecting the above mentioned factors and their influence on innovation decision-making. This framework can be a valid basis for future empirical research in Serbian enterprises.

Keywords: *innovation decision-making, factors influencing innovation decision-making, systemic framework, System Dynamics' causal loop diagram*

JEL Classification: *M10, D81, O31*

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THE CHALLENGES OF KNOWLEDGE TRANSFER IN ORGANIZATIONS IN POLAND – DISCUSSION ON EMPIRICAL STUDY

Anna Pietruszka-Ortyl¹

Abstract: *The aim of the study is to synthesize the literature overview dedicated to processes involving knowledge with a focus on the transfer of knowledge as a sub-process of managing it. It has been assumed that knowledge transfer as one of the most important processes includes acquiring, circulating, disseminating and sharing knowledge. Using the literature overview, the method of critical analysis was used, focusing on conducting a thorough scientific discussion dedicated to the identification of social determinants of knowledge transfer. Particular emphasis was taken on the conditions for the implementation of knowledge sharing.*

Due to the fact that the available studies on knowledge transfer in the organization did not meet with practical verification of the basic problems of its implementation on the example of polish organizations, it was decided to undertake empirical research in this area. Therefore, the main objectives of this paper are to determine the conditions of transfer of knowledge in polish enterprises, to identify the subprocesses of knowledge transfer along with the methods used in their implementation, and to determine the rules of the knowledge transfer recommended for use in enterprises in Poland.

Knowledge transfer is treated as a multi-dimensional process consisting of 4 subprocesses: acquisition of knowledge (acquisition of knowledge from diverse sources, both external and internal), knowledge disclosure (knowledge transfer directed to particular persons), knowledge distribution (advanced forms of sharing of knowledge characterised by a broader sharing range aimed at creation of generally available resources from this knowledge), as well as knowledge sharing (mutual transfer of knowledge by people in the process of communication).

In view of the results of the conducted empirical research, by analysing conditions of knowledge transfer in the verified facilities, it can be concluded that knowledge transfer occurs therein on many levels and takes the form of 4 distinguished sub-processes. In addition, there are convenient circumstances fostering it. Actions are undertaken aiming at shaping the organisational culture based on mutual trust, focused on promoting and supporting knowledge diffusion. Managers in the examined organisations, in everyday behaviours and real attitudes, seem to adhere to standards and values focused on creating an atmosphere of support, respect of the principle of reciprocity, promoting altruistic attitude in sharing knowledge.

As a result, the universal premises of effective management of knowledge transfer in organizations are discussed, in the form of: shaping the optimal technical and social infrastructure of the knowledge environment, taking actions contributing to the evolution of organizational culture towards promoting knowledge and application of main values, superior and detailed principles of knowledge transfer.

Keywords: *knowledge management, knowledge transfer, infrastructure of knowledge environment, knowledge-orientated organizational culture, knowledge transfer principles*

JEL Classification: *J24, M12, M54*

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DOMESTIC AND CROSS-BORDER ACQUISITIONS PERFORMANCE: EVIDENCE FROM SERBIA

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Abstract: *Acquisitions have been a popular strategy for companies during the last few decades. Companies may undertake acquisitions in order to achieve growth, increase market power, access additional resources and skills. Numerous studies over the last twenty years have focused on the key issues of whether acquisitions are successful, including whether acquisition performance shows improvements. These studies have mainly focused on domestic acquisitions. However, the acquisitions have great importance not only on a local or national level, but also at the international level. The globalization, deregulation, privatization and corporate restructuring processes have triggered a wave of cross-border acquisitions. Despite the growing importance of cross border acquisitions, effects of these transactions mainly stay under-explored compared to domestic acquisitions. Additionally, studies have mainly considered transactions in developed economies, while research in transition economies is relatively limited. The present study therefore attempts to fill this research gap by exploring the effects domestic and cross-border acquisitions on performance of acquired companies in the Serbia, as transitional economy. Data were collected from 44 managers in five acquired companies in the Serbia. Acquiring companies came from Norway, Switzerland, Italia and Serbia. Mann-Whitney U test was used to test the research hypothesis. The results indicate that acquired companies achieved improved acquisition performance. Additionally, the results showed that the cross-border acquisitions achieved the better acquisition performance compared with domestic acquisitions. Cross-border acquisitions had the best improvement in non-financial performance such as market share, job satisfaction, product quality, expansion of customer base and development of new products and services.*

The study makes an important theoretical and practical contribution. First, the results of this study theoretically and empirically expand the knowledge base about effect of domestic and cross-border acquisition in Serbia as a transition economy. Second, this study provides depth analysis of acquisition performance analyzing and comparing indicators of acquisition performance of domestic and cross-border acquisitions. Third, this study explains the conditions under which cross-border acquisitions can improve post-acquisitions performance. Fourth, this study shows that there is a need to use hybrid models for the measurement of acquisition performance that will integrate financial and non-financial performance. Additionally, the results of this study have important practical implications for managers of acquired companies in transition economies, as they represent a valid and pragmatic basis for decision making on the selection of future acquisition partner. Results of study might be used by policy makers for decision making on encouraging or discouraging of cross-border acquisition in compare with domestic acquisitions.

Keywords: *domestic acquisitions, cross-border acquisitions, acquisition performance*

JEL Classification: *G34, L25*

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ORGANIC DESIGN AS A PREREQUISITE FOR KNOWLEDGE MANAGEMENT IN HIGHER EDUCATION

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Abstract: *Under the influence of globalization, accelerated development of information and communication technologies, as well as numerous changes in the world economy, natural resources no longer constitute key drivers of economic growth and development, but the knowledge, as a specific resource that is difficult to imitate or replace, takes over the dominant role. The knowledge economy - a concept that emphasizes the importance of knowledge management as a basic generator of sustainable economic growth, has emerged. In this kind of economy, higher education institutions play a central role, as the biggest "producers" of knowledge. Educational systems around the world are facing reform, and one of the main implications of higher education reform is the implementation of the knowledge management process and appropriate subprocesses, which may be considered as three interdependent phases, such as knowledge creation, knowledge sharing and the use of knowledge. Although creating knowledge for end-users - pupils and students, is the primary goal of the education system in each country, it is very important to develop a systematic approach to knowledge management in the internal environment of faculties and universities, in order to maximize value for key stakeholders. It is very important that employees are always creating new tacit knowledge, translating it into explicit knowledge, sharing knowledge among themselves, as well as with external actors - through networking processes, and using knowledge in a purposeful manner, which makes it easier to adapt to the market and improve performance.*

Therefore, it is important to examine different, personal, organizational, technological, cultural and other factors that can encourage or limit each of the above-mentioned knowledge management phases in higher education institutions. The research of organizational parameters, which greatly influence the process of knowledge management in various industries, is particularly significant. Nevertheless, there is still lack of research that touches upon the observed problem area and confirms the above assumptions. There is also a notable lack of empirical evidence in the field of higher education in the countries of Southeastern Europe. Therefore, the paper analyzes the interdependence of organizational design, on the one hand, and the process of creating and sharing knowledge, on the other hand, at higher education institutions. The basic aim of the paper is to determine whether and to what extent the characteristics of organic design contribute to the creation and sharing of knowledge in universities. The derived goal is to determine the differences in the processes of creating and sharing knowledge between employees in academic and non-academic functions, given the differences in the nature of work. In order to achieve the set goal, the existing theoretical and empirical knowledge was analyzed and a survey was conducted on a sample of several faculties of the University of Kragujevac.

Keywords: *knowledge management, organization design, higher education*

JEL Classification: *M21, D83, I23, D2*

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THE INEVITABILITY OF UNIVERSITY ENTREPRENEURIAL PATH

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Abstract: *The transformation of a traditional research university to an entrepreneurial university is a current day phenomenon which can be risky. Nevertheless, the number of such transformations is increasing because of the reduction in university funding from government sources and the constant emergence of a competitive market for research and education. Fiscal and monetary stimulation and large corporations have been in the focus of public policies to ensure economic growth and job creation for a long period of time. But, the university is one of the world's most durable institutions and now, more than ever, it must pass a complex new test. Therefore, new approach has emerged focusing on promoting the spill over of knowledge through university entrepreneurship. This was a result of past the decade of Europe's worst economic performance in years. Integrating a universities' missions for economic and social development impel universities transformation towards entrepreneurial universities. To correctly design strategies to manage the transformation process requires a deep understanding of the strengths and weaknesses that the university presents toward the transformation. Creation of an entrepreneurial culture in a university environment and the movement towards a Triple Helix model of partnership between government, industry and higher education is a complex task that requires the efforts of many dedicated individuals. During any crisis it is important to support all contributors to an entrepreneurial economy. If universities do not become agents of innovation they will hamper regional and national development and international competitiveness. Universities as centres for knowledge creation and diffusion can be leveraged to generate future economic growth. University of Zenica is still primary a teaching university, as most of universities in Bosnia and Herzegovina, but in last couple of years a positive movement started towards entrepreneurial path of university, which is vital to achieve sustainable economic growth in this region. Considering basic characteristics of an entrepreneurial university it can easily be concluded that University of Zenica was a long way from an entrepreneurial university in the beginning, but, with growth the path has begun to change. For small transition countries, like Bosnia and Herzegovina, it is important that universities operate under policies that encourage entrepreneurship and innovation. The overall goal of this article is to highlight importance of entrepreneurial university and to analyse past and current characteristics of the University of Zenica. Identification of what is still necessary to be done on university entrepreneurial path toward becoming an entrepreneurial university and how to implement transformations as well as identification of possibilities and obstacles during this transformation will be presented and discussed in this paper.*

Keywords: *entrepreneurial university, entrepreneurship, innovation, triple helix, University of Zenica*

JEL Classification: *L26, I23, O10.*

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UNIVERSITY BUSINESS COOPERATION IN TERMS OF STAKEHOLDERS

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Abstract: *Universities as knowledge providers from one part and businesses as knowledge users from the second part need the cooperation ties. This need for businesses results from the need of open innovations and for universities from the need of the social responsibility as well as academic engagement. The processes of open innovations are of even more importance in the shared economy where the access to resources matters more than the resources possession.*

The goal of the cooperation is not just the knowledge usage, but also the incentives for new knowledge creation. The need for cooperation activities is of no doubt and not even discussion, but the question that arises is how this cooperation should be materialized both in terms of the initiation and the development. The issues of relations though relatively concerned as simple and easy in practice are in the perspective of strategic building of the academic engagement complex processes.

This, as is probably clearly understood is the matter of people or as is formulated definitionally – human resources. However the term human resources as once had been addressed to the employees, no matter at which organizational division level they were employed, is now more often socially directed. This results from the servicing function of the economy where networking is of special importance alongside with the value creation. Therefore the term stakeholders had appeared and this term, when employees are concerned, is even narrowed to internal stakeholders. Internal stakeholders are represented by different groups of interests at the organization and when it comes to the university business cooperation the specification and definition of these groups may refer both to the organizations themselves, but also beyond the universities and businesses.

When it comes to the evidencing of the stakeholders there is still the gap in identification of all the stakeholders and to even more extent the stakeholders as those grouped and considered differentially. As there are different organizations they also have different stakeholders even though there may be the same academic orientation of universities. The uniqueness of academic performance is accompanied by the uniqueness of their stakeholders both internal and external. Therefore the need for the systematization of the stakeholder is needed so as to contribute to the topics of stakeholders at the level of university-business cooperation.

Keywords: *stakeholders, UB cooperation, higher education, entrepreneurship*

JEL Classification: *A13, I23, O31, O32*

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THE ROLE OF UNIVERSITY IN DESIGN AND IMPLEMENTATION OF SMART SPECIALISATION STRATEGY

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Abstract: *Universities could have pivotal role in the development and implementation of Research and Innovation Strategy for Smart Specialisation (RIS3). Smart specialisation is a model of regional policy based on „bottom-up“ approach, as a matter of fact on cooperation between public, scientific-research and business sector which identify the areas of future specialisation through the entrepreneurial discovery process. RIS3 is a central part of Cohesion Policy of European Union and basic ex-ante conditionality for spending the EU funds aimed for research and innovation. Analyses show that universities are more connected than ever before to the regional economy, having an important impact on competitiveness and performance of regions. Universities are crucial institutions in regional innovation systems, especially in those with absence of a dynamic and research oriented private sector. In order to increase the effects of their activities in all regions, there is a need for better compatibility and interaction between regional, national and European programs for research and development. Discovering the right domains of future specialisation is a challenging process. It is necessary to avoid the mistakes most of the regions do choosing almost the same technology mix and showing the lack of imagination, creativity and strategic vision. Universities, as sources of creation and dissemination of knowledge and innovation, have a critical role to play in this process. The adoption of RIS3 has been aimed in part at significantly increasing funding opportunities for universities, while stimulating them to engage more and in new ways in regional development. The capacity of the regional actors to adsorb the funds and direct them to productive research and innovation activities for the region will be the key issue and challenge, and the role of universities' direct engagement in the design and implementation of the smart specialisation strategies will be crucial for their goals to be achieved. The objective of this paper is to look into the role of the universities in smart specialisation strategies' design and implementation, identify opportunities and propose recommendations to stakeholders and policy makers.*

Keywords: *university, research and innovation strategy for smart specialisation, regional development*

JEL Classification: *O31, O32, O38, R58*

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GROWTH INTENTIONS OF EARLY-STAGE ENTREPRENEURS IN SOUTH EAST EUROPE REGION

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Abstract: Through their role, entrepreneurs differently contribute to economic activity and economic development of national economies. Some of them are driven by the development of new products/services and new markets, others see their opportunity in foreign markets, while some of them try to increase their business and number of employees in line with their company's needs. The key issue, as well as the overall orientation of this research, is related to the analysis of the relationship between entrepreneurial knowledge, skills and abilities (KSA's), entrepreneurial motives and internationalization with early-stage entrepreneurial growth intentions. Growth aspiration is a major contribution to the economic development of the countries, because a large number of newly established companies have an enviable potential for enterprise growth and creation of new jobs. Besides the influence of psychological characteristics there is an evident influence of demographic characteristics and the business environment within which it exists. The paper is exploring a particular gap and it can advance the understanding of the importance of determinants of entrepreneurial growth intentions. Although the theory recognizes relationships of variables used in this research, yet there is a significant unexplored area, especially in terms of SEE region. The main objective of this paper is to determine the factors of influence on growth aspired entrepreneurial ventures in order to determine characteristics of these entrepreneurs in SEE region. For the purpose of this research, data from the Global Entrepreneurship Monitor was used. For the purpose of this research, the authors included six countries in research sample of South East Europe: Slovenia, Croatia, Hungary, Romania, Bosnia and Herzegovina, and FYR of Macedonia. An exploratory sample of the mentioned countries was 12027 respondents and 632 entrepreneurs with growth intentions. Based on the nature of observed variables the authors used Spearman's correlation and ordinal logistic regression (ORL). Our findings demonstrate that entrepreneurial motives and internationalization have positive relationship with high-growth entrepreneurial aspirations. Also, we have partially confirmed hypothesis related to positive relationship between entrepreneurial KSA's and entrepreneurial growth intentions. Main research limitation can be recognized in low Nagelkerk coefficient, which is characteristic for social phenomena, because they are complex and multidimensional, so it is very difficult to explain a very big amount of variation.

Keywords: growth intentions, KSA's, entrepreneurial motives, internationalization

JEL Classification: L26

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CROWDFUNDING AS A BASIS FOR LAUNCHING NEW BUSINESS VENTURES

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Abstract: Over the last ten years the crowdfunding concept expanded rapidly and became one of the most attractive methods of financing new business ventures. Crowdfunding is a method of securing funds for the realization of an entrepreneurial venture by collecting small investment funds from a large number of investors over the Internet, without using standard financial intermediaries. Crowdfunding uses web technologies and existing online payment systems to facilitate transactions between founders (people who require funds) and funders (people who give money). Its relevance and popularity are still growing thanks to the development of ITC technologies and new ways of thinking about business ventures. Start-ups as well as small and medium-sized enterprises see crowdfunding as an important instrument of raising capital which benefits from undisturbed financial assets of the Internet users. Crowdfunding implies mobilizing the crowd to finance projects which are posted on dedicated websites, known as crowdfunding platforms. Therefore, more and more investors are noticing the evident advantages offered by this kind of financial instrument. Crowdfunding is changing the way entrepreneurs finance their effort, launching new products and services on the market and how they create start-ups. Crowdfunding's social impact appears to be unchallenged when it comes to start-ups, and it also seems to be a key factor in contributing to the increase of their number and social and economic success. The objective of this paper is to improve our understanding of crowdfunding concept and discuss its characteristics, related terminologies, and key elements, as well as the possibilities of financing innovative ideas in Serbia. The paper expounds basic activities in the realization of this concept, such as creating a presentation of the call, getting to know the online community, collecting roles, developing innovations and distributing the revenue. Also, the paper highlights the crowdfunding models. These are donation based, reward based, equity based and interest based crowdfunding.

Keywords: crowdfunding, venturing, entrepreneurship

JEL Classification: L26, O31, G18

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OWNERSHIP CONCENTRATION IMPACT ON FINANCIAL PERFORMANCE: EVIDENCE FROM SERBIA

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Abstract: Separation of ownership and management functions in modern corporations resulted in the emergence of a conflict between the principals (shareholders) and agents (top management). Agency theory suggests a ownership concentration as a mechanism for mitigate principal-agent problem. As a result of the underdevelopment of the legal system and the corporate control market in transition economies and developing countries, the application of the ownership concentration mechanism can lead to the emergence of a new conflict on the relationship between majority and minority shareholders. High ownership concentration allows the majority owner to use corporate resources in accordance with private goals, which negatively affects the value for minority shareholders and corporate performance. Accordingly, the main objective of the research is to identify the concentrated ownership's impact on the financial performance. Concentration of ownership is measured as a percentage of the largest shareholders who owns more than 55% of total shares. For the purpose of measuring financial performance two indicators were selected: return on assets (ROA) and return on equity (ROE). In order to fully understand the impact of concentrated ownership on the financial performance, the analysis includes some control variables such as company's activity and liquidity. Empirical research is based on secondary data obtained from the financial reports of 70 companies, which shares were traded on the Belgrade Stock Exchange from 2015 to 2017. For the purpose of testing the research hypotheses, the method of correlation analysis and the method of free regression analysis were applied. Correlation analysis has examined the extent to which changes in financial performance are associated with changes in the concentration levels of ownership. Identification of the significance and type of influence of concentrated ownership on financial performances was performed by regression analysis. The results of the applied statistical analysis methods show that ownership concentration greater than 55% has a negative impact on ROA and ROE. The basic contribution of the conducted research is manifested in the ability to, on the basis of the obtained results, carry out a practical check of existing theoretical knowledge on ownership concentration effects on corporate performance in the Republic of Serbia.

Key words: corporate governance, ownership concentration, agency problem, financial performance, transition economies

JEL Classification: G32, G34.

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SELECTED BUSINESS POLICY PRINCIPLES TOWARDS ACHIEVING CSR

Tjaša Štrukelj¹

Abstract: *In a modern world, the consequences of human social irresponsibility can be seen from many different viewpoints. People, organizations, governances, and whole society don't care enough about other people, organizations, societies and/or planet Earth, including nature and animal species. The consequences of human social un-responsibility can be seen from many different examples. Therefore, it is the fact that in the contemporary world humans need more social responsibility than ever, also the one of organizations. It is also more and more obvious that we need besides technological innovations also non-technological ones, including innovations of one's values. As we need innovations in the basic realisation process, first of all we need innovations in governance and management of organizations (and societies). Since organizational governance is determined in business policy, the purpose of this article is to research the possibility of innovation of business policy towards achieving more social responsibility. Our basic goal is to introduce business policy principles towards achieving (more) social and other responsibility. Systemic behaviour offers us a methodological solution, e.g. Dialectical Systems Theory is appropriate approach, which calls our attention to all important and only important viewpoints and their synergy. Dialectical Systems Theory advocates (1) holistic approach and (2) interdependence, which both are included also into another methodological approach used, the ISO 26000 standard on corporate social responsibility (CSR), launched in 2010. ISO 26000 is a non-binding guidance about doing business in a socially responsible way – ethical and transparent, to contribute to the health and welfare of the society. In the centre of ISO 26000 core subjects authors placed organizational governance, thus business policy. For further research we used MER-model of integral management as one of our starting points. Since organizational (strategic, tactical and operative) management realises business policy (determined by owners) and organizational practice realises tasks that determine organizational managers, it can be seen how important central point business policy indeed is. As part of the research results findings we describe a solution – the principles that can be followed to achieve social (and else how) responsible business policy (research implications). The cybernetic circle of the preparation and implementation of the management process practicing social responsibility shows that this is a possible path towards more social responsibility in organizations (practical implications). Also governances could use the same model (social implications). One of the core values of the paper is the cognition that we need to replace our recklessness and selfishness by solving problems and that presented responsible business policy principles can be used to achieve this goal.*

Keywords: *business policy, social responsibility, innovation, mer model of integral management, strategic management*

JEL Classification: *M10, M14, O35, L20, G34*

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ELECTRONIC WORD OF MOUTH - THE CASE OF SLOW TOURISM

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Abstract: *In the past few years, the application of the Internet in the field of marketing has grown at an exponential rate. By analyzing numerous scientific and professional papers, as well as by observing and studying the business practices of numerous companies, it can be concluded that the Internet gradually evolved from, primarily, a communication medium into a sales and/or distribution(marketing) channel, and finally into a platform for managing consumer relationships and virtual social networks. The effectiveness of traditional marketing activity declines rapidly, while at the same time competition intensifies to the highest level, globally. Many marketing theorists and practitioners consider cyber space to be the solutions to those problems i.e. the use of virtual social networks and communities, within which intensive word of mouth communication between consumers occurs continuously. For these reasons, the Internet must be seen as an opportunity for companies to connect with their customers who use it to share online their impressions, experiences and recommendations with other consumers, to whom they may or may not be personally acquainted. Interactivity as the basic characteristic of the Internet has enabled a new dimension of interactions and relationships of all participants in the market, with a special emphasis on interconnection and establishment of the relationship between the consumers themselves through the form of electronic word of mouth communication. The capacity for marketing usage of electronic word of mouth communication is undoubtedly enormous, but marketing practice has not yet determined to what extent the real usage of it is possible i.e. to what extent the consumers are willing to act and behave in the manner that the company expects them to behave. At the same time, this turbulent technological and information development and acceleration of the pace of life has developed the consumers' need for completely opposite processes – return to nature and a slower and more complete consumers' experience of products and services, which is particularly manifested in the tourism sector through the emergence of a new concept called "slow tourism", i.e. tourism which involves making real and meaningful connections with people, places, culture, food, heritage and the environment. The aim of the paper is to expose the phenomenon of electronic word of mouth communication, as a consequence of technological progress, in the new field of tourism, "slow tourism", which is also a consequence of the same progress but with different prefix, in the Republic of Serbia.*

Keywords: *electronic word of mouth, consumers, slow tourism, marketing relationships*

JEL Classification: *M31, Z32, Z33*

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COMPETENCIES EXPECTED BY EMPLOYERS IN THE ERA OF INDUSTRY 4.0

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Abstract: Today, industry 4.0 brings various challenges, for example: technological, strategic, business and people-related ones. In the conditions of industry 4.0, human resources become the main asset of a company and significantly determine the competitive advantage on the market. Moreover, the dynamics of changes on the labour market is increasingly faster, which also means a quick outdated of the existing competencies and a growing demand for new competencies. Therefore, skillful determination of employees' competencies and the possession of competent employees appoints the direction of organizational development. In addition, it is particularly important for the enterprise competitiveness to monitor the demand for competencies, including identification of trends regarding changes of the demand for labour. It thus becomes significant to create possibilities of identifying the employer demand for competencies and the supply of competencies.

The subject literature does not agree as to what the professional competencies of employees are. The multiplicity of approaches results mainly from the fact that the issue of competencies is analysed by specialists representing different scientific disciplines: management, psychology and sociology. The definitions of competencies presented in the subject literature are not homogeneous, they are interpreted differently and consist of various components. However, it may be considered that the key elements of competencies are knowledge, skills and attitudes, which – when used during work – help implement the organisation's strategy. Moreover, analysis of the subject literature point at the diversity of typologies of competencies. Among the most popular are the classification of R.L. Katz (1974) and F. Delamare Le Deist and J. Winterton (2005).

The aim of this article is to identify and define the relevance of competencies expected by employers in the era of industry 4.0. The study shows the specificity of the industry 4.0. It describes primary industry 4.0 related technological areas, for example: big data, cybersecurity, mobile robotics, cloud computing, additive manufacturing, industrial internet of things and cobots (robots collaborating with human). It also discusses the essence and typology of competencies. Moreover, it analyses competencies expected by employers in the era of industry 4.0. The study reviews subject literature and analyses the research problem applying a descriptive method.

Keywords: competencies, industry 4.0, labour market

JEL classification: M51, M54, O15, J24

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COMPANIES' COMMUNICATION THROUGH OFFICIAL WEB SITES AND SOCIAL MEDIA – CASE STUDY OF CROATIA

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Abstract: *Complex and dynamic global modern business environment driven by the advent of Web 2.0 and empowerment of individual stakeholders, supported by information and communication technologies has opened a new era of disclosure of a business. Widespread usage of the internet, World Wide Web and social media has changed the way companies do their business and how they communicate with all interested stakeholders. The content of that communication must be published in an easy to use and share form ready for dissemination across all social media. Driven and empowered by social media, stakeholders have also raised their expectations and now require to receive more information without time lag about the company and its products and services. In response to the dynamic and stakeholder-oriented environment, companies with strategic positioning of corporate communications function try to assure a two-way dialog with their stakeholders through the official web sites and social media.*

The aim of this paper is to provide evidence of transparency and the progress of selected companies' in corporate communications function, more precisely disclosure on official web sites and social media. The development of communication function is observed through the components such as: 1) basic web disclosure; 2) investor disclosure; 3) career possibilities; 4) brand and products presentation; 5) strategy – disclosure of company's mission and vision; 6) corporate social responsibility; 7) media disclosure; and 8) social media presence on company's official web site.

The sample was chosen from the top 500 value added Croatian companies in the year 2008 (according to the Institute for Business Intelligence). Analyzed companies are Croatian companies with the highest value added ranking in that year. The survey was undertaken in 2010 as a first iteration, and the repeated one was conducted in 2018, with the aim to explore progress in terms of web and social media communication.

We can assume there is a positive trend in all previously mentioned companies' disclosure components to all interested stakeholders, and that companies with higher value added score (based on the 2008 ranking) showed higher progress in the last eight years in spite of the recession, and represents current state of the art and top of the development of companies' disclosure through the official web sites and social media in Croatia. Descriptive statistics is used to argument this hypothesis and to research how top Croatian companies have accepted modern communication channels to communicate with interested stakeholders.

Keywords: *management, corporate communications, social media*

JEL Classification: *D83*

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CONTRIBUTION TO BUSINESS COMPANIES THROUGH OCCUPATIONAL SAFETY AND HEALTH ACTIVITIES

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Abstract: Occupational safety, more specifically occupational safety and health, is an ever-neglected issue by employers in Serbia, who often ignore the significance of the economic effects of occupational safety and their impact on productivity, cost-effectiveness, and profitability of doing business. In recent years, as many foreign companies entered the Serbian market, the issue has been brought into focus. Occupational injuries and professional and other diseases are often the result of accidents that lead to cessation of work and sick leave, which in turn incurs certain costs for employers and social insurance funds. Many authors concluded that the total cost incurred by occupational injuries and professional and other diseases is much higher than it may seem. To counter this finding, investing in preventive measures for occupational safety and health can only reduce direct and indirect costs, and, consequently, reduce the number of sick days and lost workdays. This also improves the worker's motivation and reduces the insurance premiums, thus increasing efficiency and productivity of a company. Nationally, such a state is reflected in reduced social insurance and healthcare costs, which leads to lower taxes, increased economic performance, and added social benefits. The aim of this paper is to use the existing literature and statistical data and good practice examples from the surrounding to emphasize the importance of investing in preventive measures for occupational safety and health regardless of a company's size. According to the most recent statistical data, an average of about 2.78 million workers die annually across the globe as a result of occupational injuries or professional and work-related diseases. Fatal and non-fatal occupational injuries are much more frequent in developing countries, especially in the fields of agriculture and fishing, construction and civil engineering industry, and the service sector. Globally, from 2 to 4% of the GDP on average is paid to mitigate workplace accidents and injuries. Studies conducted in Great Britain have shown that the total cost incurred due to occupational injuries or health issues due to poor work conditions falls between 5 and 10% of the overall company income. It can be claimed that the efficiency of implementing occupational safety and health measures does not only affect the productivity and cost-effectiveness of a company, but also the quality and competitiveness of its products. Hence, it is in a company's direct interest to implement these measures as efficiently as possible. Each investment in occupational safety and health measures is beneficial for any company. This paper attempts to highlight how proper implementation of occupational safety measures (technical safety measures, education and practical training of employees) and organization of occupational safety and health tasks can significantly contribute to a more cost-effective business.

Keywords: occupational safety and health, occupational injuries, economic effects, business companies, protective measures

JEL classification: J28

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KNOWLEDGE SHARING IN ORGANIZATIONS: EXAMINING THE ROLE OF EMPLOYEES' EDUCATION LEVEL

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Abstract: Knowledge sharing can be considered an important process in organizations, because it is fundamental to generating new ideas and developing new business opportunities through socialization and the learning process of employees. Numerous scholars and practitioners claim that the process of knowledge sharing enables firms improving competitive advantages, the development of intellectual capital, and improvement of work processes that can improve productivity, reduce costs or improve quality. All these reasons encourage companies to pay special attention to the process of knowledge sharing and define ways and tools that can improve this process. There is a number of factors which affect the process of knowledge sharing in organizations and they can be classified as: individual, organisational and technological factors. However, little empirical research has been conducted examining the different factors that influence knowledge sharing process. Based on a survey of 97 employees from companies in Republic of Serbia, the subject of this work is impact of employees' educational level on knowledge sharing. The objective of the research is to determine whether the employees' educational level has a positive impact on knowledge sharing in organizations. In relation to the set goal of research like this it is possible to define two sub-goals: whether there is a statistically significant difference in knowledge sharing between employees with different educational level; whether higher educational level means better knowledge sharing between employees. In order to achieve defined aims multiple regression analysis, ANOVA analysis are conducted. The results of the empirical research study have proven the existence of a statistically significant positive influence of education level of employees on knowledge sharing practice, while there is a significant difference in the implementation of the practice of knowledge sharing among employees of different levels of education in companies operating in the territory of Republic of Serbia. The purpose of this research is to determine the model for managing knowledge sharing process in organizations depending on different employees' educational level, which can be useful for improving organisational performance. Results of research can be used by HR managers for implementing proper strategy to stimulate knowledge sharing in organization with minimum effort and costs.

Keywords: knowledge sharing, education, human resources, knowledge

JEL Classification: J24, M12, N30

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MODERATING EFFECTS OF GENDER ON USER SATISFACTION IN MOBILE COMMERCE

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Abstract: Modern technologies are changing everyday lives of people worldwide. Lower prices and higher availability led to the very high penetration of mobile technologies, particularly mobile phones in all parts of the world. Due to its powerful capabilities, mobile phone is no longer used only for vocal or text communication, but also for more complex and sophisticated services like commerce. Mobile commerce (m-commerce), or the use of mobile devices for commercial activities, is one of the fastest-growing businesses today. About 75% of mobile internet users made a purchase via mobile devices in the past six-month period. The objective of the paper is to examine the factors influencing consumer satisfaction in mobile commerce, and the moderating effects of consumer's gender on these relations. The proposed research model consists of 9 constructs: Customer involvement, Social influence, Mobility, Personal innovativeness, Customization, Trust, Usefulness, Ease of use and Satisfaction. The study involved 224 respondents, who are clients of one of the three mobile network operators in the Republic of Serbia. Confirmatory factor analysis is used to test the validity of the research model, and structural equation modeling (SEM) is applied to determine variables which have significant influence on user satisfaction. The findings indicate that Customization, Trust, Usefulness and Ease of use proved to be significant triggers of Satisfaction. Out of the four antecedents, Customization has the strongest impact on Satisfaction. In addition, results of invariance analysis show that the two observed groups (men and women) are different. This generally supports the moderating effect of gender. Subsequently, multi-group SEM was also applied to compare the values of each individual effect between the two variables achieved in both groups. Originality of the paper is provided through investigation of moderating effect of gender, which is done by using the invariance analysis. The study provides useful theoretical implications, as well as managerial implications for mobile commerce stakeholders. It is essential that the management of mobile providers continuously works on improving the system of personal data protection. It is necessary for citizens to be well informed about these security systems, but it is also important that marketing campaigns highlight all the benefits that mobile commerce offers to customers.

Keywords: mobile commerce, e-commerce, customer satisfaction, gender

JEL Classification: L81, D12

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SYNTHESIS OF COGNITIONS ABOUT CRISIS STATE OF A COMPANY: SITUATION ANALYSIS OF THE COMPANY IN A CRISIS

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Abstract: *There is a high degree of consensus among the reference authors in this field that a company falls into a crisis due to missmanagement. Namely, every form of a crisis can lead to chaos and potential disaster if there is a negative synergy and disorientation of management, but it can also be an incentive, it can motivate creativity and challenge in creating completely new knowledge, approaches, solutions and initiatives. Such a process actively influences the changing attitudes, ways of thinking, behavior and awareness of people, and especially managers who are the most responsible for effective management. There is a significant number of examples in the history of the economy, where some enterprises have disappeared in the branches affected by the crisis, while others have managed to withstand all the challenges, and today they operate more successfully than during the pre-crisis period. The subject of the research in this paper represents actual theoretical and practical problems related to the phenomenon of a business crisis, and systematically and scientifically formulated results of the research on the performance of strategic management in the function of crisis management. In this regard, the company's crisis situation was diagnosed in order to synthesize the conclusions about crisis situations of the enterprise, and special attention was paid to determining whether managers of the observed companies establish the strategy in accordance with familiar theoretical settings, or they to do it through certain empirical methods. The research within this paper has the prospect that through empirical research, key areas, characteristics and causes of a crisis in the process of managing the enterprise in the pre-crisis and crisis period are identified.*

Keywords: *crisis management, crisis communication, situation analysis, crisis period*

JEL Classification: *M10, M12*

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THE IMPORTANCE OF EMPLOYEES' PERFORMANCE MANAGEMENT IN THE ORGANIZATIONS IN SERBIA

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Abstract: Human resource management (HRM) can be understood as a managerial process of managing one of the organizations' most valuable resources – people. Among many interrelated activities, such as HR planning, recruitment and selection, orientation, training and development, career management, remuneration - compensation and benefits, retaining, health and safety, industrial relations, etc., performance management gets special place in HRM, but also in the organization as a whole. Performance management can be described as a strategic and integrated approach to delivering success to an organization focusing on the improvement of performance and employee development. Employees' performance management (PM) includes all the elements relevant to the performance of the organizations employees. The evaluation of the results of employees' work represents an assessment of their current or previous performance. This implies the need for work standards to be set together with employees, in line with the goals of the organization, the further set of mutually measurable objectives, then comparing the achieved results with the set standards, discussing with the employees the achieved results in order to timely correct the worker's activity. Since it is an integrated process, PM provides information for other HR activities, too such as career management, training and development, and compensation (incentive pay) decisions. Based on the above mentioned, the aim of this paper was to explore the current state of the employees' performance management practice in the context of human resource management (HRM) in Serbia. The objectives of the study were to detect the extent of the usage of formal assessment procedures for performance measurement for different types of employees, the extent of the usage of appraisal data as an input for other HR activities, and to detect who is formally expected to provide data for the appraisal process. Also, there has been investigated the relationship between performance management practice and organizational performances. The methodology in this paper includes the theoretical analysis of the employees' performance management, as well as the statistical analysis of the data on employees' PM in Serbia, based on the Cranet research. The sample of the study has consisted of 160 organizations from Serbia, explored in 2015/2016 period. We used descriptive statistics and correlation test for the purpose of the analysis in the SPSS program.

Keywords: human resource management, performance appraisal, cranet

JEL Classification: M12, M50

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THE PRELIMINARY RESEARCH OF EMPLOYER'S BRAND DEVELOPMENT AT ENTERPRISES IN SERBIA

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Abstract: *The employer brand, understood as a company's effort towards building a unique image in order to present it as a unique and desirable place to work, is used to attract, retain and motivate the talents and best employees. In order to gain the best employees, it is necessary to change the strategies and tactics of human resources management. The employer brand, created as a result of integrating marketing and human resource management discipline, is one of the innovative approaches that involve the appropriate combination of material and non-material benefits that will be delivered to employees in order to exploit their potential in a way that creates high loyalty and commitment to the company, and thus job satisfaction. In the context of human resources management, the employer brand is the package of psychological, economic, and functional benefits that potential employees associate with employment with a particular company. However, the degree of development of the employer brand is under the influence of a number of factors, where one of the factors is also the variable of the internal environment. Taking this into account, the main goal of this paper is to determine the degree of development of the employer brand on a sample of companies with different sizes, activities and capital structure which operates in Serbia. The results of the research showed that there is a partially statistically significant difference in the degree of development of the employer brand between enterprises financed by private and state capital, but also the absence of a statistically significant difference in the employer brand development between the companies of a different size and activity. The practical implications of this study are important for companies that strive to build a unique image as a desirable place to work, in order to attract and retain the best candidates from the labor market.*

Keywords: *employer brand, company image, talents, employees*

JEL Classification: *M54, J24*

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A SOCIAL-RESPONSIBILITY VIEW AT LEGAL AND ETHICAL ASPECTS OF EMPLOYMENT OF OLDER WORKERS IN THE REPUBLIC OF SLOVENIA

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Abstract: *Until a few decades ago, elderly provided a much smaller percentage of population than today and in the years to come. Then, the global socio-economic development installed the neoliberal capitalism with its monopolistic attributes replacing the free market on the global level. These attributes include two contradictory processes, at least, (1) a falling percentage of employed population (and a growing percentage of non-permanent jobs) resulting, among other consequences, in declining funds supporting the retired elderly, and (2) a growing number of retired elderly with small pensions. These facts open the issue of employment of older workers, we are concentrating on here. The selected viewpoint is the level of social responsibility of the society about the elderly employees, as provided by law, which is usually backed by economics of the time.*

For a decade a very international team was working on ISO 26000, which was then passed in 2010, i.e. two years after the official outbreak of the current socio-economic global crisis. ISO 26000 was officially seen as the way out from the crisis.

ISO 26000 (ISO, 2010) requires a holistic approach (based on interdependence) and includes seven content areas: (1) organization, management and governance, (2) human rights, (3) labor practices, (4) environment, (5) fair operating practices, (6) consumer issues, and (7) community involvement and development.

Seven principles support interdependence and holism: 1. accountability, 2. transparency, 3. ethical behavior, 4. respect for stakeholder interests, 5. respect for the rule of law, 6. respect for international norms of behavior, and 7. respect for human rights.

Obviously, an innovation of values by knowledge-cum-values management is demanded. It should be supported methodologically. We will not publish them here. We will only state another point: social responsibility reaches beyond law, but never replaces law. Therefore, we will discuss Slovene law about elderly and their employment from the viewpoint of social responsibility about elderly's employment.

In terms of working activity of elderly in the age group 55 – 64, Slovenia is the second last country in Europe. Employees over 55 enjoy a special attention and care. The basic legal act about this topic is the Employment Act, having its basis in the Constitution of the Republic of Slovenia. Legislation abounds, but without synergy.

Keywords: *social responsibility, legal aspects, ethical aspects, employment, older workers*

JEL Classification: *M14, M50, K20*

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CONFLICTS ARISE-ALTERNATIVE DISPUTE RESOLUTION LEVELS AND METHODS

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Abstract: *Mediation is an opportunity in the subject of alternative dispute resolution system (ADR-system), as one kind of procedures to solve a conflict. Mediation is based on the voluntary participation of the parties. Mediation is a procedure, in which an intermediary without adjudicatory powers -the mediator- systematically facilitates communication between the parties with the aim of enabling the parties themselves to take responsibility for resolving their dispute. Business and companies also know the definition of conflict. According to this fact, they have to be able to manage and solve conflicts. There are several procedures worldwide, business can choose: the communication can be systematically facilitated with the aim of enabling the parties themselves to take responsibility for resolving their dispute. Companies, enterprises, organizations, corporations has to manage their conflicts. Alternative dispute resolution (ADR) methods are to support natural persons and legal entities with several levels of conflict management. Reorganisation, resolution, restoration, evaluation and transformation are present to give methods to the parties, even if there is cross border aspect in the case.*

Even in higher education, during the university teaching process we solve a conflict together with the students, from the beginning until the end of the case, so we finish with a binding agreement -the method shows step by step how to reach a reorganization, a resolution in legal or simply in human relationships. With special attention to business mediation we have to try to use consensus based procedure instead of compromise based solution. With this background, the knowledge about process and methods of ADR can help students to be able to solve conflicts with their own competences.

Types of alternative dispute resolution can be used worldwide in civil law (not only in family law/divorce cases), in criminal law, in business cases, in connection with consumer rights, in public administration, in financial cases (conciliation), in labour law (cases in working places), in case of conflicts inside the organisations and between organizations and in school conflicts (problems waiting for solution and violence at school).

The question is: to solve the conflict and find a solution or to transform a conflict and reshape the connection between the parties, or both? This publication tries to show a possible answer.

Keywords: *alternative dispute resolution, methods, conflict, conflict-management, trust*

JEL Classification: *K00, K19, K36, K40, K42*

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MODELLING THE RELATIONSHIP BETWEEN CONSUMERS' FINANCIAL LITERACY AND THEIR USAGE OF RETAIL BANKING SERVICES

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Abstract: *The purpose of this study is to explain the relationship between consumers' financial literacy and their usage of retail banking services. According to the Organisation for Economic Co-operation and Development, financial literacy can be defined as a combination of awareness, knowledge, skills, attitude and behaviour necessary to make sound financial decisions and ultimately achieve individual financial wellbeing. Retail banking includes a wide range of banking services that belong to similar categories, such as savings accounts, personal loans, credit cards, debit cards, mortgages, e-banking services, insurance, etc. Therefore, the aim of the study is to investigate possible relationship between measured level of consumers' financial literacy and their usage of retail banking services. Usage of retail banking services is measured by total retail banking services usage score that represents the frequency of individual usage of various retail banking services, such as: various types of loans, various types of savings, banking on the move, debit cards, accounts, packaged bank accounts and other services. Based on the frequencies of using different banking retail services, we have identified basic, intermediate and advanced consumers of retail banking services. Financial literacy is operationalized through variables representing its key elements: financial knowledge, financial behaviour and financial attitude. Financial knowledge is measured by total financial knowledge score that was created by summarizing the number of correct answers on the financial knowledge test. Based on this score, we have identified consumers with below average, average and above average financial knowledge. This is a quantitative study, where we use non-probability sampling methods where participants are recruited by e-mail. To gain better understanding of relationship between consumers' financial literacy and their usage of retail banking services we use descriptive statistics, chi-square, t-test, correlation analysis and regression analysis. Possible limitation of examining relationship between consumers' financial literacy and their usage of retail banking services is the presence of probable endogeneity. Implications of this study suggest that usage of different retail banking services may be driven more by consumers' financial knowledge rather than their financial attitude and behaviour. On a policy level, the real implications of the research can be seen in the tailoring of particular financial literacy programs for individual consumers of retail banking services.*

Keywords: *measurement of financial literacy, retail banking services, bivariate and multivariate analysis*

JEL Classification: *D14, C83, C10*

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FINANCING OF DEVELOPMENT AND REGIONAL INNOVATIVENESS IN POLAND

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Abstract: This paper considers the very important issue of financing the development as well as innovativeness of regions in Poland. Poland's economy with particular attention given to its innovation strategy. The aim of the article is to show the mechanisms which serve to finance the development and innovativeness of regions in Poland, with special consideration to possibilities of using the European Funds for this. For the needs of the conducted research, two following theses were adopted: the European Funds contribute significantly to the growth of competitiveness, raising the standards of living and the development of innovations in individual regions of Poland, and there are substantial differences among regions in Poland in terms of their innovativeness level. The purposes to which the European Union allocates its funds are closely related to the development strategies. The current strategy is defined in the document "Europe 2020". Moreover, detailed plans of allocating the EU funds, the Multiannual Financial Framework, are created for the period of at least 5 years. The cohesion policy is one of the basic Community policies. According to it, the European Union tries to promote the harmonious development and innovativeness in the whole territory of the Community by means of activities focused on the reduction of inequalities in the development levels of its individual regions, and thus to reinforce its economic, social and territorial cohesion. The study of the economy innovativeness on the local level (years 2014-2016), due to the availability of statistical data, is possible only with regard to product and process innovation, that is why only those categories were adopted for the analysis. A set of entities to assess the innovativeness of the economy are enterprises which in the studied period introduced at least one product or process innovation to the market (a new or significantly improved product or a new or significantly improved process).

The major thesis of the paper argues that the development of innovativeness of the Polish economy requires structural, institutional, and especially financial changes in the long run. The structure of the article is as follows: the introduction is followed by an assessment of the different sources of financing development and level of innovativeness of Poland's economy, explanation of the reasons and methods of financing development and innovativeness, and then the conditions for innovation in Poland (especially in regional dimension) are outlined with particular emphasis on strategic aspects and the final part presents synthetic conclusions derived from the analysis.

Keywords: innovativeness, development, financing

JEL Classification: O11, O19, O31, O32

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THE LABOR THEORY OF VALUE STRIKES BACK: APPLICATION OF ULC + THE METHOD FOR MEASURING THE LEVEL OF NATIONAL COMPETITIVENESS

Marko Đogo¹

Abstract: *The ULC (Unit Labor Cost) + method for measuring the level of national competitiveness has been applied in this paper to a group of 41 European countries. This is the method which had been developed in one of our previous papers (The Labor Theory of Value Strikes Back: ULC + The Method for the Measuring Level of National Competitiveness) and which is based on measuring the Indicator of Current National Productivity (ICNP). The method itself is an attempt to bring together advantages of the output method for measuring the level of national competitiveness and the idea that competitiveness and productivity in the use of limited resources can be equalized, even at the national level. Before the ULC + method application itself, we have looked back on three stages/generations of the method of measuring the level of national competitiveness from 1970s up till now. It has been demonstrated that none of these stages are accidental or entirely limited to the field of economics. Actually, development of the methods for measuring the level of national competitiveness has always been under certain influence of the needs of the societies in which they originated. In that way the first generation was some kind of 'weapon' which developed countries used to undermine governments of the communist countries. The second generation represented the need of the USA to save its leading position on the global ranking list of competitiveness under the increasing deficit (trade and budget deficit) conditions. The third generation met the needs of EU in the way in which methods of measuring macroeconomic competitiveness took the advantages of these (European) countries' development methods (strong social and environmental protection) into consideration.*

The main idea of the ULC+ method is expressing all the inputs needed for creating GDP in a sole measurement unit – working hours. It enabled us to compare the value of output (GDP) and input (expressed in working hours) in each of the referring countries in a uniform and simple way. In this way, from the used measurement units (monetary value per working hour) point of view, ICNP is equal to the ULC method, with the indicator sense being somewhat different because of the capital cost entering the equation.

The ULC + method application itself gave us interesting, but somewhat expected results. According to ICNP, the 10 most competitive European countries are: Luxembourg, Norway, Switzerland, Denmark, Ireland, Iceland, the Netherlands, Finland, Austria and Sweden, while the 10 least competitive economies include: Ukraine, Moldavia, Albania, Belarus, Turkey, Republic of Macedonia, Serbia, Bulgaria, Bosnia and Herzegovina and Russia. Ratio between the most competitive (most productive) and the least competitive countries amounts to 31.3, i.e. by using labour and capital in Luxembourg one gets 31.3 times more output per 1 unit of input than one would get in Ukraine.

Nevertheless, just as any other method has its limitations when applied, so does the ULC + one. Therefore, when it is being applied one should bear in mind that it is an indicator of the current productivity which does not tell us enough about the perspectives of competitiveness in the long run.

Keywords: *national competitiveness, national productivity, short and long term, ULC + method*

JEL Classification: *E20, F40*

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CLUSTER ANALYSIS OF THE BANKING SECTOR: THE CASE OF SERBIA

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Abstract: *The contemporary trends reflected in the development of market relations in the financial sphere, as well as the increasingly intensive use of modern information and communication technologies, have led to an increased need for monitoring and analyzing the operations of banks. Bearing in mind that one of the main components of stable and continuous economic growth is a stable and developed financial system, wherein special attention is paid to the banking system as the most important and the biggest part of the financial system, monitoring of the performances of the banking sector becomes of great importance in order to achieve sustainable growth and development. The indicators of profitability, costs and risks of banks are very important indicators of their business success. The fact is that banks represent profit-oriented entities and that maximizing profits is one of the main goals of the bank's management. On the other hand, banks are naturally faced with significant, systemic and non-systemic risks, which management must also take into account. Since the performance of banks represents one of the factors of success and development of the national economy, it is necessary to observe the trend of these indicators over time to determine the state of the overall banking system. Therefore, in this paper, the banking sector of the Republic of Serbia will be analyzed based on the indicators of profitability, costs and risks of banks. The aim of the paper is to divide banks into clusters on the basis of these indicators as key variables for their cluster grouping. Grouping of banks by clusters will be carried out for a period of five years, with a comparative overview of their performance on the basis of aforementioned indicators. Also, grouping of banks according to similar indicator values in cluster will enable monitoring of their possible migration to other clusters or the formation of new ones, based on the results achieved in the business year. This will enable monitoring of both, the performance of one bank within the banking sector by years, as well as the performance of the entire banking sector. Cluster analysis of banks in this way contributes to a better consideration of the positioning of banks in the financial market of the Republic of Serbia and forecasting the further movements in the future.*

Keywords: banks, cluster analysis, business indicators, profitability

JEL Classification: C38, G10, G21

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FINANCIAL STABILITY OF THE WESTERN BALKAN COUNTRIES: EVIDENCE OF BOSNIA AND HERZEGOVINA

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Abstract: *The financial system is composed of financial institutions, markets and market infrastructure. Financial stability/instability is a stage where the system is able or unable to handle shocks and the development of financial imbalances and reduces or avoids distorting the process of financial intermediation in terms of distorting savings towards profitable investments. Thus, financial stability is a situation where the financial system can absorb shock without significant changes and disturbances in the current and future functioning. Therefore, through a multiple regression analysis, non-performing loans to changes in endogenous variables will be tested. In this paper will be used the STATA 13.0 software package. The main goal of this paper is to determine the impact of independent variables (micro variables of banks and macro variables) on the stability of the selected Western Balkan countries. The survey covers the period from 2010 to 2017. Data for this research were collected on a quarterly basis. The following countries will serve as a selected group of countries in the Western Balkans: Serbia, Bosnia and Herzegovina, Croatia and Montenegro. Non-performing loans will be used as a dependent variable, and as independent variables: net interest margin, bank regulatory capital to risk weighted assets, gross domestic product and size. According to panel data results, the strongest correlation between non-performing loans as the dependent variable of the Western countries (Serbia, Bosnia and Herzegovina, Croatia and Montenegro) was achieved with the following independent variable: the bank regulatory capital to risk-weighted assets. Observed on the other hand, the weakest link between NPLs as a dependent variable was achieved with the following independent variables: net interest margin ratio, size, bank and gross domestic product.*

Keywords: *financial stability, NPLs, regression analysis, VIF*

JEL Classification: *G1, G10, G2, G20, G21*

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DYNAMIC ANALYSIS OF REGIONAL STOCK MARKET PERFORMANCE

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Abstract: *Dynamic changes in the financial systems of developed economies, accompanied by marked globalization and internationalization of financial flows, financial engineering, deregulation, and intensive information technology development, have influenced the intensive development of financial markets. This has brought the development of the stock market. Efficiency and quality of stock market operations are in a positive correlation with economic growth and development of countries developing the financial system based on the functioning of the capital market. Countries that have the stock market developed simultaneously have higher economic growth rates than countries in which stock markets are underdeveloped. In this regard, countries with developed stock markets have more intensive economic growth than countries in which stock markets are shallow and illiquid. In accordance with the above, the research objective is to perform a comparative assessment of relative efficiency and stock market ranking of the countries of Southern Europe (Serbia, Croatia, Bosnia and Herzegovina with its two stock markets, Sarajevo and Banja Luka, Romania, and Bulgaria) using the DEA method, through the performance analysis of six regional stock markets in the observed countries. For the needs of the analysis, a dynamic approach is applied, with ten input-oriented linear CCR DEA models developed and simultaneously resolved, which correspond to the observed period 2007-2016. Results obtained using the DEA model and the DEAFrontier software package show the relative inefficiency and poor performance of regional stock markets over the observed period and confirm the overall assessment of the stock market situation in the region. Comparative overview of the achieved relative and average relative efficiency shows that most regional stock markets in the observed period are relatively inefficient, with the exception of 2007. The Bucharest stock market has the best performance in terms of the achieved average relative efficiency, followed by the Zagreb Stock Exchange, the Sarajevo Stock Exchange, the Banja Luka Stock Exchange, the Belgrade Stock Exchange, and the Sofia Stock Exchange.*

Keywords: *stock market, relative efficiency, DEA, market capitalization, gross domestic product*

JEL Classification: *C61, G20, O40*

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CHALLENGES OF TRANSITION TO CASHLESS SOCIETY

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Abstract: *The first papers on the topic of electronic payments have emphasized anonymity as the ultimate characteristic that electronic substitutes of cash need to possess. A large number of authors considered that users would be willing to use electronic money systems only if their functioning completely matches with cash. The untraceability of performed transactions would ensure the full safety of the user's personal and financial data. However, at the end of the 1990s, electronic money systems were losing significance, while systems based on the existing payment infrastructure came into focus. In order to use them, a customer does not need to open new accounts or to buy new forms of assets. Therefore, their usage is easier than the one of electronic money systems. It is required to register, when customer provides personal data and also data about payment instruments he wishes to use. Since all payment instruments are issued by commercial banks or other payment institutions, the entire history of transactions made by this class of electronic payment systems can be monitored.*

After numerous affairs which showed that personal data in the era of digital business are unsafe, public attention is increasingly focused on the loss of privacy. Numerous electronic devices, such as various types of computers and mobile phones, as well as communication networks such as the Internet, GSM and GPS, generate a mass of data that can be misused. By their intensive analysis, a customer can be followed not only by location and communication, but it is also possible to determine his interests and needs. In this context, calls for a complete transition to electronic payments and the elimination of cash do not seem as a step forward on the road of technical progress, but open up new security issues. One of the problems may be the unprepared technological infrastructure, which in combination with the insufficient technological skills of population creates opportunities for misuses. The second problem concerns the development of totalitarian tendencies in society, because electronic payment system operators can behave restrictively to disobedient individuals or enterprises.

The problems that would undoubtedly arise during transformation of modern societies into a cashless economies makes the subject of this paper. The aim of the paper is to point out the danger to the safety of private data and financial resources of customers in this process. The idea of elimination of cash is clarified in the first part of the paper and the positive aspects of this plan are pointed out. In the second part, the problems of systemic threat to privacy that can be encountered are critically analyzed. Potential restrictions on cash elimination process are pointed out are presented in the third part.

Keywords: *cashless society, mobile payments, electronic payments, loss of privacy*

JEL Classification: *E40, E42, E50*

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DOES EXCHANGE RATE CAUSE INFLATION? EMPIRICAL EVIDENCE FROM SERBIA

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Abstract: Exchange rate transmission mechanism (exchange rate-pass through) can be used to represent the effects that exchange rate changes have on prices of imported and exported goods, inflation and trade volume. In a small, open and highly euroized economy, the impacts that exchange rate changes have on prices of imported goods and inflation are crucial. This issue is especially important in the country that still has fresh memories of hyperinflations and which has been still constantly dealing with current account deficits. The differentiation between the effects which exchange rate changes have on prices of imported goods and inflation is extremely significant in solving current account deficits and transferring the demand from imported to domestic products. For exchange rate changes to have positive impacts, it is necessary to have a complete and rapid transmission of exchange rate changes on imported goods in order to successfully transfer the demands from imported to domestic products. Otherwise, the more complete and faster transmission of impacts of such changes on inflation will cancel the initial positive effects of exchange rate changes and will not lead to adequate transfer of demand from imported to domestic products. In addition to the fact that there are direct and indirect effects of national currency depreciation on inflation, it is necessary to consider the possibility of positioning the prices of export products in local currency and the possibility of renouncing the part of the margin, which results in an incomplete pass-through effect, as well as to consider the role of inflationary expectations.

This paper aims at examining the effects of exchange rates on prices in Serbia. The main research question is: Are there exchange rate-pass through effects on prices in Serbia? This issue has been widely examined. However, the contribution of this analysis is that it uses a specific methodology in examining the unique time period in case of Serbia. The time period under examination ranges from 2007 – 2018. The empirical analysis has examined the relations between nominal effective exchange rate (2005=100) and consumer prices index (2006=100). The data are given in their monthly dynamics and there are 136 observations. The time series are converted to a logarithmic form so that modeling results can express elasticity coefficients. A two-step Engle-Granger (1987) procedure was selected as an appropriate methodological framework. The stability of the variables was examined by using the traditional ADF test. The results have shown that the corresponding deterministic component is a intercept with a trend. The variables are non-stationary at the level but after conversion into first difference they become stationary. The effects of the exchange rate are statistically significant and amount to 0.55 (smaller than 1) when least squares method (long term) has been applied. The linear combination of this relation is stationary which indicates the coincidence of the variables. The results show that the impact of the exchange rates on prices (in this case smaller than 1) is also present in short term. It has been also found by applying the Granger's test that there is a one-way causality from a exchange rate to prices at a risk of error of 1%. The results of the variance decomposition after 2 years show that 50% of the fluctuations in the consumer price index are created under the influence of exchange rates. The macroeconomic implications of these results relate to the fact that monetary authorities can influence the movement of the inflation rate in Serbia by managing the exchange rates.

Keywords: exchange rate pass-through, the Republic of Serbia, co-integration

JEL Classification: C32, F43

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DOMINANT MACROECONOMIC PARADIGM IN THE AFTERMATH OF THE CRISIS: LESSONS AND PERSPECTIVES

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Abstract: *In the last two decades, macroeconomic theory and policy is often presented in the framework known as the New Consensus Macroeconomics (hereafter NCM). The consensus emerged in the late nineties as an attempt to make a synthesis of leading economic approaches, such as Keynesianism, Monetarism, New Classical School and New Keynesianism. There is a great extent of consent among economists that this consensus became dominant macroeconomic paradigm, determining economic policy currents in numerous countries. Grounded on microeconomic models of economic agents' behavior, such as rational expectations and intertemporal optimization models, the model of NCM represented one of the most significant ways of simulation how national economy functioning.*

The paradigm had its support in favorable economic conditions, especially in developed countries. However, the period of prolonged economic stability, so-called Great Moderation, came to its end on the eve of the financial crisis in 2007. The economic crisis which emerged one year later expanded globally and became known as the Great Recession.

Bearing in mind that the crisis emerged in financial sector, the selection of financial variables that should be incorporated in the NCM model became a key challenge. Preventing of over-liquidity of the economy and adequate control of interest rates became highly important as well. In line with that, this paper discusses the biggest problems the NCM model was faced with during and after the crisis. In domain of economic policy, the paper deals with a critical evaluation of inflation targeting as the monetary policy regime and the implementation of fiscal rules in the field of fiscal policy. The key findings indicate that the price stability is not enough to prevent the economic downturn and that discretionary fiscal policy has its crucial role in times of crisis. Also, the results of theoretical analysis support the implementation of so-called macroprudential policy as well. Its main purpose is to ensure that every economic agent takes a cautious approach to risks that could become systemic and spread out to the whole financial sphere.

The main conclusions of the paper could be summarized as follows. The model of NCM should not be rejected, but it needs some important improvements. The upgrading of the model could be done by introducing the missing variables and equations which will cover functioning of financial markets and financial intermediaries. The Keynesian-type discretionary fiscal policy should not be used exclusively in time of economic disorders. Instead, the combination of discretionary fiscal policy and fiscal rules should be implemented in order to ensure both economic and fiscal stability. Finally, the NCM model should evolve in such a manner to be able to represent the functioning of both developing and transition economies, not exclusively the developed ones.

Keywords: *new consensus macroeconomics, great recession, new keynesianism, economic policy, inflation targeting, macroprudential policy*

JEL Classification: *B22, E44, E52, E62*

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TRANSMISSION MECHANISM OF MONETARY POLICY IN SERBIA - SUPPORT FOR THE PRIVATE AND PUBLIC SECTOR

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Abstract: *It has been almost ten years since inflation targeting was introduced in Serbia as a monetary policy regime after a long period of high inflation, economic stagnation, high unemployment and structural underdevelopment. Under such conditions, there is no certainty of the success of any single monetary policy regime. There is no full agreement and clear evidence of the pronounced benefits of the monetary regime of targeted inflation against the rest, but this regime provides an additional incentive for the analysis and understanding of the transmission mechanism. The unstable and turbulent environment, as well as the internal problems of the countries in transition, put even more restrictions and challenges on the monetary policy makers in terms of the operation of the selected monetary policy instruments. On the one hand, for the successful realisation of economic objectives (inflation rate, unemployment rate, economic growth and development), a consistent monetary policy is needed, given the time lag of the effects of monetary measures; on the other hand, it is necessary to adapt to the changed requirements and market conditions. Especially in countries in transition, the action lag is emphasised, which is significantly shorter in the developed countries. Monetary policy is at center stage in discussions about how to promote sustainable growth and low inflation. Due to the large budget deficits of most developing countries, and due to suspicion of the ability of fiscal policy to achieve the desired stabilization results, the consensus of economists and politicians about the primary role of monetary policy in stabilizing production and inflation has been achieved. The paper will analyse the effects of the chosen monetary policy regime in Serbia, whose understanding requires a good knowledge of the transmission mechanism, through analysis of the level of inflation, unemployment, exchange rate variability, interest rate movements after the introduction of the targeted inflation regime in private and public sector. Although the effects of the monetary policy on real economic trends depend on the effects of other economic policies, primarily fiscal policy, the analysis will focus on the successful realisation of the defined inflationary target. The paper will present the basic theoretical settings of the target inflation regime, the transmission channels of monetary policy and the contribution and relevance on real sector in Serbia.*

Key words: *monetary policy, inflation targeting, transmission mechanism, key policy rate*

JEL Classification: *E58, G38, H60*

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INCOME CONVERGENCE BETWEEN WESTERN BALKAN STATES AND EUROPEAN UNION

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Abstract: Raise of income level and standard of living is one of the basic expectations of the European transition countries, which is why these countries have a strong interest in becoming full members of this intergovernmental and supranational union. European transition countries that have joined the European Union, have significantly increased their per capita income level. In the period from 1995 to 2016, New Member States increased per capita income from 20% to 36% of the EU15 average. In the same period Western Balkan transition countries increased per capita income from 4.3% to 12% of the EU15 average. A large number of previous studies tested and proved the existence of income convergence between the "old" and "new" European Union member states. However, there is still a small number of papers dealing with the income convergence hypothesis between the European Union member states and Western Balkan States. The paper tests the hypothesis whether the income level of Western Balkan States converges the income level of European Union member states. In order to test the hypothesis we will use two types of income convergence. The first is σ -convergence (sigma), which measures the dispersion of income between countries within the observed group. The second type is β -convergence (beta) which, using the regression equation, measures whether countries with a lower income level achieve faster growth than those with higher income levels. The observed period is from 1995 to 2016. The results of sigma convergence testing show that there is a trend of reducing per capita income dispersion between European Union member states and the Western Balkans States. However, this downward trend does not exist when we compare the Western Balkan States and EU15. Results also show the effects of Global economic crisis on income convergence. Namely, the coefficient of variation has increased in the period from 2008-2011, indicating divergence. The results of the regression analysis of beta convergence show the existence of income convergence for the entire observed period. Income convergence exists when we compared Western Balkan States and the European Union member states, when only European Union member states are considered, as well as when the Western Balkan States and EU15 are compared.

Keywords: income convergence, economic development, economic integration, european union, western balkan states

JEL Classification: F15, F43, O47, P27

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THE IMPACT OF FOREIGN DIRECT INVESTMENTS ON HOST COUNTRY MARKET STRUCTURE: A CASE OF SERBIA'S AUTOMOTIVE INDUSTRY

Marija Radulović¹

Abstract: Foreign direct investments (FDI) are one of the critical factors for the countries' development and their market structure. The inflow of FDI has increased significantly in Serbia in recent years. The automotive industry is one of the most important industrial sectors in Serbia, where more than 60 foreign companies have invested over 1.7 billion euros in the form of FDI. According to the number of investment projects, the automotive industry is leading with a share of 16.8% of the total number of projects. Observed by the value of the investment, this industry with 9.7% occupies the fourth place, with the most significant number of projects and the highest amount of investment from Germany, Italy, and France. The manufacturing of tires (Tigar Tyres located in Pirot and Cooper Tyres and Traylor in Krusevac) and suspension parts (FAD in Gornji Milanovac) is the most prominent activity in the industry. Wiring harness (Yura Corporation in Leskovac, Draxlmaier in Zrenjanin, Yazaki in Sabac) and plastic parts (Magneti Marelli and SCGM in Kragujevac) are also essential products in the industry. The most challenging parts of the automotive industry are related to the production of engines, transmissions, brakes, steering systems, relays, and electronics while, products from groups of cable installations, rubber hoses, seats and castings are dominant in foreign companies. Furthermore, domestic companies' production is based on the production of vehicle accessories, superstructure, spare parts, motor and plastic repairs, tires and tools. The main reasons for the significant investments in Serbian automotive industry are highly-qualified staff, enough capacity for large volumes of production, excellent geographic location for efficient distribution of products to EU, SEE and Middle Eastern countries. The paper aims to determine the relationship between FDI and market structure in Serbia's automotive industry. Three firms concentration ratio is used to measure market power and to give a background for understanding the relationship between FDI and market structure. The regression analysis is applied to analyze annual data from 2006 to 2016. Results showed that there is a statistically significant and positive relationship between FDI and market concentration. Furthermore, if $\ln FDI$ changes for 1% than market concentration ($\ln CR5$) will increase by 0.13%, while all other conditions remain unchanged, at 5% significance level.

Keywords: foreign direct investment (FDI), market structure, automotive industry, market concentration, Serbia

JEL Classification: F21, F23, L11

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INVESTMENTS IN SUSTAINABLE DEVELOPMENT – PATH TO A BETTER FUTURE

Maja Mladenović¹

Abstract: Today, a number of efforts are being made to raise the awareness of the need for sustainable development at the appropriate and necessary level, both in the direction of legislation, and by taking practical measures and activities contributing to sustainable development, as well as by allowing investment in various projects in this plan. In the late 1990s, investments in sustainable development began to be seen as an indispensable tool in achieving economic and sustainable development. Global Sustainable Development Goals for 2016-2030. in the focus put sustainable development, the fight against poverty and climate change, while achieving these goals depends on investments in sustainable development, which must be quantitatively more and qualitatively more sustainable. The transition from unsustainable practices in agriculture, energy, water and natural resources, industry and other sectors, according to more sustainable practice, requires investments at national and international level. Numerous authors dealing with these issues agree that investing in sustainable development (whether domestic or foreign investment) provides a full range of benefits to one national economy: it stimulates growth, increases efficiency, enables enterprises from developing countries to penetrate the global market, implementing environmentally superior technologies and managerial skills, increasing employment and more. Because of the importance of investments in sustainable development, especially in terms of foreign investments, appropriate investment policies, investment principles and other important activities for investment in sustainable development is realized in practice. The national strategy for the sustainable development of the Republic of Serbia is also show the importance of investments in sustainable development, and how important it is to adopt global investment principles. In the part of the strategy that talks about key national priorities, one of the main goal is to improve conditions for attracting foreign direct investments. Contrary, insufficient number of greenfield investments and investments in infrastructure as well as in reducing pollution from agriculture are highlighted as one of the key deficiencies. The author of this paper will present the key principles of investment in sustainable development and the framework for investment policies, as well as the significance and practice of foreign direct investments in sustainable development, which are particularly important from the aspect of developing countries, including the Republic of Serbia.

Keywords: investments, sustainable development, principles, investment policies, foreign direct investments

JEL Classification: E22, Q01

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CREDIT GROWTH IN POST-CRISIS RECOVERY: EMPIRICAL EVIDENCE FROM THE WESTERN BALKAN COUNTRIES

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Abstract: Numerous empirical tests have been confirmed the importance of the financial sector in generating real economic growth. The reasoning for existence of financial sector development influence on economic growth is simplistic – financial sector uses real assets and therefore affects real economy. Global financial crisis (2007-2008) has led transition countries into recession. The bank credit crunch following the financial crisis may constitute the main constraining factor for real economic activity. Determining the direction of the relationship between the two sectors of the economy is important for the foundation of necessary economic policy. There is a rich body of literature on the theoretical and empirical relationship between financial development and economic growth. The presence of this relationship, as well as its direction, has long been a debated topic among economists. According to the literature, financial development supports economic growth particularly in low and middle income countries. Western Balkan countries have been characterized mostly as low income countries, developing economies with relatively low level of openness to world markets, with a stable banking system. In this paper we attempt to identify the effects of credit activity on economic recovery, with a special reference on domestic banking system. In this regard, we investigate the role of bank credit activity in financing the economic growth of the Western Balkan region including Albania, Bosnia and Herzegovina, FYR of Macedonia, Montenegro, and Serbia in the years 2007-2017. More specifically, the paper analyzes the level of lending activity in relation to GDP growth in observed economies, during and after the economic crisis. The main aim of the research is to identify the importance of credit growth in the conditions of the post-crisis period. The paper deepens literature about the financial intermediation influence on economic growth, pointing out significant degree of causative consequential connection between financial sector and economic results. According to that, our hypothesis starts from the view that economic growth is in strong correlation with the level of credit activity, and vice versa. More precisely, the paper starts from the view that the credit activity follows the level of economic growth, but it is also an important incentive factor for economic development. In this sense, the main goal in this work is to point out the specific connection between the financial and economic aspects in the post-crisis recovery, in particular in the conditions of the countries of the Western Balkans.

Keywords: Western Balkans, economic crisis, credit growth, banking system

JEL Classification: E44, G21, P52

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ECONOMIC POLICY IN THE FUNCTION OF ECONOMIC DEVELOPMENT OF THE REPUBLIC OF SERBIA

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Abstract: *Since economic policy has changed its direction and course of action, from the functioning of market mechanisms and rules to the introduction of regulatory policy, discretion and the state as the main carrier of economic policy, various economic and development schools have been developed and changed. The turning point in the functioning of economic policy as well as the replacement of economic schools was mainly related to the appearance of various economic crises that have affected economic development. Thus, the appearance of the recent economic crisis again revived the important role of the state and regulatory policy in the implementation of economic policy. The basis of economic policy is becoming a fiscal policy and its instruments that affect economic development. Special attention is dedicated to changes in fiscal indicators, public debt and budget deficit. No less important are monetary indicators that are also taken into account, with regard to price stability and exchange rate fluctuations. Also, relations with foreign countries, i.e. payments and trade balances must be taken into account when discussing about economic policy. On the other side, a responsible economic policy needs to achieve certain goals and economic development. For indicators of economic development were used indicators of economic growth, changes in GDP and GDP per capita, unemployment rate and the Human Development Index as a wider measure of sustainable development. Using the multivariate linear regression, the effect of economic policy on the indicators of economic development is determined. In this way, the relationship between the indicators of economic policy and economic development in the Republic of Serbia in the period 2008-2016 is examined, with special emphasis on the economic crisis and the economic policy after it. The paper also presents the importance of conducting a responsible economic policy in order to bring the observed indicators to acceptable reference values. The aim of the research is to demonstrate the effect of economic policy on overcoming the negative impact of the global economic crisis in Serbia and creating economic development, where key elements of fiscal and monetary policy measures taken as well as foreign operations and their direct linkage and activity to indicators of economic development. Unlike the indicators in which a positive change is observed from year to year in the observed period, such as a fall in inflation and an increase in the trade and balance of payments, public debt has recorded growth, which rightfully this period is also characterized as a crisis of public debt. Bearing in mind that unemployment and inflation in the observed period were not related and that inflation recorded a positive trend, it was necessary to reduce unemployment to the natural one, but also to achieve appropriate GDP growth rates so that unemployment would not increase. In addition to all indicators that do not lag behind much on benchmarks or show improvement from year to year, the effects of economic policy are omitted on economic activity and employment, which is why the choice between rules and discretion is the current one.*

Keywords: *economic policy, economic development, global economic crisis*

JEL Classification: *E63, O11*

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THE (NO)ALIGNMENT OF COSTING AND ENTERPRISE MANAGEMENT CONCEPTS WITH LEAN BUSINESS CONCEPT

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Abstract: Management accounting provides the most important part of the information support for managing a modern company, based on customer requirements, business and financial goals of the company, internal processes and the need for continuous business improvement. In order management accounting to justify the epithet of the most important information source for efficient management, it is necessary to develop new and continuously enhance existing concepts of costing and cost management, to respond to the needs of enterprises wanting to maintain and improve their competitive advantage in the changing business environment. In that regard are developed and enhanced concepts of costing and cost managements and enterprises, such as, among others, activity based costing, target costing, management concept based on the theory of constraints. Most of these concepts have in focus certain phases of the product's life cycle in which it is possible to reduce costs and improve performances.

Full application of lean business concept began in the last decades of the 20th century. However, the earliest examples and postulates of lean business concept date back to 1855. Specifically, a weapons warehouse recorded a single piece flow. Since then, lean business concept has evolved and today represents the leading business paradigm of modern companies. Lean business concept includes a business philosophy and culture that eliminates all forms of waste from the company business flows in order to shorten the lead time. This can be achieved by performing value-added activities in the best possible way and constant business process improvement and employee development. The application of the basic principles of lean business concept brings numerous benefits both at operational and strategic levels. At the beginning of the application of lean business concept, only operational improvement is visible. This is because strategic improvement comes only after changing the way of thinking, business culture, and working methods, of both managers and executives. By guiding managers and executives towards reducing waste in business processes, operational improvement becomes strategic. Lean business concept, as market orientated, integrated and flexible management system, provides increased value for customers, enhances business process and employees within it, and focuses on all phases of product's life cycle, not only few. Advantages and disadvantages of the implementation of some of the above mentioned concepts of costing and cost managements in lean business environment are discussed in this paper.

Keywords: lean business environment, ABC, target costing

JEL Classification: M41

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ZERO-BASED BUDGETING AND ROLLING BUDGETING: APPLICATION POSSIBILITIES

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Abstract: *The traditional approach to budgeting is based on the assumption that the environment and business conditions will remain the same for the entire budgeting period. This is a key limitation of the traditional approach to budgeting. The unsustainability of the assumption of the invariability of environmental conditions, including economic conditions, competition, customer preferences, etc., implies that after a certain lapse of time and unavoidable changes in environmental conditions budget which was created will lose actuality and relevance. On the criticism of the traditional budgeting techniques were created alternative budgeting techniques. Some of the alternative budgeting techniques are activity-based budgeting, kaizen budgeting, zero-based budgeting, rolling budgets and forecasts, program budgeting, etc. The subject of this paper are two alternative budgeting techniques, namely zero-based budgeting and rolling budgets. The main goal of this paper is to point to the essence, process and effects of zero-based budgeting and rolling budgets, i.e. to identify the possibilities and limitations of their application. Paper will contribute to better understanding and more efficient implementation of these budgeting techniques. Zero budgeting is a bottom-up approach which leads to thinking whether things need to be done the same way as before or need to be changed. The key point in ZBB is to find alternative ways to achieve defined goals. Rolling budgets represent a very dynamic approach to budgeting which eliminates the limitation related to the budgeting period. The essence is that the budget is compiled in such a way that after the expiration of a period (month or quarter), the next period is added to the original budget for the previous period. It has found that both techniques are applicable in conditions of a dynamic environment, and that their application can improve the implementation of management functions. Zero budgeting contributes to cost efficiency, increases effectiveness and accountability of management structures. Rolling budgeting enables companies to achieve business efficiency and flexibility at the same time. Research in the paper will be conducted using methodological procedures and techniques inherent in social sciences, i.e. qualitative methodology based on the descriptive analysis of the research objective.*

Keywords: *budgeting, budgeting techniques, zero-based budgeting, rolling budgets and forecasts*

JEL Classification: *M41, M49, H72*

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COMPARATIVE ANALYSIS OF THE CAUSE OF MODIFICATION IN AUDITOR'S OPINION IN FINANCIAL SECTOR AND REAL SECTOR COMPANIES

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Abstract: *The purpose of engaging an external auditor is financial statements quality assurance by presenting an opinion in an auditor's report. For the client, the most favourable opinion is unmodified opinion, in which an auditor assures the beneficiaries that the financial statements are true and fair view. Modifications in auditor's opinion imply presenting adverse auditor's opinion, qualified opinion, and disclaimer of opinion. Comparative analysis of the reasons for presenting modifications in auditor's opinion in companies of different activities is carried out in the paper. The research includes audit reports of all insurance companies and banks in the Republic of Serbia as the most important organization of the financial sector, while in the real sector, opinions on reports of food manufacturing companies in the period between 2011 and 2017 are analysed. Within the sector, all companies are stratified according to the form of opinion they received in auditor's report. The aim of the research is to overview the types and frequencies of certain reasons for modifications in auditor's reports, to draw conclusions about the consistency of the application of audit firms' professional scepticism. Moreover, the frequency of certain audit firms in verifying companies' financial statements was analysed. The analysis showed that more than 96% of banks received unmodified opinion and unmodified opinion with an emphasis of matter. Most of them operated with profit. Modified auditor's opinion in this sector is most often in the form of qualified opinion, which is not correlated with stated periodic result. Disclaimer of opinion and adverse opinion were always issued to banks that operated with loss, mostly due to a breach of going concern principle. The analysis found that, of modified opinions, insurance companies received only qualified opinion, mostly due to higher costs for operating expenses than expense loading and problems with receivables. The largest number of modified auditors' opinions was recorded in manufacturing companies. Almost half of the sampled manufacturing companies received completely unmodified opinion without an emphasis of matter. There is a wide variety of reasons for issuing qualifications in auditor's report, and the largest percentage is related to the overstatement of fixed and current assets. The concentration of audit firms is lower in the real sector. Modified opinions – disclaimer of opinion and adverse opinion are more frequent in the real sector and issued to non-profit companies.*

Keywords: *audit report, financial statements, qualified opinion, disclaimer of opinion*

JEL Classification: *M 42*

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PERFORMANCE OF HISTORICAL VOLATILITY MODELS IN FORECASTING VOLATILITY OF SERBIAN DINAR EXCHANGE RATE

Milan Čupić¹

Abstract: Various time series volatility models that use historical information to produce volatility forecasts of exchange rates have been developed in financial literature. These are usually not based on theoretical foundations, but allow forecasting exchange rate volatility by using actual changes in historical exchange rates. The most notable of these models are, besides standard deviation and variance, historical average method, moving average model, the Exponential weighted moving average (EWMA) model, autoregressive conditional heteroskedasticity (ARCH) model and generalized autoregressive conditional heteroskedasticity (GARCH) model. The paper is aimed at testing performance of historical time-series models in forecasting volatility of exchange rates of Serbian dinar (RSD) to euro (EUR), US dollar (USD) and Japanese yen (JPY). Forecasting performance is tested using root mean square error, where the significance of the differences in performance of alternative forecasting models is tested using Diebold-Mariano-West test. Forecasting performance is also tested by regressing the actual on the forecasted volatility series plus a constant.

Rolling window estimation methodology is employed to obtain time series of volatility forecasts. Volatility forecasts of daily changes in the foreign exchange rates are calculated using 509 daily observations on a rolling basis; i.e. the first 509 observations over the period 5 January 2009 to 31 December 2010 are used to compute an estimate for the day 510 (4 January 2011). The calculation is then rolled forward one day for 252 times using the fixed window of 509 days to forecast volatility over the period 4 January 2011 to 30 December 2011. The historical average forecasts are the only estimated using the growing window methodology; i.e. the whole sample over 5 January 2009 to period $t-1$ is used to estimate forecast in the period t . Root mean square error model shows that the ARCH model has the lowest error of forecasting EUR/RSD, GARCH for forecasting USD/RSD, and EWMA for forecasting JPY/RSD. Given the results of the regression volatility forecasting methodology, forecasting model with highest predictive power could not be identified.

Keywords: forecasting performance, historical volatility models, Serbian dinar, exchange rate volatility.

JEL Classification: F31, F37

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THE ASSESSMENT OF ENTREPRENEURS' FINANCIAL PERFORMANCE IN THE REPUBLIC OF SERBIA

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Abstract: *In a transition economy, small business and entrepreneurial firms are generally regarded as a driving force of economic development, employment improvement and for poverty reduction, as well. Thus, measuring the performance of the entrepreneurial firms has become the very important issue in the area of business economics and management. This is especially the case in order to achieve their sustainability in the long term. In that sense, it is very important to select the reliable measures of performance, financial or non-financial or both taking into consideration all the advantages and disadvantages of objective traditional financial and subjective, non-financial performance measures. The main objective of the paper is to assess the entrepreneurship performance in the Republic of Serbia considering, above all, the financial ones. After a long-term decline in economic activities and non-profitable operation, the Serbian economy left the recession road in 2015 and moved into a profitable business zone. This conclusion can be argued by the fact that the largest number of business entities in the Republic of Serbia achieved a profit in 2016 and 2017. These positive economic flows at the macro level also reflected on the business of entrepreneurs in that period. The increased level of entrepreneurial ventures profitability was conditioned by increased volume of their activities. Although the level of losses of entrepreneurs reduces from year to year, more than 20 percent of these business entities still face the problem of unprofitable operation. While a large number of entrepreneurs operate profitable, most of them face the problem of timely liabilities settlement. The total liabilities of entrepreneurs are not only high, but they are also characterized by a very bad maturity structure. Namely, in the structure of the entrepreneurs' liabilities dominate short-term liabilities that have to be settled in a year. In order to timely identify these problems, it is necessary to conduct an analysis of their financial position and performance. Timely identified problems, based on accounting information, will enable entrepreneurs to overcome them in the following period. Hence, the paper discusses about the financial performance of entrepreneurs in the Republic of Serbia, the role of bookkeeping and financial reporting data in their achievements evaluation, as well as specific regulation of these business entities.*

Keywords: *entrepreneurship, performance measurement, financial measures, regulation*

JEL Classification: *D13, M13, M21, M41*

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DOMAIN AND RESTRICTIONS OF THE STATE AUDIT INSTITUTION OF THE REPUBLIC OF SERBIA

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Abstract: *At the end of each year, companies prepare financial statements in which they display the results of their operations. Companies, as well as budget users, such as: hospitals, schools, local self-governments, public companies, compulsory social security organizations, and others, are obliged to prepare a set of financial statements within prescribed deadlines. Since the statements of both private and public companies are susceptible to various manipulations and frauds, they need to be subject to an independent audit that will examine whether the reports are prepared in accordance with generally accepted principles and standards. The state audit includes all audits by government agencies and organizations. As for the state audit, it includes audit of financial statements, compliance audit and performance audit. As such, they continuously contribute to the stability of financial management system and to the overall responsibility of all users of funds within the overall public spending. If auditors detect fraud or suspect its existence, they should inform the competent management of budget users. It is often emphasized that state auditors have greater competence than auditors in the private sector, since state auditors have a duty to file a criminal complaint against the perpetrator if it is established that a criminal act had occurred. In doing so, the collected audit evidence indicating a criminal act is insufficient to be accepted by the court, which complicates the whole process and becomes time consuming. In the Republic of Serbia, this role has been given to the State Audit Institution. The institution was established in 2005 as an independent authority and is accountable to the National Assembly for the conduct of activities. The main task of the State Audit Institution (SAI) is to examine the transactions reported in state institutions' financial statements and to verify them, i.e. to state an opinion on whether they have been carried out in accordance with legal regulations, authorizations and principles. However, SAI encounters many irregularities in its work, which must be examined completely in order to check if there is an unintentional procedure behind them, which is usually the result of inexperience and ignorance, or the intent that results in deceit. Therefore, the subject of the paper is the analysis of the work of SAI in the Republic of Serbia through the review of state institutions' audit reports for 2014 and 2015. The objective of the analysis is to indicate the significance, restrictions and problems that SAI encounters during the audit, as well as to draw attention to transactions where most irregularities are observed.*

Keywords: *audit, state audit institution, irregularities, financial statements*

JEL Classification: *M42, H83*

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FINANCIAL REPORTING OF INVESTMENT PROPERTIES IN SERBIAN MANUFACTURING ENTERPRISES

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Abstract: *Investment properties are a specific category of non-current assets. According to the International Accounting Standard (IAS) 40 – Investment property, this category of assets is defined as property (land or a building, or part of a building or both) held to earn rentals or for capital appreciation or both, rather than for (a) use in the production or supply of goods or services or for administrative purposes or (b) sale in the ordinary course of business. Investment properties may be held by the owner or by the lessee as a right-of-use an asset. The principles of initial and subsequent measurement of investment properties are similar as in the case of other items of properties (and also plant and equipment). The mentioned assets are initially measured at cost. After the initial recognition, financial statement preparers choose between the historical cost model and the model based on fair value. However, the accounting treatment of fair value changes, if financial statement preparers decide to measure these assets using the model based on fair value, is different. Changes in fair values of other properties are included in the equity and presented under other comprehensive income. Changes in fair value of investment properties are included in the profit or loss. Those changes represent unrealised gains or losses and should be carefully treated by financial statements users. If the fair value model is chosen for subsequent measurement, investment properties shall not be depreciated. In this paper, we discuss financial reporting on investment properties on the basis of the random sample of Serbian manufacturing companies. The aim of the paper is to determine whether financial statements preparers prefer the historical cost model or the model based on fair value for the subsequent measurement of investment properties. Practices of the subsequent measurement of investment properties are analysed from the aspects of firm size, legal form and the basis used for financial reporting (full IFRS or IFRS for Small and Medium-Sized Entities – IFRS for SMEs). We also discuss the percentage share of investment properties in the total assets and in the non-current assets in order to evaluate their materiality. We find that companies are more likely to choose the fair value model for the subsequent measurement of investment properties than the historical cost model. We also find that a significant number of companies that recognize investment properties do not disclose the measurement model for this type of tangible assets, although such a disclosure is required by the standards (IAS 40 and IFRS for SMEs).*

Keywords: *investment properties, measurement, fair value, historical cost, IFRS*

JEL Classification: *M41, M48*

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CAPITAL ASSET PRICING MODEL VERSUS ARBITRAGE PRICING THEORY

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Abstract: *Capital Asset Pricing Model (CAPM) and Arbitrage Pricing Theory (APT) have been a major challenge for economic theorists and practitioners for decades. Unlike the well-documented contribution of these models to understanding the relationship between return and risk and valuing assets on the capital market in developed countries of the world, literature on the topic of the CAPM and APT models is relatively poor in the Republic of Serbia. This creates the need to process this issue in order to at least partially mitigate the insufficiency of domestic literature in this field. In this regard, the subject of research is a comparative analysis of the CAPM and APT models, with the inevitable critical review of these models and emphasizing their positive and negative aspects. The aim of the research is to find answers to the questions which of these models is superior and which corresponds more to reality. By presenting the realistic theoretical and practical range of CAPM and APT models, it was concluded that neither of these models is perfect and we can not talk about the general superiority of one or the other model, as both models contain equally serious imperfections that prevent them to accurately evaluate the assets. Indeed, the APT model achieves preponderance over the CAPM model in a theoretical, but not in a practical view. Practitioners still prefer to use the CAPM model, while the APT model is more useful in academic circles as theoretical construction with insufficient use in practice. The general conclusion and, at the same time, the main result of the research is that the APT model is the theoretical winner, and the CAPM model is the winner in practice. Due to the equal complexity of the problems that these models face, significant efforts have been made in empirical research and theoretical discussions to improve their accuracy and applicability. However, half a century of research was not enough to eliminate the imperfection of the CAPM and APT models, which does not reduce their significance as the starting point for the development of more advanced equilibrium models of asset valuation in the future.*

Keywords: CAPM model, APT model, expected return, systemic risk, risk factors

JEL Classification: G12

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CORPORATE INCOME TAX PLANNING AND FINANCIAL PERFORMANCE: EVIDENCE FROM SERBIA

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Abstract: *Corporate income tax planning refers to all activities undertaken to legally minimize corporate income tax liabilities. Significant number of companies, especially big and multinational, invest considerable resources in tax planning. This is not surprising given the empirical evidence showing that benefits of tax planning remarkably exceed invested resources. There are many methods to declare lower level of taxable income to national tax authorities, such as the transfer pricing arrangements between subsidiaries of multinational company. Theoretically, it could be expected that legal reduction of income tax expense leaves greater part of pre-tax income available for reinvesting or distribution to the owners, and positively influences company profitability and market value. However, previous research only partially confirm these theoretical assumptions. A lack of the clear line between tax planning and illegal tax evasion, as well as suspicion of rent diversion by managers may lead to negative market reaction to tax planning. Since tax planning can increase private benefits for shareholders and/or managers at the expense of society, tax planning opens some ethical issues. Many types of tax planning efficiency measures have been developed during previous decades. Current effective tax rate, i.e. ratio between current income tax expense and pre-tax income, will be used as a measure of tax planning efficiency in this paper.*

Most of the previous research has been conducted in countries with relatively high corporate income tax burden. On the other hand, with statutory tax rate of 15% and many types of tax incentives, Serbia can be regarded as a country with moderate corporate income tax burden. In this paper is examined whether tax planning influences profitability (measured with ROA and ROE ratios) and market value (measured with Tobin's Q and M/B ratio) of companies in Serbia, by using OLS regression and controlling for some company-specific and macroeconomic variables. Following previous literature findings, it is hypothesized that tax planning positively influences profitability and negatively influences market value of companies. A sample of 23 nonfinancial companies, quoted on the Belgrade Stock Exchange in the period between 2013 and 2016, is used. Initially, sample consists of 92 company-year observations. Research results from this study indicate that tax planning significantly and positively influences profitability and does not influence market value of companies. To author's knowledge, this is the first research of this type in Serbia. Research results can be of interest to company shareholders and managers as well as national tax authorities.

Keywords: *corporate income tax planning, effective tax rate, profitability, market value, Belgrade Stock Exchange.*

JEL Classification: *H26, M21, M41*

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RELATION BETWEEN CORPORATE SOCIAL RESPONSIBILITY REPORTING AND FINANCIAL INDICATORS OF SERBIAN COMPANIES

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Abstract: Corporate social responsibility became a powerful mean for gaining competitive advantage. Numerous benefits from applying CSR were identified. Publishing information about CSR is becoming very important tool for communication with stakeholders. Many research showed that publishing CSR information and investing in CSR result in higher financial indicators and increased share and market value. Still, research on the relation between CSR and financial performance showed diverse findings. The subject of this paper was relation between publishing CSR information and financial indicators of Serbian companies. The basic assumption was that companies which publish CSR reports had better financial indicators than companies which do not publish CSR reports and that there was a significant difference between these companies in those indicators. The main goal was to show that publishing CSR reports/information had an influence on financial indicators. The additional goals were to show that the most companies in Serbia which published CSR reports were large companies, mostly part of MNC; to show that medium and small companies still were not active in this field, and to show that there were differences in naming of published reports. The analysis was done on a sample of 100 top companies by net profit from the list of 100 Top companies in the Republic of Serbia in 2016 published by Business Registers Agency. Firstly, companies were grouped into two groups: companies which published CSR reports and companies which did not publish CSR reports. And then for additional analysis, three groups were made: companies which published CSR reports; companies which published CSR information on companies' web site, but did not publish reports about it, and companies which did not provide any information about CSR, in order to determine differences in financial indicators among groups. Results confirmed the assumption that companies in Serbia which published CSR reports had higher financial indicators than those which did not publish any reports. The results could emphasize the relevance of CSR reporting because in Serbia has not been given enough attention to this field yet.

Keywords: corporate social responsibility, financial indicator, reporting

JEL Classification: M14, M21, L21, G3

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BENEFITS FROM IMPLEMENTING ENVIRONMENTAL MANAGEMENT ACCOUNTING: CASE OF TOSHIBA

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Abstract: *We are witnesses that globalization helped to connect societies and their concern for the environment. Today environmental problems are not just problems of one country, they are global problems. Many environmental incidents have received full attention of worldwide media, which led to questioning many business practices. Nowadays ecological aspect of business cannot be ignored. Countries have developed new environmental laws to try to control these types of problems. Organizations in today's time must take into account the impact of their products and their actions on the environment. Good environmental policy can be used to make company brand. Conventional accounting has failed to identify environmental costs and these costs are in most cases neglected by the management. The main problem of environmental costs is that they are often invisible to the management because these costs are usually located as overhead costs under conventional accounting systems. Environmental Management Accounting can be a great tool for making these "invisible" costs visible to the shareholders.*

EMA essentially represent the combination of the best management and accounting thinking. It is used to overcome a limitation of conventional management with the purpose of better understanding environmental issues in the decision-making process. EMA provides both, financial and non-financial information, called PEMA and MEMA. One of the main goals of EMA is identification and allocation of costs which are connected with the environment. The purpose of EMA is to provide useful information about company's environmental costs and action. Nowadays many international companies use EMA techniques such as Mitsubishi Motors, Hitachi chemical, Canon, and Toshiba. Benefits of EMA can be reduced costs, improved reputation, innovation and many others. For Toshiba, the main benefit of using EMA was reduced environmental costs by 21% and their cost were reduced for 41.5 billion yen in 2016. Toshiba has implemented Environmental Management Information System trying to collect environmental data and to promote environmental issues. Toshiba Group calculates its environmental cost using Accounting Guidelines from 2005. This corporation has been publishing environmental reports since 1998.

The goal of this paper is to provide information on how Toshiba implemented EMA, techniques of EMA which they use and benefits they have received from using EMA thought the years. The method which is used in this paper is a case study.

Keywords: *environmental management accounting, environmental costs, environmental accounting, Toshiba.*

JEL Classification: *M41*

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MAXIMUM DRAWDOWN PROFILES OF VARIANCE AND VAR EFFICIENT PORTFOLIOS

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Abstract: When refer to efficient portfolios, investors still typically assume mean-variance efficiency of their portfolio. Yet, financial regulation, targeting banking industry and insurance companies, measure market risk and propose capital requirements in terms of Value-at-risk (VaR), as a downside measure of risk. Thus regulatory efficiency departs from efficiency typically assumed by investors. On the other hand, a fund manager who trades his client's money, a proprietary bank's trader, or a pension fund manager whose clients are guaranteed certain predetermined level of income in the future (those involved in defined benefit pension plans in particular), are all primarily concerned with drawdown and the potential of their portfolio to recover after decline. Portfolio drawdown is a downside risk measure which quantifies the amount by which portfolio declines from its highest level during specified period. Since drawdown is path dependent, it is critically important to investors to consider the evolution of their portfolio's value, and not just the terminal value. Regardless of how attractive are the expected characteristics of a fund, drawdowns are never desirable, no matter how short-lived and small they were, and may ruin the reputation of a fund and its managers. Even a temporary loss can cause the investor to liquidate his position reducing the base for management fees. This paper examines what are the Maximum Drawdown profiles of Variance and historical simulation VaR efficient portfolios. For empirical tests we use time series of MSCI Country indices and S&P 100 subsample of equities covering different countries and different market environments. We analyze different sub periods and provide portfolio summary statistics for different dates in order to comprehend risk profiles of targeted portfolios and to emphasize the impact of time series length to risk metrics. The main conclusion is that Variance and VaR optimization generally do not optimize portfolio drawdown. Therefore, portfolio Drawdown optimization cannot be achieved as "unintended consequence" of some other (downside or average) risk objective. In addition to determination of optimal Max Drawdown portfolio solutions it would be worthwhile to examine their risk profiles regarding other downside risk measures recognized by investors and regulators, such is VaR and CVaR (Conditional Value-at-risk).

Keywords: downside risk measures, drawdown, value-at-risk, portfolio optimization

JEL Classification: C61, G11, G32

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SEM-ANN RESEARCH OF TAM EXTERNAL ORGANIZATION FACTORS' IMPACT ON ERP ACCEPTANCE BY EMPLOYEES

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Zabukovšek⁵

Abstract: *The success of an enterprise depends on both, people and technology, but one of the very important aspects is how do people i.e. employee perceive and accept new technological advancements in their working environment. Modern companies nowadays, depending on size and type of business, use many different types of information systems but one of the most common are enterprise resource planning (ERP) systems. ERP systems are systems that typically consist of an enterprise-wide set of management tools that empowers business functions in organization in way to enable employees to conduct their work better. This paper studies the influence of external organization factors' such as social influence, business process fit, training and education and communication on attitude toward using ERP systems. The research model and the hypothesized relationships are based on the technology acceptance model (TAM), which is one of the most famous and frequently used model of technology adoption. Therefore, the study examines the influence of aforementioned external organization factors on perceived usefulness and ease of use as mediators toward employees' attitude toward ERP systems. Majority of researches on ERP acceptance have been conducted with structural equation modelling (SEM) based research approaches. In this paper, a two-step approach will be used with the purpose to determine which factors have statistically significant influence on attitude toward using ERP systems. The purpose of this paper is to extend basic TAM research that is traditionally based on SEM technique with artificial neural network (ANN) approach. In the first step of the present research, the SEM technique was used to determine which factors have statistically significant influence on attitude toward using ERP systems; in the second step, ANN models will be used to rank the relative influence of significant predictors obtained from SEM. As a basic ANN model, multi-layer perceptron with feedforward back-propagation training algorithm was used. The use of suggested multi-analytical approach i.e. combination of SEM and ANN models provides two important benefits. First, it enables additional verification of the results obtained by the SEM analysis. Second, this approach enables capturing linear but also complex nonlinear relationships between antecedents and dependent variables and more precise measure of relative influence of each predictor.*

Keywords: ERP acceptance, neural networks, employees, SEM, PLS, ANN

JEL Classification: M15, L62, O32, O33

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CHALLENGES OF IMPLEMENTATION OF STUDY ORIENTED IT SYSTEMS

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Abstract: *The growing level of complexity of information and data related to study oriented processes at higher education institutions (HEI) strengthen the need of efficient integration of IT solutions focused on this area. This complexity is a result of a dynamic processes of change and transformation that can be observed especially within the European Higher Education Area. One of the important aspects in this context is the level of transnational students' mobility which intensifies data exchange between various study oriented IT systems from different countries. The second is the growing amount of data and information required from universities by higher education reporting systems and institutions. This means that IT study oriented systems should focus not only on monitoring and storing student data with relevant information about the grades or exams completed but also facilitate communication between administrative staff and faculty members across multiple departments, provide advanced analytical tools for reporting tasks or offer functionalities for organizing recruitment and enrolment of prospective students. As a consequence, implementation processes of study oriented IT systems become more complex in terms of modules and functionalities offered by the systems, integrations with other IT solutions, especially systems focused on financial accounting and controlling and many other aspects. Since the level of implementation complexity increases, the group of stakeholders involved in this process has to be more diverse. It embraces not only various types of system users but also representatives of external institutions and governing public bodies with their various requirements concerning reporting, quality assurance etc. Taking all these conditions into account, it is obvious that implementation has to be preceded by the deep analysis and consideration focused on methods and methodologies that should be used in the context of higher education institutions. These methods have to refer not only to technical issues but also to specific character and processes of higher education institutions. The article focuses on study oriented information systems used by Polish universities and refers to methods of their implementations related to traditional waterfall methodologies and agile approach to run IT projects.*

Keywords: *information systems, integrated management systems, study oriented IT services*

JEL Classification: L86

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BLOCKCHAIN AND LAND ADMINISTRATION: POSSIBLE APPLICATIONS AND LIMITATIONS

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Abstract: Land administration system (LAS) represents a formal system that is used to locate and identify a real property and to keep record of past and current data regarding ownership, value and use of that property. A great number of public services rely on data stored in LASs. Main problems that LASs still face, in large number of countries, are related to correctness of data stored in LASs and efficiency of LASs as systems. Data stored in LASs should be correct in reference to real system it represents, but often it is not the case. Incorrectness, or errors, are usually result of mistakes made in process of digitalization. Sadly, in developing countries, those errors can also be a result of abuse of power entrusted in persons employed by Land Administration (LA) offices. Even developed countries face problems in LASs in cases of registering real estate transactions, since it can take unusual long time, months or even years to register those transactions. In this way legal uncertainty is introduced into system and during that time LASs are in incorrect state. This problem is of great importance because data stored in LASs are usually considered as always correct from legal point of view. Blockchain, as a technology that was conceptualized for the first time a decade ago, is commonly known for its application in field of cryptocurrency where it was first successfully introduced. During last couple of years, blockchain technology is moving away from being a technology used only for cryptocurrencies into other fields and researchers are looking for more and more possible applications of this technology. One of applications for this technology, that is most commonly mentioned, are LASs. Blockchain is often seen as a technology that could provide solutions for some of problems that exist in modern LASs. In this paper, each of main characteristics of blockchain (decentralization, immutability, transparency and smart contracts) is matched against problems in modern LASs. Possible advantages and disadvantages that every of these characteristics would bring in LAS, if applied, are discussed. Prospects of using different implementations of blockchain technology, mainly using permissionless or permissioned blockchain is also presented.

Keywords: blockchain, land administration systems, real estate transactions

JEL Classification: L86, R52

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MEASURING EFFICIENCY OF THE SERBIAN NATIONAL INNOVATION SYSTEM: DEA APPROACH

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Abstract: Globalization of the modern world market has imposed the existence of an efficient national innovation system as a necessary precondition for the equal participation of a region and state in global development. Under these conditions, only successful participation in the global market can provide the desired prosperity and progress at the national level. In order to achieve global competitiveness and competence, both the economy and all other segments of society, it is necessary to achieve the state of permanent specialization and development of society. Evaluating the efficiency of innovation systems can serve as a substantial enabling tool for policy making serving to identify best practices and develop potential improvements of actions and strategies. It also serves to provide valuable insight in understanding the nature and dynamics of innovation process at its different stages and levels. Data Envelopment Analysis (DEA), variant of linear programming, provides the required weights and then analyzes relative macroeconomic performance. DEA was developed by Charnes, Cooper and Rhodes (1978) to evaluate the relative performance of a collection of similar public sector units which provides multiple services that are not all priced on markets. DEA deals with evaluation of the performance of Decision Making Units (DMU) performing a transformation process of several inputs several output. It can be concluded that data envelopment analysis is a set of models and methods that are based on linear programming which provides a means for calculating the efficiency of the units within the group organization. Although DEA was originally intended for use in microeconomic environments, it is ideally suited for the macroeconomic performance analysis. DEA is appropriate analytical technique for evaluating the relative efficiency of national innovation system. The aim of the paper is to review the relevant literature and to measure efficiency of Serbian national innovation system using DEA method. Inputs and outputs which are used in the analysis are the main indicators of innovations and R&D. In the analysis decision making units are regions of the Republic of Serbia. Observation period is 2012-2016. The work is significant because it shows which region of Serbia is most efficient in terms of innovation and research and development. On the other hand, it provides information which regions need to be improved and which indicators should increase or decrease in order to be effective in terms of innovation.

Keywords: efficiency, R&D, inovations, Data Envelopment Analysis

JEL Classification: C02, C67, O30

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DIGITAL TRANSFORMATION WITH CLOUD-BASED CUSTOMER RELATIONSHIP MANAGEMENT SYSTEMS

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Abstract: *In today's globalized, fast-changing, highly competitive and customer-oriented business environment technological innovations are driving new digital transformation that will fundamentally alter the way people live, work and connect. Capitalizing on this phenomenon is the key to innovation and growth. In response, companies are going through a digital transformation that is creating huge opportunities, but is also brings many challenges. Each company is attempting to digitally transform to achieve the same three outcomes - to engage customers, empower employees, and optimize operations. They are forced to reassess business and IT strategies in order to stay competitive. For most businesses, the focus is on customer relationship management (CRM) and providing optimal customer experience along the value chain. As they reinvent how to connect and engage with customers in new ways, companies also need to transform how they empowers employees, so they can help drive optimized operations that lead to transformation of products and services. Even though CRM is crucial for any company to survive and even thrive, a CRM solution is only successful when approached as an enterprise-wide initiative, backed by a careful planning, thorough implementation and integration strategy and related services.*

On the other hand, most of the existing CRM solutions are based on isolated and heterogeneous legacy information systems that are difficult to integrate, customize, and operate. Digital transformation requires intelligent systems which are tailored to each industry, each company, each micro-task performed by each person. Systems that can learn, expand and evolve with agility as the business environment and customers' demands change. While CRM software has been around for several decades, the biggest gamechanger in recent years has been the migration of CRM to the cloud. Besides being faster, more agile, feature-rich and user-friendly, it is also cost effective for businesses of all sizes.

In this paper, we discuss main benefits, issues, and challenges related to CRM systems, and provide background research of current results, initiatives, approaches, and trends related to customer engagement. Net, we introduce strategy and implementation framework for CRM systems which encompasses three main phases: envisioning, onboarding, and driving value. Finally, we present the cloud CRM system that delivers crucial customer engagement insights and tools within user-friendly, business-friendly and innovative cloud-based platform. The goal of this platform is to provide always-on, connected experiences with contextually relevant and personalized information to actively nurture customers to conversion and ongoing usage and engagement..

Keywords: CRM, cloud, information systems, e-business, analytics

JEL Classification: L81, L86, C88.

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DISTRIBUTION OF POSITIVE, NEGATIVE AND NEUTRAL WORDS IN CUSTOMER OPINIONS

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Abstract: *Opinion mining, defined by Dave et al. (2003) as analysis processing a set of search results for a given item, generating a list of product attributes (quality, features, etc.) and aggregating opinions about them (poor, mixed, good), is an important field of research influencing contemporary business. There are three main areas in the field of opinion mining (Liu 2007) – sentiment classification, feature-based opinion mining and summarization, and comparative sentence and relation mining. The best described and most frequently used is sentiment classification concerned with assignment of sentiment to a given opinion or clustering opinions into groups on the basis of their polarity. In opinion mining analysis of opinions having additional ratings summarizing their polarity posted on dedicated services is an important source of knowledge about the essence of all texts that can be treated as customer opinions. This knowledge can be used for searching and analyzing opinions posted in other, not dedicated and less structured, sources of consumer reviews. Among text mining approaches to opinion mining that can be apply to sentiment classification the word based approach is the simplest and commonly used. In this approach it is assumed that the meaning of the opinion (also its sentiment) is carried by separate words; so that the sentiment is assigned to every word in opinion. In the same time the assumption that stars or points rating reflects the polarity of the whole opinion is made. The aim of our research is to determine whether there is a correlation between the number of stars or points assigned to opinions and the distribution of positive, negative and neutral words in the content of the opinions. To achieve this goal sentiment dictionaries tailored for particular domain of opinions will be used. Analysis will be performed on opinions and dictionaries in Polish language however the scheme of research and tools can be used also for analysis of opinions in other languages. For each language dictionaries of positive and negative words must by delivered. Also for different themes of opinions modified dictionaries may be required. The analysis will be conducted in R language using most popular text mining packages (tm and quanteda) and in Python.*

Keywords: *opinion mining, sentiment analysis, text mining, natural language processing, opinions, reviews, sentiment dictionaries, polarity*

JEL Classification: C63, C80, C88, C89, D71, D83

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DIGITAL DIVIDE ACROSS EUROPE: STATISTICAL ANALYSIS

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Abstract: *In the information society the quality of life, as well as the perspective of social change and economic development, are increasingly dependent on information and its use. Living standards, work and leisure patterns, are largely shaped by the modern technologies (Arendt 2009). Digital development takes place differently in particular countries. The aim of the article is to evaluate and decompose the digital inequality in the European Union. In order to make a comprehensive study of digital inequality the Digital Economy and Society Index (DESI) was used. It consists of five dimensions: Connectivity, Human Capital, Use of Internet Services, Integration of Digital Technology and Digital Public Services. The presented selection of variables allows the comparison of digital development countries, taking into account not only the situation of individual Internet users, but also the digital divide in businesses and the level of digitalisation of public services.*

The article provides the measures of location and dispersion of the studied index and its dimensions for Member States of the European Union. In order to extract the countries with similar levels of digital development analysis of agglomerates was used. Then, analysis of the digital divide across Europe was supplemented with the analysis of inequalities using Theil index, which allows an additive decomposition of existing inequalities. Decomposition of the Digital Economy and Society Index and its various dimensions is performed due to the previously separated concentrations.

The analysis showed that the Digital Economy and Society Index is characterized by considerable volatility. Among the studied dimensions, Connectivity was on the top middle level. This dimension is characterized by the lowest volatility. The most varied dimensions were values of the Integration of Digital Technology, which consists of, e.g., the percentage of enterprises that provide information about themselves on the Internet, the percentage of companies issuing electronic invoices, the proportion of small and mid-sized businesses selling online and the proportion of small and mid-sized selling online and cross-border. The conducted cluster analysis resulted in the separation of four groups of countries. Out of the extracted clusters, the greatest impact on the overall level of digital inequality was measured by using DESI, there is the group of states with the lowest level of development: Slovakia, Croatia, Hungary, Poland, Bulgaria, Romania, Italy and Greece. However, the biggest impact on inequality, Digital Economy and Society Index shows inequality between the clusters at more than 85%. The cluster generating the smallest inequalities both in the DESI index overall and its individual dimensions was the cluster of states with the highest level of digital development: Denmark, Sweden, the Netherlands and Finland. The largest share of generating inequalities in each of the dimensions of the DESI showed inequalities between the clusters, which confirms the legitimacy of the classification of Member States of the European Union due to the similarity of the achieved levels of development. should be from 350 to 500 words in length.

Keywords: *digital divide, digital development, information society*

JEL Classification: *D31, I31*

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