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

Editors:

Violeta Domanović

Dejana Zlatanović



**FACULTY OF ECONOMICS
UNIVERSITY OF KRAGUJEVAC**

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**FACULTY OF ECONOMICS
UNIVERSITY OF KRAGUJEVAC
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FOREWORD

The Faculty of Economics, University of Kragujevac organized the Sixth biennial International Scientific Conference on *Contemporary Issues in Economics, Business and Management* (EBM 2020). Due to COVID-19 pandemic, the Conference was organized virtually. As in the previous years, this year's sixth conference has been an opportunity for domestic and foreign researchers to present and confront different theoretical and empirical views, which will lead to the deepen the existing and spread the new knowledge of the relevant aspects in economics, business and management. Taking into account the complexity and diversity of these contemporary issues, we received papers from 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 100 young and experienced researchers, Ph.D. students, post-doctoral researchers, and academicians from thirteen different countries, such as Norway, Belgium, Great Britain, Poland, Russia, Ukraine, Greece, China, India, Portugal, Slovenia, the Republic of Bosnia and Herzegovina, and the Republic of Serbia. EBM 2020 conference included plenary session and four parallel sessions. As distinguished researchers in the specified fields of management and accounting, the keynote speakers at the Conference were as follows: Professor Frøystein Gjesdal, Norway; Professor Michael Frömmel, Belgium; and Professor Nathalie Van Meurs, London.

This book includes the abstracts accepted for presentation at the EBM 2020 Conference. First section referring to *Key Issues in Management and Marketing* encompasses topics dealing with organizational factors affecting innovativeness in Serbian enterprises, business conditions for tech startups in the Republic of Serbia, European innovation scoreboard, organizational communication during the emergency situations, various aspects of human capital assessment during pandemic of COVID 19, information literacy competencies in small and medium-sized enterprises, digital competencies before and during the COVID 19 pandemic crisis, culture of cooperation among knowledge workers, project portfolio management, consumer behaviour trends during the corona virus pandemic, social responsibility and human selfishness, corporate social responsibility in the public sector, performance measurement in the public sector, continuity of perceptions of entrepreneurial opportunities and education of students in Bosnia and Herzegovina, as well as food health management system. The section *Globalization and Regionalization* discusses innovation, export, CO2 emission and economic growth, world practice in state support of export, Euro area and PPP club, social economy impact on rural areas development, the impact of coronavirus pandemic on pension insurance sector, European countries' population well-being, impact of institutional quality on trade in Southeast European countries, challenges of the output-employment growth imbalances in transition economies, the impact of COVID 19 pandemic on workers in the Republic of Serbia, perspectives of Serbia's international trade after 2020 and concept of financial resilience in turbulent times. *Accounting and Business Finance* included the abstracts related to controller responsibilities and partnership with management, situation approach in foreign currency translation, tracking tax haven ownership in Serbia, application of ABC in the information technology in function of quality service performance, the impact of other comprehensive income on the relationship between net income and comprehensive income as well as the financial statement restatements. In the section dedicated to *Applied Informatics and Quantitative Methods in Economics and Management*, the abstracts consider the application of various relevant methods, models and approaches, such as, econometric and deep learning investigation of factors explaining the spread of covid19 across countries and Indian states, crypto-democracy and its implications on the blockchain technology on the democratic choice, business intelligence model based on data warehousing and machine learning, the significance of the artificial intelligence concept in research papers in economics, consensus protocols in permissionless blockchains and management information system in function of business process integration.

Since 2020 has been recognized as the pandemic year, the forty three abstracts submitted represent a good indicator of the Conference success. We could state that EBM 2020 conference fulfilled its purpose providing a good basis for further research and consideration both in the academic community as well as in the general professional community.

Editors

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Nathalie Van Meurs , Middlesex University London

“NAVIGATING UNCERTAIN TIMES: HOW ORGANISATIONS CAN STIMULATE AND STRENGTHEN INNOVATION AND COLLABORATION AMONG PEOPLE”

Frøystein Gjesdal, NHH Norwegian School of Economics, Norway

"CONCEPTUAL FRAMEWORKS OF ACCOUNTING"

Michael Frömmel, Ghent University, Belgium

"THE CRISIS ALPHA OF CTAS: WEATHERING FINANCIAL STORMS"

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THE CRISIS ALPHA OF CTAS: WEATHERING FINANCIAL STORMS

Michael Frömmel

Abstract: *Alternative investments are seen as a suitable instrument to diversify portfolios. As a particular asset class commodity trading advisors or managed futures claim they achieve a crisis alpha, i.e. they generate superior profits during periods of financial turmoil. I present our ongoing research that sheds light on the question whether this crisis alpha is a marketing argument or real.*

In order to do the analysis in a systematic way, we first define an objective and market-dependent definition of crises rather than on anecdotic evidence.

Employing a unique dataset, we show that managed futures do acquire positive gains in most sector crises that stem from two sources. Firstly, the asset class is diversified across multiple futures markets. As a result, positive yields in other markets can counterbalance the lacking performance in the crisis sector. Secondly, the downward adjustment of managed futures exposure to their focus market allows them to put a halt to the fall in their sector performance. We see that CTAs react in a flexible manner and very quickly to crises. Owing to CTAs ability to adjust to a turbulent market environment their sector performance does not weigh down the composite industry's return throughout crises.

The results indicate that CTAs are a useful tool to protect against losses in crises and provides investors with more stable portfolios.

Keywords: *commodity trading advisors, managed futures, crisis alpha, sector crises, portfolio diversification.*

JEL classification: *G01, G11, G23*

ORGANISATIONAL FACTORS AFFECTING INNOVATIVENESS IN SERBIAN ENTERPRISES

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Abstract: *Issues of corporate entrepreneurship and organizational innovativeness, as well as the factors that foster them, have been the subject of numerous studies for decades. Current technological changes within the Fourth Industrial Revolution, have imposed the need to improve innovativeness in organisations, in order to respond to opportunities and threats from the business environment. Serbia faces significant challenges in this regard, given its lag behind developed countries in some of the key elements of competitiveness. In this regard, it is necessary to consider the factors affecting innovativeness in enterprises in Serbia, in order to determine the importance of each of the factors, as well as to find room for improvement in this regard. This paper presents an analysis of the correlation between a number of organisational characteristics and product/process innovations in enterprises in Serbia. Data from 339 small, medium and large companies from various industries, included in the World Bank Enterprise Survey, were used. Many of the factors analyzed in this study are consistent with theoretical considerations in the literature on this topic and relate to organisational maturity. Also, factors such as the size of the organisation and the industry to which it belongs were analyzed. For correlation testing, the Chi-square correlation coefficient, and the Cramers' V test were used. The analysis established the existence of a correlation between innovativeness and many organisational characteristics, but in some cases the existence of a correlation was omitted, contrary to theoretical claims.*

Keywords: *Innovativeness, Corporate entrepreneurship, Correlation analysis, Organisational characteristics, Serbia.*

JEL classification: *C19, L26, M10, O31*

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CULTURE OF COOPERATION AMONG KNOWLEDGE WORKERS. A STUDY OF THE IT SECTOR IN POLAND

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Abstract: *Today there has been an evolution from "blue" and "white" to "golden" collars, whose work is based on the creation of knowledge-based products. Knowledge workers have emerged who form the core of the crew of a modern organization and their job is to convert information into knowledge. They have a unique position in the enterprise and therefore are more demanding, which complicates the process of building an incentive system and the managers' formal impact on their activities. With a "deep-smarts" status, they adopt attitudes that restrain the flow of knowledge, or even intentionally hide it considering it too valuable for free diffusion. Supporting organizational culture is crucial to motivate knowledge workers to contribute their knowledge in an organization. Recognizing knowledge workers' attitudes at a very early stage will enable the organization to make better decisions and ensure commitment throughout the entire development process. In turn, high-quality employee motivation can contribute to an organization's long-term success by supporting employees' well-being and performance. Therefore, the main objective of this research paper is to identify the preferences of knowledge workers referring to organizational culture. Article focus on indicate the directions of development of organizational cultures of Polish IT companies in line with the attitudes of knowledge workers that aim at stimulating their involvement in the realization of specific knowledge diffusion subprocesses. The work is based on empirical research conducted in spring 2020 on a sample of 105 IT sector knowledge workers in Poland.*

Keywords: *Organizational culture, Knowledge worker, Cooperation, IT sector*

JEL Classification: *D 23, D 64, D 83, D 91*

SOCIAL RESPONSIBILITY AND HUMAN SELFISHNESS

Matjaž Mulej*

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Abstract: *There are doubts whether the concept of corporate social responsibility can become reality due to dependence of the listed companies on the short-term and narrow criteria of success at Wall Street / stock exchange. The concept is briefed with ISO 26000, exposing all life practices (briefed in seven contents), stressing one's responsibility for one's influences on society (i.e. humans and nature), interdependence and holistic approach, and seven principles (which customer does not require accountability, transparency, ethical behavior, respect for stakeholders' interests, for the rule of law, for international norms, and for human rights?). ISO 26000 would not be necessary and suggested by humankind via its global bodies UNO and ISO as a way out from the current socio-economic crisis, if it was practiced generally and daily. The famous global management consultant Adizes is quoted here for his presentation of doubts about the feasibility of social responsibility. He triggers a brief analysis, leading to conclusion that customers' natural selfishness requires all suppliers (except illegal drug dealers, corrupt monopolists, etc.) to practice social responsibility or go bankrupt. Actually, every person and organization is a supplier and a customer. Two initiatives are offered for self-evaluation of one's social responsibility. Paper is concluded with two encouraging examples of a local and a global action: a clever farmer and a Nobel Prize for Peace winner. Altruistic charity is neither necessary nor enough for ISO 26000 to help humankind generate its way to survival as an endangered species on Earth.*

Keywords: *corporate social responsibility, ISO 26000, selfishness, self-analysis, survival*

JEL Classification: *D11; D21; D63; D64; D91; M14*

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CONTINUITY OF PERCEPTIONS OF ENTREPRENEURIAL OPPORTUNITIES AND EDUCATION OF STUDENTS IN BOSNIA AND HERZEGOVINA

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Abstract: *The development of entrepreneurial talent is important to maintain a competitive advantage, and thus, promotion of entrepreneurial culture among young people it is crucial to know more about their attitudes, awareness, and aspirations towards entrepreneurial career. The aim of the paper is to analyse and compare perceptions of the opportunity of young people in 4-year period to start a business and their perception of their own business as a way of solving their unemployment problem in Bosnia and Herzegovina. Perceptions towards entrepreneurship as a desirable career choice and analysis of the education sector in the field of entrepreneurship are also analysed in this period. The target population of this research were young people in Bosnia and Herzegovina, primarily students, between 18 and 30 years of age. Data were collected using a structured questionnaire which was distributed online and in print form in 2014, and again in 2018. The research results show that young people in Bosnia and Herzegovina do not perceive good opportunities for starting a business and they did not change their perception in analysed period. Entrepreneurship is continually ceasing to be a desirable career choice for young people because the society does not value and does not promote entrepreneurship. Development of entrepreneurial skills and abilities is almost non-existent, and universities are also failing to provide the necessary knowledge. Entrepreneurial path is paved with insecurities that are increased with lack of education and support from the environment. All of this prevents young people in Bosnia and Herzegovina from starting their own business.*

Keywords: *Entrepreneurial Perceptions, Entrepreneurial Opportunities, Entrepreneurial Education, Environment, Bosnia and Herzegovina.*

JEL Classification: *L26, I23, O44.*

ORGANIZATIONAL COMMUNICATION DURING THE EMERGENCY SITUATIONS

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Abstract: *Communication is the basis of human interactions and refers to the transmission and understanding of messages. It is not uncommon for people to talk a lot and understand each other a little, which causes different problems and misconceptions. Therefore, organizational communication must be properly managed both in regular conditions, but especially in emergency situations, when there is a high degree of uncertainty and danger. In such circumstances, panic among people and instability of an organizational system may easily develop, which causes misunderstandings. Thus, it is necessary to establish clear channels of all forms of communication in order to maintain stability, get out of danger and return to normal as soon as possible. The paper points out the importance of capacity building for communication before, during and after emergency situations. It points out the crucial role of planning and preparation activities that take place in regular conditions and can facilitate communication in the case of an emergency. Some of the key phases and activities of emergency management are highlighted, as well as other specific features of communication in emergency situations.*

Keywords: *Communication management, Organizational communication, Emergency situations, Emergency management*

JEL Classification: *H12, M12*

THE SPECIFICS OF PERFORMANCE MEASUREMENT IN THE PUBLIC SECTOR: EMPIRICAL EVIDENCE FROM THE REPUBLIC OF SERBIA

Violeta Domanović

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Abstract: *Performance measurement plays not only a key role in public sector reform, but it goes beyond the reform itself. It plays a significant role in public management and public policy as well and could be considered as a segment of the whole performance management process. Performance management is a management style that includes information about performance in the decision-making process. Public organizations have certain specifics: process measures can also be output measures because they provide intangible products, i.e. services. Outcome assesses the impact of a product or service on the defined goals of the production process. Outcome can be long-term or short-term. Efficiency measures estimate the output level for a given input level. Effectiveness measures assess the level of outcome for a given level of input. Growing awareness of climate change and human capital issues has been shifting companies' attention to aspects other than traditional financial performance measures. Increasing attention is being paid to issues of sustainability and thus the availability of environmental, social and governance (ESG) indicators encourage investors to make socially responsible investment decisions. Hence, the paper is focused on the specifics of measuring performance in the public sector. The purpose of the research is to highlight the relevant performance measures in the public enterprises in the sector of energetics in the Republic of Serbia and to examine whether the application of the ESG indicators implicit implies better financial performance. The results show that the public enterprises in the sector of energetics in the Republic of Serbia report on traditional financial measures in their annual financial statements. One of them applies all ESG indicators and the others partially. However, there could not be found the positive correlation between ESG indicators and financial performance measures.*

Keywords: *performance measurements, public sector, sustainability, ESG indicators, financial performance measures.*

JEL classification: *M10, M21*

BEYOND THE EUROPEAN INNOVATION SCOREBOARD: HIGH TECHNOLOGY INNOVATION ACTIVITY IN SOUTHEAST EUROPE

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Abstract: According to the European Innovation Scoreboard (EIS), Southeast-European countries are either modest or moderate innovators, with innovation performance below 50% of the EU average, respectively between 50 and 95% thereof. However, the EIS misleadingly merges actual innovation activity of firms and country-level indicators such as new doctorate graduates, venture capital expenditures and broadband penetration. Besides, although particularly important for international competitiveness, innovation performance of high technology industries remains entirely unassessed. Consequently, the aim of this paper is to explore the innovation performance of high and medium-high technology industries in Southeast Europe. Drawing on Eurostat data from four most recent Community Innovation Surveys, the paper compiles and analyzes data panels on innovation performance in Southeast Europe, from which a differentiated picture emerges. Bulgarian innovation activity has been gradually increasing and is currently at or above 75% of the EU average. In exactly the opposite way, innovation activity in Romania has been gradually decreasing to fall below a third of the EU average. In Croatia, pharmaceuticals and manufacturing of electrical equipment have meanwhile surpassed the EU average, while manufacturing of other transport equipment is lagging. Serbian pharmaceuticals and manufacturing of motor vehicles have been keeping up with the EU, while computers and electronics is falling behind. Turkish high and medium-high tech industries consistently innovate at or above the EU average. In North Macedonia, pharmaceuticals and manufacturing of machinery innovate at the EU level, while chemical industry is staying far behind. The paper concludes by discussing these results and their implications.

Keywords: Innovation metrics; high technology; medium-high technology; Southeast Europe

JEL Classification: O32, O38, O39, O5

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CORPORATE SOCIAL RESPONSIBILITY IN PUBLIC SECTOR: EMPIRICAL EVIDENCE FROM SERBIA

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Abstract: Actual circumstances related to global pandemic and, subsequently, economic crisis, require focusing on socially responsible activities more than ever. Although there are numerous studies on CSR in the private sector, in the public sector they are scarce. On the one hand, the necessity of CSR for private sector organizations is driven by the desire to either become or remain competitive, while for public sector organizations this need is driven by an increased focus on accountability. Thus, the paper deals with CSR in the public sector. The purpose is to highlight the differences of employees' perceptions of CSR in different public sector organizations in the Republic of Serbia. Given that the public sector plays a critical role in creating an enabling environment for responsible business, its socially responsible behavior is implied by itself. However, the obtained results indicate that these organizations often concentrate on CSR activities related to image or some philanthropic activities rather than prioritizing environmental CSR initiatives to attain better organizational performance. Also, the results show that perceptions among employees in public sector organizations are very similar, since statistically significant differences exist only in health care employees' perceptions of some general CSR activities. The paper contributes to expanding the findings related to CSR in public sector organizations, with special attention given to employees' perceptions of CSR in public sector organizations in the Republic of Serbia and enables some recommendations and solutions for improving CSR in public sector as well.

Keywords: CSR, public sector, CSR general activities, CSR benefits

JEL Classification: M14, M21, Q01

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BUSINESS CONDITIONS FOR TECH STARTUPS IN THE REPUBLIC OF SERBIA

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Abstract *The relationship between business conditions and establishment and operation of a startup company is always a very important question, but also difficult for analyzing and identifying their positive and negative correlations. In this research the state of startup ecosystems in the Republic of Serbia was processed. Serbia has a proactive approach in terms of further improving of business environment to policy on micro, small and medium-sized enterprises (MSMEs). Support institutions within the legal regulations participate in defining forward-looking development strategy and a wide range of support services in place, especially funding programs and implementation of electronic services. There is still a number of obstacles that need to be removed in the future. This paper analyzed very important issues such as: institutional support for startup ecosystems, regulations and laws in this area, startup funding, key support organizations and their main programs, and their influence of startup companies development, as well as whole startup ecosystem. This analysis covered the period from 2015-2019, and includes data about Framework Condition indicators collected by using interactive tools European Innovation Scoreboard (EIS). This research enables identification of problems faced by the startup ecosystem in the Republic of Serbia and creates opportunities for determining solutions that should enable its growth and development.*

Keywords: *Entrepreneurship, Innovations, Startups, High Technologies, EIS*

JEL Classification: *L26, M13, O31, O32*

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DIGITAL COMPETENCIES BEFORE AND DURING THE COVID-19 PANDEMIC CRISIS - COMPARATIVE STUDY

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Abstract: *The aim of this article is to determine whether COVID-19 pandemic crisis has an impact on the level of digital competences among students and recent graduates. Apart from the critical analysis of the literature on digital competences, the quantitative study is performed in order to compare the results from the time before and during pandemic. It was revealed that students and recent graduates assess some of their digital competences in a correct way, but the correlation was weak. The most interesting finding is that indeed the statistically significant impact of COVID-19 on the development of digital competences with. The study made by dedicated questionnaire and Mann-Whitney U analysis indicated that the level of digital competence was higher during pandemic (Mdn=23) than before pandemic (Mdn=18), $U=1949.00$, $p<0$ among students and recent graduates. This result may have an implication for preparing and conducting distant learning programmes as well as preparing young people for the demand of digital competence on labour market that was highly accelerated by the pandemic.*

Keywords: *competency, digital competencies, pandemic*

JEL Classification: *J24, I20*

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AGILE PROJECT PORTFOLIO MANAGEMENT BASED ON CLOUD SERVICES

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Abstract: *In today's business environment, project management has become increasingly important for achieving long-term success and competitive advantage. The main challenge of project management is to fulfil the project goals within the given constraints, including scope, time, quality, and budget. The secondary challenge is to optimize the allocation of necessary inputs and apply them to meet pre-defined objectives. Organizations typically initiate and execute many projects that are very challenging to plan, monitor, coordinate, and manage. Project portfolio management (PPM) is a high-level view of all the projects across the entire organization. PPM enable organizations to enhance control and visibility across multiple portfolios, programs, and projects, optimize costs, align activities with strategic goals, and drive collaboration in order to successfully realize projects. However, Project portfolio management is not implemented or applied fully in many organizations due to a lack of appropriate software platforms and tools. In this paper, an innovative cloud-based PPM platform that enables collaborative, flexible and agile project portfolio management is presented. It comprises various services and tools that enables managers and team members to effectively manage interconnected projects, tasks, and resources. The main advantages of the proposed PPM platform include improved collaboration and coordination, integrated reporting and analytics, increased agility, insights-driven decision making, and alignment with strategic business objectives.*

Keywords: *Project management, Project portfolio management, Cloud computing, Business intelligence, Web portal.*

JEL Classification: *O 22, M 15, D 89, D 79*

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FOOD HEALTH MANAGEMENT SYSTEM ACCORDING TO THE REQUIREMENTS OF THE INTERNATIONAL STANDARD ISO 22000: 2018

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Abstract: *On the market of the Republic of Serbia, the application of risk analysis methods and critical control points, better known as the HACCP method, is legally mandatory for all participants in the food chain. Organizations that, on a voluntary basis, have certified quality management systems according to the requirements of ISO 9001, and must apply the HACCP method, can upgrade it over time and certify their food safety management system according to the requirements of the international standard ISO 22000.*

The subject of this paper is the presentation of the voluntary international standard for food health management ISO 22000: 2018. When a new version of a standard is adopted, there is a period of three years during which both the new and the previous version are valid (ISO 22000: 2005). The mentioned version of the standard from 2018 will be the only valid version of this standard in 2021, according to whose requirements the organizations that deal with the production and trade of food will certify their systems.

The benefits for an organization certified according to ISO 22000 and its stakeholders are numerous: control of production and trade of safe food, improvement of internal processes, product traceability, developing employee awareness of hygiene and quality, increasing customer satisfaction and strengthening their trust in the organization, clear determination of responsibility for unhealthy product in the chain producer - retail - buyer, etc.

For successful management of the organization, it is also useful to establish an integrated management system (IMS). In addition to the ISO 22000 standard, IMS includes several different standards for management systems: quality, environmental protection, health and safety at work, energy efficiency, etc.

Keywords: *International standard ISO 22000:2018, Quality management system, Integrated management system*

JEL Classification: *M2*

INFORMATION LITERACY COMPETENCIES IN DIGITAL AGE: EVIDENCE FROM SMALL- AND MEDIUM-SIZED ENTERPRISES

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Abstract: *The rapid diffusion of technology has put pressure on enterprises to implement changes that reflect on their current strategy and business model, but also on the ways of communication and collaboration. It is argued that nowadays, we read, write, listen, and communicate differently than we did 500 years ago. Therefore, information literacy is one of the most prevailing concept, but the prior literature is limited in the number of empirical studies analyzing digital competences. In digital age and the era of information explosion, it is necessary to examine firms' readiness for starting the transformation initiative, especially in terms of information management. Data were collected through survey questionnaires sent to key informants in SMEs, such as CEO, Managing Director, General Managers, Owner, Managers, Assistant Manager, Technicians and Senior Staff. A questionnaire is used as a research instrument, divided in several sections. Apart from gathering demographic data, the questionnaire included the 12-item scale to assess information literacy. Using a sample of 77 SMEs in Serbia, the purpose of this paper is to determine the level of information literacy among managers and directors in SMEs. Findings of this study can be used to reveal the importance of information literacy for socio-economic development of the society and employability of the labour force. Beyond the social implications, this study provides guidelines to fill the gap in employees' literacy and to make a match between firms' demands and programs developed by educational institutions and training centres.*

Keywords: *Information Literacy, Digitalisation, Digital Age, Small and Medium Enterprises (SMEs)*

JEL Classification: *D 80, M 10, M 21*

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CONSUMER BEHAVIOR TRENDS DURING THE CORONAVIRUS PANDEMIC

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Abstract: *The role of a consumer is very important in an economic system because it is one of the driving forces of the economy, including the digital one. Consumer behavior can be described as the process in which individuals or groups of individuals purchase a tangible or intangible product to satisfy their needs. Consumer behavior is a complex phenomenon that consists of a set of decision-making processes, various economic factors and market incentives. The ambiguity of these processes made it much more difficult to predict and control this phenomenon. However, since consumers are the main source of income for companies, studying their behavior is essential for achieving market survival and financial prosperity in today's volatile environment. Today, we can see changes in the consumer purchasing decision-making process. In this article, we examined the main trends in consumer behavior. To understand how the purchasing behavior model has undergone changes in today's conditions, we conducted a study among students from the city of Ulyanovsk, aimed to identifying changes in the behavioral model. Consumer behavior data show sustained shifts that lead to more deliberate and targeted purchases. Demonstrative consumption will give way to more practical consumption. The rampant search for deals will be replaced by greater selectivity in purchases and the use of technology and tools that emerged during the crisis.*

Keywords: *Consumer behavior, Economic Trends, Entrepreneurship, Coronavirus*

JEL Classification: *D12*

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HUMAN CAPITAL ASSESMENT DURING PANDEMIC OF COVID-19

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Abstract: *The spread of a new type of coronavirus on the territory of the vast majority of countries in the world has not only tested public health systems, but also exposed the problem points, the impact of which will be felt for a very long time. In addition to the issues of citizens' health, the fair distribution of resources, and the people safety, the issues of preserving and increasing human capital, in particular, the human capital of large corporations, come to the fore. The problem of human capital in recent years has come to the fore in several factors constraining the growth of the domestic economies. The lowering in the demographic indicators of the working population, the deterioration in the quality of higher and secondary vocational education, the lack of sufficient motivation affects the volume and quality of human capital of many corporations.*

Our paper presents the results of analyzing data responses in the GOOGLE Trends system for the tags "Human Capital", "Education", "Corporation" for the period of the COVID-19 pandemic and several months before it began. Thus, we were able to assess cross-country disparities in the issue under consideration, as well as synchronization processes in the development of human capital against the background of a new coronavirus pandemic.

Keywords: Corporation, COVID-19, Education, GOOGLE Trends, Human Capital

JEL Classification: J24, J44, C55, C65

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WORLD PRACTICE STATE SUPPORT OF EXPORT

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Abstract: *It is substantiated that the results of the study are important for the formation of the mechanism of transformation of institutional support for exports in Ukraine. The specifics of the activity of state institutions (level of development and main goals of formation of the institutional mechanism for export support) in the USA, Great Britain, Germany, France, Canada and other developed foreign countries are given. The characteristics of the subjects and tools of export promotion and the results of the analysis of the world experience of the most successful application of tax incentives for export activities are given. The identification of mechanisms for non-financial support of exporters shows that the promotion of exports in world practice is represented by a system of interacting governmental and non-governmental institutions. A study of government incentives for exports in the world showed that almost all countries have a separate institution that regulates export activities in the country.*

The conclusion on expediency of combination in one department, namely in the Ministry of Foreign Affairs (MFA), functions of formation of foreign policy and foreign economic strategy of the states is received. The Ministry of Foreign Affairs plays a dominant role in the processes of organizing the support of exporters both at the level of communication with state institutions of other countries and at the level of initiating a number of changes in the policy of export promotion within the country. The practical significance of the study is that its results and developed proposals can be used in the practice of public authorities to improve the process of forming the export strategy of Ukraine for the future.

Keywords: *State Support, Export, The Institutional Mechanism, The Ministry Of Foreign Affairs*

JEL Classification: F68, M38, O24

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ICT BASED MANAGEMNET OF SMART VILLAGES DEVELOPMENT

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Abstract: *The potential of information and communication technologies can play a key role in more rapid and sustainable development of rural areas in the coming period using the smart village management model. It is understood that important determinants for development of smart and competitive villages are good connections - broadband infrastructure in rural areas, access to the market via the Internet, modernization of farms and diversification of rural economy. All rural settlements have a chance to be smart, and the implementation of this concept applies to the entire rural environment, groups of rural settlements and their links with cities. Rural areas are often faced with slow and unreliable ICT infrastructure networks, which limits their access to information and services that can boost the economic and social development. Accordingly, the subject of research conducted in this paper is the ICT based management of smart villages development. The aim of this research is to point out to the necessity of introducing ICTs in the development of rural communities. The paper starts from the following hypothesis: If future directions of rural development rely more substantially on ICT, more prosperous development of rural communities can be expected. The Conclusion section brings to attention the fact that identifying bottlenecks and eliminating the digital divide in the rural-urban relationship, while improving ICT and entrepreneurial skills, as well as promoting social norms, new ideas and best practices in rural management, is a key feature and important strategy in the implementation of the smart villages concept.*

Keywords: *Management, Smart villages, Rural development, ICT (Information and Communication Technology), IoT (Internet of Things)*

JEL Classification: O39, Q16, R59.

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DOES THE EURO AREA BELONG TO THE PPP CLUB?

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Abstract: Price competitiveness is one of the building blocks of every form of economic integration. This is in particular important for monetary unions. One of the oldest approaches for testing the mechanism of price competitiveness is the theory of purchasing power parity (PPP). The concept of PPP implies that the differences between domestic and foreign prices dictate the dynamics of exchange rates. Therefore, after calculating prices in common currency the national price levels should exhibit convergence. In this paper, we scrutinized the PPP hypothesis focusing on the eurozone. The analysis expands the existing PPP literature in three ways. First, we employ an updated data set covering the period from January 1999 to September 2020. Second, we explore the stationarity of bilateral real exchange rates with respect to three numeraire currencies: the US dollar, Japanese yen and Chinese yuan. And third, we run separate tests in order to dissect the importance of mean reversion in real exchange rates in the pre-Great Recession period and after the global contraction in economic activity. The panel econometric techniques presented in the paper produce support for the PPP proposition, although in many cases the results are heterogeneous depending on the selected numeraire currency and the targeted time period. Verification of the PPP suggests that the investigated real exchange rates are expected to retake constant equilibrium levels in the long run.

Keywords: Purchasing power parity, panel unit root test, euroarea economies

JEL Classification: C33, E31, F31.

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THE ROLE OF SOCIAL ECONOMY IN RURAL DEVELOPMENT

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Abstract: *The presented paper focuses on the considerations on the role of third sector organizations in rural development in the regional context - Małopolska. The deliberations were based on a literature analysis, case study of one of the local NGOs, as well as on the analysis of empirical data collected during the survey. The survey was carried out using the CAWI method, while the analysis of the results was statistically processed. The obtained research material as well as the analysis of the case study sheds light on the issue of the importance of the third sector and social entrepreneurship from the perspective of stimulating the activity of rural residents. Thus, the possibility of preventing negative impacts of migration to cities, which are currently visible all over Europe, can also be emphasized here.*

Keywords: *social economy, entrepreneurship, innovation, third sector, rural areas*

JEL Classification: R 11, O 20, O 15

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ACCESSIBLE TOURISM IN NATURE: THE CASE OF ADVENTURE TOURISM

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Abstract: *Nature tourism, especially in Portugal, has become an increasingly tourist attraction due to the variety of offers and desire of many people to escape from daily routine by searching for relaxation and new experiences in the nature. Being part of nature tourism, more specifically adventure tourism is attracting an increasing number of practitioners. Their motivations are based on quality of life improvement and challenge. Adventure tourism combined with accessibility becomes an offer of adapted activities to anyone who has some physical or psychological limitation, boosting their leisure time in a healthier way. This study intends to understand whether adventure tourism companies in Portugal are aware of accessibility concerns and if so which activities/services and accessible infrastructure they offer and for whom they are suitable for. For that purpose, an interview and a questionnaire were carried out during March – July 2020. Interviews were done with an adventure company in Portugal, seniors, people with disabilities and one Association that provides support and care to people with disabilities. Questionnaires to companies in the adventure sector in Portugal, as well as seniors and people with disabilities were sent. Results allow the discovery of the offer in terms of activities and adapted services. They also led the recognition of the tourist with special needs perception regarding in adventure tourism.*

Keywords: *Accessible Tourism, Accessible Adventure Tourism, Adventure Tourism, Nature Tourism, Special needs*

JEL Classification: *Z32*

EUROPEAN COUNTRIES' POPULATION WELL-BEING: A CLUSTER ANALYSIS

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Abstract: *The significant growth in the size of the global economy that has characterized the past century has been accompanied by a significant increase in population. The population represents an important element for economic development since it determines the supply of human resources, one of the most important resources of an economy. However, the precondition for an adequate fulfilment of population's functions as human capital and its contribution to the economic development of a particular country, is that the country has to meet certain requirements of its inhabitants in terms of ensuring their well-being. Higher quality of life, job satisfaction, better material conditions ensure greater well-being of the population, which ultimately has a positive impact on the functioning and development of the economy. This paper aims to identify the clusters of European countries and to determine their basic characteristics as well as differences between clusters. The well-being is quantified using five indicators and statistical hierarchical cluster analysis is performed. The analysis has revealed that there are four distinct groups of European countries: Mediterranean countries, old European Union Member states, new European Union Member states and candidates for membership, and group with mostly non-European Union Member states. The results indicate that the group of old European Union member states achieve, in average higher well-being for their inhabitants compared to the other groups of countries. Additionally, the group of new European Union Member states and candidates for membership achieve, in average the lowest well-being for their inhabitants compared to the other groups of countries.*

Keywords: *Well-being, Population, Cluster Analysis, Quality of Life*

JEL Classification: *C38, I31*

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THE IMPACT OF COVID-19 PANDEMIC ON GIG WORKERS IN SERBIA: PRELIMINARY ASSESSMENT

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Abstract: *Parallel to the disruptive technological change, popularly labelled Industry 4.0 or 4th Industrial revolution, we are witnessing the dramatic change in the way the labour market operates and the rise of digital work via platforms. The unprecedented growth of digital labour force in past several years is interrupted by the pandemic of Covid-19 which has produced one of the hardest exogenous shocks in world economy in the past century. While the impacts are still not clear completely, especially long-term ones, and the data are still largely missing, this paper tries to assess the impact of Covid-19 outbreak on digital labour force in Serbia based on Gigmetar project developed by Centre for Public Policy Research. Gigmetar is the first algorithm developed to track systematically key characteristics and development of gig workforce in Serbia and in the countries of South and East Europe. In the analysis impacts of Covid-19 on the average and median incomes of gig workers are observed. Both variables are to be analysed in more details on three levels: gender level, level of different professional occupations of gig workers and on the NUTS3 level capturing specific regional impact. Comparing the data from pre- and during the Covid-19 period, preliminary results are suggesting that the digital workers suffered significant loss in earnings. It is argued in discussion, contrary, that the long-term perspective in the time of disruptive technological change and radically changing conditions in which traditional businesses are operating, offers rather optimistic view about the future of this type of work.*

Keywords: *Gig economy, Covid-19, Platform work, Platform economy, Gigmetar, Freelancing*

JEL Classification: *D26, J01, J44, O3*

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† We wish to thank Public Policy Research Centre for providing an access to data covering population of gig workers in Serbia. Special thank goes to Co-Founder and Programme Director Branka Anđelković and executive director Tanja Jakobi.

PERSPECTIVES OF SERBIA'S INTERNATIONAL TRADE AFTER 2020*

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Abstract: *This paper analyzes the key trends in the global economy: decline in international trade, rising protectionism and shortening of global production chains. The specific aim is to investigate the impact of these current trends on Serbian foreign trade. The proposed hypotheses are 1) Decline in the volume of Serbian foreign trade can be expected to be sharper than global indicators and 2) The reduced volume of trade both in Serbia and globally will tend to continue for many years to come. Using statistical analysis for different types of data, linear regression and case study, the research has confirmed the first hypothesis. By applying linear regression, a high correlation between the foreign trade of Serbia and the world of over 90% was determined. The obtained coefficients were applied to the WTO projections for global trade in 2020 and 2021. It was found that the expected decline in Serbia's foreign trade is almost twice the world average. The second hypothesis proposing that trade performance shall remain at a lower level in the long term in the future is not quantitatively provable. It is indicated by the analysis of the economic causes of the main global trends, which have proven to be structural to the greatest extent.*

Keywords: *international trade, global value chains, foreign value added, Serbia.*

JEL classification: *F14, F62*

* The paper presents findings of a study developed as a part of the research project “Serbia and challenges in international relations in 2020”, financed by the Ministry of Education, Science, and Technological Development of the Republic of Serbia, and conducted by Institute of International Politics and Economics, Belgrade.

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CONCEPT OF FINANCIAL RESILIENCE IN TURBULENT TIMES - ROLE OF FINANCIAL EDUCATION AT THE INTERNATIONAL POLICY LEVEL

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Abstract: *The paper aims to analyze recent trends and developments at the international policy level in the financial education. First part of research will focus on the Financial Resilience Concept and its definition and measurement. Second part is dedicated to the policy context of the financial education, role of the international organizations (OECD, EBA, EBF) and key trends in financial education initiatives at the international level. Third part will identify main trends in financial education for financial resilience, among national initiatives on the international level. Objective of the paper is to recognize the current developments in the financial education at the policy level, having in mind rapid development of the work done in this area, as well as growing importance of the concept of financial resilience and the role of financial education in it. Contribution of the research is twofold: a) to ensure better understanding of the important trends and aspects of financial education for financial resilience in turbulent times (global context) and to b) identify which areas will be the subject of future research or implementation in the field of financial education such as sustainable finance, financial technology, digital finance, as well as to open further questions relevant to the financial resilience and financial well-being of all relevant population groups.*

Keywords: *Financial Education, Financial Resilience, International Organizations, Financial Services Sector, Banking*

JEL Classification: *A20, H52, J13*

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CHALLENGES OF THE OUTPUT-EMPLOYMENT GROWTH IMBALANCE IN TRANSITION ECONOMIES

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Abstract: *The trade-off between the output and unemployment has become an essential part of modern macroeconomics and is known as Okun's law. However, in transition and emerging markets economies' context, the output-employment nexus has a much more important role as these countries strive to improve the growth dynamics of both variables significantly. This paper aims to analyze the specificities of this relationship in selected Central and South-eastern European transition (and former transition) countries, in order to reveal the presence of a discrepancy between the output and employment growth. To this end, the employment elasticity coefficients are calculated. The estimation results suggest that, in the observed period, economic growth has not contributed to satisfactory employment growth, which is commonly referred to as a "jobless growth" hypothesis. Accordingly, this paper attempts to single out the main challenges of the output-employment growth misbalance in these countries and to propose adequate policy measures that could reduce it. The industrial policy which differentiates from the "one-size-fits-all" paradigm is emphasized as the most important part of macroeconomic policy in transition economies in order to make their development more balanced. Short-run stabilization policy, especially the one focused on the labour market, has a significant role in these economies as well.*

Keywords: *Economic growth, Employment elasticity, Okun's law, Labour market, Transition economies*

JEL Classification: *C22, E24, F43, J08*

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THE LINK BETWEEN INSURANCE ACTIVITIES AND ECONOMIC GROWTH: SOME EVIDENCE FROM EMERGING EUROPEAN COUNTRIES

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Abstract: *The paper examines potential interdependence of the economic growth and parameters in insurance sector. Time framework of observation covers the period 2003-2019. The research is limited to European continent and its focus is on the emerging markets. More specifically, the research will include Bulgaria, Croatia, Czech Republic, Hungary, Poland, Romania, Russia, Serbia, Slovenia, Slovakia, Turkey, and Ukraine. By descriptive analysis it has been established that insurance market is more developed in countries with higher level of economic growth. By using Granger test one-way causality of parameters on the insurance market and economic growth has been shown. One-way causality from economic growth to the insurance sector was confirmed on the examples of Bulgaria, Czech Republic, Hungary, Romania, Slovenia, Croatia, and Slovakia. On the other side, one-way causality from the insurance sector to economic growth was established on examples of Poland, Serbia, Russia, and Turkey. Bearing in mind the diversity of the economic structure and overall level of development of financial system of analyzed economies, establishment of the relationship between economic growth and parameters on the insurance market provides a useful framework to the economic policy makers in formulating further directions aimed at sustainable economic growth of the emerging markets on European soil.*

Keywords: *Insurance, Economic growth, Causality, Emerging markets*

JEL Classification: *C22, G22*

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THE IMPACT OF 2019-20 CORONAVIRUS PANDEMIC ON PENSION INSURANCE SECTOR

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Abstract: *The 2019-20 coronavirus pandemic would affect pension funds differently in most parts of the world depending on the frameworks that shape the pension insurance sector. The impact could be perceived in the pension regulation, decreasing exposure to risky asset classes, fixed income becoming dominant in portfolio and increasing exposure to alternative asset classes. The impact of pandemic on pension plans' financial position has been reflected in terms of contribution levels, volatility of return rates and provisional withdrawals authorized by governments to increase income of persons that experienced financial consequences of Covid-19. This is particularly crucial for occupational pension plans, given their importance in developed countries. These pension schemes provide retirement income through the accumulation of contributions and investment returns less the operational costs of maintaining the plan. Hence, if investment returns fall, the pension fund growth would be negatively affected. The impact would be perceived at both the pension plan level and also the individual (pension plan members) level. This paper attempts to provide a comprehensive review of the adverse effects of the pandemic and containment measures on financial position of pension plans in the United States, United Kingdom and the continental Europe.*

Keywords: Pension Insurance Sector, Pension Plans, Coronavirus Pandemic, Investment Portfolio

JEL Classification: G11, G17, J26, J32

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INNOVATION, EXPORT, CO2 EMISSION AND ECONOMIC GROWTH: PANEL ANALYSIS OF SELECTED CENTRAL AND EASTERN EUROPEAN COUNTRIES

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Abstract: *The article presents an effort to examine the development patterns of the Central and Eastern European countries (CEEC), considering notable macroeconomic relations amongst export intensity, energy use, innovation capacity, and economic growth. From that perspective, the main objective of the article is to identify the significance and impact of prior mentioned macroeconomic features on economic growth, as well as the dynamics of CO2 emission in the CEEC. The Panel Auto Regressive Distributed Lag (ARDL) is utilized as the central model for examining the long-term and short-term relations among economic growth, technological innovations, export intensity, and CO2 emission. Based on the Pooled Mean Group (PMG) estimator, outcomes exhibit that the export intensity and the dynamics of CO2 emission have a notable impact on economic growth in the long term, while the impact of export intensity becomes irrelevant to explain the movement of economic growth in the short term. Innovation capacity has no significant impact on economic growth trends in the long or the short term. The different outcomes are obtained regarding the influence of the specified variables on the dynamics of CO2 emission. Trends in economic growth, in the long run, moderately determine the dynamics of CO2 emission. The innovation capacity and the export intensity have a significant negative impact on the movement of CO2 emission dynamics in the long run, although the dynamics of CO2 emissions remain determined only by innovation capacity in the short term.*

Keywords: *Innovation, Export, CO2 Emission, Economic Growth, Panel ARDL*

JEL Classification: *C33, F10, O11*

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DOES INSTITUTIONAL QUALITY MATTER FOR TRADE IN SOUTHEAST EUROPEAN COUNTRIES?

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Abstract: *The quality of institutions is becoming more important in recent decades, especially in transition countries that have to reform their institutions to create a market economy. Without an efficient institutional framework, macroeconomic stability and trade reforms cannot be achieved. Therefore, the aim of the paper is to examine the effects of institutional quality on the trade of Southeast Europe. Worldwide Governance Indicators (WGI) are used to measure the quality of institutions in these countries between 1996 and 2017. Three models were estimated with total trade, exports, and imports as dependent variables. Panel autoregressive distributed lag (ARDL) approach was used to analyse the relationship between institutional quality and trade. The results show that there is the long-run relationship between institutional quality and total trade, while in the short-run only political stability and absence of violence and the rule of law were statistically significant. Furthermore, the results suggest that there is no long-run relationship between institutional quality and exports, while in the short-run regulatory quality, the rule of law, and political stability and absence of violence are statistically significant. The results confirm that there is the long-run relationship between institutional quality and imports, while in the short-run voice and accountability and political stability and absence of violence are significant.*

Keywords: *Institutional Quality, Trade, Export, Import*

JEL Classification: *F14, O43*

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THE IMPACT OF FOREIGN DIRECT INVESTMENT ON THE COMPETITIVENESS AND ECONOMIC DEVELOPMENT OF THE REPUBLIC OF SERBIA

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Abstract: *The paper examines the impact of foreign direct investments on the competitiveness and economic development of the Republic of Serbia in the period from 2015 to 2019. The Serbian public attributed almost fantastic properties to foreign direct investments, and their exceptional effect on economic development was accepted as an axiom. However, numerous studies have proven that the growth of foreign direct investment in the host country does not automatically and positively affect the economic growth and competitiveness of the country, but is conditioned by numerous factors such as macroeconomic stability, financial structure, intellectual capital, etc. During the last decade, the Republic of Serbia has introduced numerous measures that have facilitated the inflow of foreign investments, liberalized investment and capital transfer where privatization has been used as the main means of investing in the Serbian economy. The main goal of this research was to show the positive impact of foreign direct investments and their causality on competitiveness and economic development in the observed five - year period. The results of the research confirmed the positive impact of foreign direct investment on the competitiveness and economic development of the Serbian economy.*

Keywords: *Foreign direct investment, Global competitiveness index, GDP, Economic growth.*

JEL Classification: O4

ABC IN THE SERVICE OF QUALITY INCREASE IN THE IT COMPANIES

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Abstract: Globalization of business, shortened product life cycle, continuous increase of competition, pervasive and ubiquitous development of information and communication technologies has led to the need of analyzing business costs and the quality of performed tasks, as well as their relations, especially in the service sector, which has, in recent years, represented the strategic sector of an economy, and has had a dominant role in GDP. Information technology has a special significance within the service sector, and, despite the recession which is present, records an increase in employment. In order for IT managers to perform their activities successfully, track their expenses and manage them, they need an adequate information support, which is composed of new concepts and business and cost management philosophy, such as, among others, activity-based costing and total quality management. Due to its information suitability, the ability of improvement throughout time and adaptability to specific business conditions, activity-based costing offers an adequate information support to the managers of IT companies. Activity-based costing information is used for expense identification and calculation with the purpose of increasing the quality of offered services and achieving targeted profitability. IT company's expenses, especially salary expense, increase due to knowledge and sophisticated technology implementation. This implies the need for suitable calculating concept and cost and company management choice. The purpose of this paper is to point at the specific activity of the IT sector, as well as the implementation of the activity-based costing and quality management, which are in the function of achieving high performance of the IT sector companies.

Keywords: activity-based costing, quality management, IT sector companies

Jel Classification: M40, M41

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CONTROLLER RESPONSIBILITIES AND PARTNERSHIP WITH MANAGEMENT

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Abstract: *Controlling and controllers are constantly gaining importance and a large number of researchers are focused on these. This is understandable given that controlling should contribute to efficiency and effectiveness of management's work. Controlling and management processes are tightly linked so controllers today are referred to as business partners of management. The controller represents the "right hand" of management and controller should support, advice and provide information support to management at all hierarchical levels. The concept of controlling is based on the partnership between the controller responsible for transparency of the information necessary for decision-making process and the management responsible for decision-making process. The preconditions for the success of controlling and controllers are a quality information system of the company, highly developed accounting information system and accounting function, expertise and competence of the controller, especially in the area of finance and accounting, as well as interested, dedicated and educated management. The role of the controller has changed over time and the relationship between controller and management is still a source of controversies. It is often not quite clear what is meant by controlling and by controllers' jobs. Therefore, the aims of the paper are to identify the evolution of controller roles, to analyze its role today and to describe the controller-management relationship. The paper should answer the question: Who the controller actually is?*

Keywords: *Controlling, Management Accounting, Controller, Management, Business Partnership*

JEL Classification: *M10, M21, M40, M51*

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RESTATEMENTS OF FINANCIAL STATEMENTS: CAUSES AND CONSEQUENCES

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Abstract: According to International Financial Reporting Standards (IFRSs), companies should present at least one comparative amount for each amount presented in their financial statements. Comparative amounts can be equal to the amounts presented in the financial statements prepared and published in previous year(s), but can also be different from that amounts due to restatements of prior financial statements. The purpose of this paper is to discuss changes in accounting policies and corrections of prior period errors as the main reasons for restatements of previously published financial statements in order to generate comparative information, and to examine the frequency and practical implications of these restatements in Serbia. Retained earnings and loss as equity components are the positions of the statement of financial position (balance sheet) that are most affected by restatements. Therefore, the empirical part of research, which is conducted in Serbia, is based on comparisons of the amounts of retained earnings and loss in the statement of financial position at the end of one year (original amounts) and the amounts of the same positions presented as comparative information in the statement of financial position relating to the end of the next year (comparative amounts). We examine whether there are significant differences between original and comparative amounts and, in the cases where the differences exist, the cause(s) of the differences. In addition, we examine the quality of disclosures regarding restatements in the notes to the financial statements in Serbia.

Keywords: restatements of financial statements, changes in accounting policies, corrections of prior period errors, comparative information, retained earnings, loss

JEL Classification: M41

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SITUATION APPROACH IN FOREIGN CURRENCY TRANSLATION

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Abstract: *Intensive expansion of multinational companies and the number of their foreign subsidiaries has contributed to the growing importance of many issues connected with their raising international operations. These affiliates prepare set of financial statements in various currencies. In order to appropriately evaluate the multinational company's financial position and performance the financial statements of parent company and its foreign subsidiaries must be consolidated. However, it is not possible to consolidate financial statements denominated in different currencies. Therefore, it is necessary to restate the all foreign affiliates' financial statements in a single currency. The situational approach is a reliable basis for the restatement of their financial statements. It is not based on the subsidiary characteristics, but on the relationship between the parent company, on the one hand, and its affiliates, on the other hand. It affects the choice of method for translating foreign affiliates' financial statements, and thus impacts the financial position and performance of the MNC. The main objective of this paper is to emphasize the role of situation approach in foreign currency translation process, considering above all, its implications on the liquidity and profitability of multinational companies. In order to identify the implication of situation approach to foreign subsidiaries financial statement restatement, it is necessary to consider the translation procedure separately in integrated foreign entity and self-sustaining foreign entity. Hence, the paper discusses the essence of situation approach, foreign currency financial statements translation in both integrated foreign entities and self-sustaining foreign entities.*

Keywords: *Situation approach, Foreign currency translation, Financial statements, Integrated foreign entities, Self-sustaining foreign entities*

JEL Classification: M41

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THE IMPACT OF OTHER COMPREHENSIVE INCOME ON THE RELATIONSHIP BETWEEN NET INCOME AND COMPREHENSIVE INCOME

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Abstract: *Comprehensive income is the change in owners' equity during a reporting period from transactions and other events, other than those changes resulting from transactions with owners in their capacity as owners. Comprehensive income is also a sum of net income (profit or loss), i.e., net income after deducting income tax, and net other comprehensive income, i.e., other comprehensive income after tax on other comprehensive income. Net other comprehensive income reflects the changes in owners' equity during a reporting period arising from transactions other than contributions by and distributions to owners that are directly included in owners' equity and that are not recognised in net income (profit or loss). Those are some gains and losses arising from changes in current value of assets and liabilities. The aim of the paper is to examine whether comprehensive income is significantly different than net income (profit or loss) as a consequence of adding the components of net other comprehensive income to net income. We also examine whether there is a significant difference between (1) the return on assets calculated by using net income and the return on assets calculated by using net comprehensive income as numerator and (2) the return on equity calculated by using net income and the return on equity calculated by using net comprehensive income as numerator.*

Keywords: *net other comprehensive income, net income, net comprehensive income, IFRS, ROA, ROE*

JEL Classification: *M41*

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TRACKING TAX HAVEN OWNERSHIP IN SERBIA

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Abstract: Foreign investors play an important part in the transition and post-transition economies. They are often headquartered in developed countries with high tax burden and high regulatory requirements. Therefore, they conduct their investments in host countries through the entities in tax havens. A presence in the tax havens enables foreign investors to move their funds from a host country to tax havens, thus registering the important portion of their profit in the low-tax jurisdictions and paying less world-wide corporate tax. Moving profit to such jurisdictions is known as profit shifting. This paper analyzes ownership structure of companies in Serbia by searching for tax haven entities in their ownership structures. Contrary to the traditional approach that treats each tax haven in the same manner, the paper follows a modern approach that divides tax havens into two groups: sink and conduit tax havens. A list of CORPNET Research Group is used with 24 sink and five conduit tax havens. Research results suggest that a significant part of foreign direct investments in Serbia has been routed through the tax havens, in particular the Netherlands, Cyprus and Switzerland. In addition, research shows that many Serbian individuals also tend to organize their domestic investments through the tax havens. Research results may be of interest to many interest groups, in particular to auditors and national tax authorities.

Keywords: foreign direct investments, tax havens, ownership structure, profit shifting, transfer pricing

JEL Classification: G 32, H 26, M 41

IMPACT OF ERP IMPLEMENTATION ON USERS AND ORGANIZATIONAL PERFORMANCE

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Abstract: *The development of information and communication technologies in recent years has changed not only everyday life of people, but also the manner of organizing business operations of entities. The most significant achievement in the area of information technologies is prescribed to the occurrence of integrated information system (Enterprise Resource Planning Systems - ERP). In that context, the focus of this research is directed to identification of the effects of ERP software implementation. Basic aim of the paper is to identify the effects of software implementation on the user level of satisfaction and organizational performance of companies. For the purpose of realization of the set objectives, 32 companies in the Republic of Serbia of various activities have been surveyed. In methodological sense, qualitative and quantitative research methodology has been used in the paper based on descriptive and statistical analysis. For the needs of the research of statistically significant differences between two groups of companies the descriptive statistics, non-parametric Mann-Whitney test and non-parametric Spearman correlation coefficient have been used. The most important result of the paper implies statistically significant differences between segmented groups when it comes to the level of user satisfaction and the level of realized financial and non-financial performances, such as flexibility, efficiency of business process and cost control.*

Keywords: *Enterprise Resource Planning Systems (ERP), User satisfaction, Organizational performance, ERP Success.*

JEL Classification: *M20, M40, M15*

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THE SIGNIFICANCE OF THE ARTIFICIAL INTELLIGENCE CONCEPT IN RESEARCH PAPERS IN ECONOMICS

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Abstract: Artificial intelligence (AI) has been constituting a significant concept of many fields of science for last seven decades. It was coined in the area of computer science, but now it is difficult to find research fields which are not influenced by this idea. Contemporary artificial intelligence can be treated as an interdisciplinary area with many subdisciplines, theoretical backgrounds and applications. The main purpose of medical artificial intelligence is to help the clinician in the diagnosis process, treatment protocol development and patient monitoring and care. In management and economics AI methods are used mainly as decision support tools. The authors decided to analyse the importance of AI concepts within economics area and try to identify main subareas related to artificial intelligence in research papers published in economics and registered in the Scopus database in the period 2011-2020. Also relationships between AI concepts identified in research literature and concepts related to economics were studied. The research presented here has ontology-based character. The Computer Science Ontology (CSO) (<https://cso.kmi.open.ac.uk/home>) was used for description of artificial area, while JEL classification (<https://www.aeaweb.org/econlit/jelCodes.php>) formed a formal description for the economics area. Models of relationships between these two areas were built using multidimensional correspondence analysis and bipartite graphs.

Keywords: Artificial intelligence, Economics

JEL Classification: A10, A12

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FACTORS EXPLAINING SPREAD OF COVID19 ACROSS COUNTRIES AND INDIAN STATES: AN ECONOMETRIC AND DEEP LEARNING INVESTIGATION

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Abstract: *The COVID 19 pandemic has engulfed the whole world and affected the livelihood of the world economy but also imprinted the long-lasting impact on the economies of the world. Our study would try to explain the factors affecting spread of COVID19 across countries, Indian states, districts and cities. We will use cross sectional and time series daily data of COVID19 cases and growth rates and fatality rates to determine the causes of COVID19 spread across 200 countries and Indian states and districts. The study would help us in determining the magnitude and directions of interventions like stringency index to capital health expenditures, share of urban population, immunization, ethnic population, mortality rates, democracy index, governance and rule of law, health infrastructure, demographic dividend, media reach, poverty, undernourishment, temperatures and humidity, pollution, vulnerable population, among others in determining causes of covid spread and ensuring lives and livelihood across regions. Various econometric (Spatial Analysis, Count data, Regression Discontinuity Design (RDD)), and mathematical models are applied along with non-parametric approach to data analysis. We will also use deep learning models (Artificial Neural Network model) that would help us to analyze dynamic nature of the data. One aspect of the study is also to work on SEIR model (susceptible (S), exposure (E), infected (I), and resistant (R)). Further, we would suggest various areas of collaboration to address post COVID19 issues related to pandemic spread in future. The study would model Indian states who have led the corona war and suggest new models of integrated and inclusive development, education and health care systems to take care of economic and health crises confronting economies all over.*

Keywords: Covid 19, Time series, Econometric models, Global crises

JEL Classification: C 31, C 32, C 53, I 15

BUSINESS INTELLIGENCE MODEL BASED ON DATA WAREHOUSING AND MACHINE LEARNING

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Abstract: *Data became a critical corporate asset and information turn out to be one of the key components of the competitive advantage and sustainability. In today's digital world, enormous amount of heterogeneous and high-velocity data is generated. This data has huge potential value, but many organizations failed to utilize this large amount of data. In this paper, business intelligence system for advanced analytics based on data warehousing and machine learning models is presented. Its main purpose is to support better business decision making by integrating relevant data from various sources, and transforming it into usable and accessible information and knowledge. In order to demonstrate the effectiveness and usefulness of the proposed BI system, an experiment with the real-world dataset from the retail industry has been carried out. Data has been integrated into the single multidimensional data warehouse. For advanced analytics, such as predictions, classifications, and associations, several machine learning (ML) models have been created. These ML models complement data warehouse reporting with advanced knowledge that can be used for effective decision making and proactive actions.*

Keywords: *Business intelligence, Data science, Data warehousing, Machine learning, Advanced analytics*

JEL Classification: *C 55, C 88, C 89*

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A SURVEY ON CONSENSUS PROTOCOLS IN PERMISSIONLESS BLOCKCHAINS

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Abstract: *Each blockchain must have in itself a protocol for achieving consensus among participants. Design and operational features of consensus protocols depend of blockchain type. The subject of the paper are consensus protocols in permissionless blockchains. The aim of this paper is to highlight differences between performances of analysed protocols. The analysis covers six consensus protocols of permissionless blockchain. The comparison is made on the basis of following characteristics: investment costs, energy consumption, safety, throughput and scalability. Results indicate that none of the protocols shows absolute dominance over others regarding all aspects of comparison. The Proof-of-work makes performing an attack significantly hard, but it has big requirements of resources referring to energy and initial investments. Blockchain systems which are designed for the purpose of saving in resource consumption are less resistant to malicious users' attacks. Therefore, it is concluded that preferential performances should be taken into account when selecting a consensus protocol.*

Keywords: *permissionless blockchains, consensus protocols, throughput, resource consumption, scalability*

JEL Classification: *C 19, G13, G 14*

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PLANNING AND ANALYSIS OF MANAGEMENT INFORMATION SYSTEM AND DESIGN OF MODULAR APPLICATION IN THE FUNCTION OF BUSINESS PROCESSES INTEGRATION

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Abstract: *The paper objective is modernization of agency business operation through automation and digitalization of the mentioned business processes, by projecting corresponding software solution for the integration of identified business processes. The research in this paper implied the use of observation method, examination method and document analysis, survey and interview methods, associate matrix, Data Flow Diagram (DFD) and Entity Relationship Model (ERM). For MIS design prototype the method for Business System Planning (BSP), Structured Systems Analysis (SSA) and the Systems for managing data bases have been used. The implementation of suggested MIS prototype in the observed agency would lead to: the automation of routine businesses that last long, digitalization of business processes, complete integration of data, by which the quality of communication with key stakeholders would be enhanced and the process of managing and decision-making would be improved, since the agency does not possess management information system.*

Keywords: *Management Information System, Planing, Analysis, Design, Appllication, Business Process Integration*

JEL Classification: *C83, M21*

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CRYPTO-DEMOCRACY: IMPLICATIONS OF THE BLOCKCHAIN TECHNOLOGY ON THE DEMOCRATIC CHOICE

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Abstract: *Deciding by the majority is the simplest way of voting on the issues of public interest. Over time, the legitimacy of this system has been widely accepted and became the dominant form of government and public decision-making. However, global democracies are in decline due to the pressure of the multiple global challenges, and Blockchain technology is the possible solution. This paper aims to systematize and identify the potential implications of the Blockchain on the decentralization and the economy of collective decision-making. Methodological individualism and the Institutional Possibility Frontier (IPF) framework, applied to the model of the constitutional democracy, provide a logical foundation for the comprehensive analysis of the possibilities and limitations of blockchain implementation in democratic voting systems. The results show that blockchain technology provides significant benefits and cost reduction in any form of institutional decision making. Furthermore, crypto-democracy provides a decentralized, transparent, and reliable decision-making system which transforms traditional geographical constituencies into an unbundled agency system, which ensures that the individual opinion is reflected in the public choice. The study indicates that the research on the institutional application of blockchain technology is in the early stages. Therefore recommends the careful but optimistic introduction of the presented system into the existing voting mechanisms.*

Keywords: *Crypto-democracy, Blockchain, Public Choice, Transaction Costs*

JEL Classification: *D02, D7, O17, O30*

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