



ECONOMICS OF DIGITAL TRANSFORMATION (EDT) 2023

6th International Scientific Conference
"Perspective on Resilience of Economic Systems"
Economics of Digital Transformation DIGITOMICS

08-10 June, 2023
Opatija, Croatia



Keynote speakers



EDT conference programme

Thursday, June 8th 2023

TIME

5:00 p.m.- 7:00 p.m.

EARLY ONSITE REGISTRATION

Friday, June 9th 2023

TIME

Magnolia

Lovor

Mimosa

8:00 a.m. - 9:00 a.m.

ONSITE REGISTRATION

9:00 a.m. - 9:30 a.m.

OPENING AND CONFERENCE GREETINGS

9:30 a.m. - 10:00 a.m.

INVITED SPEECH

Boris Vujčić, Governor of the Croatian National Bank

10:00 a.m.-10:30 a.m.

KEYNOTE SPEECH

Romain Duval, Assistant Director in the European Department of the IMF
Topic: Taming inflation without a recession: Europe's growth and inflation outlook and its policy implications

10:30 a.m.-11:30 a.m.

PANEL DISCUSSION

Panelists:

Romain Duval, Assistant Director in the European Department of the IMF
Ante Žigman, President of the Board of the HANFA
Davor Zoričić, State Secretary at the Ministry of Finance

11:30 a.m.-12:00 p.m.

COFFEE BREAK

12:00 p.m.- 1:00 p.m.

KEYNOTE SPEECH

Wolfgang Karl Härdle & Cathy Yi-Hsuan Chen
Topic: Crypto Risk: Dynamic Network Perspective

Hoda Mansour

Topic: International business management

SESSION 1

Croatian Health Economics Association workshop (CHEW)

1:00 p.m.- 2:30 p.m.

LUNCH BREAK

2:30 p.m.- 4:00 p.m.

KEYNOTE SPEECH

Henry Horng-Shing Lu

Topic: Statistical Learning for AI Assisted Clinics

SESSION 2

PANEL
ARTIFICIAL INTELLIGENCE
AND SMART CITY

4:00 p.m.- 5:00 p.m.

THE UNGER GLOBAL
PANEL

SCIENTIFIC COLLOQUIUM FOR
DOCTORAL STUDENTS

5:00 p.m.- 8:00 p.m.

SCIENTIFIC COLLOQUIUM
FOR DOCTORAL STUDENTS

8:15 p.m.

GALA DINNER

EDT conference programme

Saturday, June 10th 2023

| TIME | Magnolia | Lovor | Mimosa |
|-----------------------|---|----------------------|---|
| 9:00 a.m. - 10:0 a.m. | KEYNOTE SPEAKER Gazi Salah Uddin Topic: Energy Planning and Modelling in the Age of Uncertainty | | Croatian Health Economics Association workshop (CHEW) |
| 10:00 a.m. -11:0 a.m. | KEYNOTE SPEAKER Kazi Sohag Topic: Financial Stress amid Geopolitical Tensions | | |
| 11:00 a.m. -1:0 p.m. | DOCTORAL PHD WORKSHOPS | SESSION 3 | |
| 1:00 a.m. - 2:0 p.m. | LUNCH BREAK | LUNCH BREAK | |
| 2:00 a.m. - 4:0 p.m. | PHD STUDENTS CONFERENCE | CESEENET PHD SESSION | |

Friday, June 9th 2023

09.00 – 09.30 a.m. OPENING AND CONFERENCE GREETINGS

9.30 – 10.00 a.m. INVITED SPEECH

Boris Vujčić, Governor of the Croatian National Bank, Zagreb, Republic of Croatia

["Croatia in the euro area – process and effects of the euro introduction"](#)

10.00 – 10.30 a.m. KEYNOTE SPEECH

Romain Duval, Assistant Director in the International Monetary Fund, European Department

[Taming inflation without a recession: Europe's growth and inflation outlook and its policy implications](#)

Friday, June 9th 2023

10.30 - 11.30 a.m. PANEL: INTERACTIONS OF FISCAL AND MONETARY POLICY

Moderator:

Sasa Drezgić, Dean of the Faculty of Economics and Business / President of the EDT Program Committee, University of Rijeka, Republic of Croatia

Panelists:

Romain Duval, Assistant Director in the European Department of the IMF

Ante Žigman, President of the Board of the Croatian Financial Services Supervisory Agency (HANFA), Republic of Croatia

Davor Zoričić, State Secretary at the Ministry of Finance

12.00 – 1.00 p.m. KEYNOTE SPEECH

Wolfgang Karl Härdle, School of Business and Economics, Humboldt-Universität zu Berlin and

Cathy Yi-Hsuan Chen, Adam Smith Business School, University of Glasgow

Crypto Risk: Dynamic Network Perspective

Mansour Hoda, College Business Administration, University of Business and Technology, Jeddah

International Business Management

2.30 – 3.00 p.m. KEYNOTE SPEECH

Henry Horng-Shing Lu, National Yang Ming Chiao Tung University, Taiwan

Statistical Learning for AI Assisted Clinics

Schedule for Magnolia

[Online link](#)

Friday, June 9th 2023

3.00 – 4.00 p.m. PANEL: ARTIFICIAL INTELLIGENCE AND SMART CITY

Moderator: **Ana Babić**, Faculty of Economics and Business, University of Rijeka

Panelists:

Henry Horng-Shing Lu, National Yang Ming Chiao Tung University, Taiwan

Srđan Krčo, Metropolitan University - FEFA

Jelena Stanković, Faculty of Economics, University of Niš, Serbia

Chat GPT

4.00 – 5:00 p.m. THE UNGER GLOBAL PANEL

Moderator: **Andrej Krickovic**, Higher School of Economics, Moscow

Panelists:

Roland Vincent Anglin, Dean of the College of Public Affairs and Education, Cleveland State University, Cleveland, Ohio

Sasa Drezgić, Dean of the Faculty of Economics and Business / President of the EDT Program Committee, University of Rijeka, Republic of Croatia

The Unger Program at the Levin College of Public Affairs and Education was founded in 2002 with the mission of catalyzing an educational bridge between Levin College and the University of Rijeka. Today, the program serves to support and foster economic and community development through independent research and civic education and engagement. The Unger Program provides matching funds to the Center for Economic Development's U.S. Economic Development Administration University Center initiatives.

Friday, June 9th 2023

5.30 – 8.00 p.m. SCIENTIFIC COLLOQUIUM FOR THE DOCTORAL STUDENTS

Nada Kaurin Knežević

The dark side of creative self-efficacy: correlation between creative self-efficacy, power position within an organization and the dark triad traits

Halida Sarajlić

Istraživanje čimbenika koji utječu na lojalnost zelenim proizvodima među pripadnicima generacije Z

Martina Marinac

Utjecaj motiva putovanja, očekivane kvalitete usluge i zadovoljstva gostiju na lječilišni te zdravstveni turizam u Republici Hrvatskoj

Marko Lukavac

Analiza faktora ekonomske (ne)održivosti mikro i malih proizvođača u lancu opskrbe hranom u Republici Hrvatskoj

Ivana Licul

Komercijalna diplomacija kao čimbenik internacionalizacije i rasta vrijednosti za mala i srednje velika hotelska poduzeća

Saturday, June 10th 2023

9.00 – 10.00 a.m. KEYNOTE SPEECH

Gazi Salah Uddin, Department of Management and Engineering, Linköping University

[Energy Planning and Modelling in the Age of Uncertainty](#)

10.00 - 11.00 a.m. KEYNOTE SPEECH

Kazi Sohag, Faculty of Economic and Business, University of Rijeka

[Financial Stress amid Geopolitical Tensions](#)

11.00 a.m. – 1.00 p.m. DOCTORAL PHD WORKSHOPS

[Rough Volatility with Correlated Jumps \(Lukas Krain\)](#)

We extend the Rough Fractional Stochastic Volatility model of Bayer et. al. by a Hawkes process in order to account for correlated jumps. Including this characteristic of financial high-frequency data, we try to develop confidence intervals of the day-ahead closing price.

[Energy Savings of The Merge \(Patrick Woitschig\)](#)

We combine the Top-Down and Bottom-Up Approaches to build a statistical estimate of Ethereum's Energy Consumption Pre-Merge. Including the redistribution effect to Ethereum Classic and the remaining PoS energy consumption we estimate the total savings.

[Multifractal Models in Finance \(David Alexander Behrens\)](#)

A brief introduction into fractals and multifractality. Subsequently, examples of its applications in finance are presented.

[Global Variable Importance in the presence of missing values \(Jovanka Lili Matic\)](#)

We investigate variable importance in terms of First order Sobol indices in the presence of missing values. The analysis is narrowed to the analysis complete-case, available-case and inverse probability weighted Sobol indices of linear smoothers.

Friday, June 9th 2023

12.00 – 1.00 p.m. SESSION 1

Chair Person and Reporter:

Bojana Olgic Draženović, Faculty of Economics and Business, University of Rijeka

Muhammad Yahya, Tianqi Luo, Gazi Salah Uddin, Donghyun Park, Shu Tian
Asymmetric Spillover Network in ASEAN Bond Markets Under Uncertainty

Boris Vujčić, Sanja Gongeta
Resilience in Company Law

Robert Matic, Helena Blažić Pečarić
Fiscal decentralization of Local Government: A Comparison of Croatia and EU countries

Barbara Miklič, Helena Blazic Pecaric, Tatjana Stanimirović
Tax compliance and tax avoidance concepts: Bibliometric literature review

Saša Drezgić, Martin Rudelić, Bojana Olgic Draženović
The influence of European Union funds on the regional development of the Republic of Croatia

Friday, June 9th 2023

2.30 – 4.00 p.m. SESSION 2

Chair Person and Reporter:

Ivan Gržeta, Faculty of Economics and Business, University of Rijeka

Milica Latinovic, Sladjana Benkovic, Veljko Dmitrovic

Do gender differences make a difference with fintech implementation?

Francisco Hidalgo, Xiomara F. Quiñones-Ruiz, Athena Birkenberg, Thomas Daum, Christine Bosch, Patrick Hirsch

Techno-governors, agents and terabytes. Examining the politics of digital agriculture

Petra Karanikić

Economic aspect of blockchain technology in intellectual property rights protection

Alemka Šegota

Digital Transformation Performance of the EU Member States

Dario Maradin, Ana Malnar, Josip Dujmović

Ghost work in modern business: opportunities and challenges

Emil Velinov, Pawel Dobrzanski, Sebastian Bobowski

Diversity and Inclusion Strategies in CEE Automotive Firms impact on Firm Performance

Friday, June 9th 2023

4.00 – 7.30 p.m. SCIENTIFIC COLLOQUIUM FOR THE DOCTORAL STUDENTS

Ariana Vela

Utjecaj potpora iz fondova EU-a na rast malih, srednjih i velikih poduzeća

Maja Matanić Vautmans

Socioekonomske nejednakosti u pružanju dugotrajne njege osoba starije životne dobi

Jasena Torma

Determinants of bank dividend policies – the case of publicly listed banks in the cee region

Mario Bambulović

Prikriveni sistemski rizici investicijskih fondova i implikacije za financijsku stabilnost

Marijana Oreb

Utjecaj EU financijskih instrumenata na financijsku uspješnost i zaposlenost sektora malog i srednjeg poduzetništva

Višnja Smoje

Utjecaj samozapošljavanja na unapređenje kvalitete života

Ivan Jurić

Integracija solarnih i hidro potencijala u proizvodnji električne energije Republike Hrvatske

Daniel Zadro

Uloga tehnologije u pružanju personalizirane zdravstvene skrbi: ispitivanje barijera i poticaja za implementaciju suvremenih tehnologija

Joško Marić

Tehnike strojnog učenja u predviđanju kretanja tržišta vrijednosnih papira

Saturday, June 10th 2023

11.00 – 1.00 p.m. SESSION 3

Chair Person and Reporter:

Dejan Miljenović, Faculty of Economics and Business, University of Rijeka

Davorin Balaž

Determinants of health level in EU in the fourth Industrial Revolution

Anupam Dutta, Mohammad Bhuiyan, Gazi Uddin

Do uncertainties impact global renewable energy investments?

Christoffer Wadström & Axel Hedström

Exploring electricity use and production dynamics in Swedish industrial sectors: Interconnections, sector coupling, and industrialsymbiosis for sustainable energy systems

Filip Halldén, Anna Hultberg (on line)

Investing for a Greener Future – A panel quantile regression on the determinants of renewable energy investments

Diamanta Vito, Dejan Miljenović

Sustainability effects of strengthening gender equality processes – the case of women empowerment in Albania

Ivana Jadrić, Jasmina Dlačić, Maja Martinović

Investing in the Quality of the Higher Education Service pays off – Application of TAM model on the HEI sector

Barbara Purkart, Janez Stare

How are disasters reflected in scientific literature?

Hamit Qeriqi, Primož Pevcin

A scoping review of the literature on the strategic planning effectiveness in the public sector

Simona Muratori, Irene Bengo, Davide Chiaroni, Vittorio Chiesa, Alessandro Luè, Jelena Stanković, Marina Stanojević, Silvia Pezzoli, Luca Tamini

Exploring the pillars of business models for smart cities and their applicability in Serbia

Dijana Vuković, Fani Kerum, Florijan Barešić

A correlational analysis of pre-roll video ads on YouTube and the amount of time users spend on YouTube

Nikolina Dukić Samaržija, Andrea Arbula Blecich, Luka Samaržija

Human development and healthcare system sustainability: analysis of relative efficiency between selected countries in Europe

2.00 – 4.00 p.m. CESEENet PhD SESSION

Schedule for Mimosa (CHEW)

Friday, June 9th 2023

10.15 a.m. - 12.50 p.m. SESSIONS

The intention of Croatian nursing students to migrate abroad: a survey of push and pull factors

Presenter: Lana Kordić (University of Split, Croatia)
Discussant: Matt Sutton (University of Manchester, UK)

The effect of physician density on colorectal cancer stage at diagnosis: causal inference methods for spatial data applied on regional-level data

Presenter: Dajana Draganic (University of Oslo, Norway)
Discussant: Luke Munford (University of Manchester, UK)

The impact of the location of the primary care team on the attraction and retention of physiotherapists

Presenter: Galharret Yoann (Université Paris-Est Créteil, France)
Discussant: Igor Francetic (University of Manchester, UK)

Indication-based pricing of the pharmaceuticals in Croatia: A necessary analysis and consideration

Presenter: Ismar Velić (University of Rijeka, Croatia)
Discussant: Sabine Volger (Austrian Public Health Institute)

2.00 - 3.15 p.m. SESSIONS

The effect of potential out-of-pocket payments on drug prices and quantities

Presenter: Christian Schmid (CSS Institute, Switzerland)
Discussant: Rita Santos (University of York, UK)

Voluntary health insurance for long-term care. A comparative study of four European countries specifically focused on the population over 50 yo

Presenter: Kateryna Riabchenko (SUPSI, Switzerland)
Discussant: Valentina Prevolnik Rupel (Institute of Economic Research, Slovenia)

Schedule for Mimosa (CHEW)

Friday, June 9th 2023

3.45 - 5.00 p.m. SESSIONS

Passing on the hot potato. Cost shifting behaviour of Dutch municipalities to the central government

Presenter: Yvonne Krabbe-Alkemade (Vrije Universiteit Amsterdam, Netherlands)
Discussant: Romina Prziklas (University of Pula, Croatia)

Impact of GP practice contracts on quality of care

Presenter: Rita Santos (University of York, UK)
Discussant: Ana Bobinac /University of Rijeka, Croatia)

6.00 - 7.00 p.m. KEYNOTE SPEECH

Aleksandra Torbica

Prof. Aleksandra Torbica, MSc, PhD is the President of the Italian Health Economics Association (AIES) and President-Elect of the European Health Economics Association (EuHEA). She is the Associate Professor at the Department of Social and Political Sciences and until 2023, she was the Director of Centre for Research for Health and Social Care Management (CERGAS) at Bocconi University, Milan, Italy. She holds the MSc degree in Health Economics, Management and Policy from Bocconi University and PhD in Economics and Management of Public Organizations from University of Parma.

Schedule for Mimosa (CHEW)

Saturday 10th June 2023

09.00 - 10.15 a.m. SESSIONS

Hit Where It Hurts: Healthcare Access and Intimate Partner Violence

Presenter: Judit Vall Castello (Universitat de Barcelona, Spain)

Discussant: Maarten Lindeboom (Vrije Universiteit Amsterdam, Netherlands)

Challenging the Suitability of QALY as a Measure of Healthcare Outcomes and Resource Allocation:
Evidence from a Discrete Choice Experiment in Slovenia

Presenter: Marko Ogorevc (Institute of Economic Research, Slovenia)

Discussant: Zia Sadique (London School of Hygiene and Tropical Medicine, UK)

10.25 a.m. - 12.15 p.m. SESSIONS

The impact of primary care networks' introduction on emergency hospitalisations: interrupted time
series analysis

Presenter: Lana Kovacevic (Imperial College London, UK)

Discussant: Lana Kordić (University of Split, Croatia)

The Impact of the UK Hospitals Procurement Type on Facility Management Costs

Presenter: Alena Podaneva (University of Luxembourg, Luxembourg)

Discussant: Rachel Meacock (University of Manchester, UK)

The association of comorbid dementia with length of stay, cost and mortality among older adults in
US acute hospitals: An observational study

Presenter: Stephen O'Neill (London School of Hygiene and Tropical Medicine, UK)

Discussant: France Portrait (Vrije, Universiteit Amsterdam, Netherlands)

Schedule for Mimosa (CHEW)

Saturday 10th June 2023

12.15 - 1.15 p.m. KEYNOTE SPEECH

Joan Costa-Font

Professor Joan Costa-i-Font is a Professor of Health Economics, the team leader of the Ageing and Health Incentives Lab (AHIL), and a faculty associate of the International Inequalities Institute at the London School of Economics. He is a network research fellow at CESifo (since 2008), HEDG (since 2007) and IZA (since 2017). He has taught at the University of Barcelona, Università Cattolica, and Paris Dauphine, and has held visiting research positions at the University of Munich (2008), Oxford University (2009), Boston College (2013) and UCL (2016).

1.15 - 1.20 p.m. Closing remarks



BOOK OF ABSTRACTS



SESSION 1

Friday, June 9th 2023

Muhammad Yahya, Associate Professor, Norwegian University of Life Sciences, School of Economics and Business, Ås, Norway

Tianqi Luo, PhD Student in Business, Trinity College Dublin, Trinity Business School, College Green, D02XT04, Dublin, Ireland

Gazi Salah Uddin, Biträdande (Senior Associate) Professor, Linköping University, Department of Management and Engineering, Linköping, Sweden

Donghyun Park, Asian Development Bank, Economic Research and Regional Cooperation Department, Philippines

Shu Tian, Asian Development Bank, Economic Research and Regional Cooperation Department, Philippines

Asymmetric Spillover Network in ASEAN Bond Markets Under Uncertainty

Over recent decades, the Association of Southeast Asian Nations (ASEAN) financial markets have increasingly integrated with regional and global markets. This integration, coupled with robust trade connections and interdependence, amplifies vulnerability to global shocks that can destabilize local financial systems. These shocks can impose asymmetric and nonlinear effects on financial and commodity markets. This paper investigates and quantifies the bond market spillover linkages between ASEAN and major global and regional markets while identifying the factors influencing these spillover dynamics. We develop a risk spillover measure that incorporates features of both static and dynamic spillover models and assess its function in transmitting or absorbing shocks through various information channels.

Our findings emphasize that domestic connectedness dominates the network in the absence of significant trends, with spillover risk being stronger under pessimistic market expectations. U.S. bonds emerge as the primary risk net exporters across all panels, and a substantial increase in international connectedness is observed following the COVID-19 outbreak. Additionally, we find that ASEAN bonds injected a positive influx into the three major markets during global economic turmoil. Key drivers of connectedness include VIX, Trade Balance, Government Bond Issuance, GPR, and COVID. These findings offer valuable insights for market participants, regulators, and policymakers as they navigate the increasingly interconnected financial landscape.

Keywords: Asymmetric Spillover, Uncertainty, connectedness, ASEAN

SESSION 1

Boris Vujčić, Governor of the Croatian National Bank, Zagreb, Republic of Croatia

Sanja Gongeta, Vice Dean for Scientific Work, Research and International Cooperation. University of Applied Sciences Lavoslav Ružička in Vukovar, Croatia, Ph.D., Asist. Prof., College Prof.

Resilience in Company Law

Resilience is crucial for economic systems to maintain stability and sustainability in the long term. One key factor in building resilient economic systems is the legal framework that governs businesses and corporations. Company law, which sets out the rules and regulations that companies must follow, plays a significant role in creating an environment that supports resilience. For example, company law can ensure that businesses operate transparently and are held accountable for their actions. This can help prevent the kinds of corporate malfeasance that can undermine the stability of the economy as a whole, such as fraud, corruption, or insider trading. By promoting good governance and responsible business practices, company law can create a level playing field that supports the growth and success of all businesses, regardless of their size or sector. The aim of this paper is to answer the question in which ways company law can support resilience and how it can adapt and evolve in response to changing market conditions.

Keywords: Resilience, Company Law, Reforms, Digitalisation

Robert Matić, Postdoctoral Researcher, University of Rijeka, Faculty of Economics and Business

Helena Blažić Pečarić, Full professor – tenured professor, University of Rijeka, Faculty of Economics and Business

Fiscal decentralization of Local Government: A Comparison of Croatia and EU countries

Fiscal decentralization is the shifting of responsibility for the provision of public services and funding sources from the central government to lower levels of government. If properly implemented, fiscal decentralization leads to balance in all areas of public policy and can contribute to economic growth by serving as a tool for realizing resources, stabilizing economic movements, and redistributing income. In addition to the economic benefits, decentralization could lead to greater accountability, transparency and citizen participation, which would improve the level of democracy in society. The aim of the paper is to expand the scientific knowledge on fiscal decentralization, analyze the degree of fiscal decentralization in the Republic of Croatia and compare it with EU member states in order to provide the basis for more efficient economic and state policy decision making that meets the needs of the local population. The results show that the Republic of Croatia is more fiscally decentralized than the EU member states on average. This was examined using the most commonly used measures of fiscal decentralization, i.e. the share of local units; expenditures and revenues in total expenditures of the general government. It should also be noted that the observed data were calculated in accordance with the ESA 2010 methodology and a public debt and deficit. It is necessary to strive for greater fiscal autonomy of local self-government in order to have a sufficient financial base and be able to decide on expenditures related to projects and activities without financial support from the central government.

Keywords: fiscal decentralization, local government, Croatia, EU

SESSION 1

Barbara Miklič, PhD student, University of Ljubljana, School of Economics and Business

Helena Blažić Pečarić, Full professor – tenured professor, University of Rijeka, Faculty of Economics and Business

Tatjana Stanimirović, PhD, Assistant Professor, University of Ljubljana, Faculty of Public Administration

Tax compliance and tax avoidance concepts: Bibliometric literature review

The concepts of tax compliance and tax avoidance as opposing phenomena have become great challenge for governments because of their direct impact on public finance. Since the first studies appeared in the early 1970s, the topic represents a relatively new area of research. The main objective of this paper is to systematically review the literature on concepts of tax compliance and tax avoidance, focusing on the identification of key authors, keywords, and title words and examining the links between studies at the regional and global levels. Methodologically, the research approach is based on bibliometric review methods and the use of Rstudio software. The Elsevier Scopus online database system has been used for data collection. The results reveal quite concentrated structure of authors, keywords, title words, and collaboration networks, especially after the publication of some of the most high-profile studies, such as the study by Kirchler and Bătrâncea (2013), which introduced the Slippery slope model. Regardless of the great variety of factors that influence both concepts, the power of authority and trust in authority seem to be the most studied determinants in the relevant literature.

Keywords: Determinants of tax compliance, Tax compliance, Tax avoidance, Bibliometric analysis

Saša Drezgić, Full Professor, University of Rijeka, Faculty of Economics and Business

Martin Rudelić, Assistant, University of Rijeka, Faculty of Economics and Business

Bojana Olgić Draženović, Associate Professor, University of Rijeka, Faculty of Economics and Business

The influence of European Union funds on the regional development of the Republic of Croatia

The European Union represents one of the more developed areas on a global level, however there are economic differences between countries, so convergence is attempted to be achieved through European Union funds. In addition to regional inequality at the level of the European Union, there are also inequalities within the member states themselves, including the Republic of Croatia. The aim of this paper is to analyse the influence of funds from the European Union on the regional development of Croatia. The analysis was made on a sample of 20 counties and the City of Zagreb in the period from 2013 to 2019. The results of the static panel analysis indicate that the contracted funds from the European Union have an insignificant impact on the regional development of Croatia. Nevertheless, the expected plan of increased absorption in less developed counties is achieved. The above results point to the need for additional absorption capacities and the creation of a more concrete regional development policy, in which European Union funds will be the mean for achieving economic convergence.

Keywords: European Union funds, regional development, convergence

SESSION 2

Friday, June 9th 2023

Milica Latinovic, Assistant Professor, University of Belgrade, Faculty of Organizational Sciences

Sladjana Benkovic, Full Professor, University of Belgrade, Faculty of Organizational Sciences

Veljko Dmitrovic, Associate Professor, University of Belgrade, Faculty of Organizational Sciences

Do gender differences make a difference with fintech implementation?

This research tests the role of the board of directors in banks' innovation process. Also, it tries to determine whether fintech and the size and diversity of boards have an influence on banks' performance.

The sample used in this study consists of cross-sectional data of 46 banks from the Republic of Croatia, Republic of Serbia, and the Republic of Slovenia. Main findings present conflicting results regarding the increasing value potential of fintech. However, the size of the board can improve banks' financial performance. If we look at digital innovation in banks, higher number of males in supervisory board will increase banks fintech offerings.

Masculinity in supervisory board will increase banks innovation. Such results are important for academics and practitioners. Further research should test other corporate governance mechanisms and their role in innovation and banks' financial performance.

Keywords: board size, board diversity, bank, financial performance, fintech

SESSION 2

Francisco Hidalgo, Department of Social and Institutional Change in Agricultural Development, Hans-Ruthenberg-Institute of Agricultural Science in the Tropics, University of Hohenheim,

Xiomara F. Quiñones-Ruiz, Department of Economics and Social Sciences, Institute for Sustainable Economic Development, University of Natural Resources and Life Sciences (BOKU)

Athena Birkenberg, Department of Social and Institutional Change in Agricultural Development, Hans-Ruthenberg-Institute of Agricultural Science in the Tropics, University of Hohenheim,

Thomas Daum, Department of Social and Institutional Change in Agricultural Development, Hans-Ruthenberg-Institute of Agricultural Science in the Tropics, University of Hohenheim,

Christine Bosch, Department of Social and Institutional Change in Agricultural Development, Hans-Ruthenberg-Institute of Agricultural Science in the Tropics, University of Hohenheim,

Patrick Hirsch, Institute of Production and Logistics, University of Natural Resources and Life Sciences (BOKU)

Techno-governors, agents and terabytes. Examining the politics of digital agriculture

This article explores the political dynamics of digital agriculture from a human rights and capabilities perspective. We examine power relations within this innovation system, and their consequences on the lives of farmers, using a normative frame based on the principles of sovereignty and agency, linked to current governance systems emerging around digital agriculture.

Novel forms of data management, the action of smart artifacts, autonomous programs and machines, and the control over technologies and data, originate particular forms of techno-governance that regulate power transactions between different human and cyber agents (farmers, governments, corporations, start-ups, robots, algorithms). The political outcome of this process is not straight-forward.

Digital technologies can expand farmer's agency by means of new technological possibilities; however, processes of hierarchization, surveillance and capitalistic accumulation can be promoted. These processes are not passively experienced, but adjusted and contested through different counter mechanisms. One trajectory does not seek to change the dominant system, but is incorporated into it in the form of laws and voluntary standards, aimed to tame strong expressions of technological domination. A second trajectory, facilitated by collective action of farmer's cooperatives, techno-activists and researchers, propose alternative models for the control of technologies and data, based on notions of solidarity, interdependence and self-determination.

Both trajectories are relevant for protecting farmer's rights and empower them along this innovation process.

Keywords: Digital agriculture, sovereignty, agency, farmers, power

SESSION 2

Petra Karanikić, Associate Professor, University of Rijeka, Department of Biotechnology

Economic aspect of blockchain technology in intellectual property rights protection

Intellectual property rights (IPRs) have an important role in fostering the economic growth and development of every country. Intellectual property rights protection process is a centralized and highly regulative process. The Blockchain technology as one of the disruptive technologies driving the Fourth Industrial Revolution (Industry4.0) can have a positive impact on the improvement of the management and on cost-effectiveness of IPRs protection process. The aim of this paper is to investigate and analyse the current theoretical and empirical state-of-the art of the existing research and trends on economic aspect of blockchain technology implementation on the IPRs protection process. Based on the research results the findings will serve as a basis for creation of recommendations for future research on this topic.

Keywords: economic development and growth, blockchain technology, Industry 4.0, IPRs protection

Alemka Šegota, Full professor, University of Rijeka, Faculty of Economics and Business

Digital Transformation Performance of the EU Member States

One of the most important conditions for increasing the competitiveness of the countries of the European Union is to increase the efficiency of the digital transformation process. There are various reports that evaluate the performance of countries in this process based on selected indicators. What is missing in these reports is that they do not give any indication of changes that would lead to an increase in the efficiency of each country in the process of digital transformation. This paper examines the effectiveness of digital transformation using different models of data evolution analysis, which allows for a comprehensive analysis of efficiency and provides an answer to the question of how inefficient countries can achieve efficiency. This is a widely used method of mathematical programming that maximizes the ratio of results achieved (outputs) and resources invested (inputs) in a process. The analysis was performed based on data from the latest Digital Transformation Scoreboard published by the European Commission. As expected, the efficiency results obtained show significant differences between EU member states. There are also changes that inefficient countries should make to effectively implement digital transformation. The analysis also identified the countries that have achieved the best results and could therefore serve as examples of best practices for inefficient countries.

Keywords: Digitalization transformation, Efficiency, DEA, EU

SESSION 2

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Ghost work in modern business: opportunities and challenges

Modern societies are confronted with enormous changes in the way of life and especially in the functioning of the labour force. In the context of the fourth industrial revolution, new technological phenomena such as artificial intelligence, the Internet of Things, the sharing economy or the platform economy have emerged and will certainly be of crucial importance in the future. Within the framework of the digital labour platform, ghost work has emerged as a new form of work that is becoming more and more important with the development of digital technology and the huge amount of data available every day.

One of the fundamental problems is that ghost workers operate in isolation on a digital device connected to the Internet, where they are assigned a number by a digital gig labour platform that matches them to a task. The objective of this paper is to determine the role of ghost work in the market, its opportunities and challenges.

The research method used in this paper is literature review. The research findings will contribute to a better understanding of the concept of ghost work, its advantages and disadvantages in modern business operations, and provide guidelines for ensuring better working conditions.

Keywords: ghost work, digital labour platform, modern economy

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Diversity and Inclusion Strategies in CEE Automotive Firms impact on Firm Performance

Purpose: The purpose of this study was to investigate the impact of diversity and inclusion strategies on the performance of Central and Eastern European (CEE) automotive firms. The study aimed to examine whether the implementation of diversity and inclusion strategies positively affects the firm performance of small and medium-sized automotive enterprises (SMEs) in Poland and the Czech Republic.

Design: The study employed a qualitative research design, utilizing semi-structured interviews with 20 automotive SMEs in the three countries. The interviews were conducted with top managers and human resource managers to gather data on the implementation of diversity and inclusion strategies and their impact on firm performance. The study used thematic analysis to analyze the interview data and identify themes and patterns.

Methodology: The study analyzed the data using a deductive approach to identify key themes related to diversity and inclusion strategies and firm performance. The study also used a case study approach to provide a detailed analysis of each firm's diversity and inclusion strategy and its impact on firm performance. Finally, the study employed triangulation by using multiple sources of data to validate the findings.

Findings: The results of the study indicated that the implementation of diversity and inclusion strategies positively affects the firm performance of automotive SMEs in Poland and the Czech Republic. The findings suggest that firms that adopt diversity and inclusion strategies have a more engaged and productive workforce, resulting in higher levels of innovation, customer satisfaction, and profitability. The study also found that firms that implement diversity and inclusion strategies experience lower levels of employee turnover and absenteeism, reducing costs associated with recruitment and training.

In conclusion, the study highlights the positive impact of diversity and inclusion strategies on the performance of automotive SMEs in CEE countries. The findings suggest that the implementation of diversity and inclusion strategies can enhance employee engagement, innovation, customer satisfaction, and profitability. The study has implications for managers and policymakers involved in promoting diversity and inclusion in the automotive industry and other sectors. By adopting diversity and inclusion strategies, firms can improve their performance and competitiveness in the global marketplace.

SESSION 3

Saturday, June 10th 2023

Davorin Balaž, Teaching Assistant, University of Rijeka, Faculty of Economics and Business

Determinants of health level in EU in the fourth Industrial Revolution

Sustainable development that includes economic, social and ecological component, puts health in the main focus of all development agendas. Life expectancy represents one of the most important indicators of health. EU policy makers are focused on sustainable development and increasing overall life quality, with focus on prolonging life expectancy. Fourth Industrial Revolution that reshapes and changes the whole world and society in all aspects and areas of human action should enhance to reach such goals. Main objective of this research is to determine the most important drivers of health in EU in the period of the fourth Industrial Revolution. For purposes of this research used methodology is panel GMM two step dynamic estimator for EU countries for the period 2012-2019. The most important findings of this research are that higher pollution negatively affects health, while economic development, institutional framework, globalization and quality of human capital positively affect health.

Keywords: health, life expectancy, EU, the fourth Industrial Revolution, panel GMM

Anupam Dutta
Mohammad Bhuiyan
Gazi Uddin

Do uncertainties impact global renewable energy investments?

Green financing plays a major role in smoothing clean energy development and energy sector decarbonization. Therefore, a large number of studies have investigated different features of socially responsible investments over the last decade. Our study contributes to the standing literature by examining whether and to what extent global renewable energy investments are affected by various uncertainty measures such as crude oil volatility index (OVX), geopolitical risk (GPR), global economic policy uncertainty (GEPU) and climate policy uncertainty (CPU). In order to assess whether these uncertainty indicators impact clean energy investments globally, our sample comprises investment data from several countries including the US, China, Japan and India. Employing the MIDAS regression approach, we find that the information content of all the uncertainty measures is useful for predicting the variations in global renewable energy investments, although the impacts of these measures tend to vary across the countries and regions. Therefore, we can conclude that policymakers and investors should pay special attention to economic, climate and geopolitical uncertainties while financing green innovations.

Keywords: Renewable energy investments; Uncertainty ; Sustainability; Climate change

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Axel Hedström, Graduate Student, Linköping University

Exploring electricity use and production dynamics in Swedish industrial sectors: Interconnections, sector coupling, and industrial symbiosis for sustainable energy systems

In this study, we employ the cross-quantile correlation method to analyse the dynamics of electricity consumption and production in Swedish industrial sectors, aiming to identify interconnections among Swedish industrial sectors. Sweden serves as a representative sample of a highly electrified and industrialised economy, with electricity demand projected to double to over 300 TWh by 2045 due to the development of green industries, such as battery manufacturing, hydrogen generation, and green steel. The findings have implications for developing smart energy systems through sector coupling, Power-to-X technologies, and energy systems integration, influencing the potential for utilising green and inexpensive excess electricity.

By understanding the interconnections of electricity usage and production characteristics of industrial sectors, policymakers and energy experts can devise effective strategies for integrating these sectors into efficient energy systems, enabling the implementation of innovative technologies and approaches for energy storage, demand response, and renewable energy integration. The study explores the significance of coordinating production and manufacturing operations across energy and industry sectors in order to achieve resource-efficient systems through, for example, industrial symbiosis, where different industries collaborate to share resources, reduce waste, and improve energy efficiency. Interlinked industries (industrial symbiosis collaborations) may potentially shape the dynamics of electricity demand in various industrial sectors by creating more integrated systems, optimising resource use, and reducing energy waste.

Moreover, it can encourage the adoption of Power-to-X technologies that utilise excess electricity to produce alternative forms of energy, such as hydrogen or synthetic fuels, addressing the challenge of volatile electricity prices by providing a cross-sector and alternative market for excess electricity. Understanding the potential links between industrial symbiosis and electricity consumption enables policymakers and energy experts to develop more effective strategies for promoting sustainable and efficient energy use across industries.

This may involve promoting collaboration and resource sharing between industries, supporting the adoption of Power-to-X technologies, and developing policies and regulations that incentivise sustainable energy use and industrial symbiosis.

Keywords: smart energy systems, sector coupling, industrial symbiosis, electrification

SESSION 3

Filip Halldén, Master's student, Linköping University, Department of Management and Engineering, Linköping University

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Investing for a Greener Future – A panel quantile regression on the determinants of renewable energy investments

To avoid the worst effects of climate change, we need to end our reliance on fossil fuels and invest in alternative, renewable sources. Despite making up only 25% of total renewable energy investments, public investment is still vital due to its ability to encourage investments through policy measures and programs. In this paper we investigate how institutional quality, together with other macroeconomic variables, affects public renewable energy investments in middle-income countries.

We account for the non-normal distribution of our data by conducting a panel quantile regression analysis for 64 middle income countries. We present the results for the 0.25, 0.50 and 0.75 quantiles, representing countries with low, moderate or high levels of public renewable energy investments. Our main finding is that absence of corruption is a vital factor for public renewable energy investments, regardless of which stage of the renewable energy transition a middle-income country is currently in.

Furthermore, better financial stability will increase these investments as well. We also find that public investors seem to be unaffected by economic policy uncertainty, indicating that these investors play an important role in uncertain times when private investors refrain from investing due to the high uncertainty connected to the irreversibility of these investment projects.

Keywords: quantile regression, panel data, renewable energy investments, public investments, determinants of investments, middle-income countries, corruption

SESSION 3

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Dejan Miljenović, PhD, Assistant Professor, University of Rijeka, Faculty of Economics and Business

Sustainability effects of strengthening gender equality processes – the case of women empowerment in Albania

The aim of this paper is to identify the socio-economic spectrum of sustainability effects that arise when achieving gender equality. The platform of sustainable development is used to deal with different types of priority social problems such as poverty, environmental pollution, population ageing, and gender inequality. In this paper, the authors have used qualitative statistical data to present the sustainability aspects of the women empowerment process in Albania. The research discussion is based on the hypothesis that unequal opportunities for women prevent their full potential in order to contribute to social and economic values, which has negative implications for overall sustainability. The results of the study show that the role of women in some aspects of sustainable development in Albania is insufficiently addressed. Women's empowerment lacks institutional and infrastructural support, while NGOs are far more sensitive and socially active in presenting women's development status. High unemployment, poverty, and low access to economic opportunities further exacerbate the problem of women's social and economic equality. As a fundamental finding, the authors highlight that any case of gender inequality (women or men) is a social risk with multiple negative impacts - especially in terms of sustainable development. Any injustice based on gender represents a missed opportunity for a person (woman or a man) to contribute to national, social, and economic sustainability. The fact that women constitute half of the Albanian population makes the process of women empowerment an imperative part of the development strategies of this country. Therefore, this paper calls for a strong commitment from all national factors to empower women and to use the institutional and non-governmental potential of the country to ensure a more sustainable value based on the process of women's empowerment.

Keywords: equality, women, empowerment, sustainability, social responsibility

SESSION 3

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Investing in the Quality of the Higher Education Service pays off – Application of TAM model on the HEI sector

The hectic pace of life and rapid changes that characterise our society today are reflected in many areas, including education. To successfully respond to the challenges of the environment, which are also characterised by the high level of competition in education, higher education institutions must make more efforts to study the characteristics that influence their students in the decision-making process. The goal of any higher education institution is student satisfaction, as it brings many benefits. With a higher percentage of satisfied students, the likelihood that the same students will choose the same higher education institution when they decide to pursue a higher education degree (or another educational offering at the same institution) also increases. This also results in the number of potentially interested new students, as those who are satisfied act as ambassadors through recommendations among friends, family, and acquaintances. As interest grows, higher education institutions have the ability to select students and attract those with better qualifications, which automatically makes them better. In studying the determinants that can influence students and increase their satisfaction, perceived quality of service is cited as an important determinant. Many previous studies emphasised the influence of perceived level of service quality on student satisfaction, which has a positive impact on student behaviour (as evidenced by the enrolment process or referrals). Considering the importance and recognition of the TAM model in the process of technology acceptance, the authors decided to test the TAM model in the context of the educational field. The TAM model is one of the tools that can be used to measure the acceptance of a new technology based on customer attitudes. To test the TAM model in the context of perceived service quality of higher educational institutions, previously used scales were used and adapted to the research context. The research was conducted at a public university in Croatia in the field of business on a sample of 218 students. A positive correlation was found between perceived quality of service and perceived usefulness of study, as well as perceived ease of study. In addition, the study confirmed the positive correlation between perceived usefulness of study and perceived ease of study with intention to repeat decision during enrolment at a higher educational level. The paper also offer implications for policymakers.

Keywords: perceived service quality, higher education institution, usefulness of study, ease of studying, enrolment intention, TAM model

SESSION 3

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How are disasters reflected in scientific literature?

The article describes the review of crisis and disaster literature published in Scopus, the Elsevier's citation and abstract database, over last 71 years. The review of crisis and disaster literature is part of doctoral disposition Evaluation of institutional care for the elderly in the republic of Slovenia in crisis conditions related to the covid - 19 pandemics. The history and pioneer work of first research centers of crises and disasters is presented in literature review. For bibliometric analysis we were using an open code R studio programme Bibliometrix, the application Biblioshiny.

Keywords: crisis, disasters, covid -19, bibliometric analysis, biblioshiny

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A scoping review of the literature on the strategic planning effectiveness in the public sector

The paper proposal at hand focuses on the analysis of main issues addressed by scholarly debates on advantages and disadvantages of strategic planning and the most critical dimensions that impact the effectiveness of strategic planning in public organizations. The need for a multidimensional approach to the conceptualization of planning system dimensions has been highlighted in the literature by many authors, although there is no clear consensus as to what the most critical dimensions are. This has been further reinforced by the observation, specific for the sector, that although many public organizations have adopted strategic planning processes, there has been an observed lack in the subsequent achievement of intended organizational change, thus observing the ineffectiveness of strategic planning in those organizations. Methodology of the research derives from the systematic review process of the publications from the Social Science Citation Index of Web of Science database to collect data on pros and cons as well as on the effectiveness of strategic planning in the public sector. The established review protocol is based on the three-stage approach; first scrutinizing the publication in journals that focus on strategic planning in public sector organizations, then limiting the sample to journal articles that referenced the effectiveness of strategic planning in public organizations, and then again limiting the sample to journal articles that reference dimensions or set of factors that impact the effectiveness of strategic planning in public organizations. Thus, we have sampled 214, 65 and 28 journal articles respectively, and the last group being further reviewed in detail. The findings of the review highlight the advantages and disadvantages of strategic planning, including improved organizational processes, decision-making, and stakeholder engagement, while also acknowledging challenges related to rigidity and the hindrance of innovation. The result of the review indicate that the most critical dimensions that impact the effectiveness of strategic planning formulation and implementation in public organizations are: the existence of more formalized strategic planning process; materialized multi-layered stakeholder involvement; organizational context in the form of the level of organizational complexity, capacities and resource availability; managerial involvement in strategic planning in the form of direct responsibility; the existence of performance management system within organizations, choice of strategy model; strategy implementation; planning flexibility, innovativeness, and decision-making style. By considering these factors, this study aims to provide a comprehensive understanding of the complexities and nuances that shape the effectiveness of strategic planning in public organizations. Thus, the review provides and important for empirical studies about the main dimensions that impact strategic planning effectiveness in public organizations. Finally, this should serve also for the debates and research on the differences between sectors, as public sector and its organizations have specific, often unique traits.

Keywords: strategic planning, effectiveness, dimensions, public organizations, impact

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Exploring the pillars of business models for smart cities and their applicability in Serbia

This paper focuses on the pillars of business models for smart cities. The paper is based on the project Smart Sustainable District, and outlines what the opportunities and limits of application of some guidelines are in an extra-EU country, Serbia, through the Horizon Europe project URDATA.

The Smart Sustainable District project started in 2021 and one of its outcomes was the publication of a 'white paper' that aims to describe principles, solutions, tools for the realisation of the SSD model in urban areas, constituting a methodological and operational support to public and private actors involved, for urban transformations in the SSD key.

In the paper, objectives, trends, solutions, tools and some good practices are presented for the following three pillars of business models for smart cities:

- Collaborative models and symbiosis, promoting outcome based PPPP (public-private and people partnership), and sustainable co-production and co-management of both material and immaterial resources and goods
- Innovative consumption patterns, including for instance attention to sustainability and local needs, sharing practices, collaborative consumption of goods and services, new “presumption” practices.
- Modular systems for circular economy, an economy based on the maximization of resources over time through the re-design of both the property concept and products and services through their whole life-cycle, including processes and consumption models.

Then, their application in Serbia and specifically in the city of Niš is analysed, also comparing, as a benchmark, Italian and Serbian reference strategies and policies.

Keywords: Smart Cities, sustainability, collaborative models, consumption patterns, circular economy

SESSION 3

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A correlational analysis of pre-roll video ads on YouTube and the amount of time users spend on YouTube

The new version of the Internet platform called Web 2.0 made it faster and easier sharing content and developing two-way communication. Constant advancement and technological inventions, the YouTube platform was created, which turned from an internet service into an influential media which people exploit for various contents and purposes. Using all sources communication is achieved through media content, information is transmitted, everyday life is shown routines and share experiences. YouTube helps in sharing all the above details. Although with the advent of new ways communication and sharing of information, positive and negative sides of opinion appear, society is in ultimately adapts to changes and remains faithful to the medium that best provides it needed information. Since its inception, YouTube has progressed tremendously in terms of its features and capabilities. The aim of the paper is to point out the correlation between pre-roll video ads (which is a subcategory of video ads) and the time that users spend on the platform, and to determine whether there is a risk for the YouTube platform, given that the assumption is that ads affect the decrease in the amount of time that users spend on the platform.

Keywords: Pre-roll video ad, YouTube ad, Social media advertising, YouTube, Video ads

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Human development and healthcare system sustainability: analysis of relative efficiency between selected countries in Europe

The problem of public sector over-indebtedness is particularly pronounced in the health sector. The health sector tends to be too slow, generates huge losses, and is often characterized by inefficient use of available resources. This is particularly pronounced in the public health sector. The objective of this paper is to present a holistic approach to evaluating the efficiency of the health care system. Taking into account Grossman's demand for health and Sen's capability approach, we note that the interrelationship between health, education, and income cannot be neglected when considering health care systems. For this reason, we emphasize the role of human development as an important factor in the efficient use of health care. We examine the relative efficiency of national health care systems in selected European countries using the Window Data Envelopment Analysis approach over a five-year period. From the results and the dynamics of relative efficiency across countries, we find that, on average, pure technical efficiency and volume efficiency have declined significantly.

Keywords: Grossman, Sen, health efficiency, human development, Window Data Envelopment Analysis



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