



EMERGING TRENDS IN BUSINESS ECONOMICS: TOWARDS COMPETITIVENESS, DIGITALIZATION AND FINANCIAL INNOVATION

BOOK OF ABSTRACTS

Editors

Isidora Ljumović
Vladimir Simović
Darko Marjanović



International scientific conference:
EMERGING TRENDS IN BUSINESS ECONOMICS:
TOWARDS COMPETITIVENESS, DIGITALIZATION AND FINANCIAL INNOVATION
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TABLE OF CONTENTS

PREFACE	11
PART 1.	
COMPETITIVENESS AND GLOBAL GROWTH	13
<hr/>	
1.1. HOUSING QUALITY AND HUMAN CAPITAL AVAILABILITY IN DEVELOPING COUNTRIES	15
Guilherme Shirazawa, Marta Simões	
1.2. IMPACT OF THE COVID19 OUTBREAK ON MACEDONIAN TRADE FLOWS	19
Iskra Stanceva Gigov	
1.3. INNOVATION, FOREIGN DIRECT INVESTMENTS AND ECONOMIC GROWTH: CASE OF SELECTED EU AND NON-EU COUNTRIES	22
Jelena Minović, Sandra Jednak	
1.4. ESTIMATION OF THE EFFECT OF LABOUR ON OUTPUT FOR DIFFERENT TECHNOLOGY INTENSIVE SECTORS OF THE MANUFACTURING INDUSTRY IN SERBIA	25
Kosovka Ognjenović	
1.5. THE RELATIONSHIP BETWEEN CO₂ EMISSIONS, ENERGY USE AND ECONOMIC GROWTH IN GERMANY	29
Stephan Schlüter, Petar Mitić, Milena Kresoja	
1.6. GROWTH AS A SOURCE OF COMPETITIVENESS: COMPARATIVE STUDY	32
Slobodan Marić, Maja Strugar Jelača, Radmila Bjekić, Marijana Rodić	
1.7. WESTERN BALKAN COUNTRIES AS AN ATTRACTIVE INVESTMENT DESTINATION	36
Darko Marjanović, Mihajlo Đukić	
1.8. AN ANALYSIS OF BILATERAL TRADE BETWEEN SERBIA AND CHINA: MAJOR CHALLENGES AND OPPORTUNITIES	39
Elena Jovičić, Danijela Stojanović	

Table of Contents

1.9. THE IMPACT OF THE BUDGET AS AN AUTOMATIC STABILIZER ON THE DEVELOPMENT OF THE INTEGRATED ECONOMIES	42
Brankica Todorović	
1.10. DETERMINATION OF ADAPTED KAIZEN MANAGEMENT MODEL AND ITS IMPLEMENTATION IN SERBIAN MACROENVIRONMENTAL CONDITIONS	46
Vuk Mirčetić, Darjan Karabašević, Svetlana Vukotić	
1.11. IMPLEMENTATION OF CIRCULARITY INTO TRANSPORT SECTOR THROUGH SUSTAINABLE PROCUREMENT	49
Snežana Kaplanović, Aleksandar Manojlović, Jelena Trifunović	
1.12. IMPORTANCE OF IDENTIFYING COST MANAGEMENT IN GREEN BUSINESS	52
Katerina Hadzi Naumova-Mihajlovska, Neda Petroska-Angelovska, Marija Takovska	
1.13. ECO-TOURISM AS A STIMULATION FOR TOURISM COMPETITIVENESS OF THE REPUBLIC OF NORTH MACEDONIA	55
Kiril Postolov, Marija Magdinceva Sopova, Verica Postolova	
1.14. MARKETING RESEARCH IN THE FUNCTION OF MARKET-PLACE COMPETITIVENESS	58
Nedeljko Prdić	
1.15. QUALITY OF SERVICES AS A DETERMINANT OF VOLUNTARY PENSION FUNDS COMPETITIVENESS	61
Irena Brajević	
1.16. A COMPARISON OF COMPETITIVENESS OF CEECS	64
Kivanç Halil Ariç, Sek Siok Kun	
1.17. AGRIBUSINESS COMPETITIVENESS – THE CASE OF FRUIT PROCESSING INDUSTRY IN SERBIA	68
Marija Nikolić	
1.18. FDI CONTRIBUTION TO TECHNICAL EFFICIENCY IN THE SERBIAN MANUFACTURING SECTOR	71
Ivan Nikolić	
1.19. THE IMPACT OF REGIONAL INSTITUTIONS ON FOREIGN DIRECT INVESTMENT FLOWS IN SERBIA 2007-2018	74

Dejan Molnar, Svetozar Tanasković

**1.20. CIRCULAR ECONOMY MEASUREMENT METRICS' INDICATORS
(LITERATURE REVIEW) 77**

Momir Polenakovikj, Valentina Gecevska

**PART 2.
TRENDS IN DIGITAL ECONOMY 81**

**2.1. RISK-SHARING AS A FUNCTION OF FINANCIAL SUPPORT OF
INNOVATION-BASED ECONOMY 83**

Ivan Rakonjac

**2.2. USE OF INFORMATION TECHNOLOGIES IN EDUCATIONAL PURPOSES
– CASE FROM SERBIA 87**

Danijela Stojanović, Ivana Domazet

**2.3. COVID-19 CORONAVIRUS AS A TRIGGER: TRANSITION TO DIGITAL
ECONOMY IN NORTH MACEDONIA 91**

Zoran Janevski, Biljana Angelova

**2.4. EMPLOYEE PERCEPTION ON ENFORCED TELEWORK IN FINANCIAL
INDUSTRY: EVIDENCE FROM SERBIA 95**

Željko Spasenić, Miloš Milosavljević, Svetlana Savić

**2.5. THE FACTORS AFFECTING THE LEVEL OF DIGITAL ENTREPRENEURIAL
COMPETENCES OF UNIVERSITY STUDENTS 98**

Vladimir Simović

**2.6. MANAGEMENT EDUCATION USING SOCIAL MEDIA: BRIDGING THE GAP
BETWEEN THEORY AND PRACTICE 101**

Valentina Vukmirović, Ivana Domazet

**2.7. GAMIFICATION IN EDUCATION – CASE STUDY IN NORTH MACEDONIAN
HEIS 105**

Saso Josimovski, Lidija Pulevska Ivanovska, Martin Kiselicki, Zanina Kirovska

**2.8. DIGITAL PERSPECTIVES OF SOCIAL ENTREPRENEURSHIP IN WESTERN
BALKAN COUNTRIES 108**

Snezana Kostadinovska Milosjeska, Vasil Popovski, Elizabeta Djambaska

Table of Contents

2.9. INNOVATION IN GOVERNANCE MECHANISM: CURRENT STATUS OF THE GENDER ASPECT IN THE FINANCIAL SECTOR OF SERBIA	112
Vladan Pavlović, Goranka Knežević	
2.10. DIGITAL LITERACY IN THE GENERATIONS X, Y AND Z IN THE REPUBLIC OF SERBIA	116
Jelena Banović	
2.11. A LONG-RUN RELATION BETWEEN TOURISM AND INTERNATIONAL TRADE: EVIDENCES FROM WESTERN BALKAN	118
Aleksandra Bradić-Martinović, Aleksandar Zdravković	
2.12. ASSESSMENT OF INNOVATIVE CAPACITY OF BUSINESS ENTITIES IN THE REPUBLIC OF SERBIA	121
Sonja Đuričin, Isidora Beraha	
2.13. THE EXPANSION OF FREELANCE WORK IN MONTENEGRO	124
Mirjana Radović Marković, Miloš Vučeković	
2.14. DIGITALIZATION AND THE USE OF DIGITAL MARKETING TOOLS IN THE OLD-SCHOOL TRADITIONAL ANTIQUES AND COLLECTIBLES INDUSTRY: A CASE STUDY	127
Katerina Fotova Čiković	
2.15. IMPACT OF DIGITALIZATION ON THE LABOUR MARKET: THE CASE OF NORTH MACEDONIA	131
Verica Janeska, Aleksandra Lozanoska	
2.16. ICT SKILLS AND EMPLOYABILITY OF OLDER WORKERS IN EUROPE: AN ANALYSIS BASED ON SURVEY FOR HEALTH, AGEING AND RETIREMENT	135
Rui Dang, Ninoslav Marina	
2.17. MODERN ORGANIZATIONAL IDENTITY THROUGH DIGITAL MANAGEMENT	138
Silvana Jovcheska	
2.18. HOW TO GUIDE MSMES THROUGH CHALLENGING TIMES: A SURVEY ON CONSUMER BEHAVIOR HABITS IN COVID-19 CRISIS	142
Tatjana Mamula Nikolić, Karolina Perčić, Mirjana Nećak	
2.19. USING RECURRENT NEURAL NETWORK TO IMPROVE ONLINE LEARNING	147

Darjan Karabašević, Dragiša Stanujkić, Gabrijela Popović

PART 3.

FUTURE OF ACCESS TO FINANCE AND FINTECH 151

3.1. DEVIATIONS FROM MARKET EFFICIENCY WITHIN THE MAIN STOCK MARKET INDEXES, DURING CRISES 153

Roxana Ioan

3.2. EXPANDING FINANCIAL INCLUSION FOR YOUTH: DOES DIGITALIZATION MATTER? 156

Isidora Ljumović, Dejana Pavlović

3.3. ANALYSIS OF EMPLOYEE PERFORMANCE IN BANKING AND PUBLIC SECTOR 159

Jelena Vapa Tankosić, Snežana Lekić

3.4. FINANCIAL STRUCTURE OF INNOVATIVE ORGANIZATIONS IN SERBIA 163

Grozdana Marinković, Slavica Stevanović

3.5. INTELLIGENT DATA ANALYSIS OF COMMERCIAL BANK CUSTOMERS 166

Hasan Hanić, Sonja D. Radenković, Milica Bugarčić

3.6. PREFERENCES FOR USING PAYMENT CARDS DURING COVID 19 PANDEMIC: THE CASE OF NORTH MACEDONIA 170

Fanka Risteska, Aneta Risteska Jankuloska, Marjan Angleski

3.7. ADOPTION OF MOBILE BANKING IN THE REPUBLIC OF SERBIA 173

Marija Antonijević, Đina Ivanović

3.8. CROWDFUNDING: GLOBAL PERSPECTIVE AND ITS IMPLEMENTATION IN SEE REGION 176

Ismail Musabegović, Milena Lazić

3.9. CONSUMER PROTECTION IN THE AGE OF INSURTECH 179

Klime Poposki, Ksenija Dencic-Mihajlov, Desislav Danov

3.10. IDENTIFICATION OF THE SUCCESS FACTORS FROM INNOVATIVE FINTECH INITIATIVES TO THE BUSINESS MODELS 182

Dario Gechevski, Klimentina Poposka

Table of Contents

**3.11. ARTIFICIAL INTELLIGENCE BASED MODEL IN THE PROVISION OF
FINANCIAL SERVICES**

185

Jovanka Damoska Sekuloska, Ninoslav Marina

PREFACE

Dear readers,

As a result of our first virtual Annual International Scientific Conference, it is our pleasure to present this year's Book of Abstract. As we put the safety and health of our participants first, the decision had been made by the Institute of Economic Sciences from Belgrade, Serbia together with the Institute of Economics from Skopje, North Macedonia to organize the Conference event in a virtual format, due to the coronavirus outbreak.

This year's Conference focused on innovations, digitalization and competitiveness and the specific topic of the Conference was "Emerging Trends in Business Economics: towards Competitiveness, Digitalization and Financial innovation". Over 100 participants attended the Conference, submitting 57 papers, including authors from 9 countries.

Our intention was to bring together researchers, scholars, doctoral students and policymakers to present their ideas and work to the community at large, to receive feedback and enjoy great networking opportunities, on the following topics:

1. Competitiveness and global growth
2. Trends in the digital economy
3. Financial innovation and Fintech

The concept of economic growth and improving competitiveness has changed in the 21st century. Physical resources, machines and manpower are no longer crucial as capital, technology and human knowledge have taken over the primacy of major development factors. All things considered, it is clear that knowledge, research, innovations and technology, accelerated by the process of digitalization, form the backbone of economic development, dominant way to create surplus value and tackle social challenges. Knowledge-based economies are already forcing the commercialization of innovation and new technologies as ways to achieve faster economic growth and generate new well-paid jobs in fairer and greener societies. As concerns developing countries, there is a need to create a better business environment, develop adequate infrastructure, as well as raising and disseminating knowledge throughout all segments of the economy. Here, in this Book of

Preface

Abstracts, contributing authors present their view and possible solutions to the chosen issues.

We are grateful to all the authors who contributed to this Book of Abstracts in fulfilment of our joint goal.

Stay safe and healthy through these unusual times!

EDITORS

1.18. FDI CONTRIBUTION TO TECHNICAL EFFICIENCY IN THE SERBIAN MANUFACTURING SECTOR

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OBJECTIVES

The contribution of foreign direct investment (FDI) to the developing economies has been examined by a large body of theoretical and empirical studies. The key objective of this paper was to match the quantification of technical inefficiency with the high inflow of FDI that has been characteristic of Serbia in recent years and determine how FDI affects a firm's technical efficiency improvement as well as its technical progress in a stochastic frontier (SF) model.

METHODOLOGY

The methodology is based on SF analysis - within that, 'true' random effects model - TRE (Greene, 2005). Empirical analysis utilizes the balanced panel data on a sample of 92 Groups of Section C 'Manufacturing', spread over 10 years period 2010-2019. The data source is the Business Register of Statistical Office of the Republic of Serbia. The SF model estimates a firm's production frontier given a set of production inputs. The deviation of a firm's actual output level from its maximum level of output is defined as technical inefficiency. The variable FDI (share of foreign ownership) was used as a covariate.

RESULTS

Regarding the effect of foreign ownership variable (FDI), the value of the z ratio varies from -5,98 to -5,71, depending on the model specifications and are smaller than z table at the 1% significance level. This means that the presence of FDI affects the level of manufacturing technical efficiency. The existence of a negative coefficient (-0.03) indicates that foreign ownership reduces technical inefficiency or in other words a positive effect on the industrial technical efficiency in Serbia.

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IMPLICATIONS

Over the last decade, many measures have been adopted by Serbian policy-makers to attract FDI spurred on by the belief that this inflow will stimulate export-led growth, increase employment, enhance productivity, and accelerate growth. The above results shows that presence of foreign firms in Serbia has a positive impact on improving the technical efficiency of the domestic industry, in general. But we have to be careful, since the effects of FDI can be different across industries a “one-size-fits-all” investment promotion policy is not recommended.

ORIGINALITY VALUE

The relationship between FDI and productivity/efficiency has been much debated in a literature. Many endogenous growth models supported the idea that FDI enhances TFP and consequently stimulates economic growth. However, to the knowledge of the author of this paper, up to 2020 there was no papers that analyze the FDI effect on technical efficiency of manufacturing sector in Serbia. From that aspect, this paper can certainly be considered original.

CONTRIBUTION

The paper contributes to the understanding of potential effects on foreign invested enterprises on domestic economy in general and local enterprises performance in particular. Thus it importantly assists policy making by the government of developing countries, where FDI is believed to create technical spillovers on domestic industry.

KEY WORDS

Technical efficiency, foreign direct investment, stochastic frontier model, Serbian manufacturing

REFERENCES

1. Aigner, D.J., Lovell, C.A.K., & Schmidt, P. (1977). Formulation and estimation of stochastic frontier production function models. *Journal of Econometrics* 6(1), 21-37.
2. Battese, George E., & Coelli, Timothy. (1988). Prediction of firm-level technical efficiencies with a generalized frontier production function and panel data. *Journal of Econometrics*, 38 (3), 387-399.
3. Battese, George E., & Corra, G.S. (1977). Estimation of a production frontier model: With application to the pastoral zone of Eastern Australia. *Australian Journal of Agricultural Economics* 21(3), 169-179.

4. Belotti, F., Daidone, S., Ilardi, G., & Atell, V. (2012). Stochastic frontier analysis using Stata. *CEIS Tor Vergata*, 10(12), pp. 719-758.
5. Cardarelli, R, & L Lusinyan (2015). U.S. Total Factor Productivity Slowdown: Evidence from the U.S. States. *IMF Working Paper* no. 15/116. p. 24.
6. Carroll, J., Newman C., & Thorne, F. (2011). A Comparison of Stochastic Frontier Approaches for Estimating Technical Inefficiency and Total Factor Productivity. *Applied Economics*, 43(27), 4007-4019.
7. Greene, W.H. (2005a). Fixed and Random Effects in Stochastic Frontier Models. *Journal of Productivity Analysis*, 23, 7–32.
8. Greene, W.H. (2005b). Reconsidering heterogeneity in panel data estimators of the stochastic frontier model. *Journal of Econometrics* 126, 269–303
9. Jondrow et al. (1982). On The Estimation of Technical Inefficiency in The Stochastic Frontier Production Function Model. *Journal of Econometrics* 19(2-3),233-238.
10. Kumbhakar, & Lovell. (2000). Stochastic Frontier Analysis. Cambridge UK: *Cambridge University Press*, pp. 343
11. Kumbhakar, S.C., Denny, M., & Fuss, M. (2000). Estimation and decomposition of productivity change when production is not efficient: a panel data approach. *Econometric Reviews*, 19(4), 312–320.
12. Kumbhakar, Wang, & Horncastle. (2015). A Practitioner's Guide to Stochastic Frontier Analysis Using Stata, *Cambridge University Press*, pp. 556.
13. Meeusen, W., & Van den Broeck, J. (1977). Efficiency estimation from Cobb-Douglas production functions with composed error. *International Economic Review* 18(2), 435-444.
14. Nikolić, I. (2019). Osvrt na tehnološke promene prerađivačke industrije 2010-2018. *MAT-Makroekonomske analize i trendovi*, Ekonomski institut, br. 299, str. 21-25.
15. Nikolić, I., & Zoroja, M. (2018). What Has Been Driving the Rapid Growth of Serbian Manufacturing Since 2014 - Why Does Technology Matter?. *BH ECONOMIC FORUM*, Zenica, december, 2018., no. 9 5-203.
16. Pires, J. O., & Garcia, F. (2012). Productivity of nations: A stochastic frontier approach to TFP decomposition. *Economics Research International*, vol. 2012, p. 19, <http://downloads.hindawi.com/archive/2012/584869.pdf>.
17. Pitt, M., & Lee, L. (1981). Measurement and Sources of Technical Efficiency in the Indonesian Weaving Industry, *Journal of Development Economics*, 9, 43-64.
18. Sur, A., & Nandy, A. (2018). FDI, technical efficiency and spillovers: Evidence from Indian automobile industry, *Cogent Economics & Finance*. *Cogent Economics & Finance*, 6(1), 1-18,
19. Svedin, D., & Stage, J. (2016). Impacts of foreign direct investment on efficiency in Swedish manufacturing. *SpringerPlus* 5(1), 614.
20. Zhou, Y. (2014). FDI and Technical Efficiency in Manufacturing Firms: A Stochastic Frontier Approach. *Master's Theses*, The University of San Francisco. p 27.