



**Sixth International Scientific Conference
on Recent Advances in Information Technology,
Tourism, Economics, Management and Agriculture**

ITEMA 2022

www.itema-conference.com

BOOK OF ABSTRACTS

Organized by



Association of Economists
and Managers of the Balkans
UdEkoM Balkan

Partner institutions



Faculty of Economics and Business



POZNAŃ UNIVERSITY
OF ECONOMICS
AND BUSINESS



SIXTH INTERNATIONAL SCIENTIFIC CONFERENCE
ITEMA 2022

***Recent Advances in Information Technology, Tourism,
Economics, Management and Agriculture***

BOOK OF ABSTRACTS

Maribor, Slovenia
October 27, 2022

Sixth International Scientific Conference ITEMA

Recent Advances in Information Technology, Tourism, Economics, Management and Agriculture

ISSN 2683-5991

Book of Abstracts (part of ITEMA conference collection)

Editor:

Vuk Bevanda 

PhD, Associate Professor, Faculty of Social Sciences, Belgrade, Serbia

Associate Editor:

Paulo Monteiro Alexandre 

PhD, Associate Professor, Polytechnic Institute of Setúbal, School of Business Administration, Setúbal, Portugal

Organizational Committee:

Anton Vorina 

PhD, Professor, School of Economics, Vocational College, Celje, Slovenia

Nikolina Vrcelj 

PhD candidate, Udekom Balkan, Serbia

Nevena Bevanda

PhD student, Udekom Balkan, Serbia

Ivana Mirčević

BSc, Udekom Balkan, Serbia

Uroš Mirčević

Ing., Udekom Balkan, Serbia

Goran Stevanović

BSc, Udekom Balkan, Serbia

Published by:

Association of Economists and Managers of the Balkans – **UdEkoM Balkan**

Ustanicka 179/2 St. 11000 Belgrade, Serbia

office@udekom.org.rs

+381 62 8125 779

Conference partners:

Faculty of Economics and Business, University of Maribor, Slovenia

Faculty of Organization and Informatics, University of Zagreb, Croatia

Faculty of Geography, University of Belgrade, Serbia

Institute of Marketing, Poznan University of Economics and Business, Poznan, Poland

Faculty of Agriculture, Banat's University of Agricultural Sciences and Veterinary Medicine "King Michael I of Romania", Timisoara, Romania

Cover image by: Gerd Altmann from Pixabay

Printed by: SKRIPTA International, Belgrade

Print circulation: 100 copies

Belgrade, 2023

ISBN 978-86-80194-65-3

ISSN 2683-5991

Disclaimer: The author(s) of each paper appearing in this publication is/are solely responsible for the content thereof; the findings, interpretations and conclusions expressed in the papers are those of the authors and do not reflect the view of the editor, reviewers, scientific committee members, the publisher, conference partners or anyone else involved in creating, producing or delivering this publication.



This work is licensed under a Creative Commons Attribution-NonCommercial 4.0 International License

CIP - Katalogizacija u publikaciji
Narodna biblioteka Srbije, Beograd

330(048)

004(048)

005(048)

338.48(048)

631(048)

616.98:578.834]:33(048)

**INTERNATIONAL Scientific Conference ITEMA 2022
Recent Advances in Information Technology, Tourism,
Economics, Management and Agriculture (6 ; 2022)**

Book of Abstracts / Sixth International Scientific
Conference ITEMA 2022 Recent Advances in Information
Technology, Tourism, Economics, Management and
Agriculture, Maribor, Slovenia October 27, 2022 ; [editor
Vuk Bevanda]. - Belgrade : Association of Economists
and Managers of the Balkans / UdEkoM Balkan, 2023
(Belgrade : Skripta International). - XXIV, 111 str. ; 25 cm.
- (ITEMA Conference Collection, ISSN 2683-5991)

Tiraž 100. - Registri.

ISBN 978-86-80194-65-3

a) Informaciona tehnologija -- Apstrakti b) Ekonomija
-- Apstrakti v) Menadžment -- Apstrakti g) Turizam --
Apstrakti d) Poljoprivreda -- Apstrakti d) Korona virus
-- Ekonomski aspekt -- Apstrakti

COBISS.SR-ID 120764169

Editorial Committee of the ITEMA Conference

Albania

Rovena Troplini Vangjel 

PhD, Assistant Professor, Head of Finance Accounting Department Business Faculty, Aleksandër Moisiu University of Durrës, Durrës

Kladiola Gjini 

PhD, Assistant Professor, University of Elbasan Aleksander Xhuvani, Elbasan

Algeria

Kamel Mouloudj 

PhD, Full-Time Professor, University of Medea

Austria

Dominika Galkiewicz 

Prof. (FH) Dr., University of Applied Sciences Kufstein

Bosnia and Herzegovina


Lejla Žunić 

PhD, Associate Professor, University of Sarajevo, Faculty of Science, Sarajevo

Bulgaria

Maria Vodenicharova 

PhD, Associate Professor, University of National and World Economy, Sofia

Victor Yotzov 

PhD, Associate Professor, University of National and World Economy, Sofia

Nikolay Atanasov 

PhD, Associate Professor, Medical University Plovdiv

Croatia

Sandro Gerić 

PhD, Associate Professor, Faculty of Organization and Informatics Varaždin, University of Zagreb

Darko Androćec 

PhD, Assistant Professor, Faculty of Organization and Informatics Varaždin, University of Zagreb

Jelena Dorčić 

PhD, Postdoctoral Researcher, University of Rijeka, Faculty of Tourism and Hospitality Management, Opatija

Pavle Jakovac 

PhD, Associate Professor, Faculty of Economics and Business Rijeka, University of Rijeka

Czech Republic

Dominik Zidek 

PhD, Assistant Professor, Masaryk University, Faculty of Law

Hungary

Krisztina Bence-Kiss 

PhD, Senior lecturer, Hungarian University of Agriculture and Life Sciences, Kaposvár

India

J. C. Sharmiladevi

PhD, Assistant Professor, SCMS, Symbiosis International University, Viman Nagar, Pune

Italy

Vito Arcangelo Carulli 

PhD, Adjunct Professor, Department of Economics and Finance, University of Bari “Aldo Moro”, Bari

Katia Giusepponi 

PhD, Associate Professor, University of Macerata – Department of Education, Cultural Heritage and Tourism, Macerata

Serena Brianzoni 

PhD, Associate Professor, Department of Management, Polytechnic University of Marche, Ancona

North Macedonia

Ljupcho Eftimov 

PhD, Full-Time Professor, Faculty of Economics-Skopje, Ss. Cyril and Methodius University in Skopje

Vera Karadjova 

PhD, Full-Time Professor, University “St. Kliment Ohridski”, Bitola; Faculty of Tourism and Hospitality, Ohrid

Nikolche Jankulovski 

PhD, Associate Professor, Department of Agricultural Economics, Head of Faculty of Biotechnical Sciences – Bitola, University “St. Kliment Ohridski”- Bitola

Poland

Zygmunt Waśkowski 

PhD, Full-Time Professor, Director, Institute of Marketing, Poznan University of Economics and Business, Poznan

Ireneusz P. Rutkowski 

PhD, Full-Time Professor, Department of Market Research and Services, Institute of Marketing, Poznan University of Economics and Business, Poznan

Barbara Borusiak 

PhD, Associate Professor, Department of Commerce and Marketing, Institute of Marketing, Poznan University of Economics and Business, Poznan

Magdalena Ankiel 

PhD, Associate Professor, Product Marketing Department, Institute of Marketing, Poznan University of Economics and Business, Poznan

Marcin Pelka 

PhD, Assistant professor, Wrocław University of Economics and Business, Wrocław

Portugal

Rui Dias 

PhD, Associate Professor, Polytechnic Institute of Setúbal, School of Business Administration and Researcher at the University of Évora (CEFAGE), Setúbal

Paula Heliodoro 

PhD, Associate Professor, Polytechnic Institute of Setubal, Setubal

Romania

Imbrea Florin 

PhD, Full-Time Professor, Dean, Faculty of Agriculture, Banat’s University of Agricultural Sciences and Veterinary Medicine ”King Michael I of Romania”, Timisoara

Laura Smuleac 

PhD, Associate Professor, Vice Dean for Research, Faculty of Agriculture, Banat’s University of Agricultural Sciences and Veterinary Medicine ”King Michael I of Romania”, Timisoara

Suzana Demyen 

PhD, Assistant Professor, Babes-Bolyai University, Department of Business Administration – Resita

Serbia

Velimir Šećerov 

PhD, Full-Time Professor, Dean, Faculty of Geography, University of Belgrade, Belgrade

Dejan Filipović 

PhD, Full-Time Professor, Faculty of Geography, University of Belgrade, Belgrade

Milan Marković 

PhD, Research Associate, University of Niš, Innovation Center, Niš

Ana Jovičić Vuković 

PhD, Lecturer, School of Business, Novi Sad

Slovakia

Mária Farkašová 

PhD, Assistant Professor, Slovak University of Agriculture in Nitra, Nitra

Slovenia

Polona Tominc 

PhD, Full-Time Professor, Dean, Faculty of Economics and Business, University of Maribor

Darja Boršič 

PhD, Full-Time Professor, Vice Dean, Faculty of Economics and Business, University of Maribor

Borut Milfelner 

PhD, Full-Time Professor, Faculty of Economics and Business, University of Maribor

Spain

José Aurelio Medina-Garrido 

PhD, Associate Professor, University of Cadiz, Jerez (Cádiz)

Dolores Gallardo-Vázquez 

PhD, Full professor, University of Extremadura; Facultad de Ciencias Económicas y Empresariales

Turkiye

Erginbay Uğurlu 

PhD, Istanbul Aydın University, Kampus Kucukcekmece

Hanifi Murat Mutlu 

PhD, Professor, Gaziantep University, Faculty of Economics and Administrative Sciences
Department of International Trade and Logistics

Taiwan

Tamara Klicek

PhD, Assistant Professor, National Taipei University



Contents

Index of Authors.....	XV
Index	XVII
Preface.....	XXI
ITEMA 2022 Participants' Affiliation	XXIII
Support for Knowledge Management Processes with Blockchain Technology.....	1
Sandra Lovrenčić	
A Proposed Blockchain-Based Solution for a Data-Driven Vehicle Lifecycle Management	2
Ezmolda Barolli	
Muhamet Zeneli	
Dynamic Generation of Website Content Based on User Segmentation Using Artificial Intelligence	3
Nenad Kojić	
Mladen Petrović	
Natalija Vugdelija	
Comparative Analysis of the HTTP/3 Protocol Attributes in Relation to Previous Protocol Versions Using ASP.NET Core Framework	4
Luka Lukić	
Milanko Kragović	
Nenad Kojić	
Cryptocurrency: Evidence from North Macedonia	5
Kiril Jovanovski	
Leartha Jusufi	
State and Perspectives of Electronic Invoicing in Croatian Companies	6
Marko Veldić	
Mario Jadrić	
Maja Čukušić	
Comparing Genetic Algorithm and Variable Neighborhood Search Method for Solving Job Shop Problem	7
Jana Vugdelija	
Risk Management in the Automation of Business Processes through the Application of Robotic Process Automation	8
Ognjen Pantelić	
Ivana Ivanović	
Stefan Krstović	
Social Networks – A New Way of Communicating in Healthcare	9
Gordana Jelić	
Danica Mamula Tartalja	
Usage of E-platforms Google Meet, Microsoft Teams and Zoom in Education	10
Anton Vorina	
Nikolina Vrcelj	
Vuk Bevanda	
Framing a Model for Mobile Learning Using Augmented Reality	11
Slavica Radosavljević	
Vitomir Radosavljević	
Efficiency of Learning Using Augmented Reality Technology.....	12
Vitomir Radosavljević	
Slavica Radosavljević	

Information Security – SOC Potentialities	13
Pedro Vieira Leonilde Reis	
Cybersecurity – Security Operations Center	14
Pedro Falé Leonilde Reis Rui Almeida	
An Approach to Improving Network Security Using Log Analysis	15
Marija Zajeganović Milan Pavlović Danica Mamula Tartalja Silva Kostić	
Payment Security Issues and User Data in Online Commerce	16
Nadezda Dimova	
Impact of Risk Management in an Organizational Context	17
João Santos Leonilde Reis Manuel Landum	
Digitalization and Well-Being: Evidence from a Cross Country Study within an Economic and Cultural Framework	18
Cristina Bota-Avram	
Comparing Tourist Experiences and Satisfaction across Desktop and Headset Virtual Reality Devices	19
Wilson K. S. Leung Man-Kit Chang Ludwig Tin-Yan Cherry Cheung	
The Impact of the Socio-Demographic Factors on Tourism Enterprise Management	20
Elena Petkova	
Heading Towards Quality: Entrepreneurial Leaps in the Tourism Industry – Empirical Findings and Future Directions.	21
Gernot Moedritscher	
Capital Structure and Profitability: Panel Data Evidence from the European Tourism Industry	23
Rezart Demiraj Suzan Dsouza Enida Demiraj	
Potential and Need of Tourism Cluster Organizations in Slovakia.	24
Jozef Gáll	
Partnership as a Success Factor in Cross-Border Cultural Tourism Development. The Case of Komárom	25
Melinda Hajdu-Smahó	
The Potential for Sustainable Tourism Development and Branding. Analysis of Krushevo and Elbasan Destinations	26
Elvira Fetahu Emilia Geroska	
Analysis of the Financial Impact of the Viral Infection Crisis on the Tourism Sector through the Prism of Serbia and Croatia.	27
Nikola Vidović Jelena Šuleić Hatidža Beriša	

Digitalization as an Emergent Process: Evidence from Italian Museums.....	28
Enrico Cori Costina Andreea Calota	
European Strategies for Sustainable Tourist Destinations, Problems & Prospects – The Case of Vlora, Albania	29
Matilda Naço Gerta Bamllari	
City Image: The Case of Tirana.....	30
Rozana Haxhialushi	
The Tourist Image of the Protected Landscape of Biambare, Sarajevo	31
Lejla Žunić	
Big Data as a Bridge between Visitors and Heritage, Case Study of the Historical City of Kotor.....	32
Olga Mirković Maksimović	
The Role and Importance of Women in the Revitalization of Intangible Heritage in Order to Maintain the Competitiveness of the Destination	33
Dijana Vuković Sanja Varlaj Sara Simić	
Comprehension of Wine Destination as a Basis for Expansion	34
Patrik Kubát	
Restaurant Revenue Management Performance Indicators	35
Branislava Hristov Stancic	
Global Stagflation Shocks: Macroeconomic Challenges and Repercussions	36
Jovica Pejčić	
Industrial Policy: Changing Perception over Time	37
Milena Lutovac Đaković	
Assessment of the Economic Situation of Post-socialist EU Countries	38
Dagmar Petrušová Katarína Kráľová Jana Sochuľáková	
Saving the Competitiveness of the European Business Sector – Chips Act.....	39
Mária Nováková Silvia Capíková Katarína Kezman	
Business Power and Mobility to Workplaces in Italian Regions during the First COVID-19 Wave	40
Demetrio Panarello Giorgio Tassinari	
The State and Prospects of the Economic Development of the Republic of Serbia in the Conditions of the COVID-19 Pandemic.....	41
Miloš Lutovac Valentina Mirković Danijela Radenković Marko Vučićević	
Covid-19's Impact on Supply Chain Practices in the Republic of Serbia	42
Anđela Đorđević Biljana Cvetić Dragan Vasiljević Vidosava Džagić	

The Digital Divide and Use of Public Services during the COVID-19 Pandemic	43
Sunčana Slijepčević	
The Role of Local Authorities in the Health System Response to COVID-19 in Croatia: The Case of the City of Split	44
Lana Kordić	
The Importance of the Functioning of the Mineral Economy of Serbia in the Current Crisis Market Conditions	45
Radule Tosovic	
Advantages and Disadvantages of Strategic Alliances in International Business	46
Kladvij Logožar	
Testing the Causal Relationship between Central and Eastern European Capital Markets: Evidence in Periods of Uncertainty in the Global Economy	47
Paulo Alexandre	
Rui Dias	
Nicole Horta	
Paula Heliodoro	
Mariana Chambino	
Testing the Weak Form of Efficient Market Hypothesis in Period of the Global Pandemic of 2020 and the Russian Invasion in 2022: Empirical Evidence from XAU, XAG and XPT	48
Nicole Horta	
Rui Dias	
Paula Heliodoro	
Paulo Alexandre	
Mariana Chambino	
Impact of the 2020 and 2022 Events on the Efficiency of Europe's Capital Markets.....	49
Paula Heliodoro	
Rui Dias	
Nicole Horta	
Paulo Alexandre	
Mariana Chambino	
Risk Diversification in Asian Stock Markets: An Empirical Analysis in the Context of the 2020 and 2022 Events	50
Nicole Horta	
Rui Dias	
Paula Heliodoro	
Paulo Alexandre	
Mariana Chambino	
Healthcare Financing Models and the Expenditure Growth	51
Nikolay Atanasov	
Dimitar Semkov	
Health Care without Borders: Current Trends and Challenges in Europe	52
Silvia Capikova	
Maria Novakova	
Recent Advances in Fintech: The Case of Italian Challenger Banks	53
Annalisa Baldissera	
Do Audit Opinions Affect Earnings Persistence?	54
Jovana Stojanović	
Milica Đorđević	

Internal Audit in the Function of Improving Company Performance	55
Ana Milijić Andrija Popović	
Survey on Diffusion, Contingent Factors and Effects of Strategic Management Accounting	56
Petr Petera Jaroslav Wagner Libuše Šoljaková	
Quality of R&D Information in the Disclosures of Pharmaceutical Companies in Hungary.....	57
Gréta Palánk Éva Karai	
Sustainability Reporting Practices of Real Estate Companies from Germany, Austria and Switzerland – First Insights from 2020	58
Dominika P. Gałkiewicz	
What Is the Role of Intangibles in Value Creation?	59
Isabel Cruz Eva Góis	
The Necessity to (Co)Create Shared Value	60
Carmina S. Nunes	
Implementation of Lean Management Practices in Azerbaijan (On the Example of a Private Company).....	61
Yelena Alaskarova	
A Holistic CSR Maturity Assessment Model	62
Maria Belesioti Michail Glykas	
Information and Communication Technologies in the Function of the Development of Digital Competences of Persons with Disabilities.....	63
Anela Džananović Jasna Bajraktarević	
Changing the Process of the Employee Recruitment in the Labour Market	64
Mirjana Nedović Ivona Bajić Sabljo	
Analysis of Creative Industries in Serbia in the Pre and Post-covid Period	65
Aleksandra Anić Maja Ribić Igor Kovačević	
Impact of E-recruitment on Effectiveness of HR Management in BH Companies	67
Sabina Đonlagić Alibegović Vedrana Ajanović Amina Džambić	
Effect of the 4th Industrial Revolution on Employability – Case of Albania	68
Milena Shehu Areti Stringa	
Anxiety Due to COVID-19 and the Role of Obsession, Job Location Selection and the Number of Children in Hospitality Employees.....	69
Konstantinos Krikonis Ioannis Konstantaras	

The Effect of Psychological Factors on Sustainable Entrepreneurial Intentions.....	70
Kristina Stamenovic Milorad Stamenovic	
Human Resources Management in Quality 4.0 Maturity Assessment.	71
Anastasia Vlastaridou Evdokia Nikou Ioulia Kouroupaki Michail Glykas	
Study of the Motivating Factors of the Human Resources Management System in the Municipality of Plovdiv	72
Liliya Nedeva	
University-Industry Cooperation, from the Viewpoint of Top-Level Management in Albanian Companies	73
Ketrina Çabiri Mijo Ermira Qosja	
Sustainability and Higher Education: An Efficiency Analysis.....	74
Maja Mihaljević Kosor	
The Level of Development - Students' Perceptions and Beyond: The Case of Balkan Countries.....	75
Vladimir Šimić Lena Malešević Perović	
Online Learning during the COVID-19 Pandemic.....	76
Silva Kostić Nada Ratković Kovačević Marija Zajeganović Đorđe Dihovični Ivana Krulj Dragan Kreculj	
Successful E-learning: Wishful Thinking or Reality?	77
Zoran Ježić Renee Škulić	
Examining Relationship between Student Achievements and Their Attitudes toward Distance Learning	78
Dragana Gardašević Koviljka Banjević Aleksandra Nastasić Dragana Rošulj	
Digital Education and a Europe of Migrations	79
Igor Cvečić	
Education after the COVID-19 Crisis.....	80
Carmen Mihaela Man Camelia Slave	
EFQM Maturity Assessment	81
Maria Vitzilaiou Thaleia Dima Michail Glykas	
Industry 4.0 Process-Operations Management Maturity Assessment: A Literature Survey	82
Anastasia Vlastaridou Christos Mpafas Georgios Melidis Michail Glykas	

Sport Management Maturity Assessment: Application to Cosma Competencies Scale	83
Xanthi Tsipoura	
Spyros Sakellariou	
Michail Glykas	
Athina Tsimpidou	
Impact of the Ukrainian Crisis on Investments in Online Market in Slovakia	84
Vlastimir Čobrda	
The Effects of E-commerce Cues on Consumers' Purchase Intention	85
Urszula Garczarek-Bąk	
Factors Determining Green Products Purchase Intentions	86
Nika Rakuša	
Borut Milfelner	
Virtual Reality Experience Marketing (Nissan Sakura Case Study in Vrchat Application)	88
Marcin Gurtatowski	
Doris Antczak	
Natalia Gluza	
The Role of Relationship Marketing in the Period of Digitization of Healthcare	89
Monika Dobska	
Banking Marketing Practices during the COVID-19 Pandemic: A Literature Review	91
Katerina Fotova Čiković	
Determinants and Conditions of Marketing Communication in National Art Museums in Poland	92
Magdalena Ankiel	
Katarzyna Śmiałowicz	
The Impact of the Sharing Economy and the Circular Economy in Redefining City Logistics Management	93
Stevan Veličković	
Biljana Grgurović	
Jelena Milutinović	
The Applicability of the Consolidation Center Concept in the Postal Sector	94
Jelena Milutinović	
Biljana Grgurović	
Stevan Veličković	
An Integrative Approach to Assess the Impact of Switching on the Environment-Friendly Public Transportation System in Urban Area	95
Paula-Ramona Răchișan	
A Contribution to Analysis of the Space Productivity in a Seaport	96
Deda Đelović	
Elements of Food Security in the Current Geopolitical Context	97
Mancia Mircea-Sebastian	
Gabriela A. Popoviciu	
Analysis of Agriculture in the European Union	98
Sandra Mrvica Mađarac	
Zvonimir Filipović	
Sandra Jurić	
The CAP Needs Finally Reforms and Adjustments to the Current Needs of the EU	99
Dusan Soltes	

Bulgarian Agriculture - Principles, Traditions and Development of the Organic Agriculture.	100
Kristina Petrova-Hristova	
Taxation of Agricultural Sector in Albania.	101
Brunilda Duraj (Zani)	
Viola Theodhori	
Using Benchmarking in Romanian Food Industry Performance Evaluation.	102
Edina Kulcsár	
Tibor Tarnóczy	
The Chaotic Wheat Producer Price Growth Model	103
Vesna Jablanovic	
Economic Assessment of Sea Buckthorn Cultivation and Processing in Conditions of Intensive Production	104
Lubomír Gurčík	
Zuzana Bajusová	
Jana Ladvenicová	
Precision Agriculture in Grapevine Plantations.	105
Camelia Slave	
Carmen Mihaela Man	
Are the National Cultural Orientations and the Stages in the Development of the Green Economy Interrelated?	106
Alona Sova	
Romana Korez Vide	
Maja Rožman	
Introducing Green Infrastructure into Urban Policy Documents – The Case of Croatian Cities.	107
Željka Kordej-De Villa	
The Economic Aspects of Security Related to Technical-Technological Disasters and the Concept of Sustainable Development.	108
Milos Tosovic	
Child Labor: Case Study Bulqiza Municipality	110
Nejla Peka	
Priority Substances in Waters of Albanian Ports	111
Esmeralda Halo	
Bledar Murtaaj	
Aurel Nuro	



Index of Authors

A

Aleksandra Anić, 65
Aleksandra Nastasić, 78
Alona Sova, 106
Amina Džambić, 67
Ana Milijić, 55
Anastasia Vlastaridou, 71; 82
Anđela Đorđević, 42
Andrija Popović, 55
Anela Džananović, 63
Annalisa Baldissera, 53
Anton Vorina, 10
Areti Stringa, 68
Athina Tsimpidou, 83
Aurel Nuro, 111

B

Biljana Cvetić, 42
Biljana Grgurović, 93; 94
Bledar Murtagj, 111
Borut Milfelner, 86
Branislava Hristov Stancic, 35
Brunilda Duraj (Zani), 101

C

Camelia Slave, 80; 105
Carmen Mihaela Man, 80, 105
Carmina S. Nunes, 60
Christos Mpafas, 82
Costina Andreea Calota, 28
Cristina Bota-Avram, 18

D

Dagmar Petrušová, 38
Danica Mamula Tartalja, 9; 15
Danijela Radenković, 41
Deda Đelović, 96
Demetrio Panarello, 40
Dijana Vuković, 33
Dimitar Semkov, 51
Dominika P. Gałkiewicz, 58
Doris Antczak, 88
Dragana Gardašević, 78
Dragana Rošulj, 78
Dragan Kreculj, 76
Dragan Vasiljević, 42
Dusan Soltes, 99

Đ

Đorđe Dihovični, 76

E

Edina Kulcsár, 102
Elena Petkova, 20
Elvira Fetahu, 26
Emilia Geroska, 26
Enida Demiraj, 23
Enrico Cori, 28
Ermira Qosja, 73
Esmeralda Halo, 111
Eva Góis, 59
Éva Karai, 57
Evdokia Nikou, 71
Ezmolda Barolli, 2

G

Gabriela A. Popoviciu, 97
Georgios Melidis, 82
Gernot Moedritscher, 21
Gerta Bamllari, 29
Giorgio Tassinari, 40
Gordana Jelić, 9
Gréta Palánk, 57

H

Hatidža Beriša, 27

I

Igor Cvečić, 79
Igor Kovačević, 65
Ioannis Konstantaras, 69
Ioulia Kouroupaki, 71
Isabel Cruz, 59
Ivana Ivanović, 8
Ivana Krulj, 76
Ivona Bajić Sabljo, 64

J

Jana Ladvenicová, 104
Jana Sochufáková, 38
Jana Vugdelija, 7
Jaroslav Wagner, 56
Jasna Bajraktarević, 63
Jelena Milutinović, 93; 94
Jelena Šuleić, 27
João Santos, 17
Jovana Stojanović, 54
Jovica Pejić, 36
Jozef Gáll, 24

K

Katarína Kezman, 39
Katarína Kráľová, 38

Katarzyna Śmiałowicz, 92
Katerina Fotova Čiković, 91
Ketrina Čabiri Mijo, 73
Kiril Jovanovski, 5
Kladvij Logožar, 46
Konstantinos Krikonis, 69
Koviljka Banjević, 78
Kristina Petrova-Hristova, 100
Kristina Stamenovic, 70

L

Lana Kordić, 44
Learta Jusufi, 5
Lejla Žunić, 31
Lena Malešević Perović, 75
Leonilde Reis, 13; 14; 17
Libuše Šoljaková, 56
Liliya Nedeva, 72
Lubomír Gurčík, 104
Luka Lukić, 4

M

Magdalena Ankiel, 92
Maja Ćukušić, 6
Maja Mihaljević Kosor, 74
Maja Ribić, 65
Maja Rožman, 106
Mancia Mircea-Sebastian, 97
Man-Kit Chang Ludwig, 19
Manuel Landum, 17
Marcin Gurtatowski, 88
Maria Belesioti, 62
Mariana Chambino, 47; 48; 49; 50
Maria Novakova, 52; 39
Maria Vitzilaïou, 81
Marija Zajeganović, 15; 76
Mario Jadrić, 6
Marko Veldić, 6
Marko Vučićević, 41
Matilda Naço, 29
Melinda Hajdu-Smahó, 25
Michail Glykas, 62; 71; 81; 82; 83
Milanko Kragović, 4
Milan Pavlović, 15
Milena Lutovac Đaković, 37
Milena Shehu, 68
Milica Đorđević, 54
Milorad Stamenovic, 70
Miloš Lutovac, 41
Milos Tosovic, 108
Mirjana Nedović, 64
Mladen Petrović, 3

Monika Dobska, 89
Muhamet Zeneli, 2

N

Nada Ratković Kovačević, 76
Nadezda Dimova, 16
Natalia Gluza, 88
Natalija Vugdelija, 3
Nejla Peka, 110
Nenad Kojić, 3; 4
Nicole Horta, 47; 48; 49; 50
Nika Rakuša, 86
Nikola Vidović, 27
Nikolay Atanasov, 51
Nikolina Vrcelj, 10

O

Ognjen Pantelić, 8
Olga Mirković Maksimović, 32

P

Patrik Kubát, 34
Paula Heliodoro, 47; 48; 49; 50
Paula-Ramona Răchișan, 95
Paulo Alexandre, 47; 48; 49; 50
Pedro Falé, 14
Pedro Vieira, 13
Petr Petera, 56

R

Radule Tosovic, 45
Renee Škulić, 77
Rezart Demiraj, 23
Romana Korez Vide, 106
Rozana Haxhialushi, 30
Rui Almeida, 14
Rui Dias, 47; 48; 49; 50

S

Sabina Donlagić Alibegović, 67
Sandra Jurić, 98
Sandra Lovrenčić, 1
Sandra Mrvica Mađarac, 98
Sanja Varlaj, 33
Sara Simić, 33
Silva Kostić, 15; 76
Silvia Capikova, 52; 39
Slavica Radosavljević, 11; 12
Spyros Sakellariou, 83
Stefan Krstović, 8
Stevan Veličković, 93; 94
Sunčana Slijepčević, 43
Suzan Dsouza, 23

T

Thaleia Dima, 81
Tibor Tarnóczy, 102
Tin-Yan Cherry Cheung, 19

U

Urszula Garczarek-Bąk, 85

V

Valentina Mirković, 41
Vedrana Ajanović, 67
Vesna Jablanović, 103
Vidosava Džagić, 42
Viola Theodhori, 101
Vitimir Radosavljević, 11; 12
Vladimir Šimić, 75
Vlastimir Čobrda, 84
Vuk Bevanda, 10

W

Wilson K. S. Leung, 19

X

Xanthi Tsioura, 83

Y

Yelena Alaskarova, 61

Z

Zoran Ježić, 77
Zuzana Bajusová, 104
Zvonimir Filipović, 98

Ž

Željka Kordej-De Villa, 107



Index

4th Industrial Revolution, 68
2020 and 2022 Events, 47

A
Accounting information, 57
Added value, 55
Adriatic Sea, 111
Advantages, 5
Adventure tourism, 26
Agricultural and livestock
production, 98
Agricultural policy of EU, 98
Agricultural subsidies, 99
Agro-Food sector, 97
Air pollution, 95
Arbitrage, 48; 49
Artificial intelligence, 3
Asian Markets, 50
ASP.NET Core., 4
Attitude, 70
Attitude towards green products,
87
Attributes of Destination, 34
Audit modification, 54
Auditors' reports, 54
Augmented Reality, 11; 12
Automotive market, 88

B
Bank, 91
Banking sector, 91
Barriers, 73
BDS, 49
Behavioral control, 87
Benchmarking, 102
Big data, 32
Blended Learning, 76
Blockchain, 2
Blockchain technology, 1
BTEX, 111
Bulgarian agriculture, 100
Business sector, 39

C
CAP, 99
Capital markets movements, 47
Capital structure, 23
Challenges, 73
Chaos, 103
Child labor, 110
Children's rights, 110

Circular economy, 93
Citizens, 43
City branding, 30
City image, 30
City logistics management, 93
Co(create) value, 60
Communication, 72
Competitive advantage, 46
Concept of sustainable
development, 109
Consolidation center, 94
Continuous improvement, 61
Conventional crops, 104
Convention of the UN for
Children's Rights, 110
Coronavirus anxiety, 69
Corporate Social Responsibility,
62
COSMA, 83
COVID-19, 42
COVID-19, 44; 91; 66; 80
Craftsmanship, 33
Creative industry, 66
Crisis, 27
Crisis, 80
Critical Success Factors (CSFs),
81
Croatia, 27; 44; 107
Croatian companies, 6
Cross-border health care, 52
Cryptocurrency, 5
CSR Maturity Assessment
Framework, 62
Cultural differences, 46
Cultural immersion, 26
Cultural tourism, 25
Cybersecurity, 13; 14; 17
Cybersecurity threats, 14
Czech Republic, 56

D
Data, 16
Data envelopment Analysis, 74
Delivery, 94
Destination management, 24
Development, 37
DFA Random Walk, 49
Digital competence, 63
Digital competitiveness ranking,
18
Digital divide, 43

Digital human resources
strategy, 64
Digitalization, 53; 64
Digital public services, 43
Digital skills, 28; 79
Digital Technology, 77
Digital transformation, 6; 82
Digitization of health care, 90
Digitize, 2
Directive, 58
Directive 2011/24/EU, 52
Disability, 63
Disadvantages (of
cryptocurrency), 5
Distance education, 78
Distributed ledger, 2
Dynamic investment assessment
methods, 104
Dynamic website, 3

E
Earnings quality, 54
E-commerce, 85
Economic aspects, 109
Economic crisis, 41
Economic factors, 110
Economic growth, 95
Economic performance, 53
Economy, 41; 100
Education, 77
Educational process, 80
Education and competences, 79
Effective learning, 12
Efficiency, 72
EFQM, 81
E-government services, 43
E-learning, 76
Electronic human resources
management, 64
Electronic invoicing, 6
Emerging finance, 53
Employability, 68
Employee-driven innovation, 28
Employers, 40
Employment rate, 38
Entrepreneurial leaps, 21
Environmental concerns, 87
Environmental knowledge, 87
Environmental security, 109
Environment-friendly, 95
E-recruitment, 67
ESG, 58

EU budget, 99

Europe, 23

European agricultural model, 97

European capital markets, 49

European solidarity, 97

European strategies, 29

European Tourism Indicator
System, 29

European Union, 79

Event management, 13

Events, 30

Events 2020 and 2022, 48

Experience economy, 88

Experience economy framework,
19

Experience marketing, 88

F

Financial analysis, 27

Financial instruments, 5

Financial integration, 50

Financial markets, 5

Financial performance, 102

Financial statements, 54

Financial technology, 53

Food industry, 102

France, 36

Functional food, 104

G

GC/ECD/FID, 111

GDP, 41

Gender, 33

Genetic algorithm, 7

Germany, 36

Global crisis, 97

Global Green Growth Index, 106

Global supply chains, 39

Glykas Quality Compass (GQC),
81

Goodwill, 59

Google maps, 32

Google Meet, 10

Government budget, 51

Green corridors, 97

Green economy, 106

Green infrastructure, 107

Green product purchase
intentions, 87

Gross domestic product per
capita, 38

H

HDI index, 75

Healthcare financing models, 51

Health care system, 44

Health impact, 95

Health insurance, 52

Health literacy, 9

Healthy food, 99

Hedonic cue, 85

Heritage, 32

Heuristics, 7

Historical city, 32

History, 25

Hofstede cultural dimensions,
106

Hospitality employees, 69

Hotel tourism, 27

HRM, 67

HTTP, 4

HTTP/3, 4

Human development index, 18

Human resource management
(HRM), 71

Human resources management,
61; 64; 83

Hungarian Accounting Act, 57

Hyperledger fabric, 2

I

ICT, 77

ICT access index, 18

Image creation, 92

Incentives, 101

Incident control, 14

Incident response, 14

Index of economic freedom, 18

Industrial policy, 37

Industry 4.0, 61; 82

Inflation, 38; 41

Information, 13

Information and communication
technologies, 63

Information security, 13; 17

Information-sharing platforms, 9

Insurance, 2

Intangible assets, 59

Inter-cultural differences, 106

Internal audit, 55

International business, 46

International Financial
Reporting Standards, 57

International tourism, 20

Investment decisions, 54

ISO26000:2010, 62

J

Job location selection, 69

Job Shop, 7

K

Knowledge management, 1

Knowledge management
processes, 1

Kohonen neural network, 3

L

Lacemakers, 33

Last mile, 94

Lean Management, 61

Lean philosophy, 61

Learning technologies, 12

Legal framework, 110

Lepoglav lace, 33

Level of development, 75

Life satisfaction, 75

LMS Platforms, 76

Local government, 44

Log messages, 15

Long memories, 50

Loyalty, 31

M

Macroeconomic repercussions,
36

Main challenges for agricultural
production, 98

Malicious activities, 15

Maps, 105

Marketing, 91

Marketing of cultural
institutions, 92

Maturity assessment, 71; 82; 83

Maturity frameworks, 83

Maturity Model, 62

Medical tourism, 52

Microsoft teams, 10

Migrations, 79

Mineral economy, 45

Mineral market, 45

Mineral production, 45

Mineral raw materials, 45

Mitigation strategies, 42

Mobile learning, 11

Motivation, 72

Motivational factors, 73

Museum marketing, 92

N

National culture, 18
 National culture, 106
 Natural environment, 26
 NFRD, 58
 Non-technical employees, 28
 North Macedonia, 5

O

Obsession with COVID-19, 69
 Online commerce, 16
 Online market Slovakia, 84
 Online support, 9
 Online teaching, 10
 Operations management, 82; 83
 Optimization, 94
 Ore deposit, 45
 Organic agriculture, 100
 Organochlorine pesticides, 111

P

PAH, 111
 Pandemic, 41; 59; 80
 Payment, 16
 PCBs, 111
 Performance, 55
 Performance indicators, 35
 Performance management, 56
 Performance measurement, 56
 Persistence, 48
 Physical activity, 26
 Physical planning, 107
 Policy documents, 107
 Portfolio diversification, 47; 48; 50
 Postal operators, 94
 Post-socialist countries, 38
 Precision agriculture, 105
 Press freedom, 18
 Process automation, 8
 Producer price, 103
 Productivity function, 102
 Profitability, 23
 Promotion, 31
 ProPASH, 35
 Prosperity, 18
 Protected landscape, 31
 Protocol, 4
 Psychological factors, 70
 Public administration balance, 38
 Public and private investments, 39
 Public health expenditure, 51

Q

Qualitative methodology, 44
 Quality, 21
 Quality 4.0, 71
 Quality Management (QM), 81
 QUIC, 4

R

Recruitment process, 67
 Regionalization, 41
 Regional strategies, 29
 Regulatory framework, 5
 Relationship marketing, 90
 Report, 58
 Research and Development, 57
 Research and development expenditure, 18
 Restaurant industry, 35
 Revenue management, 35
 Review, 91
 RevPASH, 35
 Risk management, 8; 17
 Risks, 8
 RPA technology, 8
 Rural areas, 100

S

Satisfaction, 31
 Scheduling problem, 7
 SDG 4, 74
 Sea buckthorn, 104
 Seaport, 96
 Secure, 2
 Security, 16; 109
 Security information, 13
 Security Operations Center, 13
 Semiconductor technologies, 39
 Serbia, 27; 66
 Shared value, 60
 Sharing economy, 93
 Size of agricultural holdings, 98
 Skills, 63
 Skills gap, 68
 SOC, 14
 Social health insurance, 51
 Socio-demographic factors, 20
 Space Productivity, 96
 Sport management, 83
 Stagflation, 36
 Static investment assessment methods, 104
 Statistical analysis, 78
 Stochastic Frontier Analysis, 102
 Strategic alliances, 46

Strategic management
 accounting, 56
 Strategy, 21; 56
 Stringency, 40
 Students' efficiency and effectiveness, 78
 Students' opinions, 78
 Students' perception, 75
 Subjective norms, 87
 Supply chain, 42
 Supply chain disruptions, 42
 Sustainability, 29; 58
 Sustainable development, 37
 Sustainable Development Goals, 74
 Sustainable Entrepreneurial Intentions, 70
 SWOT, 77

T

Tax policy, 101
 Teaching content, 11
 Technical-technological disasters, 109
 Theory of Planned Behavior, 70
 Tirana, 30
 Tourism, 21; 24
 Tourism cluster organizations, 24
 Tourism enterprise, 20
 Tourism industry, 23
 Tourist impressions, 31
 Tourist regions of Slovakia, 24
 Town development, 25
 Tracking matrix, 83
 Trade unions, 40
 Traditions, 100
 Troubleshooting, 15

U

Ukrainian crisis, 84
 Unemployment rate, 38
 UNESCO, 32
 UNIRI, 77
 Units protection of children's rights, 110
 University, 80
 Urban areas, 107
 USA, 36
 Use of the Internet, 43
 User, 16
 User segmentation, 3
 Utilitarian cue, 85

V

Variable neighborhood search, 7
VAT, 101
Vehicle lifecycle management, 2
Vineyards, 105
Violence, 110
Virtual Meeting Platforms, 76
Virtual reality, 88
Visitors, 32
Vlora, 29
VR devices, 19
VR Tourism, 19

W

Water analyze, 111
Web, 4
Web 4.0, 3
Western Balkans, 5
Wheat, 103
Wine, 105
Wine Regions, 34
Winescape, 34
Wine Tourism, 34
Women's heritage, 33
Work organization, 28
Work productivity, 38

Z

Zoom, 10



Preface

The purpose of the annual ITEMA conference is to support the power of scientific research and dissemination of the research results with the objective to enhance society by advancing knowledge; policy-making change, lives, and ultimately, the world. Our objective is to continue to be the foremost annual conference on cutting-edge theory and practice of information technology, tourism, economics, management, and agriculture, encouraging advancement via excellence, and interaction.

ITEMA conference aims to bring together the international academic community (experts, scientists, engineers, researchers, students, and others) and enable interactive discussions and other forms of interpersonal exchange of experiences and popularization of science and personal and collective affirmation.

The annual ITEMA conference is committed to the highest standards of publishing integrity and academic honesty as ensuring ethics in all its publications. Conformance to standards of ethical behavior is therefore expected of all parties involved: authors, editors, reviewers, and the publisher. The conference organizer follows the Committee on Publication Ethics (COPE) guidelines on how to deal with potential acts of misconduct.

All received full papers prior peer review process are subject to plagiarism check with iThenticate by Turnitin software. Any identified plagiarism automatically disqualifies a paper. Afterward, all full papers are double-blind peer-reviewed by the reviewers drawn from the editorial committee or external reviewers depending on the topic, title, and the subject matter of the paper. Peer reviewers provide a critical assessment of the paper and may recommend improvements. Although the author may choose not to take this advice, we highly recommend that the author address any issues, explaining why their research process or conclusions are correct.

The conference program of the 6th International Scientific Conference on Recent Advances in Information Technology, Tourism, Economics, Management, and Agriculture - ITEMA 2022 held on October 27, 2022, combined presentations of the latest scientific developments in the field of knowledge management with blockchain, data-driven vehicle lifecycle management, AI-based website content generation, comparative analysis of protocol attributes, cryptocurrency evidence, electronic invoicing, genetic algorithms for job shop problems, risk management with automation, social networks in healthcare, e-platform usage in education, augmented reality learning, information security and cybersecurity, payment security in online commerce, tourism, COVID-19's economic impact, digitalization, strategic alliances, capital markets, healthcare financing, FINTECH, sustainability reporting, human resources, education strategies, agricultural analysis, and others. The selection of papers for presentation on the conference day was based on quality, originality, and relevance.

ITEMA 2022 keynote speaker was full-time professor Kornelije Rabuzin representing the Faculty of Organization and Informatics, University of Zagreb, Varaždin, Croatia with the topic *Using Business Intelligence*.

Within publications from the ITEMA 2022 conference:

- 12 double peer-reviewed papers have been published in the **ITEMA 2022 Selected Papers**,
- 48 double peer-reviewed papers have been published in the **ITEMA 2022 Conference Proceedings**,
- 106 abstracts have been published in the **ITEMA 2022 Book of Abstracts**.

Altogether ITEMA 2022 publications have more than 700 pages. All full papers have DOI numbers and ORCID iD integration.

Participation in the conference took **193 researchers** representing **20 different countries** from different universities, eminent faculties, scientific institutes, colleges, various ministries, local governments, public and private enterprises, multinational companies, associations, etc.





ITEMA 2022 Participants' Affiliation

Albania

- Agricultural University of Tirana, Faculty of Economy and Agribusiness
- European University of Tirana, Tirana
- Tirana University, Faculty of Natural Sciences, Department of Chemistry
- University "Aleksandër Moisiu", Durrës
- University "Luarasi", Faculty of Law, Department of the Public Law, Tirana
- University of Elbasan, Faculty of Economy, Department of Marketing
- University of Tirana, Faculty of Economics, Str. Arben Broci, Tirana
- University of Tirana, Sheshi Nënë Tereza 4, 1010 Tirana

Austria

- Central European University, Quellenstrasse 51, 1100 Vienna
- University of Applied Sciences Kufstein, Andreas Hofer-Str. 7, Kufstein
- University of Klagenfurt, Universitätsstrasse 65-67

Bosnia and Herzegovina

- BIT Center Tuzla
- Fam3 doo Tuzla
- University in Sarajevo, Faculty of Education, 71000 Sarajevo
- University in Tuzla, Faculty of Economics
- University of Sarajevo, Faculty of Science, Zmaja od Bosne 35, 71000 Sarajevo
- University of Travnik, Faculty of Management and Business Economics, 71250 Kiseljak

Bulgaria

- Medical University Plovdiv, Department of Health Management and Health Economics, 15A, Blvd. Vasil Aprilov, 4000 Plovdiv
- New Bulgarian University, 21 Montevideo Str., Sofia
- Sofia University "St. Kliment Ohridski", 15 Tzar Osvooboditel Blvd., Sofia
- Sofia University "St. Kliment Ohridski", Faculty of Geology and Geography, "Socio-Economic Geography" Department, Tzar Osvooboditel 15, Sofia
- University of Plovdiv "Paisii Hilendarski", 24 Tsar Asen Str., Plovdiv

Croatia

- College of Applied Sciences "Lavoslav Ružička" in Vukovar, Županijska 50, Vukovar
- Croatian Health Insurance Fund, Kapucinska 33, Osijek
- Institute of Economics, Trg J. F. Kennedyja 7, 10000 Zagreb
- PIK Vrbovec plus d.o.o., Gospodarska zona 20, Antunovac
- Regional Wholesales Market Osijek d.d., Jablanova bb, Osijek

- University North, Trg dr. Žarka Dolinara 1, 48000 Koprivnica
- University of Rijeka, Faculty of Economics and Business, Ivana Filipovića 4, 51000 Rijeka
- University of Split, Faculty of Economics, Business and Tourism, Cvite Fiskovića 5, 21000 Split
- University of Zagreb, Faculty of Organization and Informatics, Pavlinska 2, Varaždin
- Zagreb School of Business, Ulica grada Vukovara 68, 10000 Zagreb

China

- Hong Kong Baptist University, Department of Finance and Decision Sciences
- Hong Kong Polytechnic University, School of Professional Education and Executive Development

Czech Republic

- Comenius University in Bratislava, Faculty of Management, Odbojárov 10, 820 05 Bratislava 25
- Mendel University in Brno, Faculty of Business and Economics, Department of Marketing and Trade, Zemědělská 1665/1, 613 00 Brno-sever
- Prague University of Economics and Business, W. Churchill Sq. 1938/4, 130 67 Prague 3 – Žižkov

France

- UCA - Skema Business School

Greece

- University of the Aegean, 41 Kountouriotou Str., 82100 Chios
- University of the Aegean, School of Engineering, Department of Financial and Management Engineering, Kountouriotou 42, 82100 Chios

Hungary

- Centre for Economic and Regional Studies, Institute for Regional Studies West-Hungarian Research Department; Liszt Ferenc u. 10, 9022 Győr
- Eötvös Loránd University, Faculty of Economics, Egyetem tér 1-3., 1053 Budapest
- Magyar Agrár- és Élettudományi Egyetem (MATE), Péter Károly u. 1, 2100 Gödöllő
- University of Debrecen, Faculty of Economics and Business, Institute of Accounting and Finance, Böszörményi út 138, 4032 Debrecen

Italy

- Polytechnic University of the Marches, Department of Management, Piazzale Martelli 8, 60121 Ancona
- University of Brescia, Department of Law, via San Faustino No. 41, Brescia
- University of Pisa, Department of Economics and Management, via Ridolfi 10, 56124 Pisa
- University of Bologna, Department of Statistical Sciences "Paolo Fortunati", Via delle Belle Arti 41, 40126 Bologna

Kuwait

- American College of the Middle East
- American University of the Middle East

Montenegro

- Port of Bar, Obala 13. jula 2, 85 000 Bar

North Macedonia

- Ss Cyril and Methodius University in Skopje, Faculty of Economics – Skopje, bul. Goce Delcev 9v, Skopje
- Pro Local – Fostering Development CSO, Bitola, Pelagonia

Poland

- Poznan University of Economics and Business, Al. Niepodległości 10

Portugal

- Cybersafe Lda, Alfragide
- Research Unit on Governance, Competitiveness and Public Policies (GOVCOPP), ESTGA – UA, 3810-193 Aveiro, FEUC – UC
- School of Business and Administration, Polytechnic Institute of Setúbal
- University of Coimbra, Faculty of Economics, Av. Dias da Silva, № 165, 3004-512 Coimbra
- University of Évora, Center for Studies and Advanced Training in Management and Economics (CEFAGE)

Romania

- Babeş-Bolyai University, Cluj-Napoca
- Babeş-Bolyai University, Faculty of Economics and Business Administration, Teodor Mihali Street No. 58-60
- Partium Christian University, Faculty of Economics and Social Science, Department of Economics, str. Primăriei, nr. 36, 410209 Oradea
- University of Agronomic Sciences and Veterinary Medicine of Bucharest, 59 Mărăşti Blvd, Bucharest
- University of Oradea, Faculty of Civil Engineering, Cadastre and Architecture, 4 B. St. Delavrancea, 410058, Bihor
- West University of Timisoara, Faculty of Economics and Business Administration

Serbia

- Academy of Applied Technical and Preschool Studies, Department Vranje, Filipa Filipovica 20, 17500 Vranje
- Academy of Applied Technical Studies Belgrade, Department of Computer-Mechanical Engineering, Blv. Zorana Djindjića 152 a, 11070 Belgrade
- Academy of Technical and Art Applied Studies Belgrade, Department School of Information and Communication Studies, Zdravka Čelara 16, Belgrade
- Association of Economists and Managers of the Balkans, Belgrade
- ATSSB, Department of Belgrade Polytechnic, Katarine Ambrozić 3, Belgrade

- Belgrade Business and Arts Academy of Applied Studies, Kraljice Marije 73, Belgrade
- Chamber of Commerce and Industry of Serbia, Kneza Miloša 12, Belgrade
- Faculty of Security Studies, Gospodara Vucica 50, Belgrade
- Faculty of Social Sciences, Belgrade
- Quadro Consulting, 6 Vladimira Popovića St., Belgrade
- Singidunum University – Belgrade
- University in Novi Sad, Faculty of Economics in Subotica
- University of Belgrade, Faculty of Economics and Business, Kamenička 6, 11000 Belgrade
- University of Belgrade, Faculty of Agriculture, Nemanjina 6, 11081 Belgrade
- University of Belgrade, Faculty of Mining and Geology, Džusina 7, Belgrade
- University of Belgrade, Faculty of Organisational Sciences, Jove Ilića 154, Belgrade
- University of Defence, Military Academy, Belgrade
- University of Niš, Faculty of Economics, Trg kralja Aleksandra Ujedinitelja 11
- University of Niš, Innovation Centre at University of Niš, Univerzitetski trg 2
- Videobolt, Bulevar Mihaila Pupina 10a, Belgrade

Slovakia

- Academy of the Police Force in Bratislava, Sklabinská 1, 835 17 Bratislava
- Alexander Dubček University in Trenčín, Faculty of Social and Economic Relations, Študentská 3, 91150 Trenčín
- Comenius University in Bratislava, Faculty of Law, Šafárikovo námestie 6, 810 00 Bratislava
- Comenius University in Bratislava, Faculty of Medicine, Špitálska 24, 813 72 Bratislava
- Comenius University, Faculty of Management, Odbojarov 10, Bratislava
- Slovak University of Agriculture in Nitra, Tr. A. Hlinku 2, 94976 Nitra
- University of Economics in Bratislava, Faculty of Commerce, Department of Tourism, Dolnozemska cesta 1, 852 35 Bratislava

Slovenia

- Celje School of Economics, Higher Vocational College
- Faculty of Economics and Business
- University of Maribor, Faculty of Economics and Business, Razlagova 14, 2000 Maribor

Support for Knowledge Management Processes with Blockchain Technology

Sandra Lovrenčić¹ 

Abstract: *Knowledge management facilitates the cycle of knowledge within organization through processes for knowledge capture/creation, storing, sharing and application. Various information technologies are already used to support those processes and their mechanisms, and new ones are continually emerging. The use of blockchain technology is lately suggested in many areas, including knowledge management. This paper aims to identify what are the most discussed benefits of using blockchain technology in knowledge management, considering their features, especially for specific processes. It also explores possible advantages and disadvantages of the use of blockchain technology, on which depends its real adoption in organizations as support for knowledge management processes.*

Keywords: *Knowledge management, Knowledge management processes, Blockchain technology*

¹ Faculty of Organization and Informatics, University of Zagreb, Pavlinska 2, Varaždin, Croatia

A Proposed Blockchain-Based Solution for a Data-Driven Vehicle Lifecycle Management

Ezmolda Barolli¹ 

Muhamet Zeneli² 

Abstract: *Vehicle lifecycle data and stakeholders' data related to it have a non-open approach to data access. The lack of accurate, reliable, transparent, and accessible data consequently leads to a lack of trust, but also a risk analysis that is not always relevant. This paper consists of analyzing the factors to determine if a blockchain-based solution could increase trust and collaboration between different stakeholders in vehicle lifecycle management and the insurance industry. The goal is to model a data-driven approach on a blockchain-based solution that helps reduce barriers to finding data on all vehicle transactions. The methods used are based on the analysis of the current systems and platforms of vehicle lifecycle management and insurance policies from the business model perspective and security aspects. The proposed technical solution consists of a general architecture for a permissioned blockchain-based vehicle lifecycle management used by manufacturers, insurance companies, and other stakeholders.*

Keywords: *Blockchain, Vehicle lifecycle management, Insurance, Digitize, Secure, Hyperledger fabric, Distributed ledger*

¹ University of Tirana, Sheshi Nënë Tereza 4, Tiranë 1010, Albania

² University of Tirana, Sheshi Nënë Tereza 4, Tiranë 1010, Albania

Dynamic Generation of Website Content Based on User Segmentation Using Artificial Intelligence

Nenad Kojić¹ 

Mladen Petrović² 

Natalija Vugdelija³ 

Abstract: *The aim of this work is the segmentation of website users on the basis of artificial intelligence with the aim of dynamically modifying the content of the website for users, in accordance with the objectives of Web 4.0, and in this way enabling quick and optimal display of content following their needs. User classification will be based on click events on categories/subcategories and articles. Based on that information, using Kohonen's neural network, the user will be classified into one of the n categories to which the neural network was initially trained. Based on the detected type of the user's classification, the content of the site is dynamically changed to the user, and the categories and products for which the majority of users of that type of classification have expressed greater interest are initially displayed and offered. The goal is to adapt the content of the site to the needs of the user and in this way the user can easily and quickly find the desired product.*

Keywords: *Dynamic website, User segmentation, Artificial intelligence, Web 4.0, Kohonen neural network*

¹ Academy of Technical and Art Applied Studies Belgrade, Department School of Applied Studies for Information and Communication Technologies in Belgrade, 16 Zdravka Celara St., Belgrade, Serbia

² Quadro Consulting, 6 Vladimira Popovića St., Belgrade, Serbia

³ Academy of Technical and Art Applied Studies Belgrade, Department School of Applied Studies for Information and Communication Technologies in Belgrade, 16 Zdravka Celara St., Belgrade, Serbia

Comparative Analysis of the HTTP/3 Protocol Attributes in Relation to Previous Protocol Versions Using ASP.NET Core Framework

Luka Lukić¹ 

Milanko Kragović² 

Nenad Kojić³ 

Abstract: *HTTP/3 is the latest major version of the Hypertext Transfer Protocol proposed by the IETF on 6. June 2022. The new protocol uses similar semantics as previous ones including request methods, status codes, data fields, etc, but uses the QUIC as a new transport layer protocol. By doing so, the new HTTP protocol is said to have lower latency, faster data transfer, and support for transition between networks. The goal of this paper is to perform a comparative analysis regarding the aforementioned properties between HTTP/1.1, HTTP/2 and HTTP/3 respectively, using the latest version of ASP.NET Core Framework in order to gain an insight into how these changes might affect the end application users.*

Keywords: *HTTP, HTTP/3, Protocol, Web, QUIC, ASP.NET Core*

¹ Academy of Technical and Art Applied Studies Belgrade; Zdravka Čelara 16, Belgrade, Serbia

² Academy of Technical and Art Applied Studies Belgrade; Zdravka Čelara 16, Belgrade, Serbia

³ Academy of Technical and Art Applied Studies Belgrade; Zdravka Čelara 16, Belgrade, Serbia

Cryptocurrency: Evidence from North Macedonia

Kiril Jovanovski¹ 

Learta Jusufi²

Abstract: *Cryptocurrency as a novel concept in finance, has lately attracted wide attention in the financial market. However, there is a divided opinion when it comes to embracing or ignoring them. Some are optimistic about their future, and others believe that the skepticism that surrounds them will strongly contribute to their disappearance from the market. The first part of the paper will give a brief background about cryptocurrencies and their associated advantages and disadvantages. The second part of the paper will focus on providing an overview of the cryptocurrency situation in North Macedonia, where they are currently unregulated. Since no legislation would protect consumers in case of fraud, the proper regulatory framework in this sphere is an urgent problem that requires immediate attention. Additionally, this paper will offer a small insight into other Western Balkan countries in this regard, where the situation is like in North Macedonia.*

Keywords: *Cryptocurrency, Advantages, Disadvantages (of cryptocurrency), Financial instruments, Financial markets, Regulatory framework, North Macedonia, Western Balkans*

¹ Ss Cyril and Methodius University in Skopje, Faculty of Economics – Skopje, bul. Goce Delcev 9v, Skopje, North Macedonia

² Ss Cyril and Methodius University in Skopje, Faculty of Economics – Skopje, bul. Goce Delcev 9v, Skopje, North Macedonia

State and Perspectives of Electronic Invoicing in Croatian Companies

Marko Veldić¹

Mario Jadrić² 

Maja Ćukušić³ 

Abstract: *The paper analyzes the current state and perspectives of electronic invoicing in Croatian companies. The digital transition or more specifically, the digital transformation processes affect all companies and are crucial for increasing efficiency, innovation, and the overall growth of the economies. Electronic invoicing, as one of the manifestations of digital transformation, brings about numerous economic benefits based on process automation and integration from order to payment between business parties. In the paper, the reasons and characteristics of Croatian companies that have introduced electronic invoicing and those that have not are presented in detail. The empirical study reveals that a company's adoption of electronic invoicing increases with the company's size. Also, the government's critical role in implementing electronic invoicing in Croatian companies is highlighted.*

Keywords: *Electronic invoicing, Digital transformation, Croatian companies*

¹ University of Split Faculty of Economics, Business and Tourism, Cvite Fiskovića 5, Split, Croatia

² University of Split Faculty of Economics, Business and Tourism, Cvite Fiskovića 5, Split, Croatia

³ University of Split Faculty of Economics, Business and Tourism, Cvite Fiskovića 5, Split, Croatia

Comparing Genetic Algorithm and Variable Neighborhood Search Method for Solving Job Shop Problem

Jana Vugdelija¹ 

Abstract: *Job Shop scheduling problem is one of the most complex and researched problems in the field of production planning. In this paper, two methods for solving Job Shop scheduling problem are presented and compared. The genetic algorithm and variable neighborhood search method were chosen and implemented in software for solving Job Shop problem. The paper first briefly presents Job Shop scheduling problem and then explains the development of solving software and implementation of selected solution methods. The results of using implemented genetic algorithm and variable neighborhood search method are presented on test instances with various dimensions. Solutions obtained using these two methods were put in comparison and analyzed, as well as compared with the optimal or best-known solutions in the literature.*

Keywords: *Job Shop, Scheduling problem, Genetic algorithm, Variable neighborhood search, Heuristics*

¹ University of Belgrade, Faculty of Organisational Sciences, Jove Ilića 154, Belgrade, Serbia

Risk Management in the Automation of Business Processes through the Application of Robotic Process Automation

Ognjen Pantelić¹ 

Ivana Ivanović² 

Stefan Krstović³ 

Abstract: *In a modern business environment with very big data flows, employee focus is crucial for success. This problem developed a need for new technological advancements such as Robotic Process Automation (RPA). As the RPA technology is relatively young, there is still an insufficient amount of research about which project management techniques are the best for it. This paper aims to recognize the key principles of risk management which can be applied to the automation of business processes through the use of RPA technology and to emphasize the significance of risk management for conducting successful RPA projects.*

Keywords: *Process automation, RPA technology, Risks, Risk management*

¹ University of Belgrade, Faculty of Organizational Sciences, Jove Ilica 154, 11010 Belgrade, Serbia

² University of Belgrade, Faculty of Organizational Sciences, Jove Ilica 154, 11010 Belgrade, Serbia

³ University of Belgrade, Faculty of Organizational Sciences, Jove Ilica 154, 11010 Belgrade, Serbia

Social Networks – A New Way of Communicating in Healthcare

Gordana Jelić¹ 

Danica Mamula Tartalja² 

Abstract: *The advancement in IC technologies has provided health systems with newer and better means of reaching large populations. This paper investigates how social networks facilitate health message-sharing on the Internet and provide users with numerous tools to create, publish or share various content formats. The literature review points out two basic motives for the use of social networks by sick people: “information support” aimed at obtaining information and increasing knowledge about the disease and its therapies by sharing experiences with other users, and “social and emotional support” enabled by digital environments which encourage empathy among online peers allowing each person to access help from different social media while controlling the level of disclosure of their identity and condition. The authors of this paper conclude that a deeper understanding of shared content and user behavior in online settings can help communicators improve health literacy, raise community awareness and provide social support.*

Keywords: *Information-sharing platforms, Health literacy, Online support*

¹ Academy of Technical and Art Applied Studies Belgrade, Department School of Information and Communication Studies, Zdravka Čelara 16, Belgrade, Serbia

² Academy of Technical and Art Applied Studies Belgrade, Department School of Information and Communication Studies, Zdravka Čelara 16, Belgrade, Serbia

Usage of E-platforms Google Meet, Microsoft Teams and Zoom in Education

Anton Vorina¹ 

Nikolina Vrcelj² 

Vuk Bevanda³ 

Abstract: *The crisis caused by COVID-19 has forced educational institutions to use electronics for educational purposes and thus to digitize the entire process of lectures as well as exams and other school activities. Distance learning is, of course, welcome at a time when it is necessary to limit oneself socially as much as possible to help curb the spread of infections. But everything has both good and bad sides and e-learning is no exception. Rapid changes in this area required even faster adaptation by teachers, professors, or lecturers, as well as pupils and students. The latter, already born in the age of electronics and accustomed to drastic innovations in this field, probably had fewer problems with this. The purpose of the research is to identify the advantages and disadvantages of e-learning observed by users. The research will be limited to three of the most widespread e-meeting programs. These are Google Meet, Microsoft Teams and Zoom. Assuming that these are the three most used programs, the satisfaction of the users of these programs is also an important issue in the research.*

Keywords: *Online teaching, Google Meet, Microsoft teams, Zoom*

¹ Celje School of Economics, Higher Vocational College, Slovenia

² Association of Economists and Managers of the Balkans, Belgrade, Serbia

³ Faculty of Social Sciences, Belgrade, Serbia

Framing a Model for Mobile Learning Using Augmented Reality

Slavica Radosavljević¹ 

Vitomir Radosavljević² 


Abstract: *This paper considers the possibility of creating a framework for mobile learning with elements of augmented reality, intending to better adapt teaching content to students who are in the same or different locations. The framework, in which the use of mobile devices in learning is observed, depends on the purpose for which the mobile device is used (for research purposes, simulation, etc.), on technical capabilities, and the level of user capabilities. The goal is to achieve a quick and efficient understanding of the learning content, as well as good cooperation from the participants. The sustainable link between AR and HE goals must be established in accordance with the cognitive approach, according to the axioms of the theories related to learning, with the aim of unifying the association of this technology with the teaching–learning process.*

Keywords: *Teaching content, Mobile learning, Augmented Reality*

¹ Academy of Technical and Art Applied Studies, Belgrade, Serbia

² Academy of Technical and Art Applied Studies, Belgrade, Serbia

Efficiency of Learning Using Augmented Reality Technology

Vitimir Radosavljević¹ 

Slavica Radosavljević² 

Abstract: *The intensive development of information technologies has led to the introduction of many innovations in the educational process. Innovations often rely on the use of new technologies in the educational process and aim to increase the efficiency and effectiveness of learning. This paper presents the use of augmented reality in training students to process graphic images. The method of using augmented reality in the training has been presented in the paper, and afterward, the results of the research, which compared student efficiency using written text instructions and student efficiency using augmented reality technology in the training process. The results of the research did not show a significant difference in efficiency. But, it should be taken into account that the students, who were part of the research, encountered this type of training for the first time, so the opportunities that augmented reality provides in the training process needs to be further investigated.*

Keywords: *Learning technologies, Augmented Reality, Effective learning*

¹ Academy of Technical and Art Applied Studies, Belgrade, Serbia

² Academy of Technical and Art Applied Studies, Belgrade, Serbia

Information Security – SOC Potentialities

Pedro Vieira¹ 
Leonilde Reis² 

Abstract: *Nowadays, information is an essential resource and a valuable asset. Like any other asset, information is potentially vulnerable and subject to various threats, whether deliberate or accidental. The methodology adopted for the study was exploratory and descriptive, focusing on document analysis of information in the field of the theme. The paper aims to focus on the operationalisation and management of the Security Operations Center (SOC), to foster and optimise the definition of policies and instruments for data loss prevention and recovery, as well as to carry out training actions for employees. The main results emphasise that cybersecurity involves a set of tools, policies, guides, risk management approaches, training actions, good practices and technologies that can be used to protect the assets of organisations and users in cyberspace, to preserve the guarantee the so-called information security triad.*

Keywords: *Information, Information security, Cybersecurity, Security Operations Center, Security information, Event management*

¹ Instituto Politécnico de Setúbal, Setúbal - Portugal

² Instituto Politécnico de Setúbal, Setúbal - Portugal

Cybersecurity – Security Operations Center

Pedro Falé¹ 

Leonilde Reis² 

Rui Almeida³ 

Abstract: *Currently, most organizations are dependent on Information and Communication Technologies, in the sense of accomplishing their underlying business activities. In this scope, cybersecurity is considered the domain that has the strength to protect sensitive information, be it at the individual level or in an organizational context. The objective of this paper is to introduce the concept, relevance, and functions of a Security Operations Centre. The methodology underlying the study was based on the use of the MITRE Adversarial Tactics, Techniques and Common Knowledge framework as a matrix of tactics and techniques based on real scenario observations. The main results emphasize the importance of incorporating the Security Operations Center as a barrier against cybersecurity threats. Security Operations Center brings additional value to the organizational context, through people, processes and technologies while also using several frameworks to improve work management, incident response and incident control.*

Keywords: *Cybersecurity, SOC, Cybersecurity threats, Incident response, Incident control*

¹ Instituto Politécnico de Setúbal, Setúbal - Portugal

² Instituto Politécnico de Setúbal, Setúbal - Portugal

³ Cybersafe Lda, Alfragide-Portugal

An Approach to Improving Network Security Using Log Analysis

Marija Zajeganović¹ 

Milan Pavlović² 

Danica Mamula Tartalja³ 

Silva Kostić⁴ 

Abstract: *Troubleshooting is the process of detecting, identifying and resolving problems within a computer network by means of specific methods, tools and operations. Troubleshooting implies following a set of procedures or steps that conform to the security standards and policies of a company. Diagnosing the source of a problem can be done by tools for system monitoring, recording log messages, manual testing of device configuration, as well as by tools for device operation analysis. The procedure for using log messages to resolve both common problems and those caused by attacks is explained in this paper. Furthermore, this paper describes the way security threat management systems use the contents of log messages to analyze hardware problems and malicious activities.*

Keywords: *Log messages, Troubleshooting, Malicious activities.*

¹ The Academy of Technical and Art Applied Studies Belgrade, Department School of Information and Communication Technologies, Zdravka Čelara 16, Belgrade, 11000, Republic of Serbia

² The Academy of Technical and Art Applied Studies Belgrade, Department School of Information and Communication Technologies, Zdravka Čelara 16, Belgrade, 11000, Republic of Serbia

³ The Academy of Technical and Art Applied Studies Belgrade, Department School of Information and Communication Technologies, Zdravka Čelara 16, Belgrade, 11000, Republic of Serbia

⁴ The Academy of Technical and Art Applied Studies Belgrade, Department School of Information and Communication Technologies, Zdravka Čelara 16, Belgrade, 11000, Republic of Serbia

Payment Security Issues and User Data in Online Commerce

Nadezda Dimova¹ 

Abstract: *In recent years, there has been increased development of information and telecommunication technologies, which have a significant impact on the economic and social sphere on a global scale and, in particular, at the national level. In parallel, there are many challenges to the integration and use of digital technologies and the resulting issues of payment and data security in online commerce.*

This research is dedicated to revealing the nature of data privacy, the relationship between the regulator, consumers and retailers, and presenting the features of payment and data security in online commerce.

Keywords: *Online commerce, User, Security, Payment, Data*

¹ New Bulgarian University, 21 Montevideo Str., Sofia, Bulgaria

Impact of Risk Management in an Organizational Context

João Santos¹ 

Leonilde Reis² 

Manuel Landum³ 

Abstract: *In Portugal, the Council's Minister Resolution 41/2018, presents a complement to the General Data Protection Regulation (GDPR), which, in order to comply with it, defines technical guidelines for the Public Administration concerning the security architecture of networks and information systems. The objective of the paper is to present risk management in an organizational context. The adopted methodology is focused on the presentation of the research and obligations that the organizations have to take into account before the law and the regulatory authorities. International standards and how they can be applied in the context of the organization under study were analyzed, and the main results reached, aim to raise awareness within the organizations assertively, for the existing vulnerabilities and threats. Risk management was based on asset management and professional experience acquired over the years, as well as knowledge of internal procedures.*

Keywords: *Information security, Risk management, Cybersecurity*

¹ Instituto Politécnico de Setúbal, Setúbal - Portugal

² Instituto Politécnico de Setúbal, Setúbal - Portugal

³ Câmara Municipal do Barreiro, Barreiro - Portugal

Digitalization and Well-Being: Evidence from a Cross Country Study within an Economic and Cultural Framework


Cristina Bota-Avram¹ 

Abstract: *The aim of this paper is to provide a new contribution to shed new light on the relationship between digitalization and human development and well-being, while controlling for some relevant cultural and economic development dimensions. This study uses a cross-sectional sample that covers 61 countries around the world during the 2016-2020 period. The analysis was carried out for the entire sample of selected countries, but also on subsamples generated by their classification in income categories according to the World Bank classifications. The study findings argue that when digitalization is proxied by digital competitiveness, research and development expenditure, as a percentage of GDP, or ICT access index, the impact on human prosperity and its development is significant when the analysis is carried out for the whole sample. The results are somewhat different when the analysis is conducted for the sub-samples of high-income countries versus lower-income countries. But these findings could be explained by the existence of some characteristics of lower-income countries versus the sample of high-income countries. This study may have relevant implications for policymakers who need to recognise the role of digitalisation and technology in advancing better conditions for human development and its prosperity while considering the cultural and economic characteristics specific to each country.*

Keywords: *Digital competitiveness ranking, Research and development expenditure, ICT access index, Prosperity, Human development index, National culture, Index of economic freedom, Press freedom*

¹ Babeş-Bolyai University, Faculty of Economics and Business Administration, Teodor Mihali Street No.58-60, Romania

Comparing Tourist Experiences and Satisfaction across Desktop and Headset Virtual Reality Devices

Wilson K. S. Leung¹ 

Man-Kit Chang Ludwig² 

Tin-Yan Cherry Cheung³ 

Abstract: *Tourism organizations have invested lots of money in different VR devices such as VR headsets and VR desktops since the COVID-19 outbreak to offer the same great travel experience as physical travel. However, which VR device is more effective to deliver virtual experiences for enhancing tourists' emotional and behavioral responses is lack scholarly attention. Based on the experience economy framework, this research investigated the moderating effect of VR types on the relationship between four VR experiences, satisfaction, visit intention, and VR usage. Two datasets, VR desktop users (N=272) and VR headset users (N=285) were collected through an online survey company in China. Applying PLS multi-group analysis (MGA), our results indicated that the effects of entertainment and escapism experiences on satisfaction are stronger when using a VR headset, whereas esthetic and education experiences exerted a stronger effect on satisfaction when using a VR desktop, offering new insights to tourism managers.*

Keywords: *VR Tourism, Experience economy framework, VR devices.*

¹ School of Professional Education and Executive Development, The Hong Kong Polytechnic University; China

² Department of Finance and Decision Sciences, Hong Kong Baptist University; China

³ School of Professional Education and Executive Development, The Hong Kong Polytechnic University; China

The Impact of the Socio-Demographic Factors on Tourism Enterprise Management

Elena Petkova¹ 

Abstract: *The purpose of the paper is to reveal the influence of some socio-demographic factors on the management of tourism enterprises. A brief overview of important socio-demographic factors and their influence on the management of tourism enterprises is given. As a result, appropriate indicators are selected. Based on this, an analysis of important socio-demographic factors that managers of tourism companies should take into account when making managerial decisions regarding the selection, attraction and retention of tourist target markets is carried out. In particular, factors include the purpose of travel of international tourists by country of origin and in Bulgaria in recent years. As a result of the analysis, relevant conclusions are drawn.*

Keywords: *International tourism, Socio-demographic factors, Tourism enterprise.*

¹ Sofia University “St. Kliment Ohridski”, 15 Tzar Osvoboditel Blvd., Sofia, Bulgaria

Heading Towards Quality: Entrepreneurial Leaps in the Tourism Industry – Empirical Findings and Future Directions

Gernot Moedritscher¹ 

Abstract: *For decades, the growth of firms has been a topic of utmost importance in the entrepreneurship literature. Typically, models of firm growth assume that firms pass through several largely predictable sequential stages. Levie and Lichtenstein (2010) identified over a hundred stage models that had been proposed in the literature in the period between 1962 and 2006. The literature repeatedly criticised such approaches because they were largely empirically untenable (Brown et al., 2017; Harbermann & Schuilte, 2017; Phelps et al., 2007). This study is a first tentative step toward unveiling the qualitative growth processes in SMEs. We believe that this aspect of Penrose's (1959) "primary meaning" of growth also deserves further attention. We identified patterns for entrepreneurial leaps towards improved quality to build a theory on how qualitative entrepreneurial leaps unfold from a processual perspective (Sternad & Moedritscher (2022).*

This paper and presentation focus on entrepreneurial leaps in the tourism industry based on seven case studies (hotels). From our viewpoint firm growth is a non-linear, multidimensional phenomenon. It can neither be reduced to a series of predefined steps nor to a purely quantitative perspective. Hotels use a wide variety of approaches to change their firms' value creation system and value offer. Many of these approaches focus more strongly on improving internal qualities rather than on pure quantitative expansion.

Keywords: *Tourism, Strategy, Quality, Entrepreneurial leaps.*

References

- Brown, R., Mawson, S., & Mason, C. (2017). "Myth-busting and entrepreneurship policy: the case of high growth firms. *Entrepreneurship & Regional Development*, 29: 414-443.
- Habermann, H., & Schulte, R. (2017). Analyzing non-linear dynamics of organic growth: Evidence from small German new ventures. *Journal of Small Business Strategy (archive Only)*, 27(2), 36–64
- Levie, J., & Lichtenstein, B. B. (2010). A Terminal Assessment of Stages Theory: Introducing a Dynamic States Approach to Entrepreneurship. *Entrepreneurship Theory and Practice*, 34(2), 317–350.
- Penrose, Edith T. (1959). *The Theory of the Growth of the Firm*. Oxford: Oxford University Press.

¹ University of Klagenfurt, Universitätsstrasse 65-67, Austria

- Phelps, R., Adams, R., & Bessant, J. (2007). Life cycles of growing organizations: A review with implications for knowledge and learning. *International Journal of Management Reviews*, 9: 1-30.
- Sternad, D., & Mödritscher, G. (2022). Entrepreneurial leaps: Growth processes in transition phases between dynamic states. *Entrepreneurship Theory and Practice*, 46(4): 952-984.

Capital Structure and Profitability: Panel Data Evidence from the European Tourism Industry

Rezart Demiraj¹ 

Suzan Dsouza² 

Enida Demiraj³ 

Abstract: *Finding the optimal debt-equity mix, where shareholders' welfare and firm value are maximized is the goal of every business organization. The literature review revealed a broad spectrum of mixed and contradictory empirical findings on this topic, suggesting that the debate is far from over. This paper aims to assess the impact of capital structure on the profitability of the tourism industry in the European continent. This study is motivated by the importance that the tourism industry has for the economic development of European countries. The sample includes all European-listed firms in the tourism industry. Data is extracted from the Thomson Reuters (Refinitiv) database for a period of 10 years, i.e., 2010-2019. Panel data regression is used to determine the impact of the debt-to-assets ratio on the return on assets. The results reveal that the debt ratio has a significant negative impact on ROA, but not on ROE.*

Keywords: *Capital structure; Profitability; Tourism industry; Europe*

¹ American University of the Middle East, Kuwait

² American University of the Middle East, Kuwait

³ American College of the Middle East, Kuwait

Potential and Need of Tourism Cluster Organizations in Slovakia

Jozef Gáll¹ 

Abstract: *One of the important issues in the context of tourism cluster organizations is their role as a tool and potential for the development of the region's economy and as a source of its advantages, but also some potentially negative effects. The main aim of this article is to evaluate the potential of existing clusters and cluster organizations and to identify the real nature, direction, and impact of the cluster organization in tourist regions and its real impact on member companies (institutions). To achieve it, we will use primary sources of information, which represent the results of surveys carried out in the environment of companies and institutions associated with selected cluster organizations, by asking cluster policy implementers and information obtained from cluster organization coordinators. Qualitative methods such as the method of sociological inquiry in the form of a questionnaire and an individual in-depth interview will be used to obtain a reliable picture. A detailed analysis, which examined the cooperation between companies, research and development institutions, and local governments, allowed us to identify the activities of the cluster organization, its technological level, innovations in the cluster organization and competitive position, as well as development perspectives. The research carried out between coordinators and member companies (institutions) pointed out the key problems of cluster activities and cooperation. Part of it is a processed issue of cluster support in regions and current activities on the part of local (regional) authorities.*

Keywords: *Tourism, Tourism cluster organizations, Destination management, Tourist regions of Slovakia*

¹ University of Economics in Bratislava, Faculty of Commerce, Department of Tourism, Dolnozemska cesta 1, 852 35 Bratislava, Slovak Republic

Partnership as a Success Factor in Cross-Border Cultural Tourism Development. The Case of Komárom

Melinda Hajdu-Smahó¹ 

Abstract: *Komarom is a historical town, located in the Hungarian-Slovakian border area, torn across by the Trianon Peace Treaty in 1921, along the Danube river. Nowadays, Komarom lies on the right side of the river (in Hungary) with 20 thousand inhabitants, while the other part, Komarno with 33 thousand residents belongs to Slovakia. The European Union membership of Hungary and Slovakia enhanced both territorial and cross-border cooperation possibilities, which were used in favour of fostering connectivity and Europeanisation. Recently, considerable developments were achieved in the Komarom area related to cultural tourism and transportation. The partnership could be identified as a key factor of success and it is expected to be in the future as well. The paper is based on facts, interviews and on-the-spot experiences collected in the Komarom case study area in the frame of the SPOT Horizon 2020 international research project and described as good practices.*

Keywords: *Cultural tourism, History, Town development*

¹ Centre for Economic and Regional Studies, Institute for Regional Studies West-Hungarian Research Department; 9022 Győr Liszt Ferenc u. 10., Hungary

The Potential for Sustainable Tourism Development and Branding. Analysis of Krushevo and Elbasan Destinations

Elvira Fetahu¹ 

Emilia Geroska² 

Abstract: *UNWTO forecasted that international arrivals or outbound travelers worldwide will reach up to 1.8 billion by 2030, thus securing tourism as one of the fastest-growing economic activities fostering overall development, introducing new investments, and generating income and new employment. Tourism's overall impact on a nation also influences the local economy although it is quite challenging to measure this impact and its dimension. Over the last few years, tourism in Albania and North Macedonia has had ups and downs considering the Covid-19 pandemic situation which also determined the importance of sustainable tourism development and its influence in the tourism sector. The study provides a framework analysis of Krushevo and Elbasan as a single thematic tourism destination by using primary and secondary data and reveals evidence-based recommendations for local and national policymakers to design innovative tourism programs in these cities. The findings show that Krushevo and Elbasan have similarities mostly in the category of access points, attractions, and amenities and variations in the type and quality of the activities offered.*

Keywords: *Adventure tourism, Natural environment, Cultural immersion, Physical activity*

¹ Department of Marketing, Faculty of Economy, University of Elbasan, Albania

² Pro Local – Fostering Development CSO, Bitola, Pelagonia, North Macedonia

Analysis of the Financial Impact of the Viral Infection Crisis on the Tourism Sector through the Prism of Serbia and Croatia

Nikola Vidović¹

Jelena Šuleić²

Hatidža Beriša³

Abstract: *Through a comparative analysis, the financial position of hotel chains is shown in the paper and the critical factor of the successful business of the studied companies. By valorizing the existing capacities in tourism, the analyzed entities, and at the same time the states, should strive to achieve their goals in terms of their economic development and sustainable development of their competitive position on the regional and world market. Considering the available natural and cultural resources, the territory of the Republic of Serbia and the Republic of Croatia has enormous potential for development, improvement and maximum use of them. Increased incentives and investments in the service sector of the economy and tourism of the analyzed countries would improve employment, revitalize and activate rural areas, and improve infrastructure and general development of the area, which would achieve a positive impact on the growth of the gross domestic product.*

Through a detailed financial comparative analysis, the paper provides an overview of many aspects of the success of hotel chains in the tourism sector in the Republic of Serbia and the Republic of Croatia under the influence of challenges, risks and threats in the form of the crisis caused by the pandemic. The paper shows dynamic and structural changes in the balance sheet and success of hotel companies using ratio analysis coefficients, primarily liquidity and indebtedness coefficients, and then indicators of efficiency and profitability of the business of the studied entities. Successful and innovative hotel companies within the hotel chain combine relevant expertise and resources in order to create the necessary competence to create a basis for sustainable development in the field of competitive advantage in the market environment of the tourism sector, where the main goal of the work was to determine the application of strategies and flexible methods for realistic new conditions business. The publicly available, annual financial reports of the observed subjects of the hotel tourism industry were used as a database for the analysis.

At the same time, this research looked at protection and security measures, and through a case study, the impact of European Union regulations before, during and after the crisis caused by the coronavirus pandemic on hotel chains and the entire tourism sector of Serbia and Croatia.

Keywords: *Hotel tourism, Crisis, Serbia, Croatia, Financial analysis.*

¹ University of Belgrade, Faculty of Economics and Business, Belgrade, Republic of Serbia

² Singidunum University – Belgrade, Republic of Serbia

³ University of Defence, Military Academy, Belgrade, Republic of Serbia

Digitalization as an Emergent Process: Evidence from Italian Museums

Enrico Cori¹ 

Costina Andreea Calota²

Abstract: *This paper aims to deepen some characteristics of the digitalization process in Italian museums. In particular, it aims at investigating the role of non-technical employees in such a process. Our research is qualitative and explorative. Three Italian museums, selected through convenient sampling, have been investigated through a longitudinal approach. The study points out the relevance of participatory, emergent, and mainly informal processes aimed at developing the museum's digital skills. The findings shed new light on the role of non-technical employees in fostering digitalization, thanks to autonomously developed learning processes. These are combined with the willingness to enhance employees' skills and ideas by museum managers. This approach can be viewed as an alternative or supplement to the development of digital skills through the inclusion of specialized roles (e.g.: digital manager). Some significant theoretical and managerial implications are highlighted, as well as some future lines of research.*

Keywords: *Digital skills, Work organization, Non-technical employees, Employee-driven innovation*

¹ Università Politecnica delle Marche, Department of Management, piazzale Martelli 8, 60121 Ancona, Italy

² Università di Pisa, Department of Economics and Management, via Ridolfi 10, 56124 Pisa, Italy

European Strategies for Sustainable Tourist Destinations, Problems & Prospects – The Case of Vlora, Albania

Matilda Naço¹ 
Gerta Bamllari² 

Abstract: *Although tourism is a priority development scenario, Albania is struggling to select a competitive development model. The country's entry into the international market is producing increased visits primarily driven by curiosity, a motivational factor that hardly ensures repeated visits. Physical development is present, pressure on resources builds on and barely any coordinated actions are taken by regions in the name of long-term competitiveness and sustainability. Initiatives such as pilot testing European Tourism Indicator System for sustainable management at the destination level in the Vlora region in South Albania, a territory high in demand for tourism services, produced substantial information about the state of development and strategic documents. This paper aims to shed light on regional strategies for sustainable development and the level of tourism private sector engagement. This serves not only to evaluate the adaptation of the European strategic framework, but it sets the ground for the mobilization of local enterprises and individuals towards their implementation.*

Keywords: *European Tourism Indicator System, Regional strategies, European strategies, Sustainability, Vlora*

¹ Faculty of Economy, University of Tirana, Albania

² Faculty of Economy and Agribusiness, Agricultural University of Tirana, Albania

City Image: The Case of Tirana

Rozana Haxhialushi¹

Abstract: *When considering cities people think in detailed and practical terms, like climate, cost of living, leisure and sports facilities, law and order, cultural life of the city, transport and pollution (Anholt, 2006). Cities are complex and their branding goes beyond theories of product and place branding. To create a unique image of the city, city branding is considered to be a promotional tool, as it aims, among other things to find or create uniqueness, which becomes the difference between this city and other cities.*

The Municipality of Tirana, in the attempt to brand the city, has invested in creating an appealing image, by paying attention to culture and history, economic growth and social development, infrastructure and architecture, landscapes and environment. As Tirana 2019 won the title “European Youth Capital 2022” a rich program of events dedicated to young people has been carried out by the municipality during this year.

This study aims to explain the image of the city from a resident perspective. This research adopts a qualitative approach and in-depth interviews were used to gain residents’ insights. Results are discussed in the paper.

Keywords: *City image, Tirana, City branding, Events*

¹ Faculty of Economy, University of Tirana, Street Arben Brozi 1, 1001 Tirana, Albania

The Tourist Image of the Protected Landscape of Biambare, Sarajevo

Lejla Žunić¹ 

Abstract: *The protected landscape (PL) of Biambare is one of the most famous green sites for local visitors and tourists of Sarajevo. This area is distinguished by beautiful Bosnian Alps (Dinarids) meadows and plenty of spectacular natural phenomena, especially caves; the Central Biambare Cave is currently the most popular. The terrain is situated at an elevation range of 915–1044 m above sea level, so it mostly has a pleasant pre-mountain climate, etc. Therefore, tourism supply is based on different products and activities: speleology; walking in nature; bicycling; riding; hiking; alpinism; fishing; hunting; skiing; and collecting medicinal herbs and mushrooms. The aim of the paper is to represent the Biambare tourist image based on identifying its central natural attributes and according to the evaluation of the visitor's experience. The two relevant parameters for understanding tourist impressions are: "satisfaction" and "loyalty". These are higher among foreign than resident visitors, particularly among Middle Eastern tourists, who favour this site above many others in Canton Sarajevo.*

Keywords: *Protected landscape, Tourist impressions, Satisfaction, Loyalty, Promotion*

¹ University of Sarajevo, Faculty of Science, Zmaja od Bosne 35, 71000 Sarajevo, Bosnia and Herzegovina

Big Data as a Bridge between Visitors and Heritage, Case Study of the Historical City of Kotor

Olga Mirković Maksimović¹ 

Abstract: *The aim of the paper is to bridge the gap between our past, which heritage represents, and our future, of which it is the seed, with the help of modern ICT technologies and the big data concept, using the example of a historical city from the UNESCO World Heritage list: Kotor. The paper sheds light on the relationship between what is protected as a cultural and historical value that is universal and defines Kotor, and the way visitors recognize it. Can a parallel be drawn between the visitors' experience and their interpretation and what UNESCO has recognized as a universal value? The paper answers the question of what happens before the actual visit. The present imposes several challenges regarding communication and interpretation between visitors and historical cities. The research of a visit to a historical city begins before the actual visit and before any physical contact with the city's heritage. There is also the question of what the space of a historical city represents at the present moment. How far does it reach into the digital space and how far by the word of mouth of visitors, or rating systems on various platforms that are widely used?*

Keywords: *Historical city, Google Maps, Heritage, Big data, UNESCO, Visitors*

¹ Videobolt, Bulevar Mihaila Pupina 10a, Belgrade, Serbia

The Role and Importance of Women in the Revitalization of Intangible Heritage in Order to Maintain the Competitiveness of the Destination

Dijana Vuković¹ 

Sanja Varlaj² 

Sara Simić³ 

Abstract: *Within the Croatian intangible cultural heritage, traditions and customs, due to their specific functions, occupy a unique place in tourism. The oral transmission of tradition, the culture of memory is manifested in the contemporary application of traditional customs as the most vital model of duration, regardless of the new way of life in which traditional customs have lost their significance. This paper aims to highlight women's role in tradition's transference - a practice that belongs to women within the framework of intangible cultural heritage, but also female creativity which is closely related to sustainable tourism. Protected cultural goods of intangible heritage represent forms of cultural expression of particular importance in a certain area. Their historical roots testify to their exceptional value from a historical, artistic, ethnographic, sociological, anthropological, linguistic, or literary point of view. Intangible cultural heritage, which is passed down from generation to generation, provides a sense of identity and continuity and thus promotes respect for cultural diversity and human creativity. The paper aims to point out the role of intangible cultural heritage as a generator of destination development and the active role of women.*

Keywords: *Lacemakers, Lepoglav lace, Women's heritage, Craftsmanship, Gender*

¹ University North, Trg dr. Žarka Dolinara 1, 48000 Koprivnica, Croatia

² Zagreb School of Business, Ulica grada Vukovara 68, 10000 Zagreb, Croatia

³ Central European University, Quellenstrasse 51, 1100 Vienna, Austria

Comprehension of Wine Destination as a Basis for Expansion

Patrik Kubát¹ 

Abstract: *The aim of the article is to define the concept of wine destination in general, but also its possible differences in the environment of wine regions based on previous research and expert texts. The theoretical article covers the first mention of the term wine destination, its later development, as well as the current theoretical background and possible further variations in the understanding of this concept. Secondary sources form the basis for the fulfillment of the objective using the synthetic method. Along with the development of wine tourism, wine industry and viti/viniculture, the concept of wine destination is also considered from different angles, especially in relation to the aspects, wine tourism activities of a particular wine region and winescape. However, this field of interest lacks a conceptual anchor and a definition of the terms for subsequent use, not only in academia. Thus, the empirical studies and the definition of the concept of winescape and its anchoring in the different wine producing countries are not yet completed, and the unified understanding and use of the terms wine destination and winescape remain limited.*

Keywords: *Winescape, Attributes of Destination, Wine Tourism, Wine Regions.*

¹ Mendel University in Brno, Faculty of Business and Economics, Department of Marketing and Trade, Zemědělská 1665/1, 613 00 Brno-sever, Czech Republic

Restaurant Revenue Management Performance Indicators

Branislava Hristov Stancic¹ 

Abstract: *As revenue management is successfully applied in industries with relatively fixed and perishable capacities, as well as unstable demand that can be forecasted and segmented by the varying willingness to pay, it is obvious why it can be applied in the restaurant industry. Restaurants face the everyday challenge of maximizing revenue, which could be achieved by increasing the daily occupancy rate or average spent by each guest. However, the main role of revenue management strategies is to find the balance between maximizing restaurant revenue and customer needs. Thus, successful revenue management strategies imply the best results for the restaurant without the appearance of dissatisfied customers.*

Performance indicators play a key role both in the evaluation of the implemented revenue management strategies, as well as in planning future decisions. In this paper, based on a hypothetical example, the advantages and disadvantages of two indicators, revenue per available seat hour (RevPASH) and profit per available seat hour (ProPASH), were pointed out. As both of them have certain shortcomings, it is recommended to use them integrally in drawing conclusions about the achieved restaurant performance as well as in the decision-making process.

Keywords: *Restaurant industry, Revenue management, Performance indicators, RevPASH, ProPASH*

¹ Faculty of Economics and Business, Kamenička 6, Belgrade, Serbia

Global Stagflation Shocks: Macroeconomic Challenges and Repercussions

Jovica Pejčić¹

Abstract: *This paper analyses key macroeconomic repercussions of the global pandemic and geo-political crises in terms of growing recessionary and inflationary pressures, and finally, the potential occurrence of stagflation. Primarily, stagflation shocks in the 1970s are analyzed and compared to the current crisis for the period January 2020 - July 2022 in the example of selected economies (the United States, Germany and France). Descriptive analysis showed that in the observed period, inflationary and recessionary pressures existed in USA, Germany and France; however, those pressures could not be identified as stagflation, since they did not happen simultaneously. Namely, during the pandemic crisis, recessionary pressures were present, since the GDP growth decreased till the first quarter of 2021 in analyzed economies, while inflation rates were stable. On the other hand, with the recovery of economies in the second quarter of 2021 inflationary pressures were stronger, intensified by the geopolitical crisis. Therefore, it seems that the most visible anomaly of the global economic system in 2022 is the presence of inflationary pressures.*

Keywords: *Stagflation, Macroeconomic repercussions, USA, Germany, France*

¹ Faculty of Economics in Subotica, University in Novi Sad, Serbia

Industrial Policy: Changing Perception over Time

Milena Lutovac Đaković¹

Abstract: *Industrial policy is defined as a set of objectives and measures defining the intended government intervention in the industry structure segment to promote general economic growth. Nowadays, there has been a need to review the importance of industrial policy due to the consequences of the COVID-19 pandemic. In this paper, it is argued that industrial policy can be considered a central pillar of recovery strategies of renewal of attention to the need for public action and government intervention. Traditionally, industrial policy was primarily aimed at increasing industrial competitiveness. New industrial policies can play a significant role in shaping the road to overcoming the crisis and setting countries back on the path of economic development, as well as, promoting sustainable structural changes based on human development, social cohesion and sustainability.*

Keywords: *Industrial policy, Development, Sustainable development*

¹ Faculty of Economics and Business; Kamenička 6, Belgrade, Serbia

Assessment of the Economic Situation of Post-socialist EU Countries

Dagmar Petrušová¹ 

Katarína Kráľová² 

Jana Sochuľáková³ 

Abstract: *The economic development of Slovakia, as well as other former socialist countries, was largely marked by the transition from a centrally planned economy to a market economy. This process was long and difficult. Post-socialist countries were forced to adopt a broad complex of political, social, economic and institutional reforms that made the business environment in the country more attractive and strengthened economic growth. This process of transformation continues and despite progress there is room for further improvement even in the most developed post-socialist countries. In addition, the economy of individual countries, as well as the world economy, is currently significantly affected by the ongoing pandemic, and it has also been negatively affected by the war conflict in Ukraine and the emerging energy crisis.*

In the article, we will focus on evaluating and comparing the development and economic situation of former socialist countries that have since become members of the European Union. Based on selected macroeconomic indicators, we will assess the level of the economy of individual countries. Subsequently, we will use the ranking method and compile and evaluate the ranking of the analyzed countries.

Keywords: *Post-socialist countries, Gross domestic product per capita, Employment rate, Unemployment rate, Work productivity, Inflation, Public administration balance*

¹ Alexander Dubček University in Trenčín, Faculty of Social and Economic Relations, Študentská 3, 91150 Trenčín, Slovakia

² Alexander Dubček University in Trenčín, Faculty of Social and Economic Relations, Študentská 3, 91150 Trenčín, Slovakia

³ Alexander Dubček University in Trenčín, Faculty of Social and Economic Relations, Študentská 3, 91150 Trenčín, Slovakia

Saving the Competitiveness of the European Business Sector – Chips Act

Mária Nováková¹ 

Silvia Capíková² 

Katarína Kezman³ 

Abstract: *From the whole range of sectoral expertise, it can be abstracted that semiconductors have found themselves at the centre of geostrategic interests because they form the core of global competition. Due to the absence of this technology, the vectors indicate that the development of digitization and the industrial revolution is at risk. These are problems of a cross-border nature that are not limited to individual member states. It can be concluded that they also have a negative impact on the development of the workforce, and for this reason, the European Union has an immanent interest in their solution. One of the attempts to save the competitiveness of the European business sector is the adoption of the “Chips Act”. In this paper, we will deal with selected aspects of global dependence on a very limited number of actors in a complex geopolitical context.*

Keywords: *Semiconductor technologies, Business sector, Public and private investments, Global supply chains.*

¹ Comenius University in Bratislava, Faculty of Law, Šafárikovo námestie 6, 810 00 Bratislava, Slovak Republic

² Comenius University in Bratislava, Faculty of Medicine, Špitálska 24, 813 72 Bratislava, Slovak Republic

³ Academy of the Police Force in Bratislava, Sklabinská 1, 835 17 Bratislava 35, Slovak Republic

Business Power and Mobility to Workplaces in Italian Regions during the First COVID-19 Wave

Demetrio Panarello¹ 

Giorgio Tassinari² 

Abstract: *The diffusion of the pandemic and the severity of COVID-19-related measures were very uneven across regions; however, the intensity of the restrictions was not always tightly linked with the strength of the pandemic. Economic interests and business power might have played a role in defining political responses at the local level, which are in turn able to shape the intensity of work-related mobility. This article aims at investigating whether regional variations in the stringency of COVID-19-related measures have actual impacts on work-related mobility and whether there is an independent effect of the pressure exerted by unions and businesses, assuming mobility to be governed concurrently by stringency, pandemic intensity, and pressure. Through the analysis of original regional-level indicators of stringency and public pressure, we demonstrate that trade unions' pressure is associated with a decrease in work-related mobility during the first COVID-19 wave in Italy.*

Keywords: *Stringency, Employers, Trade unions*

¹ University of Bologna, Department of Statistical Sciences “Paolo Fortunati”, Via delle Belle Arti 41, 40126 Bologna, Italy

² University of Bologna, Department of Statistical Sciences “Paolo Fortunati”, Via delle Belle Arti 41, 40126 Bologna, Italy

The State and Prospects of the Economic Development of the Republic of Serbia in the Conditions of the COVID-19 Pandemic

Miloš Lutovac¹ 

Valentina Mirković² 

Danijela Radenković³ 

Marko Vučičević⁴

Abstract: *When talking about economic growth as a factor of public regulation of economic and general regional development, in the conditions of the Covid-19 pandemic in the world, it is necessary to take into account the possibilities, restrictions, applicability, as well as specificity in the economic reality of the Republic of Serbia, and in order to ensure the social and economic and geographical framework for economic activities. The Covid-19 pandemic has left numerous consequences not only for the population but also for the world, and therefore for the economy of the Republic of Serbia. Turbulence in economic movements caused by crisis measures of the executive authorities of all countries of the world caused enormous losses, first in the tertiary sector, and then in other sectors of the economy. Also, the unknown of the post-pandemic period in terms of the limited movement of goods, services and people, greatly affects the crisis tendencies of economic development. Developing countries, such as the Republic of Serbia, are under particular attack, which can expect a significant drop in foreign direct investments, a drop in GDP and an increase in unemployment. Therefore, the key challenge and task of economic policy must be to establish and maintain a low inflation rate while monitoring and reducing public spending, as well as implementing measures to increase the production activity of all sectors of the economy. Therefore, this paper should offer the framework of economic policy as an important factor in the generation of the economic development strategy of the Republic of Serbia, during the still actual pandemic.*

Keywords: *Economy, Regionalization, Economic crisis, Inflation, Pandemic, GDP*

¹ Belgrade Business and Arts Academy of Applied Studies, Kraljice Marije 73, Belgrade, Serbia

² Belgrade Business and Arts Academy of Applied Studies, Kraljice Marije 73, Belgrade, Serbia

³ Belgrade Business and Arts Academy of Applied Studies, Kraljice Marije 73, Belgrade, Serbia

⁴ Belgrade Business and Arts Academy of Applied Studies, Kraljice Marije 73, Belgrade, Serbia

Covid-19's Impact on Supply Chain Practices in the Republic of Serbia

Anđela Đorđević¹ 

Biljana Cvetić² 

Dragan Vasiljević³ 

Vidosava Džagić⁴ 

Abstract: *This paper focuses on supply chain practices before and after the COVID-19 pandemic. Supply chain disruptions due to COVID-19 on the supply, demand, and logistical side are thoroughly explained and presented. The paper addresses how the pandemic exposed the vulnerabilities and deficiencies of the lean, JIT global supply chain model. This paper also presents short- and long-term strategies that companies have taken to mitigate supply chain disruptions. As a contribution to the paper, results from the research on COVID-19 impacts on the Serbian economy and business, that the Serbian Chamber of Commerce has conducted, are shown. The paper aims to highlight the most important supply chain measures and strategies needed to stay competitive during any pandemic.*

Keywords: *Supply chain, COVID-19, Supply chain disruptions, Mitigation strategies*

¹ Faculty of Organizational Sciences, University of Belgrade, Jove Ilića 154, Belgrade, Serbia

² Faculty of Organizational Sciences, University of Belgrade, Jove Ilića 154, Belgrade, Serbia

³ Faculty of Organizational Sciences, University of Belgrade, Jove Ilića 154, Belgrade, Serbia

⁴ The Chamber of Commerce and Industry of Serbia, Kneza Miloša 12, Belgrade, Serbia

The Digital Divide and Use of Public Services during the COVID-19 Pandemic

Sunčana Slijepčević¹ 

Abstract: *The COVID-19 pandemic enhanced digital transformation. With the spread of the pandemic and the introduction of epidemiological measures to combat the pandemic, there was a need for citizens to use the Internet to an increased extent. However, the question of the digital divide among citizens and the capability of citizens to get an equal level of public services has additionally come to the fore. Croatia is among the European Union countries with the lowest level of Internet access among households. Also, it is among the European countries with the lowest level of use of e-government services. Since the start of the pandemic, countries with a higher level of digitization of the public sector proved to be more successful and resilient in providing public services. One of the European Union's goals is to provide all key public services online by 2030 and, despite improvements, Croatia is still lagging behind most of the other European countries.*

The paper explores the changes in the use of digital public services in Croatia. The analysis is based on the Eurostat data and the results of the survey. The results show that due to the pandemic, citizens became more dependent on the use of IT equipment. In addition, citizens spend more time using digital public services than in the pre-pandemic period. The results also reveal differences in the COVID-19 impact on the use of e-government services between different population groups.

Keywords: *Digital public services, E-government services, Citizens, Digital divide, Use of the Internet*

¹ Institute of Economics, Trg J. F. Kennedyja 7, 10000 Zagreb, Croatia

The Role of Local Authorities in the Health System Response to COVID-19 in Croatia: The Case of the City of Split

Lana Kordić¹ 

Abstract: *Health infrastructure forms an economic, technical, and institutional basis of a developed economic system. It indirectly participates in economic activity through the maintenance, safety, and improvement of human capital competencies. That's why it is essential to the functioning of both, the economy and society. The consequences of the pandemic caused by COVID-19 have undoubtedly affected the health care system. Given the importance of health infrastructure and its challenges, along with the appreciation of the bottom-up approach to meeting the needs of citizens in their local communities, the aim of this paper was to critically analyse the role of local government in supporting the health care system in its territory in the context of the pandemic COVID-19. Namely, after the initial centralized response to COVID-19, from May 2020 the governance approach in Croatia increasingly involved regional and local authorities in the implementation of measures. Therefore, the aim of this study was to use the example of the city of Split to critically analyse the powers of the local government in the first year of the pandemic COVID -19, through which it can contribute to the development of health care services in the area of the city it administers. In addition to the analysis of the legal and institutional framework, the role of local government was critically analysed through in-depth interviews which were conducted during October, November, and December 2020 with the main stakeholders inside and outside the health care system, who have an influence on health care in the urban area as part of their activities. During the research, particular attention was paid to the challenges of managing the health care system, which is made up of facilities with varying ownership, and to the role of local government in supporting health facilities that it does not own, but that are important to the local community in which they operate. According to the main findings, it is critical to shift the focus of local economic policymakers from the limited possibilities of direct funding under the jurisdiction of the administrative department for health care, towards various possibilities of supporting the health care system through the implementation of their duties within their comprehensive self-governing jurisdiction for the benefit of main citizens. These include, for example, the provision of city-owned premises at preferential prices, all to improve the availability and quality of health care, but also health promotion, prevention, and mental health development which are the direct responsibility of local governments, and they were all identified as critical during the pandemic. Although this analysis concerned only one local case study, it provides relevant policy recommendations. Namely, the responses provide insight that cannot be gained through the analysis of quantitative data alone, which represents the main contribution of this study.*

Keywords: *Health care system, COVID-19, Local government, Qualitative methodology, Croatia*

¹ University of Split, Faculty of Economics, Business and Tourism, Cvite Fiskovića 5, 21000 Split, Croatia

The Importance of the Functioning of the Mineral Economy of Serbia in the Current Crisis Market Conditions

Radule Tosovic¹ 

Abstract: *The current very complex market and economic conditions for the provision of mineral raw materials needed by the economy and the population, especially energy mineral raw materials, condition a series of specific tasks facing the mineral economy of Serbia. The key analytical setting is related to the elements of the mineral policy in the crisis period, whether and in what way the necessary energy and other mineral raw materials will be provided from: (a) domestic ore deposits; (b) imports from neighboring countries; or (c) imports from the world mineral market. Each of the mentioned options is accompanied by certain limitations related to separate but related issues: (a) required amount of mineral raw materials, especially energy mineral raw materials (oil, gas and coal); (b) the prices at which they can be obtained, which are continuously increasing, especially the prices of oil and gas; and (c) the time in which the purchase and sale can be made and the mineral raw material delivered to the place of consumption. In doing so, it is necessary to take into account particularly specific external restrictions resulting from: (a) the additionally changed mineral market, due to the crisis consequences of the COVID-19 pandemic, as well as the actuality due to military-operational-war events in the Russia-Ukraine relationship; (b) EU sanctions on the procurement of Russian oil and gas; (c) financial problems in securing the necessary seats for their purchase; and (d) the impact of increased prices on inflation and the price of all other products and services in the complex and unstable Serbian market.*

The complex subject consideration and research-analytical process can be studied separately from two important points of view: (a) operational crisis, related to the urgent provision of critical mineral raw materials, especially energy mineral raw materials; and (b) strategic long-term with a permanent orientation to sustainable and applicable solutions so that the mineral economy would function and provide a material basis for economic activity in Serbia. The operational and strategic role concerns the main operational and strategic directions of the current functioning of the mineral economy, but also its further development in accordance with the long-term plans of economic and social development, which must be redefined, and in which mineral raw materials have a very significant working and functional role. In the overall consideration, special attention should be paid to the analysis of the relations and consequent connections of operational, strategic, financial and crisis management in providing conditions for the sustainable exploitation of numerous metallic, non-metallic and energy mineral raw materials for the needs of numerous economic branches. The potentially successful functioning of the mineral economy, although very difficult to achieve, is very important for the economic development of the country in the upcoming period of European integration.

Keywords: *Mineral economy, Mineral market, Mineral production, Ore deposit, Mineral raw materials*

¹ Faculty of Mining and Geology, University of Belgrade, Djusina 7, Belgrade, Serbia

Advantages and Disadvantages of Strategic Alliances in International Business

Klavdij Logožar¹ 

Abstract: *The paper studies strategic alliances and their role in international business. The importance of strategic alliances in the global economy has increased. Strategic drivers for interfirm co-operation between alliance partners are market growth, cost reduction, reducing risk, and access to knowledge. The author focuses on the advantages and disadvantages of strategic alliances. The challenges of managing international strategic alliances are also discussed. Ensuring the success of strategic alliances between international firms is more difficult due to alliance partners' differences in national, organizational and professional culture. International strategic alliances are critically important to a firm success and coping with globalization, deregulation, and developments in information and transportation technology.*

Keywords: *Strategic alliances, Competitive advantage, International business, Cultural differences*

¹ University of Maribor, Faculty of Economics and Business, Razlagova 14, 2000 Maribor, Slovenia

Testing the Causal Relationship between Central and Eastern European Capital Markets: Evidence in Periods of Uncertainty in the Global Economy

Paulo Alexandre¹ 

Rui Dias² 

Nicole Horta³ 

Paula Heliodoro⁴ 

Mariana Chambino⁵ 

Abstract: *The purpose of this study is to examine the movements of capital markets in Austria (ATX), Serbia (BELEX 15), Hungary (BUX), Croatia (CROBEX), Russia (IMOEX), the Czech Republic (PRAGUE PX), Slovenia (SBI TOP), and Poland (WIG) from September 18th, 2017 to September 15th, 2022. To obtain more robust results, we divide the sample into two sub-periods: the Quiet period, from September 18th, 2017, to December 31st, 2019; and the Stress Period, from January 1st, 2020, to September 15th, 2022, marked by the global pandemic (COVID-19), the oil price war in 2020, and the Russian invasion in 2022. The time series exhibit non-normal distributions due to the presence of fat tails, a characteristic that is common in periods of extreme volatility. The results of the VAR Granger Causality/Block Exogeneity Wald Tests model verified the existence of 16 pairs of markets showing co-movements between them during the quiet subperiod. The market that causes more co-movements is the Austrian stock market (ATX), while the Russian stock index (IMOEX) does not cause shocks in the markets under analysis. In the Stress subperiod, we verify the presence of 42 pairs of markets causing (each other in the Grangerian sense). The stock indexes ATX, BUX, CROBEX, and PRAGUE PX show 6 causal relations in 7 possible, while the capital markets of Russia (IMOEX) and Poland are the ones that cause less (4 in 7 possible). In conclusion, we verify that the events that occurred in 2020 and 2022 have significantly increased the movements in these regional markets. Such findings could put into question the implementation of efficient portfolio diversification strategies and eventually some gains above the market average due to arbitrage levels. The authors consider this evidence to be relevant for supervisors, regulators, and investors operating in these regional markets.*

Keywords: *2020 and 2022 Events, Capital markets movements, Portfolio diversification*

¹ School of Business and Administration, Polytechnic Institute of Setúbal, Portugal

² School of Business and Administration, Polytechnic Institute of Setúbal, Portugal; Center for Studies and Advanced Training in Management and Economics (CEFAGE), University of Évora, Portugal

³ School of Business and Administration, Polytechnic Institute of Setúbal, Portugal

⁴ School of Business and Administration, Polytechnic Institute of Setúbal, Portugal

⁵ School of Business and Administration, Polytechnic Institute of Setúbal, Portugal

Testing the Weak Form of Efficient Market Hypothesis in Period of the Global Pandemic of 2020 and the Russian Invasion in 2022: Empirical Evidence from XAU, XAG and XPT

Nicole Horta¹ 

Rui Dias² 

Paula Heliodoro³ 

Paulo Alexandre⁴ 

Mariana Chambino⁵ 

Abstract: *This study intends to determine if the events of 2020 and 2022 have had an impact on the efficiency of the commodities markets, in particular the spot prices of gold (XAU), silver (XAG), and platinum (XPT), between September 18th, 2017, and September 15th, 2022. The findings of the Rankings and Signals test demonstrate that, during the calm time, the gold, silver, and platinum markets do not reject the random walk hypothesis, which means that spot prices are independent and identically distributed (i.i.d.), consequently their movements are assumed to be random. Contrarily, the random walk hypothesis is rejected during the Stress period in all commodity markets, with variance ratios below unity, suggesting that returns show significant autocorrelation. To support this, the findings of the exponent Detrended Fluctuation Analysis (DFA) reveal that silver (XAG) had an antipersistent short memory ($\alpha < 0,5$), during the Calm period, transitioning to a persistent movement ($\alpha > 0,5$) during the time of the crisis. While the worldwide financial markets were stable, platinum (XPT) was in a state of equilibrium. This state changed to persistent with the succession of events starting in 2020 ($\alpha > 0,5$). In turn, gold (XAU) reduced its antipersistence ($\alpha < 0,5$) throughout the period of stress in international markets. In conclusion, there is evidence of some dependency in the time series, but this dependence does not appear to be easily exploitable by investors. These findings have significant implications for gold, silver, and platinum's roles as investment assets.*

Keywords: *Events 2020 and 2022, Persistence, Arbitrage, Portfolio diversification*

¹ School of Business and Administration, Polytechnic Institute of Setúbal, Portugal

² School of Business and Administration, Polytechnic Institute of Setúbal, Portugal; Center for Studies and Advanced Training in Management and Economics (CEFAGE), University of Évora, Portugal

³ School of Business and Administration, Polytechnic Institute of Setúbal, Portugal

⁴ School of Business and Administration, Polytechnic Institute of Setúbal, Portugal

⁵ School of Business and Administration, Polytechnic Institute of Setúbal, Portugal

Impact of the 2020 and 2022 Events on the Efficiency of Europe's Capital Markets

Paula Heliodoro¹ 

Rui Dias² 

Nicole Horta³ 

Paulo Alexandre⁴ 

Mariana Chambino⁵ 

Abstract: *This paper intends to test efficiency, in its weak form, in the capital markets of the Netherlands (AEX), Belgium (BEL 20), France (CAC 40), Ireland (ISEQ 20), and Portugal (PSI 20), for the period from September 18th, 2017, to September 15th, 2022. Given the skewness and kurtosis coefficients, the time series shows signs of deviation from the normality hypothesis. We also observe that during the Tranquil and second Covid-19 wave subperiods, European equity markets are in equilibrium and that the (in) efficiency hypothesis, in its weak form, does not hold, implying that investors will struggle to achieve returns above the market average without incurring additional risk. When we examine the first Covid-19 subperiod, we find that all capital markets show long memories, indicating a propensity to forecast returns, particularly the Portuguese capital market shows the highest value of persistence (0.65), while the stock indexes of Belgium (BEL 20), France (CAC 40), Ireland (ISEQ 20) have exponents of 0.62, and the Netherlands 0.61. In the fourth sub-period that corresponds to the Russian invasion of Ukraine in 2022, we find that the efficiency hypothesis, in its weak form, is rejected for all stock indexes, except for the French capital market (CAC 40). When the sub-periods of the first wave of COVID-19 and the Russian invasion of Ukraine in 2022 are compared, we notice that markets exhibit more pronounced imbalances during the first wave of COVID-19, due in large part to uncertainty regarding the course of the 2020 pandemic. In addition, we emphasize that during subperiods of higher uncertainty in the global economy, prices do not fully reflect available information and that price fluctuations are not i.i.d. In other words, there is a reversion to the mean, and prices become predictable, allowing regional and international investors to achieve above-market average returns. The authors suggest that these findings are significant for regulators and supervisors of European capital markets to promote efforts to guarantee that available market information is rectified more effectively.*

Keywords: *European capital markets, BDS, DFA Random Walk, Arbitrage*

¹ School of Business and Administration, Polytechnic Institute of Setúbal, Portugal

² School of Business and Administration, Polytechnic Institute of Setúbal, Portugal; Center for Studies and Advanced Training in Management and Economics (CEFAGE), University of Évora, Portugal

³ School of Business and Administration, Polytechnic Institute of Setúbal, Portugal

⁴ School of Business and Administration, Polytechnic Institute of Setúbal, Portugal

⁵ School of Business and Administration, Polytechnic Institute of Setúbal, Portugal

Risk Diversification in Asian Stock Markets: An Empirical Analysis in the Context of the 2020 and 2022 Events

Nicole Horta¹ 

Rui Dias² 

Paula Heliodoro³ 

Paulo Alexandre⁴ 

Mariana Chambino⁵ 

Abstract: *The World Health Organization (WHO) designated coronavirus infection a worldwide pandemic in 2020, based on the risk of contagion and the number of confirmed cases in more than 195 countries. Covid-19 had a severe impact on the global economy as a result of uncertainty and pessimism, causing adverse effects on financial markets. On February 24th, 2022, Russia launched a full-scale military invasion against Ukraine, signifying a dramatic escalation of a conflict that began in 2014. Several analysts named the invasion the largest military invasion in Europe since World War II. In the context of these events, this paper aims to estimate whether portfolio diversification is practicable in the stock markets of Indonesia (JKSE), Malaysia (KLSE), South Korea (KOSPI), Japan (NIKKEI 400), Philippines (PSI), Thailand (SET) and China (SSEC), for the period from September 18th, 2017 to September 15th, 2022. In the purpose of reaching such analysis it is intended to provide answers to two questions: (i) if the global pandemic of 2020 and the Russian invasion in 2022 have accentuated financial integration in these Asian markets? (ii) If yes, the existence of persistence in returns, could put portfolio diversification into question? The results indicate that those markets have low levels of integration, both in periods of normality and in periods of global uncertainty. Complementarily, the 2020 and 2022 events have significantly increased persistence in these regional markets. These results demonstrate that prices do not fully reflect available information and that changes in prices are not i.i.d. This situation has implications for investors, as some returns may be expected, creating some opportunities for arbitrage and windfalls profits. The authors consider that these results provide an opportunity for regulators in these regional markets to take efforts to ensure better information between these markets and the international markets.*

Keywords: *Asian Markets, Financial integration, Long memories, Portfolio diversification*

¹ School of Business and Administration, Polytechnic Institute of Setúbal, Portugal

² School of Business and Administration, Polytechnic Institute of Setúbal, Portugal; Center for Studies and Advanced Training in Management and Economics (CEFAGE), University of Évora, Portugal

³ School of Business and Administration, Polytechnic Institute of Setúbal, Portugal

⁴ School of Business and Administration, Polytechnic Institute of Setúbal, Portugal

⁵ School of Business and Administration, Polytechnic Institute of Setúbal, Portugal

Healthcare Financing Models and the Expenditure Growth

Nikolay Atanasov¹ 

Dimitar Semkov² 

Abstract: *The present study includes the countries of the European Union, aiming to test the hypothesis that the funding models can be related to the size and growth of health expenditure, as a phenomenon from the second half of the 20th and the beginning of the 21st century. The criterion for grouping the national health systems is the dominant public source of financing from the two with the largest weight in the aggregate expenditure – health insurers' payments and payments on account of the state budget. Data from the health accounts of the countries of the EU for a period of the last 10 years are used. The observed indicator is the weight of total health expenditure of the current GDP, which allows international comparisons to be made. The methods of analysis used include descriptive statistics, verification of hypotheses for the type of empirical distributions, equality of means and variances, and graphical presentation of the detected dependencies. The results show that there is a significant variation in health expenditure between the individual countries in the EU. Within the formed two groups of countries - one with a dominant government budget and the other with a dominant health insurance financing, no statistically significant difference in the size of the health expenditure can be found. Such a dependence is found when grouping using other indicators related to geographical location and living standards.*

Keywords: *Healthcare financing models, Public health expenditure, Social health insurance, Government budget*

¹ Medical University Plovdiv, Department of Health Management and Health Economics, 15A, blvd. Vasil Aprilov, Plovdiv, 4000, Bulgaria

² Medical University Plovdiv, Department of Health Management and Health Economics, 15A, blvd. Vasil Aprilov, Plovdiv, 4000, Bulgaria

Health Care without Borders: Current Trends and Challenges in Europe

Silvia Capikova¹ 

Maria Novakova² 

Abstract: *In order to overcome barriers or regional shortages in meeting their health care needs, patients use to travel abroad to undergo examinations, treatment or to get medication. Medical tourism, medication tourism, cross-border health care and their regulation are evolving phenomena. Implementing and delegated acts related to Directive 2011/24/EU on the application of patients' rights in cross-border healthcare had developed into a complex ecosystem of regulations. Advanced digital technologies allow to development of telemedicine, however, its use in cross-border health care needs. The right to health care is challenged by increasing costs of health care and medical devices, austerity in public expenditures on health care, international trade with pharmaceutical products, and medical brain drain. It is important to develop schemes and strategies, that enable the achievement of timely, safe and cost-effective health care using public health insurance schemes.*

Keywords: *Cross-border health care, Directive 2011/24/EU, Medical tourism, Health insurance.*

¹ Comenius University in Bratislava, Faculty of Medicine; Špitálska 24, 813 72 Bratislava, Slovak Republic

² Comenius University in Bratislava, Faculty of Law; Šafárikovo námestie 6, 810 00 Bratislava, Slovak Republic

Recent Advances in Fintech: The Case of Italian Challenger Banks

Annalisa Baldissera¹ 

Abstract: *Fintech or financial technology is a relatively recent and expanding phenomenon, which identifies the application of technologies, in particular digital, in the financial sector. In the context of Fintech, a recently born sector is represented by challenger banks (CBs), i.e. banks that do not have branches but operate exclusively through apps and smartphones. There are currently 96 challenger banks in Europe, of which 12 are located in Italy. This study aims to analyze the performance of the Italian challenger banks in the three years 2019-2021 to grasp the strengths and weaknesses of their management. The study highlighted how Italian challenger banks have overcome the pandemic with satisfactory results compared to 2019. This is partly due to the advantages that digital services offer in conditions in which physical travel is limited or prohibited. However, income performance also grew in 2021 and confirms the progressive strengthening of the sector.*

Keywords: *Financial technology, Emerging finance, Digitalization, Economic performance*

¹ Univeristy of Brescia, Department of Law, via San Faustino No. 41, Brescia, Italy

Do Audit Opinions Affect Earnings Persistence?

Jovana Stojanović¹ 

Milica Đorđević² 

Abstract: *In the professional literature, the largest number of studies focus on examining and analyzing the content of auditors' reports and their impact on the quality of financial statements, while a smaller number of authors examine the impact of audit opinions on earnings persistence. Since understanding the type of audit opinion undoubtedly allows investors to assess the quality of a company's earnings and predict future cash flows, this paper investigates whether they react differently when making capital investment decisions if the financial statements contain a modified opinion. By looking at the previous literature, the authors consider market reactions, especially when it comes to some kind of modified opinion, given that they can cause a negative reaction and affect the reduction of earnings persistence. The research results so far show, although inconsistent and unusual, still interesting results when it comes to the impact of the audit opinion on earnings persistence. By analyzing previous studies, the authors reveal whether investors give enough importance to the audit opinion when making financial and investment decisions, which could later affect the amount of additional capital, which is a necessary condition for development, especially in transition and developing countries. In addition to the conclusions of this paper being relevant for users of financial statements, especially investors, they are also significant for regulatory bodies, as they indicate the necessity of constant improvement of the accounting and auditing system.*

Keywords: *Auditors' reports, Audit modification, Financial statements, Earnings quality, Investment decisions*

¹ University of Niš, Innovation Centre at University of Niš, Univerzitetski trg 2, Serbia

² University of Niš, Faculty of Economics, Trg kralja Aleksandra Ujedinitelja 11, Serbia

Internal Audit in the Function of Improving Company Performance

Ana Milijić¹ 

Andrija Popović² 

Abstract: *The purpose of an internal audit in a company is to add value and improve its operations. There are numerous examples of direct and indirect value addition to a business entity through the internal audit system. The aim of the paper is to present which business segments internal audit has the greatest impact on the company's business and which are the key performances on which it has a positive effect. The task is to explain the functioning of the internal audit system and show how the internal audit system and internal controls add value to the business entity, which is reflected in the improvement of both the financial and non-financial performance of the company.*

Keywords: *Internal audit, Performance, Added value*

¹ Innovation Center, University of Niš, University Square 2, Niš, Republic of Serbia

² Innovation Center, University of Niš, University Square 2, Niš, Republic of Serbia

Survey on Diffusion, Contingent Factors and Effects of Strategic Management Accounting

Petr Petera¹ 

Jaroslav Wagner² 

Libuše Šoljaková³ 

Abstract: *Our empirical quantitative research contributes to contingency theory literature on the determinants (contingent factors) and consequences of strategic management accounting (SMA) adoption. The analysis is based on 138 responses received from our original empirical survey among medium and large Czech companies.*

We propose a complex framework, which is consequently analysed using partial least squares structural equation modelling. Investigated contingent variables are: the firm's size, perceived environmental uncertainty, controller engagement in strategic management practice, and firm's market orientation. Moreover, the framework includes an investigation of the impact of the use of strategic management accounting on a firm's performance and satisfaction with a management accounting system.

The results of an assessment of the proposed structural model indicate a positive and statistically significant relationship between (i) perceived environmental uncertainty and SMA use, (ii) controller engagement and SMA use, (iii) market orientation and SMA use, (iv) SMA use and subjectively measured performance of the company and (v) SMA use and satisfaction with support of management accounting for strategic management. The relationship between the size of the company and SMA use was rejected.

Last but not least, our paper provides descriptive statistics and interpretations regarding the use of strategic management accounting. Results on the degree of use of individual SMA techniques indicate that the most used techniques among our respondents are strategic planning and budgeting, customer accounting, and target costing. The expected change can be characterised as a slow growth of use.

Keywords: *Strategy, Strategic management accounting, Performance measurement, Performance management, Czech Republic*

¹ Prague University of Economics and Business; W. Churchill Sq. 1938/4, 130 67 Prague 3 – Žižkov, Czech Republic

² Prague University of Economics and Business; W. Churchill Sq. 1938/4, 130 67 Prague 3 – Žižkov, Czech Republic

³ Prague University of Economics and Business; W. Churchill Sq. 1938/4, 130 67 Prague 3 – Žižkov, Czech Republic

Quality of R&D Information in the Disclosures of Pharmaceutical Companies in Hungary

Gréta Palánk¹ 

Éva Karai² 

Abstract: *The Hungarian Accounting Act and the IFRS require different accounting treatments and disclosures for research and development activities. Examined ten years' financial statements of five Hungarian pharmaceutical companies, we revealed the differences between the two accounting systems and evaluated the quality of the provided accounting information.*

Incorporating former researchers' findings, the authors developed a criteria system for content analysis to examine the impact of accounting differences on the quality of accounting information. The financial statements presented on the IFRS basis provided more consistent high-quality information, while the disclosures prepared on the domestic accounting rules showed a variable picture.

Keywords: *Accounting information, Research and Development, Hungarian Accounting Act, International Financial Reporting Standards*

¹ Eötvös Loránd University Faculty of Economics, Egyetem tér 1-3., 1053 Budapest, Hungary

² Eötvös Loránd University Faculty of Economics, Egyetem tér 1-3., 1053 Budapest, Hungary

Sustainability Reporting Practices of Real Estate Companies from Germany, Austria and Switzerland – First Insights from 2020

Dominika P. Gałkiewicz¹

Abstract: *In the last twenty years, sustainability became a strong movement leading to regulatory initiatives around the world. In this study, the European regulation is compared with common sustainability reporting practices in the Real Estate Sector in Germany, Austria, and Switzerland. The goal of the study is to show what type of information related to employees, and other social and governance issues are being provided and by how many firms in the year 2020. The findings show that more than half of the analyzed firms report the total number of employees, the share of women and the number of permanent full-time contracts. Furthermore, supervisory board members are listed by 37 out of 53 companies. More than a third of the 53 companies confirmed to have anti-corruption processes implemented and 25 firms state to have UN SDGs included in their reports. However, details on diversity and employee-related information are often, more than 50% of the time, missing (e.g. salary ratio of woman to man, average sick days/year, total number of trainees, executive pay ratio, total accidents, average age, proportion of female executives, % of woman on the board of directors, staff turnover rate, newly hired employees, employee-satisfaction, full-time employees and part-time employees). Moreover, the involvement of firms, customers, suppliers and employees in following human rights guidelines, ESG and Code of Conduct rules is low. Less than a third of companies stated to follow the human rights guidelines obtained a sustainability certificate or employee well-being certificate and provided ESG-specific employee training. Performing Code of Conduct training for employees, customer surveys, and implementing business partner Code of Conduct/Supplier Code of Conduct besides mentioning the cases of corruption and incidents of discrimination are reported by less than one-third of firms. These results are important for individuals, companies and politicians implementing new rules related to sustainability reporting in Europe.*

Keywords: Sustainability, Report, ESG, Directive, NFRD

¹ University of Applied Sciences Kufstein, Andreas Hofer-Str. 7, Kufstein, Austria

What Is the Role of Intangibles in Value Creation?

Isabel Cruz¹ 

Eva Góis² 

Abstract: *Over the last decades it is undeniable the role that intangibles have achieved in the business context. They are one of the main ones responsible for the creation of wealth and value. However, it is not easy to identify a concept that explains the essence of this type of asset. In this sense, in addition to the comprehensive presentation of the tasks performed during the internship, this report reviews the literature on the evolution of the importance of intangible assets in the last five decades, the way they are recognized in accounting, their tax treatment and the impact that these assets suffer from exogenous phenomena to the economy, such as pandemics of infectious diseases - with special focus on goodwill. It is important to understand the impact that these exogenous factors on the economy can have on this type of asset, in Portugal, if it can alter a trend of the increasing importance that the goodwill has been acquiring over the last few years (Uddin et al., 2022).*

Subsequently, a study was carried out to analyze the relevance of goodwill in the balance sheets of Portuguese companies listed on Euronext Lisbon, as well as to verify whether intangible assets (including goodwill) have been gaining importance in the total assets of these companies.

In terms of the results of the study, contrary to what would be expected, it is evident that intangible assets have been losing importance and, in the case of goodwill the situation doesn't corroborate with previous literature.

Keywords: *Intangible assets, Goodwill, Pandemic*

¹ Faculty of Economics of University of Coimbra; Av. Dias da Silva, Nº 165, 3004-512 Coimbra, Portugal

² Faculty of Economics of University of Coimbra; Av. Dias da Silva, Nº 165, 3004-512 Coimbra, Portugal

The Necessity to (Co)Create Shared Value

Carmina S. Nunes¹ 

Abstract: *Organizations worldwide are in a state of drift where decisions must be made all the time. The disruption in which almost all of them operate requires strong, responsible and servant leadership. The paper aims to demonstrate the fact that organizations are playing an active and important role and must be able to define a strong purpose related to recognizing the value to be (co)created and then shared to help them achieve their objectives and standards.*

The concept of creating shared value (Porter & Kramer, 2011) is nowadays crucial, as a collective influence, strategic appraisal by adopting environmentally sustainable strategies can beneficiate the business by co(creating) goods or services. Organizations must adopt transparency and ethical approaches toward creating economic value and its delivery to society in general. It stands that creating shared value needs a proper mindset, constant modifications, strong relationships, etc. towards all stakeholders.

To answer the challenges of their stakeholders, organizations must start to incorporate a social mission in corporate values as a long-term one, then create the maximum value associated with goods or services in the attitudes of the customers. The technologies could be utilized to support organizations in the creation and (co) creation of value but with increasing attention to its use (Kotler, Kartajaya & Setiawan, 2021). Organizations need to accept a strategic approach regarding creating shared value and look and integrate all the stakeholders towards the (co)creation value process.

Share the organization's values with all stakeholders, as unique, as well as community, see their participation as a chance, focus on various facets of value, by integrating all the stakeholders as strategic purpose could only take advantages to the overall (Haski-Leventhal, 2022).

The paper wants to suggest that letting the stakeholders participate in the creation value process will permit the organizations to better prepare for the future by anticipating needs, attitudes, preferences, etc. But the creation of value does not be an end, only a start for sharing the value associated with the stakeholders and should be seen as a continuous process to create a sense of a better society as a community.

Keywords: *Co(create) value, Shared value*

¹ Research Unit on Governance, Competitiveness and Public Policies (GOVCOPP), ESTGA – UA, 3810-193 Aveiro, FEUC – UC, Portugal

Implementation of Lean Management Practices in Azerbaijan (On the Example of a Private Company)

Yelena Alaskarova¹

Abstract: *Organizations are facing crucial modifications as the global market and conditions change day after day. To keep up with fast-changing realities, it's important to apply innovation decisions to the current stage of organizations. Lean management consolidates tools and techniques to revert from the traditional way of operating to the new human-oriented one. In the carried-out research, outlined, human resources management plays a big role in spreading and supporting lean initiatives. It was suggested that Lean and Human resources management are compatible and should work together to obtain sustainable success through the implementation of an innovation approach such as Lean. Both lean management and human resource management focus on the same goals with different methods in terms of control of businesses. All positivist approaches and practices are included in these approaches and practices, which are developed with a focus on the interests of the community, in order for the process to be concluded positively. The employee-centered management approach of human resources management is crucial to leadership and maintaining a good environment in the teams. For this reason, in the lean management philosophy, it is aware that the corporate structure has responsibilities in terms of training the employees, eliminating their problems and supporting them in struggling with the responsibilities they undertake. This paper is quantitative, an online survey has been conducted with employees of a private company in Azerbaijan and results were analysed in the statistical analysis software SPSS and relevant suggestions and recommendation were given for reorganization to enable lean friendly environment on a sample of the given company.*

Keywords: *Continuous improvement, Human resources management, Industry 4.0, Lean Management, Lean philosophy*

¹ Magyar Agrár- és Élettudományi Egyetem (MATE); Gödöllő, Páter Károly u. 1, 2100, Hungary

A Holistic CSR Maturity Assessment Model

Maria Belesioti¹ 

Michail Glykas²

Abstract: *Recently, there has been an increasing interest in defining Corporate Social Responsibility (CSR) and the factors that have the potential to influence it. CSR has become an essential strategic tool and its initiatives have increased in variety and scope, impacting communities and businesses in economic, environmental, and social terms as a means of raising the social profile and maximizing the corporation's long-term economic and social value. This paper aims to introduce the concept of Corporate Social Responsibility and to investigate the key enabling factors and constraints that play a crucial role in the adoption and implementation of CSR initiatives. For this, a holistic framework, namely a Corporate Social Responsibility Maturity Model (CSRMM) for CSR assessment will be analyzed and presented.*

Keywords: *Corporate Social Responsibility, Maturity Model, CSR Maturity Assessment Framework, ISO26000:2010*

¹ University of the Aegean, 41 Kountouriotou Str. 82100, Chios, Greece

² Department of Financial and Management Engineering, School of Engineering, University of the Aegean, Kountouriotou 42, Chios, 82100, Greece

Information and Communication Technologies in the Function of the Development of Digital Competences of Persons with Disabilities

Anela Džananović¹ 

Jasna Bajraktarević² 

Abstract: *The subject and problem of the work refer to information and communication technologies, which are one of the most important prerequisites for life and work for people with disabilities. From education itself, social life, professional rehabilitation and employment, information and communication technologies are a factor without which participation is impossible for people with disabilities, regardless of the form. This paper singles out one particular aspect of the use of information and communication technology, which depends on the level of development of the country and the existential status of a specific person and what type of disability it is. Investing in information technology and digital competences of people with disabilities has a pronounced positive impact on the development of social entrepreneurship in the context of companies for the employment of people with disabilities. When talking about information and communication technologies, we are talking about different equipment, software and the like, with the help of which people with disabilities can communicate more easily; they have a great impact on all people in the world, especially on people with disabilities.*

Keywords: *Information and communication technologies, Disability, Digital competence, Skills*

¹ Faculty of Management and Business Economics, University of Travnik, 71250 Kiseljak, B&H

² Faculty of Education, University in Sarajevo, 71000 Sarajevo, B&H

Changing the Process of the Employee Recruitment in the Labour Market

Mirjana Nedović¹ 

Ivona Bajić Sabljo²

Abstract: *Human resource management is an important managerial function. Finding quality and motivated people represents a challenge for any business. The ways to reach the best future employees have changed with the development of social networks and digitalization in general. To be competitive, every company needs a well-designed approach to human resource management. The company's set goals can only be achieved based on the abilities of employees with certain skills. The reason for choosing this topic stemmed from the many problems faced by the human resources departments due to the transformation that is happening in the labour market. The purpose of this paper is to show a concrete example, of the recruitment of employees when using a modern method using the social network. All the stages that are used to acquire the best candidate who would complete the set tasks will be explained. The data were obtained using the telephone interview research method. This work will be able to serve the other companies or departments that manage human resources as one of the examples of the new concept of recruiting employees and accordingly, contribute to future research. The findings that are stemming from this research will certainly support further studies of human resource management using new technologies and tools that collect analytical data and skills of employees and consequently help companies to select the best candidates.*

Keywords: *Human resources management, Digitalization, Electronic human resources management, Digital human resources strategy*

¹ College of Applied Sciences "Lavoslav Ružička" in Vukovar, Croatia

² Regional Wholesales Market Osijek d.d., Jablanova bb, Osijek, Croatia

Analysis of Creative Industries in Serbia in the Pre and Post-covid Period

Aleksandra Anić¹

Maja Ribić²

Igor Kovačević³

Abstract: *The creative industries have an important role in the economic development of countries, especially in the period after the COVID-19 crisis, demonstrating its readiness to answer market shocks in a relatively short period. Market trends, changing behaviour patterns of consumers, shifting companies' strategies, create a vast area for creative industry growth. The creative industry in Serbia is an important part of the economy.*

This paper analyzes the contribution of creative industries to the economy of Serbia. Using Serbian Business Registry and Statistical Office of Republic Serbia data in 2019–2021, we calculate the gross value added of the creative industry in Serbia. We use data for limited liability companies in the private sector and entrepreneurs. The analysis is based on a broad and narrow definition of creative industries. Creative industries by broad definition comprised 52 classes of economic activities based on Terra Consultants' definition (2014), whereas by narrow definition is comprised 30 classes based on the UK Department of Culture, Media and Sport definition. Creative industries consist of different classes of economic activities, e.g. marketing, architecture, design, movies and TV production, publishing, museums, IT, software and programming activities, etc.

The authors' calculation shows that the gross value added (GVA) of the creative industry amounted to 6.3% of GDP based on a broad definition in 2020. The only two sectors with a higher share are manufacturing and construction. The share of creative industries by narrow definition in GDP amount to 2.8%. The real GVA y-o-y growth rate was significant in 2020 and 2021, especially if the narrow definition is used. Creative industries employ 4.1% of employees by narrow and 7% by broad definition. The number of employees increased by 14% (broad) and by 17% (narrow). Creative industries have on average higher wages, based on a broad definition, the average wage in the creative industry is 60% higher than the national average. The average wage in the creative industry had real growth in two years of 30–40%, which is significantly higher than the real growth rate of the average wage for the total economy. Therefore, creative industries are prospective, and they appear not to be vulnerable on Covid-19 pandemic.

¹ University of Belgrade - Faculty of Economics and Business, Kamenička 6, 11000 Belgrade, Serbia

² University of Belgrade - Faculty of Economics and Business, Kamenička 6, 11000 Belgrade, Serbia

³ University of Belgrade - Faculty of Economics and Business, Kamenička 6, 11000 Belgrade, Serbia

Our results show that creative industries although on average have good performance, the classes of economic activities that comprise creative industries show diverging trends. The most prospective group of economic activities is computer programming, consultancy and related activities. Computer programming activities have the highest share of employment in creative industries. This research is important for economic policy to find adequate policy measures that should be more specific not only for creative industries but also for the group level of economic activities.

Keywords: *Creative industry, Covid-19, Serbia*

Impact of E-recruitment on Effectiveness of HR Management in BH Companies

Sabina Đonlagić Alibegović¹ 

Vedrana Ajanović² 

Amina Džambić³ 

Abstract: *Human resources play a significant role in a company as human capital affects the company's success and competitiveness. Effective HR management helps the company achieve its goals. Key HR activities in acquiring human capital are recruitment, training and retention of employees. Finding the right employees is of great importance to a company and this process should be fast and efficient. E-recruitment, as an ICT-based process, can increase the efficiency of the recruitment process and HRM. B&H is struggling with strong migration processes, mostly the workforce since numerous youth and families are migrating to Europe. This affects the ability of companies to find new employees, retain existing employees and attract talent. The main aim of this paper is to investigate to what extent the companies in B&H use e-recruitment and how it affects the overall effectiveness of the HR management process. The paper is based on survey research conducted among 100 medium and large companies with developed HR departments in Bosnia and Herzegovina. The results indicate that the companies are aware of the importance of HR for the company's success, they are aware of technological advances and the impact of ICT on the HRM processes, but they still do not rely only on e-recruitment in acquiring new talents and employees. However, the results also indicate that the e-recruitment process leads to the time and cost efficiency of the HR recruitment process.*

Keywords: *HRM, Recruitment process, E-recruitment*

¹ University in Tuzla, Faculty of Economics, Bosnia and Herzegovina

² BIT Center Tuzla, Bosnia and Herzegovina

³ Fam3 doo Tuzla, Bosnia and Herzegovina

Effect of the 4th Industrial Revolution on Employability – Case of Albania

Milena Shehu¹ 

Areti Stringa²

Abstract: *The labor markets are undergoing significant changes as a result of the fourth industrial revolution's implementation in every sphere of the economy. One easy image may come to mind when you hear the term “digital economy”: a robot employee, designed to perform specified tasks automatically. In any case, digitalizing employability entails more than just applying AI codes; it also entails raising performance standards, emphasizing soft skills among workers, eliminating low - and middle-level roles, and increasing demand for highly qualified workers.*

Albania *has made significant strides toward economic digitalization. Numerous businesses, especially large ones, are spending money to advance the technologies they work with. Technological developments at the macroeconomic and sectoral levels are fundamentally changing the work market and employability in our country, having a significant impact on both employers and employability*

Keywords: *4th Industrial Revolution, Employability, Skills gap*

¹ Faculty of Economy, University of Tirana, Rruga Arben Broci 1 1001, Tirana, Albania

² Faculty of Economy, University of Tirana, Rruga Arben Broci 1 1001, Tirana, Albania

Anxiety Due to COVID-19 and the Role of Obsession, Job Location Selection and the Number of Children in Hospitality Employees

Konstantinos Krikonis¹ 

Ioannis Konstantaras² 

Abstract: *Under the framework of the Transactional Theory of Stress and Coping, stress is formulated ultimately from our interaction with the situations we find ourselves in. During COVID-19, hospitality workers experienced high levels of stress due to instability and the constant lack of infection. This survey examines the moderating role of “job location selection” and “number of children” on the direct effect of “obsession with COVID-19” on “Coronavirus anxiety”. To address the above, we utilized “Partial Least Squares Structural Equation Modelling (PLS-SEM)” on collected data from 403 hospitality employees working seasonally in Greece. The results uncovered the dynamic of “job location selection” in reducing the stressor “obsession with COVID-19”, moderating its effect on “Coronavirus anxiety”. Moreover, the “number of children” can negatively affect this relationship adding more anxiety to workers. Such insights can offer practical implications to each worker individually.*

Keywords: *Coronavirus anxiety, Obsession with COVID-19, Job location selection, Hospitality employees*

¹ Department of Business Administration, University of Macedonia, Thessaloniki, Greece

² Department of Business Administration, University of Macedonia, Thessaloniki, Greece

The Effect of Psychological Factors on Sustainable Entrepreneurial Intentions

Kristina Stamenovic¹ 

Milorad Stamenovic² 

Abstract: *This study aims to investigate psychological factors that influence students' intentions to become sustainable entrepreneurs. Psychological factors include innovativeness, locus of control, risk-taking, self-confidence, tolerance of ambiguity and need for achievement. Moreover, the study tests the mediating role of attitudes in the relationship between psychological factors and sustainable entrepreneurial intentions. The authors used quantitative methods, and data were collected from two universities in Serbia. Valid responses from 150 individuals were analysed using SPSS. The results showed a positive relationship between psychological factors [locus of control, risk propensity, need for achievement] and attitudes. Our findings confirm three major psychological factors significantly influencing intentions toward sustainable entrepreneurship.*

Keywords: *Sustainable Entrepreneurial Intentions, Psychological factors, Attitude, Theory of Planned Behavior*

¹ West University of Timisoara, Faculty of Economics and Business Administration, Romania

² UCA - Skema Business School, France

Human Resources Management in Quality 4.0 Maturity Assessment

Anastasia Vlastaridou¹

Evdokia Nikou²

Ioulia Kouroupaki³

Michail Glykas⁴

Abstract: *The paper analyzes critical success factors and enablers for the maturity assessment of Quality 4.0 implementations. The emphasis is on how digital transformation technologies have impacted human resource processes and how technology and quality are related. This study presents a literature review on Quality 4.0 and provides an overview of the key issues and future perspectives for quality management in the digital era. The research results contribute to the digitalization and quality literature and a holistic approach that should be composed of CSFs and Enablers. No previous studies have been identified that provide a holistic analysis.*

Keywords: *Human resource management (HRM), Quality 4.0, Maturity assessment*

¹ Department of Financial and Management Engineering, School of Engineering, University of the Aegean, Kountouriotou 42, Chios, 82100, Greece

² Department of Financial and Management Engineering, School of Engineering, University of the Aegean, Kountouriotou 42, Chios, 82100, Greece

³ Department of Financial and Management Engineering, School of Engineering, University of the Aegean, Kountouriotou 42, Chios, 82100, Greece

⁴ Department of Financial and Management Engineering, School of Engineering, University of the Aegean, Kountouriotou 42, Chios, 82100, Greece

Study of the Motivating Factors of the Human Resources Management System in the Municipality of Plovdiv

Liliya Nedeva¹


Abstract: *Motivation can encourage employees to achieve the organization's goal because if workers feel that managers practically communicate with them, it motivates them to perform better and work as a team. Mismanagement of motivation in any organization can lead to demotivation, apathy and even resistance. The symptoms of a lack of inspiration in the workplace are frequent turnover, frequent absences from work, delays, low quality of performed activities, lack of interest in new exercises, etc. Employees with high job satisfaction are more focused on tasks and activities and are more motivated to stay with the organization. The conducted research found low motivation among employees in the municipality of Plovdiv, which is why improving interpersonal communication is a prerequisite for increasing job satisfaction.*

Keywords: *Motivation, Communication, Efficiency*

¹ University of Plovdiv "Paisii Hilendarski", 24 Tsar Asen Str., Plovdiv, Bulgaria

University-Industry Cooperation, from the Viewpoint of Top-Level Management in Albanian Companies

Ketrina Çabiri Mijo¹ 

Ermira Qosja² 

Abstract: *Economic development is conditioned upon many actors, where the cooperation of higher education institutions with industry and business plays an important role. Companies are highly interested in the “primary product” of higher education, in the sense of knowledge that benefits students, the absorption of talents, but also in the product of scientific research, patents, start-ups, etc.*

This paper aims to measure the perception of the top-level managers in Albanian companies regarding the challenges and barriers that appear in university-industry cooperation. Through a qualitative analysis, based on the questionnaire of the KALCEA³ project (Erasmus + CBHE) in a sample of 27 large and medium-sized companies, an attempt has been made to investigate the main factors that increase this cooperation as well as the factors that hinder it. An important role is also paid to the identification of factors that motivate companies and the challenges they will have to face. The findings of the paper are of interest to the industry, universities and politicians and focus mainly on the mentality and culture of cooperation.

Keywords: *Challenges, Motivational factors, Barriers*

¹ European University of Tirana, Tirana, Albania

² University “Aleksandër Moisiu”, Durrës, Albania

Sustainability and Higher Education: An Efficiency Analysis

Maja Mihaljević Kosor¹ 

Abstract: *Hundreds of universities across the world have signed various charters and agreements committing their efforts towards sustainability. However, there is still limited research on the various means, processes and methods through which sustainability is being fostered in higher education and even less research on the efficiency of achieving SDGs. The use of Data Envelopment Analysis in higher education and the examination of efficiency in reaching one or more SDGs is more recent, the available data is limited, and thus only a few studies contribute to this field. This paper assesses the efficiency of higher education in the realization of Sustainable Development Goal 4 in 40 European countries. The average technical efficiency of the countries used in this research is relatively high and equal to 0.94. Nine countries emerge as fully efficient with a coefficient equal to 1 in achieving SDG4 while six countries are recognized as worst performing.*

Keywords: *Sustainable Development Goals, Data envelopment Analysis, SDG 4*

¹ Faculty of Economics, Business and Tourism - University of Split, Cvite Fiskovica 5, 21000 Split, Croatia

The Level of Development - Students' Perceptions and Beyond: The Case of Balkan Countries

Vladimir Šimić¹ 

Lena Malešević Perović² 

Abstract: *This paper investigates the level of development in Balkan countries through comparison of the common development indicators. A starting point is the perception of the level of economic development by a group of first year economics students at the Faculty of Economics, Business and Tourism in Split, Croatia. With the students typically not being aware (familiar) of how rich (poor) their country is, this study provides a deeper investigation of the level of development of Croatia and compares it with several countries from the neighborhood. The investigation employs commonly used indicators of economic development - GNI (Gross national income) per capita as usually reported by the World Bank, but also takes into account additional indicators like HDI (Human development index) and life satisfaction indicator. Overall, the study provides an interesting review and comparisons between countries and resolves some misperceptions that are typically present in general public.*

Keywords: *Level of development, Students' perception, HDI index, Life satisfaction*

¹ Faculty of Economics, Business and Tourism, University of Split, Cvite Fiskovića 5, 21000 Split, Croatia

² Faculty of Economics, Business and Tourism, University of Split, Cvite Fiskovića 5, 21000 Split, Croatia

Online Learning during the COVID-19 Pandemic

Silva Kostić¹ 

Nada Ratković Kovačević² 

Marija Zajeganović³ 

Đorđe Dihovičnić⁴ 

Ivana Krulj⁵ 

Dragan Kreculj⁶ 

Abstract: *In the 21st century almost every higher education course includes some type of digital learning. Many universities provide blended, online or e-learning courses. Many LMS platforms are used for online learning and testing students in various fields. Several virtual meeting platforms are used for online learning and communication. The use of these platforms at universities skyrocketed during the Covid-19 pandemic. This paper focuses on teachers' experience and satisfaction with different tools for online learning in comparison with traditional, face-to-face teaching methods. The authors surveyed three academies of applied studies in Serbia. According to the survey, most teachers used online learning platforms as well as virtual meetings during the Covid-19 pandemic and they were satisfied. The results of the survey imply that the majority of teachers find blended learning to be the optimal method of teaching in the future.*

Keywords: *E-learning, Blended Learning, LMS Platforms, Virtual Meeting Platforms*

¹ Academy of Technical and Art Applied Studies Belgrade, Department School of Information and Communication Technologies, Zdravka Čelara 16, Belgrade, 11000, Serbia

² Academy of Applied Technical Studies Belgrade, Department of Computer-Mechanical Engineering, Blv. Zorana Djindjića 152 a, Belgrade, 11070, Serbia

³ Academy of Technical and Art Applied Studies Belgrade, Department School of Information and Communication Technologies, Zdravka Čelara 16, Belgrade, 11000, Serbia

⁴ Academy of Applied Technical Studies Belgrade, Department of Computer-Mechanical Engineering, Blv. Zorana Djindjića 152 a, Belgrade, 11070, Serbia

⁵ Academy of Applied Technical and Preschool Studies, Department Vranje, Filipa Filipovica 20, Vranje, 17500, Serbia

⁶ Academy of Applied Technical Studies Belgrade, Department of Computer-Mechanical Engineering, Blv. Zorana Djindjića 152 a, Belgrade, 11070, Serbia

Successful E-learning: Wishful Thinking or Reality?

Zoran Ježić¹ 

Renee Škulic² 

Abstract: *Technology is developing at an unprecedented pace, and this is affecting the education system as well. This is especially true in the context of the COVID-19 pandemic, the consequences of which we are still feeling. Basically, COVID-19 has accelerated the inevitable change that has already begun and that has received an incredible boost on the way to the introduction of e-learning. In this paper, the authors explore the question of whether e-learning at the University of Rijeka (UNIRI) Constituents' is really at a level where it can be said to be e-learning in the true sense of the word and whether it can be classified as successful. Since e-learning is an upcoming educational trend, it deserves special attention and a concrete assessment of its current status so that policymakers can direct their actions toward improvements. Regardless of the outcome of this research, one thing is very clear: education and educational policy will never be the same again.*

Keywords: *Digital Technology, ICT, Education, UNIRI, SWOT*

¹ University of Rijeka, Faculty of Economics and Business Department of National Economy and Development, Ivana Filipovića 4, Rijeka, 51000, Croatia

² University of Rijeka, Faculty of Economics and Business Department of National Economy and Development, Ivana Filipovića 4, Rijeka, 51000, Croatia

Examining Relationship between Student Achievements and Their Attitudes toward Distance Learning

Dragana Gardašević¹ 

Koviljka Banjević² 

Aleksandra Nastasić³ 

Dragana Rošulj⁴ 

Abstract: *Besides the distance learning has existed for a long time, for a great number of Higher Education Institutions it was the “consequence” of the Covid-19 pandemic. This was the case in HE Sector in Serbia. In some earlier research, the authors of this paper considered students’ performance and their attitudes toward distance learning, separately. The main idea of this study is to investigate the associativity between student attitudes toward distance education and their achievements. The sample included students who attended the same study programme in different years of study. Students’ achievements were measured within courses that were studied in the first, second and third years of the study programme. The survey was conducted at The Academy of Applied Technical Studies Belgrade – Department of Belgrade Polytechnic.*

The obtained results could be useful for present and future research, improvements of the educational process, instructors and stakeholders from this area.

Keywords: *Distance education, Students’ opinions, Students’ efficiency and effectiveness, Statistical analysis*

¹ ATSSB, Department of Belgrade Polytechnic, Katarine Ambrozić 3, Belgrade, Serbia

² ATSSB, Department of Belgrade Polytechnic, Katarine Ambrozić 3, Belgrade, Serbia

³ ATSSB, Department of Belgrade Polytechnic, Katarine Ambrozić 3, Belgrade, Serbia

⁴ ATSSB, Department of Belgrade Polytechnic, Katarine Ambrozić 3, Belgrade, Serbia

Digital Education and a Europe of Migrations

Igor Cvečić¹ 

Abstract: *The smooth and optimistic start of the 21st century stumbled already in the 1st decade with the 2007-2008 financial crises and, after a decade of stabilization, innovation and creation of new opportunities, yet again at the start of the 2nd decade Europe and the whole world is facing tremendous challenges caused by the pandemic, international conflicts and climate change. The rapid changes in technology and substantial economic imbalances, influenced by these challenges, place additional pressure on education and training systems, required skills and jobs necessary for the labour market, as well as migration and demographic trends. The purpose of this paper is to analyse and elaborate on recent migration and labour market trends, their potential outcomes and policy measures which regard especially the digital environment and its interconnectedness with the migration preferences of (young) Europeans.*

Keywords: *Digital skills, Migrations, European Union, Education and competences*

¹ University of Rijeka, Faculty of Economics and Business, Ivana Filipovića 4, 51000 Rijeka, Croatia

Education after the COVID-19 Crisis

Carmen Mihaela Man¹ 

Camelia Slave² 

Abstract: *The COVID-19 pandemic in the spring of 2020 led to the suspension of school courses and universities in Romania in the classic format, face-to-face. The sudden and unplanned transition to online education has created many challenges for students and teachers, who had to adapt to the teaching process and learning in the new communication framework.*

Education systems around the world face a combination of common and unique challenges as following the COVID-19 pandemic. Some countries are beginning to see a slowdown in the growth of the number of active cases, a fact that determines the return to schools and universities. This entails the imposition of a package of measures to determine safety.

Each university considers how it can best implement internationally and nationally recognized protocols regarding sanitation and hygiene standards. Also, how it can support teachers and students in the context of limitations. Certain segments of the population or groups of students, such as the vulnerable and at-risk, will need to be privileged.

The resources available could be reallocated to ensure the preparation of university and school buildings for safety equipment or to better train teachers and teaching assistants.

Keywords: *Covid-19, Crisis, Educational process, Pandemic, University*

¹ University of Agronomic Sciences and Veterinary Medicine of Bucharest, 59 Mărăști Blvd, Bucharest; Romania

² University of Agronomic Sciences and Veterinary Medicine of Bucharest, 59 Mărăști Blvd, Bucharest; Romania

EFQM Maturity Assessment

Maria Vitzilaïou¹

Thaleia Dima²

Michail Glykas³

Abstract: *The paper identifies the approaches of Quality Management Maturity Assessments and proposes the novel Quality Maturity Assessment framework called Glykas Quality Compass (GQC) that evaluates implementation initiatives holistically and comprehensively through a matrix of Critical Success Factors (CSFs) and Enablers. The authors apply the proposed framework in the newly published EFQM Model in order to verify the framework's ease of use and concept validity. The EFQM model criteria were analyzed based on the CSFs and enablers presented in the GQC maturity framework. Based on the results of the analysis, the GQC - EFQM Model correlation table is presented. The results emphasize the importance of the contribution of excellence in improving the quality and performance of organizations that desire long-term results and sustainable value. GQC provides and integrates the CSFs with management principles and organizational resources with business objectives and leads to an integrated framework of quality management and corporate sustainability.*

Keywords: *Glykas Quality Compass (GQC), Quality Management (QM), EFQM, Critical Success Factors (CSFs)*

¹ Department of Financial and Management Engineering, School of Engineering, University of the Aegean, Kountouriotou 42, Chios, 82100, Greece

² Department of Financial and Management Engineering, School of Engineering, University of the Aegean, Kountouriotou 42, Chios, 82100, Greece

³ Department of Financial and Management Engineering, School of Engineering, University of the Aegean, Kountouriotou 42, Chios, 82100, Greece

Industry 4.0 Process-Operations Management Maturity Assessment: A Literature Survey

Anastasia Vlastaridou¹

Christos Mpafas²

Georgios Melidis³

Michail Glykas⁴

Abstract: *The aim is to demonstrate the necessity of evaluating industry 4.0 maturity in order to discover capabilities and opportunities for potential ongoing improvements to company operation management. There will be a thorough review of the literature in the areas of operations management and Industry 4.0. Because there aren't enough tools and terms to help firms assess their attempts to undergo digital transformation, the paper's findings show that they are unable to establish their Industry 4.0 maturity level. It is critical to assess their effectiveness and develop strategies and practices that work by employing evaluation frameworks and models. A digital transformation maturity model is necessary. There is no prior research that offers a comprehensive examination.*

Keywords: *Industry 4.0, Operations management, Maturity assessment, Digital transformation*

¹ Department of Financial and Management Engineering, School of Engineering, University of the Aegean, Kountouriotou 42, Chios, 82100, Greece

² Department of Financial and Management Engineering, School of Engineering, University of the Aegean, Kountouriotou 42, Chios, 82100, Greece

³ Department of Financial and Management Engineering, School of Engineering, University of the Aegean, Kountouriotou 42, Chios, 82100, Greece

⁴ Department of Financial and Management Engineering, School of Engineering, University of the Aegean, Kountouriotou 42, Chios, 82100, Greece

Sport Management Maturity Assessment: Application to Cosma Competencies Scale

Xanthi Tsipoura¹

Spyros Sakellariou²

Michail Glykas³

Athina Tsimpidou⁴

Abstract: *The results of a literature survey on the application of management science fields to sport management are presented. The most prominent Critical Success Factors and Enablers for their achievement, identified in the SM maturity assessment frameworks are specified. Existing published work in sport management per critical success factor and enabler category is also presented thus providing a theoretical basis for their significance in the sport management field. A novel holistic sports management maturity assessment framework is proposed. The framework is based on and includes, a ten-by-ten matrix, the most prominent critical success factors and enablers identified in the literature survey. The proposed framework is then applied to the most known sport management competencies accreditation framework called COSMA. The result of this application is a proposed novel “tracking matrix”. Both the proposed maturity frameworks and the tracking matrix can be used by both academics and practitioners in the SM field.*

Keywords: *Sport management, Maturity assessment, Maturity frameworks, COSMA, Tracking matrix, Human resources management, Operations management*

¹ Department of Financial and Management Engineering, School of Engineering, University of the Aegean, Greece

² Department of Financial and Management Engineering, School of Engineering, University of the Aegean, Greece

³ Department of Financial and Management Engineering, School of Engineering, University of the Aegean, Greece

⁴ Department of Financial and Management Engineering, School of Engineering, University of the Aegean, Greece

Impact of the Ukrainian Crisis on Investments in Online Market in Slovakia

Vlastimír Čobrda¹ 

Abstract: *This article provides a comprehensive analysis of the impact of the Ukrainian crisis on investments in marketing and the online market in Slovakia, in the context of the largest military conflict in Europe since World War II. Given the changing perception of normality in society and the significant impact of economic sanctions against Russia by the EU and the US on the global macroeconomic picture, the paper focuses on the Slovak online market as a relevant case study.*

The article first examines the current state of the online market in Slovakia and the influence of political and economic factors on its development. It is analyzed how economic sanctions and geopolitical tensions, directly and indirectly, affected the business of Slovak companies in various segments.

In the second part of the paper, the needs and opportunities for the improvement of the online market in Slovakia are reviewed, taking into account the current challenges and uncertainties.

As the main goal of this work, the author wants to show how the current crisis, caused by the events in Ukraine, can be successfully overcome by adapting the market to the new rules of business, using the experience and knowledge gained during the crisis years during the Covid-19 pandemic. The paper ends by summarizing the key conclusions and provides recommendations for further development of this topic, to encourage experts, researchers and decision-makers to work together to solve the challenges brought about by the Ukrainian crisis.

Keywords: *Online market Slovakia, Ukrainian crisis*

¹ Comenius University in Bratislava, Faculty of Management, Odbojárov 10, 820 05 Bratislava 25, Slovak Republic

The Effects of E-commerce Cues on Consumers' Purchase Intention

Urszula Garczarek-Bąk¹

Abstract: *The outbreak of COVID-19 has caused havoc changes in consumers' lifestyles. With the increase in the online consumer's purchasing power, retailers have become increasingly willing to develop their e-commerce presence. Compared to traditional retail, e-commerce provides a plethora of options for filtering, classification and the presentation of selected product offers, which can be enriched by various elements. With the plethora of cues and claims, the most critical question is whether and how these signs affect consumer choices. The current research has been aimed at determining the influence of additional symbols (hedonic or utilitarian) to serve as cues that stimulate choices to purchase within an e-commerce context. A study conducted based on a mock-up, online wine store allowed us to demonstrate that by implementing declarative and non-declarative data (measuring the eye movement), we determined how the location of elements related to consumption (glass) and the product's raw material (a bunch of grapes) modify consumer preferences and purchasing choices. Our findings could be taken into account by producers and marketers interested in evaluating the efficacy of food or drink labels to reduce skepticism and thus, provide consumers with convenient choices in e-commerce.*

Keywords: *E-commerce, Hedonic cue, Utilitarian cue*

¹ Poznan University of Economics and Business, Al. Niepodległości 10, Poland

Factors Determining Green Products Purchase Intentions

Nika Rakuša¹

Borut Milfelner² 

Abstract: *The purpose of the study is to determine how different environmentally relevant dimensions perceived by customers can influence the purchase intention of environmentally sustainable (green) products in a sample of Slovenian customers. Our research is based on the theory of planned behavior, which is often used in studies on environmentally sustainable behavior (Lee, 2017), as it was proved that it can successfully predict and explain the variance in voluntary behavior and examine the relationships between individual values, beliefs, attitudes, intentions and actions (Chekima et al., 2016; Bonini and Oppenheim, 2008; Maichum et al., 2016). Arli et al. (2018) found that the factors explained in the theory of planned behavior can significantly predict actual environmentally sustainable consumer behavior in Indonesia. Also, Yadav and Pathak (2017, p. 120) found that the theory of planned behavior can explain Indian consumers' intention to purchase green products. Similar conclusions were made by Wu and Chen (2014, p. 128) and Sreen et al. (2018, p. 185), who found that attitude, subjective norms, and perceived control over behavior have a positive effect on behavioral intention, which in turn has a positive effect on the actual behavior of customers.*

Concerning this, we conceptualized and empirically tested the impact of environmental concerns, environmental knowledge, attitudes towards green products, subjective norms, and perceived behavioral control on the purchase intention of green products.

Data were collected with an online questionnaire. Environmental knowledge and environmental concern scales were adopted from Mostafa (2006), Chen and Chai (2010), Maichum et al. (2016) and Lee (2017, p. 8). The attitudes towards green products, subjective norms, perceived control over behavior, and the intention to buy green products were measured with the scales adopted by Straughan and Roberts (1999), Mostafa (2006), Do Paço and Raposo (201), Wu and Chen (2014), Couto et al. (2016), Maichum et al. (2016), Arli et al. (2018), Lee (2017) and Sreen et al. (2018). A five-point Likert scale was used to measure the constructs. The construct validity and reliability were evaluated with the exploratory factor analysis, and multivariate regression analysis was used to test the proposed hypotheses.

The results show that environmental concern, environmental knowledge, attitudes towards green products, subjective norms, and perceived control over behavior have a positive impact on green product purchase intentions. Environmental knowl-

¹ University of Maribor, Faculty of Economics and Business, Razlagova 14, 2000 Maribor, Slovenia

² University of Maribor, Faculty of Economics and Business, Razlagova 14, 2000 Maribor, Slovenia

edge had the strongest influence in the model, followed by subjective norms, attitudes toward green products, and perceived control over behavior, while the impact of environmental concern on green product purchase intentions was the weakest.

The main implications of the study help us to formulate useful recommendations that will guide marketing managers to the creation of effective marketing strategies for environmentally sustainable products, through which they can speed up or even remove obstacles to environmentally sustainable consumerism, which contributes to solving environmental problems.

Keywords: *Environmental concerns, Environmental knowledge, Attitude towards green products, Subjective norms, Behavioral control, Green product purchase intentions*

Virtual Reality Experience Marketing (Nissan Sakura Case Study in Vrchat Application)

Marcin Gurtatowski¹

Doris Antczak²

Natalia Gluza³

Abstract: *The article aims to analyze the possibility of using virtual reality (VR) technology as an experience marketing tool, enabling the building of ties between the brand and the consumer, based on deep emotions, translating into an increased liking for the company and attachment to its commercial offer. The analysis was based on a literature study on social communication, marketing communication and VR, as well as a case study of the Nissan Sakura electric car brand in the VRChat application, which was launched in May 2022, simultaneously on the Japanese market and in the Metaverse. The analysis of VR technology, carried out on the example of the VR experience „NISSAN SAKURA Driving Island” in the VRChat application shows that VR meets in practice the assumptions of experience marketing and can potentially be an effective tool for shaping attitudes and behaviors influencing the purchasing decisions of consumers on the automotive market. Nevertheless, due to the innovative nature of the tool, it does not currently provide the possibility of reaching a mass audience with the marketing message. The application nature of the work is related to the indication of the conditions, benefits and limitations of the use of VR technology in activities aimed at shaping attitudes and behaviors, influencing the purchasing decisions of consumers in the automotive market. Contrary to the literature in the field of social and marketing communication and the automotive market, which is very wide, issues related to VR technology are the area of interest of only a small group of researchers. Given the growing popularity of VR technology, knowledge of the possibility of using it to shape attitudes and behaviors that influence consumer purchasing decisions in the automotive market may turn out to be valuable both for theoreticians and marketing practitioners.*

Keywords: *Virtual reality, Automotive market, Experience economy, Experience marketing*

¹ Poznan University of Economics and Business; Al. Niepodległości 10, 61-875 Poznań, Poland

² Poznan University of Economics and Business; Al. Niepodległości 10, 61-875 Poznań, Poland

³ Poznan University of Economics and Business; Al. Niepodległości 10, 61-875 Poznań, Poland

The Role of Relationship Marketing in the Period of Digitization of Healthcare

Monika Dobska¹ 

Abstract: *The use of information technology to provide medical services contributes to a better diagnosis of the patient and the application of treatment options, and during the pandemic contributed to the improvement of communication with patients. The breakthrough that has taken place in recent years concerned not only technological challenges but more mental ones. The barrier has been overcome. On the one hand, technology has become a lifesaver for patients who, separated by geographic space from doctors, could use a medical service. In many cases, these were life-saving contacts. On the other hand, the transition to the side of technological contact eliminated the direct relationship between the professional and the patient, the most important element in the sphere of services, the lack of which has so far been considered a sign of dehumanization of medicine. In the breakthrough that has taken place, we can find positive and negative elements: advantages and disadvantages. It is worth asking the question: in which situations will the technological revolution help, and in which it will direct us on the wrong path, of lack of understanding and loss of the patient in the cavernous spaces of the health care system? Certainly: pandemics, wars, catastrophes, or extraordinary situations, will force extraordinary solutions. Despite the dynamic development of telemedicine and attempts at model assessment, decision-makers in healthcare systems ask themselves the question: should this form of service provision be perceived and included as an addition or should it become a basic element of a modern system of providing health services? How does the role of telemedicine fit into the continuum of care delivery, from prevention, diagnosis, treatment, monitoring, observation and care? The questions posed lead to further considerations on the evaluation of access, quality and costs.*

The main goal of the article will be to answer the question of whether relationship marketing can play a significant role in the era of digitization of healthcare.

Recognition of the determinants of digitization in healthcare, deepened by literature studies, became the basis for the formulation of the thesis: The radical change in the form of providing medical services, through IT technologies, influenced the organization and management of entities and the nature of the professional-patient relationship. The role of relationship marketing becomes important, breaking the asymmetry between the doctor and the patient.

To justify the above thesis, arguments relating to the descriptive and diagnostic dimensions were used, including:

1. *Characterization and discussion of the definition of terms used in the digitization process in healthcare.*

¹ Poznań University of Economics and Business; al. Niepodległości 10, Poznań

2. *Indication of the areas of application of telemedicine in individual medical disciplines.*
3. *A critical review of the literature and an attempt to evaluate the work done so far and the level of research in terms of effectiveness, cost and evaluation of systems on the part of users.*
4. *Characterization of solutions used so far in the field of digitization (with a preliminary assessment).*
5. *Indication of the key role of relationship marketing in the light of empirical research.*

Keywords: *Digitization of health care, Relationship marketing*

Banking Marketing Practices during the COVID-19 Pandemic: A Literature Review

Katerina Fotova Čiković¹ 

Abstract: *The emergence of the COVID-19 pandemic in early 2020 has left a mark in every industry and every sector globally. Its impact has been largely researched, measured and evaluated. Current banking literature mainly focuses on the impact of COVID-19 on banks' performance, efficiency or profitability. However, studies on the impact of COVID-19 on banking marketing are limited. Therefore, this systematic review has the objective to fill in this gap and investigate the impact of COVID-19 on banking marketing practices. A systematic search of the online Scopus scientific database has been conducted, with no restrictions to language, date of publication or study design. The keywords „BANK“, „MARKETING“ and „COVID-19“ have led to 20 papers published in Scopus-indexed journals. A total of 9 academic literature articles regarding banking marketing during the COVID-19 pandemic were identified and analysed using the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) principles. The findings of a total of 9 papers are presented in a narrative synthesis. The review aims to gain new insights into the impact of COVID-19 on the banking industry and especially on banking marketing. The main goal of this paper is to identify all the relevant published studies in this area thus far, as well as to present and analyse the findings regarding the impact of COVID-19 on banking marketing practices. Finally, specific literature gaps are identified, and suggestions and guidelines for future work are provided. However, there is a need for further studies at a later stage to understand the overall effect the COVID-19 pandemic had on banking marketing.*

Keywords: *Bank, Marketing, COVID-19, Review, Banking sector*

¹ University North, Trg dr. Ž. Dolinara 1, Koprivnica, Croatia

Determinants and Conditions of Marketing Communication in National Art Museums in Poland

Magdalena Ankiel¹ 

Katarzyna Śmiałowicz² 

Abstract: *The purpose of this study is to determine what hinders Polish national museums from improving their marketing communications and what opportunities museums can take advantage of in this area. According to G. Matt, the environment surrounding cultural facilities today is changing and becoming more demanding. Therefore, creating an image of the museum as a place worth visiting is important, but also not easy. The use of various marketing communication forms and solutions is fundamental to creating the image of the facility. As recent surveys have shown, marketing communications in museums are constantly evolving, but the potential of communication tools is only being used to a limited extent. Even though the literature containing concepts and models for the introduction of marketing communications in museums is quite extensive, the question of why the effectiveness of image-building activities in Polish national art museums is relatively low compared to the other European museums has yet to be answered. This study examines the obstacles and possibilities for introducing modern marketing communications in Polish national art museums from a qualitative research perspective. The method of data collection was qualitative in-depth interviews (IDI) with staff responsible for marketing communication in national art museums in Poland. The recordings were transcribed, and the collected information was analyzed. The analysis revealed the most frequently mentioned barriers to the use of marketing communications by Polish national art museums. The following categories of barriers were distinguished: operational aspects of the activity of national museums in Poland as barriers to their application of coherent marketing communications, financial and legislative aspects of the activity of national museums in Poland as barriers to their application of coherent marketing communications, and political and ideological aspects of the activity of national museums in Poland as barriers to their use of coherent marketing communications. However, it should be remembered that Polish national art museums are diverse in terms of administrative structure, organizational structure, and collections, as well as the quality and consistency of their marketing communications also vary widely. This means that the above barriers affect the institutions surveyed in a variety of ways. The conducted research has shown that national art museums are specific cultural institutions in which the determinants and conditions of shaping image formation differ from other types of organizations. It allowed us to identify barriers, as well as to formulate recommendations and describe good practices used in the surveyed museums.*

Keywords: *Museum marketing, Image creation, Marketing of cultural institutions*

¹ Poznan University of Economics and Business; Al. Niepodległości 10, 61-875 Poznań, Poland

² Poznan University of Economics and Business; Al. Niepodległości 10, 61-875 Poznań, Poland

The Impact of the Sharing Economy and the Circular Economy in Redefining City Logistics Management

Stevan Veličković¹ 

Biljana Grgurović² 

Jelena Milutinović³ 

Abstract: *Each city zone has unique characteristics, so it is not justified to talk about a universal model of city logistics management. When designing logistics processes, decision-makers must meet certain conditions related to environmental protection, reduction of CO2 emissions, noise levels and traffic congestion in urban areas, etc. In addition to the conditions that affect the quality of city life, there are also basic logistical goals that must be met, which relate to the optimization of delivery routes, delivery in a defined time interval, cost savings, more efficient use of transport vehicles and employees, etc. The aim of the paper is to highlight the importance of the circular economy and the sharing economy in redefining logistic functions in urban areas. The advantages of the application of the sharing economy and the circular economy in the field of city logistics management compared to the classic model of city logistics have been analyzed.*

Keywords: *Sharing economy, Circular economy, City logistics management*

¹ Academy of Technical and Art Applied Studies Belgrade, Department School of Information and Communication Technologies, Zdravka Čelara 16, 11000 Belgrade

² Academy of Technical and Art Applied Studies Belgrade, Department School of Information and Communication Technologies, Zdravka Čelara 16, 11000 Belgrade

³ Academy of Technical and Art Applied Studies Belgrade, Department School of Information and Communication Technologies, Zdravka Čelara 16, 11000 Belgrade

The Applicability of the Consolidation Center Concept in the Postal Sector

Jelena Milutinović¹ 

Biljana Grgurović² 

Stevan Veličković³ 

Abstract: *The sudden increase of low-quantity deliveries that must be realized in urban environments requires that measures be found and taken to alleviate inevitable undesirable effects. As a result, the superiority within the sector that the postal/logistic operators have strived for is turning into a need to cooperate to increase efficiency and bettering the image of the socially-conscious sector. The concept of consolidation centers as a specific form of the sharing economy that has the goal of achieving sustainable business operations and wider contributions to the community enables the better organization of delivery; that is, it enables a certain level of adaptability in the last-mile section. The purpose of this paper is to show how consolidation centers can help us leave behind the concept of a high number of regions defined in different ways with a high and unproductive mileage covered by different operators and shift to the concept of minimizing the total mileage of routes covered by a courier/vehicle and maximizing productivity.*

Keywords: *Consolidation center, Postal operators, Optimization, Delivery, Last mile*

¹ Academy of Technical and Art Applied Studies Belgrade, Department School of Information and Communication Technologies, Zdravka Čelara 16, 11000 Belgrade

² Academy of Technical and Art Applied Studies Belgrade, Department School of Information and Communication Technologies, Zdravka Čelara 16, 11000 Belgrade

³ Academy of Technical and Art Applied Studies Belgrade, Department School of Information and Communication Technologies, Zdravka Čelara 16, 11000 Belgrade

An Integrative Approach to Assess the Impact of Switching on the Environment-Friendly Public Transportation System in Urban Area

Paula-Ramona Răchișan¹ 

Abstract: *The purpose of this paper is to investigate the impact of switching from the traditional public transportation system to an environmentally friendly (EF) one, in an interdisciplinary approach. Public transport has a major impact on the economy, environment and health, while its extension driven by urban development, increases the need to make it more sustainable. The general objective of the current research is to assess the process of switching from traditional to EF public transportation from an environmental perspective, completed by a multidisciplinary approach that includes economic, social, and health analyses. Urban public transport is an essential component of our daily lives, yet current transport patterns, dictated mainly by fossil fuel driven motor vehicles, generate a range of environmental, social, and economic costs. For example, transport is responsible for almost a quarter of global energy-related CO₂ with a significant impact on health and the environment. Transport has major environmental impacts in terms of greenhouse gas emissions, local air emissions and noise, while managing congestion more effectively is part of the broader agenda for more sustainable development and better use of resources invested in transport infrastructure. The rapid pace of urbanization, environmental sustainability, aging, migration, fossil fuel scarcity, and globalization are current challenges for the urban public transportation system. At the same time, cities are both the source and the solution for many of today's economic, environmental, and social problems, including the transport field. Therefore, the introduction of green urban transportation systems is of paramount importance to meet these challenges. As part of the efforts to respond to them, at the EU level, a large part of public expenditure to stimulate green growth is directed at transport sector industries and transportation. This article integrates perspectives from the environmental, economic, social, and health areas. The combination of qualitative and quantitative methods in environmental impact and risk assessment, combined with an analysis of the relationship between macroeconomic indicators relevant to current research, such as CO₂ emissions, green transportation, and economic growth, and the relationship to health aspects, bring new data concerning the relationship between exposure to air pollutants and the appearance of respiratory diseases in highly polluted urban areas. The relationship between EF's public transport infrastructure and CO₂ emissions, health impacts of air pollution, environmental degradation, and economic growth is analyzed using macroeconomic and environmental data from the EU level. The main goal of the whole process is to demonstrate a positive impact of EF public transportation in comparison with the current situation, or with other alternatives.*

Keywords: *Environment-friendly, Economic growth, Health impact, Air pollution*

¹ Babeș-Bolyai University, Cluj-Napoca Romania

A Contribution to Analysis of the Space Productivity in a Seaport

Deda Đelović¹

Abstract: *After the general theoretical introduction on port development trends, space productivity is taken into consideration in this paper. As an object of research is selected open storage area at the Dry Bulk Cargo Terminal in the Port of Bar (Montenegro). Some of the group of basic operational features of the Dry Bulk Cargo Terminal are taken into consideration. Based on data series on cargo quantities stored within the open storage area at the Dry Bulk Cargo Terminal, from the period from January 2014 to July 2022, related utilization rates are calculated. In that context, the intensity of the influence of different subjects (port terminal operator, exporter/importer, etc.) on port space productivity is analyzed. The principal direction of actions aiming to increase space productivity at the Dry Bulk Cargo Terminal in the Port of Bar (Montenegro) is identified, too.*

Keywords: *Seaport, Space Productivity*

¹ Port of Bar, Obala 13. jula 2, 85 000 Bar, Montenegro

Elements of Food Security in the Current Geopolitical Context

Mancia Mircea-Sebastian¹ 

Gabriela A. Popoviciu² 

Abstract: *Given the current context - the health pandemic, the armed aggression of a state - the food security of the entire population of the globe is an essential element. Therefore, in this paper, and considering the most relevant and newest articles on food security in Romania and Europe, the authors will try to analyze the effects listed above, following which the problem of providing food to a growing population could be a problem with relentless considerations in the current environment, but also in the sustainability of this situation. Therefore, in the following, the authors will make an analytical approach to the studied ones and they will try to conclude what should happen in crises so that food security represents a landmark on the work agenda of the governors.*

Keywords: *European solidarity, European agricultural model, Global crisis, Green corridors, Agro-Food sector*

¹ University of Oradea, Faculty of Civil Engineering, Cadastre and Architecture, 4 B. St. Delavrancea, 410058, Bihor, Romania

² University of Oradea, Faculty of Civil Engineering, Cadastre and Architecture, 4 B. St. Delavrancea, 410058, Bihor, Romania

Analysis of Agriculture in the European Union

Sandra Mrvica Mađarac¹ 

Zvonimir Filipović² 

Sandra Jurić³ 

Abstract: *With its agricultural policy, the European Union wants to encourage member states to invest in agricultural production, production and promotion of quality agricultural products, care for the environment, development of rural areas, increase market transparency, and encourage innovation in agriculture. The main challenges for agricultural production in the European Union are global market competition, economic and political crises, climate change and rising costs of production factors. The European Union wants to provide support for the sustainable income of agricultural holdings and the stability of the agricultural sector, and it contributes greatly to the financing of agriculture in the member states. In this way, the aim is to ensure the long-term security of the food supply and the agricultural diversity of the member states. The paper states the objectives of the agricultural policy of the European Union, researches and analyzes data on the number of employees in agriculture, the age structure of farmers, the size of agricultural holdings, agricultural and livestock production, fishing and promotional activities of agricultural production in the European Union.*

Keywords: *Agricultural policy of EU, Main challenges for agricultural production, Agricultural and livestock production, Size of agricultural holdings*

¹ College of Applied Sciences “Lavoslav Ružička” in Vukovar, Županijska 50, Vukovar, Croatia

² PIK Vrbovec plus d.o.o., Gospodarska zona 20, Antunovac, Croatia

³ Croatian Health Insurance Fund, Kapucinska 33, Osijek, Croatia

The CAP Needs Finally Reforms and Adjustments to the Current Needs of the EU

Dusan Soltes¹

Abstract: *The paper is dealing with some results of ongoing research that has been conducted at the e-Europe Research and Development Centre at the Faculty of Management, Comenius University of Bratislava in connection with research activities regarding the European Union and its various policies. The results of the research have been showing that the CAP – Common Agricultural Policy as one of the first common policies of the EU has already long ago met all its main objectives i.e. mainly providing enough healthy, cheap, and affordable food for the EU citizens. But at present, it has already been representing a very expensive, inefficient, and in general very controversial and especially towards the new EU member states and their farmers also a discriminatory policy. The paper not only presents some of the above-mentioned main problems but also tries to present some possible solutions to make the contemporary CAP more efficient and less controversial and harmonize it with the current strategies of the EU toward its future. as a knowledge-based economy and information society. In summary, the main solution and reform of the CAP we see is substantially reducing CAP subsidies from the budget of the EU and thus bringing this common policy closer to the basic principles of the Internal market of the EU.*

Keywords: *CAP, Agricultural subsidies, EU budget, Healthy food*

¹ Faculty of Management, Comenius University, Odbojarov 10, Bratislava, Slovakia

Bulgarian Agriculture - Principles, Traditions and Development of the Organic Agriculture

Kristina Petrova-Hristova¹ 

Abstract: *Agriculture as a traditional branch has a strategic importance for Bulgaria, not only because it ensures food security, and creates raw materials for many other industries and sectors of the national economy, but also provides work and income for a significant part of the population in rural areas. When we talk about agriculture as an economic activity we must always consider it in direct correlation with rural areas and their vitality. The sector is among the most dynamically developing in terms of modernization, robotization, digital transformation, also provoked by the ambitious goals related to climate and green challenges on a global scale. Precisely the agricultural sector is at the center of the circular economy and bio-based societies, preservation and development of the regions, and is in close connection with the development of science - from applied to the top - called to carry humanity into the next era. Bulgarian agriculture has deep traditions in society, its history can be traced back in time. But in the circumstances of globalization, facilitating access to imported food, it is important to increase the competitiveness of Bulgarian agricultural products. In recent years, there is more and more talk about ecologically clean production, and Bulgaria is no exception because it is making serious attempts to develop organic agriculture in the country.*

Keywords: *Bulgarian agriculture, Rural areas, Economy, Traditions, Organic agriculture*

¹ Sofia University “St. Kliment Ohridski”, Faculty of Geology and Geography, “Socio-Economic Geography” Department, Tzar Osvoboditel 15, Sofia, Bulgaria

Taxation of Agricultural Sector in Albania

Brunilda Duraj (Zani)¹ 

Viola Theodhori² 

Abstract: *Agriculture contributes about 20% to the Gross Domestic Product in Albania. It is one of the main sectors of the Albanian economy, which supports and impacts other important sectors such as tourism, product processing and exports.*

In the conditions of the globalization of the economy, the free movement of goods and capital, and multilateral and bilateral agreements for the removal of tariff barriers, Albanian agriculture faces the challenges of very strong competition from the countries of the region, EU countries and beyond. In these conditions of strong competition, what can make Albanian agriculture survive, is that its products appear not only in the domestic market and those of the region but also in the international markets of goods and products. The ambitions of our country for the development of intensive, year-round, coastal and mountain tourism, elite and agrotourism, requires the increase of the quantity, quality and lowest possible prices of agricultural and livestock products, in order to avoid the competition of imported goods that can be traded at lower prices.

How should agriculture, farmers, livestock, agricultural and livestock production be stimulated? Should they be incentivized through exemptions from the tax system or should the process of stimulating production through subsidizing the elements of agricultural and livestock production be used more efficiently?

The strategy implemented in our country has strengthened tax exemptions for inputs, agricultural and livestock products, farmers' income, etc. This strategy intends to promote the cooperation of agricultural and livestock production in Agricultural Cooperation Societies by offering minimum tax rates.

Considering the great impact that agriculture has on the economy, especially in the tourism sector, we will deal with the tax policies applied in the agriculture and livestock sector and the effects of tax incentives over the years. The objective is not only to support the farmers and livestock farmers with funds but also to ensure tax relief and stimulate tax treatment for agricultural and livestock production, aiming to increase competitiveness not only in the regional market but also in the EU market, without compromising the quality of the product.

Keywords: *Tax policy, Incentives, VAT*

¹ Univeristy of Tirana, Faculty of Economics, Str. Arben Broci Tirana, Albania

² Univeristy of Tirana, Faculty of Economics, Str. Arben Broci Tirana, Albania

Using Benchmarking in Romanian Food Industry Performance Evaluation

Edina Kulcsár¹
Tibor Tarnóczy²

Abstract: *This study aims to investigate Romanian food industry companies' performance. We carried out the performance analysis using stochastic frontier analysis (SFA). The performance analysis is based on the financial statements of 1 464 Romanian food industry firms between 2018 and 2020. The companies operate in different sub-sectors of the food industry. In contrast to DEA, a non-parametric method, stochastic frontier analysis (SFA) is a parametric method that requires a production function to evaluate efficiency. We used the production function's gross value added as the result variable. The explanatory variables in the efficiency model were raw materials and consumables used, employees' expenses, depreciation and amortization, and other operating expenses. The results of the SFA calculation show that all regression coefficients are significant at less than 0.01% level. Based on the stochastic frontier analysis results, it can be concluded that 87% of the investigated food companies have achieved at least 50% efficiency in all three years. The average efficiency coefficient of all sub-sectors is above 0.66, which can be considered good enough. Then we included in the SFA model some classification criteria as 'z' variables as region, sub-sector, and size – based on the number of employees. Considering these factors, the average efficiency of food industry companies improve significantly by 26.51% in all three years. SFA analysis by sectors shows that companies operating in fruit and vegetable processing have the lowest average efficiency (0.60). The highest efficiency can be observed in other food products (0.71) and milk and dairy (0.69) processing companies. The results suggest that enterprises with more than 250 employees (0.73) and 1-4 employees (0.71) are more efficient than medium-sized enterprises. The efficiency coefficient also shows moderate differences between regions with the lowest and highest efficiency (9.37%).*

Keywords: *Financial performance, Benchmarking, Productivity function, Stochastic Frontier Analysis, Food industry*

¹ Partium Christian University, Faculty of Economics and Social Science, Department of Economics, str. Primăriei, nr. 36, 410209 Oradea, Romania

² University of Debrecen, Faculty of Economics and Business, Institute of Accounting and Finance, Böszörményi út 138, 4032 Debrecen, Hungary

The Chaotic Wheat Producer Price Growth Model

Vesna Jablanovic¹ 

Abstract: *Movements in wheat producer prices are indicators of changes in the fundamentals of supply and demand. This paper creates the chaotic wheat producer price growth model and explains the local stability of the wheat producer price in the period 1991-2020 in the U.S., Germany and the Russian Federation. This paper confirms the stable growth of wheat producer price in those countries in the observed period.*

Keywords: *Wheat, Producer price, Chaos*

¹ University of Belgrade, Faculty of Agriculture, Nemanjina 6, 11081 Belgrade, Serbia

Economic Assessment of Sea Buckthorn Cultivation and Processing in Conditions of Intensive Production

Ľubomír Gurčík¹ 

Zuzana Bajusová² 

Jana Ladvenicová³ 

Abstract: *The cultivation of medicinal plants is a current topic of growing importance. In Europe, but also the world, the demand for high-quality food is constantly growing. Sea buckthorn can be considered a functional food, which is an intermediate step between classic foods and medicines. Sea buckthorn contains a high content of vitamin C, which makes it an ideal helper in the treatment of flu or angina; thanks to the high content of vitamin B, it heals burns, has antiseptic effects, consumption of products from this medicinal plant ensures prevention in the treatment of cardiovascular diseases and cancer, supports digestion, detoxifies the body, purifies and supports the activity of the kidneys and urinary system, reduces high cholesterol, improves memory, has anti-inflammatory effects. In the contribution, we focus on the economic assessment of the cultivation and processing of this superfood in an intensive cultivation method. We modeled two alternatives: "Alternative A" - frozen fruits, "Alternative B" - 100% sea buckthorn juice. Based on the performed analysis, the second alternative is more economically efficient, given that the payback period is before the seventh vegetation year, the internal rate of return is at the level of 35.67% and the net present value reaches the level of 1,379,316 €. In the contribution, we also evaluated the intensity of production based on the resulting indicators (revenues, costs, management result per hectare, average profitability of revenues and costs) with conventional crops grown in the corn production area (wheat, barley, corn). We found that the values of all indicators were more favorable for sea buckthorn.*

Keywords: *Sea buckthorn, Functional food, Static investment assessment methods, Dynamic investment assessment methods, Conventional crops*

¹ Slovak University of Agriculture in Nitra, Tr. A. Hlinku 2, 94976 Nitra, Slovakia

² Slovak University of Agriculture in Nitra, Tr. A. Hlinku 2, 94976 Nitra, Slovakia

³ Slovak University of Agriculture in Nitra, Tr. A. Hlinku 2, 94976 Nitra, Slovakia

Precision Agriculture in Grapevine Plantations

Camelia Slave¹ 

Carmen Mihaela Man² 

Abstract: *Romania is one of the largest wine producers in the world (13th place) and the sixth in Europe, after Italy, France, Spain, Germany and Portugal. In 2018, Romania's wine production is estimated at approximately 5,100,000 hectoliters of wine. In recent years, Romania has attracted many businessmen and wine buyers, one of the reasons being the affordability of vineyard and wine prices compared to other wine-producing countries, such as France, Germany or Italy. The climate and soil composition of the plateau and hill areas make Romania a very suitable country for growing vineyards. The main geographical elements that play an important role in climate moderation are the Carpathian Mountains, the Black Sea and the Danube River. The grapevine, along with wheat, is one of the oldest cultivated plants. The cultivation of the grapevine and the production of wines started in the Black Sea Basin area, due to the favorable climatic and geographical conditions.*

The exploitation of agricultural plantations can be monitored with the help of precision agriculture. Precision agriculture has taken modern agriculture to a new level. This includes many systems designed to ensure differentiated, specific management of agricultural land according to the type of crop, type of soil and sun exposition.

Keywords: *Wine, Vineyards, Maps, Precision agriculture*

¹ University of Agronomic Sciences and Veterinary Medicine of Bucharest, 59 Mărăști Blvd, Bucharest; Romania

² University of Agronomic Sciences and Veterinary Medicine of Bucharest, 59 Mărăști Blvd, Bucharest; Romania

Are the National Cultural Orientations and the Stages in the Development of the Green Economy Interrelated?

Alona Sova¹

Romana Korez Vide²

Maja Rožman³

Abstract: *Green economy, as an environmentally sound, low-carbon economy, brings benefits not only for the natural environment but also for business and society as a whole. Reducing environmental problems and risks and promoting sustainable development are key objectives of the green economy. It is a type of development that seeks to maintain a balance between the three pillars: social, economic, and environmental. Culture is an important supporting pillar of social development. It shapes the identity of a society, and there can be no sustainable development without taking this important factor into account. Most of the Sustainable Development Goals, adopted by the United Nations in 2015, emphasize the role of culture at its core. Culture is recognized as an important factor in the economic, social, and environmental dimensions of sustainable development. The main purpose of this paper is to initiate research on the interconnectedness of national cultural orientations and the stages of green economy development. In the research, we gathered secondary data from 60 countries from different parts of the world. The data for national cultural orientations were collected from the Hofstede insights website, whereas the values for the green economy indicators were gathered from the Green Growth Index Report. The research is based on descriptive statistical analysis. Its findings show that for some green economy indicators, there are statistical differences between different groups of countries with different national cultural orientations. For some indicators, there were no significant differences.*

Keywords: *National culture, Inter-cultural differences, Green economy, Hofstede cultural dimensions, Global Green Growth Index*

¹ Faculty of Economics and Business, Slovenia

² University of Maribor, Faculty of Economics and Business, Slovenia

³ University of Maribor, Faculty of Economics and Business, Slovenia

Introducing Green Infrastructure into Urban Policy Documents – The Case of Croatian Cities

Željka Kordej-De Villa¹ 

Abstract: *More and more cities are coping with the challenges of unsustainable urbanization, degradation, loss of natural capital, climate change, and increased risk of natural disasters. Green infrastructure (GI) and especially urban green infrastructure (UGI) could have a key role in dealing with these development issues.*

The main goal of the paper is to evaluate the role of GI in development strategies, both on national and local levels. The role of GI as a policy tool is analyzed. In addition to national development strategies, the paper reviews the development strategies of several Croatian cities. The four biggest and most developed cities are selected: Zagreb, Split, Rijeka, and Osijek. As the most developed cities in economic terms, they are expected to base their development on new development patterns, including GI.

The paper is structured as follows. After presenting GI and the literature review, the third section discusses national regulation and urban policy documents related to GI. The final section presents some conclusions and some proposals for future research agenda.

Keywords: *Green infrastructure, Urban areas, Policy documents, Physical planning, Croatia*

¹ The Institute of Economics, Zagreb; Trg J.F. Kennedyja 7, 10000 Zagreb, Croatia

The Economic Aspects of Security Related to Technical-Technological Disasters and the Concept of Sustainable Development

Milos Tosovic¹ 

Abstract: *Technical-technological disasters have become an accompanying part of accelerated technological development and the application of complex modern technologies in production processes and various forms of human activity. Their occurrence in certain areas, natural and urban spaces leads to certain consequences for the flora and fauna, which is analyzed separately from the environmental aspect, but also causes damages and minor or major, sometimes very large and irreversible economic consequences for the economy and the population. The relationship between the environmental and the economic component is particularly interesting from an analytical and research point of view because it is linked to different target intentions. Ecology tends to reduce or eliminate the impact on the environment, and economics to ensure certain forms of production, the creation of material goods and services, and the economic development of society and the community. The concept of sustainable development represents the ideal framework for the comprehensive consideration of opposing views, which must partly be reconciled through the need to provide material goods for the work and life activity of man, but also to preserve the environment as a condition of survival. The subject concept includes three key components: the economical, the environmental and the social. As part of the subject analysis, the economic pillar of sustainable development is particularly interesting, which, compared to the classical approach, must undergo significant corrections in order to ensure the accompanying environmental and social sustainability.*

Technical-technological disasters are connected with the accompanying issue of security, both according to the general security approach and according to the point of view of particularly interesting environmental security, as a specific new sub-component of general security. The security issue is connected with the issues of (a) assessment of appropriate risks of technical-technological disasters; (b) planning of preventive measures and activities; (c) undertaking preventive measures and activities; (d) undertaking protective measures; and (e) eliminating the consequences in the event of technical-technological disasters.

The economic aspects of security refer to a two-layer consideration of the cost aspect, which includes: (a) the costs of activities that precede and prevent technical-technological disasters; and (b) the costs of eliminating the consequences of technical-technological disasters. The modern security approach requires undertaking the necessary activities to prevent technical-technological disasters, so the economic analysis of the costs of the first group is of primary importance. They are much smaller and prevent major consequences for people and material goods, as

¹ Faculty of Security Studies, Gospodara Vucica 50, Belgrade, Serbia

well as the working and living environment. The second group of costs is multiple times higher, and it is unavoidable if a technical-technological disaster occurs. Economically, it is partly expressed in money, and partly cannot or is very difficult to quantify, as in the case of loss of human life, destruction of the flora and fauna, or disruption of a harmonious and beautiful natural and living ambiance.

Keywords: *Economic aspects, Security, Environmental security, Technical-technological disasters, Concept of sustainable development*

Child Labor: Case Study Bulqiza Municipality

Nejla Peka¹

Abstract: *Child labor is one of the most serious violations of children's rights in the world. Today, millions of children are subjected to more severe forms of labor, such as trafficking for reasons of exploitation at work, children in a street situation, or forced child labor in agriculture, construction, factories, energy sector like in chromium stocks, etc.*

Also, national and international organizations work in the field of children's rights, as well as the media and other key actors who have a key role to guarantee the realization of rights, have dealt with issues related to the exploitation of children for work and assessed this phenomenon as one of the most serious violations of child rights not only in Albania.

Since all governments are trying to prevent or minimize the labor exploitation of children, it is worth pointing out that in our country efforts have been made. Responsible state mechanisms, both at the central and local level, have progressed in terms of specific actions undertaken to fulfill legal and functional obligations, towards minimizing this phenomenon.

In this research, attention has been paid to the legal framework for children's rights and protection in Albania, where child labor is also included and the institutional structures provided by the legislation and, in particular, responsible state mechanisms for overseeing and fighting the economic exploitation of children. In terms of approximating the legal framework with the best models, Albania has built consolidated primary and secondary legislation. An in-depth analysis of the qualitative data related to the case study, as it is about child labor in the municipality of Bulqiza (a small town in the northern part of Albania), revealed the basic understanding and necessity of promoting and protecting children's rights in Albania.

Keywords: *Children's rights, Child labor, Violence, Convention of the UN for Children's Rights, Legal framework, Units protection of children's rights, Economic factors*

¹ University "Luarasi", Faculty of Law, Department of the Public Law, Tiranë, Albania

Priority Substances in Waters of Albanian Ports

Esmeralda Halo¹

Bledar Murtaj²

Aurel Nuro³

Abstract: *This study was to determine the concentration of organochlorine pesticides, polychlorinated biphenyls, polycyclic aromatic hydrocarbons, and BTEX (benzene, toluene, ethylbenzene and o-, m- p-xylenes) in water samples of Adriatic Sea on the Albanian coastline. These pollutants are classified as priority substances because of their stability and toxicity. Stations near the ports of Durres and Vlora were selected for this study. Durres and Vlora ports are the largest ports in Albania which are processing more than 90% of shipping transport for people and commerce in Albania. Intense ship transport and commercial processing are the main reasons for water pollution in port areas. Water currents and new arrivals from Albanian rivers can influence their pollution. Marine water samples from the ports of Durres and Vlora were taken in for the same stations in two periods, May and July 2022. Liquid-liquid extraction (LLE) and hexane as extracting solvents were used to isolate organochlorine pesticides and PCBs by water samples. PAHs were extracted using two steps LLE technique. Firstly, by using dichloromethane and after that hexane as extracting solvent. Organic phases were dried by using Na₂SO₄ anhydrous. Clean-up procedures were performed by using SPE techniques. After the concentration, the samples were injected in Varian 450 GC equipped with ECD and FID detectors. BTEX was analyzed using HS/SPME technique followed by GC/FID technique. Organochlorine pesticides (mostly their metabolites) were detected almost in all analyzed water for both periods of sampling. The main factors can be their previous use, new arrivals from rivers, and the water currents of the Adriatic Sea. PCBs, PAHs and BTEX were found almost for all analyzed samples. Their presence could be because of anthropogenic factors (intense activity and ship transport) in the port area. The higher level of all pollutants was in July because of the intense ship transport in this period of the year. The higher levels were found inside port areas for both periods. Priority substance levels in water samples of Durres and Vlora ports were higher/comparable with reported levels of them from other stations of the Adriatic Sea (Albania coast).*

Keywords: *Adriatic Sea, Organochlorine pesticides, PCBs, PAH, BTEX, Water analyze, GC/ECD/FID*

¹ Tirana University, Faculty of Natural Sciences, Department of Chemistry, Albania

² Tirana University, Faculty of Natural Sciences, Department of Chemistry, Albania

³ Tirana University, Faculty of Natural Sciences, Department of Chemistry, Albania

