



IADERA

BOOK OF ABSTRACTS

*International Scientific Conference on Innovation, Artificial
Intelligence, Digitalization, Economics, and Sustainability Research
Association*

09. – 11. October 2024

Zadar



Editors

Sonja Brlečić Valčić

Jurica Bosna

Marija Opačak Eror

Martina Maté

Technical editor

Marijana Jerić

Publisher

University of Zadar

Mihovila Pavlinovića 1

23000 Zadar, Croatia

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ISBN 978-953-331-519-5

Editor's Foreword

Dear readers,

It is our pleasure to present the **Book of Abstracts** from the **IADERA 2024 International Conference**, organized by the University of Zadar. The conference, dedicated to innovation, artificial intelligence, digitalization, economics, and sustainability, brought together distinguished scientists, researchers, and experts from various disciplines, providing a platform for the exchange of ideas, research findings, and best practices.

During the conference, we witnessed thought-provoking and inspiring discussions addressing critical challenges and opportunities facing contemporary society. Topics ranged from sustainable financial solutions, digital transformation, and ethical considerations in artificial intelligence to issues of accessible tourism and sustainability in education. Each contribution enriched our understanding of these complex issues and provided insights into developing sustainable solutions.

This **Book of Abstracts** compiles summaries of all the research presented at the conference, covering a wide array of themes and approaches. Its aim is to serve as a lasting resource and reference point for those engaged in exploring, applying, or addressing questions related to innovation, digitalization, and sustainability.

We extend our heartfelt thanks to the authors, whose research significantly enriched this conference, and to the participants, whose questions and comments fostered fruitful discussions. We are also deeply grateful to the organizing and scientific committees for their hard work and dedication, as well as to our supporters, whose contributions were essential for the realization of this event.

We hope this **Book of Abstracts** will serve as a source of inspiration for future research, innovations, and collaborations among scientists, professionals, and institutions worldwide.

Sincerely,

Sonja Brlečić Valčić, Jurica Bosna, Marija Opačak Eror, and Martina Maté
Editors



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Determinants of the EU-27 international trade in waste

Maja Bašić, Mile Bošnjak, Ivan Novak

University of Zagreb, Faculty of Economics and Business, Croatia

ABSTRACT: Consumption is ever increasing in the developed countries. In the European Union, household consumption expenditure increased on average 4.7% in 2022 compared to 2021, and those levels are higher than the pre-pandemic 2019. Higher consumption is driven by or the result of greater production. The United Nation's Sustainable Development Goal 12 promotes responsible consumption and production, which includes less raw material consumption and greater circularity rate. Although there is a trend in lower raw materials usage in the EU-27 member states, greater secondary material circularity rate has not been achieved since 2017. Subsequently, although a slight decrease in trade in waste has been recorded in 2022 and the EU-27 waste imports are almost on the same level as in 2004, waste exports to non-EU-27 countries increased for 88%. This paper examines the trends in the EU-27 waste imports and export in the period 2004-2023 according to the following categories: paper, plastics, textiles, organic, mineral and metal. Furthermore, it uses the gravity model to depict determinants of waste trade, including per capita GDP, population, GDP, manufacturing wages, sizes of the manufacturing and service sector in GDP, circular material use rate. The significance of the paper is twofold. Firstly, it portrays the trends in EU27 international stance in waste management. Secondly, it provides a foundation for further analysis of waste heaven hypothesis.

Keywords: waste, international trade, circular economy, EU27

The power and risk attitude of Chief Financial Officer

Elżbieta Bukalska

Faculty of Economics, Maria Curie-Skłodowska University in Lublin, Poland

ABSTRACT: The financial strategy should be supportive of the general strategy. This is especially important in turbulent times and in companies implementing innovative solutions. The main person responsible for developing and implementing financial strategy is the Chief Financial Officer. Risk attitude is a psychological dimension that affects executives' financial decisions. Attitude toward the risk of individuals is a non-observable (latent) psychological dimension and it is difficult to measure (see König, 2020). On the one hand, it is commonly accepted that demographic characteristics such as gender, age, and experience might reflect the non-observable values, cognitive base, and especially personal attitude towards risk. Existing empirical research gives evidence, that there is an extra factor affecting the role of CFO – CFO power. There are some CFOs' attributes that make them more or less powerful. However, some attributes of powerful CFOs interact with their demographic characteristics and thus determine the CFO's behavior, financial policy choices, and performance. It happens because, the sources of CFO power are rooted in both his/her demographic characteristics such as gender, age, experience, education, and the CFO's position in the current company. We conduct the research to uncover the demographic profile, power, and risk attitude of CFOs in Poland. We were able to survey 155 CFOs and draw a coherent picture of the scope of duties, attitude toward risk, and impact on financial decisions of surveyed CFOs.

Keywords: CFO power, risk attitude, demographic characteristics, financial strategy, financial decisions

A Systematic Literature Review on Entrepreneurial Intention

Borna Buljan

University of Zadar, Department of Tourism and Communication Studies, Croatia

ABSTRACT: Entrepreneurial behavior has been a significant research focus for over half a century, drawing considerable attention from scholars. Correspondingly, entrepreneurial intention (EI), recognized as the most reliable predictor of planned behavior, has also garnered substantial interest. This paper seeks to provide a systematic literature review (SLR) on EI, offering a comprehensive overview of current research, clarifying dominant trends, and proposing future research directions. The study will adhere to a SLR process, utilizing a four-step methodology adapted from prior entrepreneurship literature reviews. It will identify, evaluate, summarize, and synthesize relevant papers published between 2015 and 2024 within the Scopus and Web of Science databases. The research is guided by two main research questions. First, what are the key characteristics and trends in EI research? Furthermore, this study will seek to find answer also on the question of recommended future research directions and their implications for both research and practice. The findings will provide a comprehensive overview of the central themes and areas prevalent in EI research. Papers will be categorized into primary research areas, with each category's themes and relevant gaps identified. Themes and sub-themes will represent the core concepts, arguments, and connections that form the basis of an article's research questions, constructs, concepts, and/or measurements. These themes will be inductively derived from a holistic understanding of each article. The author will provide answers to research questions and determine possible research gaps that will provide guidelines for potential future research to deepen the understanding of EI.

Keywords: Entrepreneurial intention; entrepreneurial behavior; systematic literature review; thematic analysis

FinTechs in Europe – comparative study

Ewelina Idziak

Kazimierz Wielki University, Law and Economics Faculty, Bydgoszcz, Poland
Azerbaijan State University of Economics, Women Researchers Council, Baku, Azerbaijan

ABSTRACT: This research paper provides a comparative study of FinTech industry in Europe, analyzing their growth, environments across different countries, supported by exemplification. The study examines the chosen sectors within the FinTech industry, for instance payment services, digital banking, blockchain technology etc.. It highlights the differences in market maturity, innovation adoption, and regulatory approaches among European nations and also a gap between business development and legal frameworks. Through qualitative and quantitative analysis, the paper identifies key factors driving the success and challenges faced by FinTech firms in this region. The findings offer valuable insights into how FinTechs are reshaping the financial landscape in Europe, contributing to economic growth, and promoting financial inclusion. The paper also discusses the implications of emerging trends and technologies on the future of FinTech in Europe, providing policy recommendations to foster a supportive ecosystem for sustainable FinTech development. Due to the development trend of the FinTech industry, the findings are crucial for theory and practice.

Keywords: FinTech, Europe, market maturity, innovation adoption, regulatory frameworks, financial inclusion

Impact of Artificial Intelligence on selected social groups in the next 20 years - expected future

Ewelina Idziak

Kazimierz Wielki University, Law and Economics Faculty, Bydgoszcz, Poland
Azerbaijan State University of Economics, Women Researchers Council, Baku, Azerbaijan

ABSTRACT: The article explores the anticipated impact of Artificial Intelligence (AI) on selected social groups in the coming two decades. Particular attention was paid to considering positive (help) or negative (harm) consequences for different demographic groups. As artificial intelligence evolves at an unprecedented pace, its transformative effects are expected to impact many demographic groups in society, but there is a lack of research in such a narrow area. Based on the results of the survey conducted for individual years in the period 2019 – 2021 on a total sample of 120.000 – 130.000 people over the age of 15 around the world by Lloyd's Register Foundation, the results were analyzed. For the purposes of this article, the following demographic groups were distinguished: 15-29 years old, 30-49 years old, 50-64 years old, 65+ years, Female, Male, Richest, Poorest. These groups were selected in order to make an in-depth diagnosis and prediction of the possible future impact of Artificial Intelligence on selected demographic groups. The aim of this analysis is to understand the ways in which artificial intelligence is perceived by selected demographic segments and how it may be assimilated by these segments in the future. Segments are characterized and distinguished, so to show the differences. This findings and prediction will allow to determine the groups most susceptible to the use of AI in decision-making processes in the future. The findings are crucial for both: theory and practice.

Keywords: Artificial Intelligence, demographic groups, social impact, future predictions, decision-making processes

Social entrepreneurship: Lithuanian cases study

Margarita Išoraitė, Gitana Mečėjienė, Jolita Naujalienė
Vilniaus kolegija, Higher Education Institution

ABSTRACT: Social entrepreneurship is a process in which, using business principles, a company is organized and managed in such a way as to achieve social change in society. Whereas a business measures its success solely by the amount of profit, a social business also measures the results of its positive activities in society. The purpose of the article is to examine the theoretical aspects of social entrepreneurship and present an analysis of cases of social entrepreneurship in Lithuania. The article analyses the concept of social entrepreneurship, examines cases of social entrepreneurship in Lithuania, and presents good practices.

Keywords: social entrepreneurship, social responsibility, business principles

Development of sustainable financing in Western Balkan countries

Ornella Jadreškić, Bojana Olgic Draženović, Stella Suljić Nikolaj
University of Rijeka, Faculty of Economics and Business, Croatia

ABSTRACT: The Western Balkan countries are striving to join the European Union, but to achieve this they need to implement numerous reforms. A major challenge is the development of sustainable financing, which is becoming mandatory in the member states of the European Union, while the concept of sustainable financing is still in its early stages in the Western Balkan countries. The green transition is a challenging and long-term process that requires a complete transformation of the current fossil fuel-based model of economic development into a circular economy model and the accompanying application of appropriate infrastructure and technology. The Western Balkan countries are signatories to numerous treaties and strategies to mitigate climate change and are in the process of amending numerous legal measures, but implementation is at a low level. In 2019, the European Union adopted the European Green Deal, which aims to achieve climate neutrality by 2050, and at the same time developed the Green Agenda for the Western Balkans, which provides guidelines for the implementation of the European Green Deal targets aligned with the region's economic and investment objectives. A particular challenge for the Western Balkan countries is their dependence on fossil fuels, as the energy structure of most Western Balkan countries depends on coal-fired thermal power plants, which represent a completely outdated model. The aim of this paper is to determine the level of readiness for a circular economy model for the Western Balkan countries, focusing on the use of sustainable financing models in line with the Green Agenda guidelines to reduce their carbon footprint.

Keywords: Green transition, Green Agenda for the Western Balkans, carbon footprint

Environmental investments in the hotel industry

Nikolina Jukić

University of Zadar, Department of Tourism and Communication Studies, Croatia

ABSTRACT: Hotel industry, as one of the most profitable sectors in the service industry, serves as a significant driver of tourism development. It stimulates the growth of local economies and enhances living standards, thus substantially impacting the community's prosperity. Its impact goes beyond just economic benefits – it also holds deep social significance by promoting service infrastructure development and creating new opportunities for progress. Conversely, the hotel industry consumes a significant amount of water, energy, and consumable materials through its daily operations. It produces substantial carbon dioxide emissions, making a notable direct and indirect environmental impact. The paradox of tourism is evident here, where, on the one hand, the environment significantly defines the tourism product through its attributes and the air and water quality. On the other hand, the impact of tourist activities degrades natural area through resource exploitation and pollution of air, water, and soil. Therefore, sustainable investing is crucial as it involves an approach that considers the environmental, social, and governance aspects of a company's operations. This concept has notably expanded in recent years, with the value of sustainable assets growing to tens of trillions of U.S. dollars, with a tendency for further growth. Expenditures on environmental protection include investments directed at preserving the quality of air, soil, and water, reducing noise, protecting against harmful radiation, waste management, funding for biodiversity conservation and investments in research and development (R&D). Given the rapid growth of investing in sustainable initiatives, this paper will focus on the environmental component of sustainable investments with aim to gain a deeper understanding of the effects on corporate performance in the hotel industry.

Keywords: tourism, hotel industry, environmental investments, corporate performance

Sustainable Tourism Strategies in the era of climate change and digital transformation

Domagoj Karačić¹, Natko Klanac², Matea Milićević³

¹ Faculty of Economics and Business in Osijek

² Croatian Agency for Agriculture and Food

³ Phd Student, Faculty of Economics and Business in Osijek

ABSTRACT: Tourism, as a global industry, faces significant challenges and opportunities in the era of climate change and rapid digital transformation. This paper explores the intersection of sustainability, tourism management, and digital innovation, proposing strategies for the tourism sector to adapt to the growing demands for environmental responsibility and technological advancement. By analyzing current trends, we will examine how artificial intelligence (AI) and digitalization can enhance resource efficiency, reduce the carbon footprint, and improve the overall sustainability of tourism operations. Key case studies from both urban and rural destinations will be presented to showcase best practices in integrating sustainable management with emerging digital tools. The paper will also address the policy framework necessary to support these shifts, emphasizing the role of public-private partnerships in fostering innovation. By combining climate-conscious policies with technological solutions, the tourism industry can evolve toward a more sustainable and resilient future, ensuring long-term benefits for both the environment and stakeholders.

Keywords: sustainable tourism, climate change, digital transformation, tourism management, AI, digitalization, environmental responsibility, policy framework.

Moral Hazard in Subsidized Higher Education: Student Behaviour and Sustainable Economic Outcomes

Goran Karanović¹, Ana Štambuk², Laurentiu Droj³

¹University of Rijeka, Faculty of Tourism and Hospitality Management, Croatia

²University of Rijeka, Faculty of Economics and Business, Croatia

³University of Oradea, Faculty of Economics Sciences, Romania

ABSTRACT: The authors in this study examine the occurrence of moral hazard in the subsidised higher education system (Croatia) focusing on how government subsidies for student costs affect student behaviour and impact economic sustainability. The authors have applied the OLS method to examine whether students who are fully or partly relieved from financial obligations for their tuition and other student costs exhibit moral hazard behaviour. Student moral hazard manifests as failing in their academic obligations. In the model, the authors examined several factors that cause this undesirable behaviour. Moral hazard was measured as the average number of failed courses per academic year. The variables used to test and explain the moral hazard model included income level, rural/urban background of students, financial situation, risky financial behaviour, perceived financial support, and financial attitudes. Using the model, the authors examine how the variables affect the likelihood of students engaging in moral hazard behaviour, with a particular focus on the differences between part-time and full-time students. The main difference between these two groups is that full-time students are heavily subsidised, while part-time students are not, or only to a small extent. It was found that full-time students in particular have a higher tendency to engage in risky behaviour due to their greater dependence on subsidies. In addition, the study looks at the economic consequences of student attrition after graduation when students leave the subsidizing state, which affects long-term economic benefits. The findings inform policy makers on how to optimize the structure of higher education support to mitigate moral hazard and ensure that this support achieves sustainable economic outcomes for both individuals and society.

Keywords: Moral hazard, subsidised higher education, student behaviour, economic sustainability, policy optimization

Crossing borders: An analysis of student development of global cultural awareness in an online international collaborative module

Veronica Kelly

South East Technological University, Ireland

ABSTRACT: Internationalisation is core to the principles of higher education; it provides the opportunity for mobility of staff, students, research, to enhance the reputation of the university (de Witt, 2013). Knight (2008), defines internationalisation in higher education as a ‘Process of integrating an internal, intercultural or global dimension into the purpose, functions and delivery of post-secondary education’. Globalisation, the needs of the economy and society are all key drivers of the need to internationalise in Higher Education while the role of internationalisation for the university has become an industry and source of revenue for the university (de Wit, 2020). Internationalisation is a core element of a university therefore needs to be considered in a more comprehensive manner rather than from a mobility perspective. This research is based on the premise that not all staff or students maybe in a position to engage in international mobility, therefore internationalisation engagement becomes an elite activity. The process of internationalisation needs to be thought of not as solely an outbound/inbound mobility activity but rather as core to the curriculum. The Crossing Borders project developed in Georgia Southern University (GSU). The objective is to engage students in structured online cross-cultural conversations with students from different universities, cultures and countries in order to increase cultural awareness and cultural competency (Wickline, 2012; Wickline et al. 2021). This project has the potential to increase the engagement of at home students and to benefit from the goals of internationalisation. The Crossing Borders project has used the increased capacity and awareness of online tools and skills to introduce students from different countries, ethnic groups and culture to each other. Students engage in a series of guided online conversations/ structured social interactions with students in universities in other countries. The aim of this research is to gather data from students who have engaged in The Crossing Borders Project through a pre-and post-test questionnaire (Appendix 1). Students are based in Ireland, United Kingdom, Belgium and United States. This data will be used to highlight and explore the challenges experienced and the opportunities of online internationalisation at home teaching for students who have participated. The questionnaires will explore intercultural awareness and intercultural competency and have been developed from the work of Deardorff on assessment of intercultural competence (Deardorff 2006). It is anticipated that the outcomes of this study can contribute to a developing body of work on Internationalisation at Home and to developing curriculum strategies to influence intercultural understanding and global awareness.

Keywords: Internationalisation, higher education, intercultural competence, online learning, global awareness

Challenges of human resources management in hotel companies

Tomislav Klarin, Marija Krstić

University of Zadar, Department of Tourism and Communication Studies, Croatia

ABSTRACT: Due to its growth and development in recent years, tourism occupies a significant share in the world economy, and as a labour-intensive activity, it is a significant source of employment. At the same time, the human factor in tourism is crucial for ensuring service quality and customer satisfaction. Additionally, technological innovations aimed at replacing human resources are limited due to the intangible nature of tourism services. Specifically, tourism services rely on the personality, attitudes, behaviour, and other characteristics of human resources, which thus become part of the image of the organization and the services they provide. For this reason, human resource management is key to achieving a competitive advantage and the success of the organization. The hotel industry is particularly important for the development of tourism, especially due to the economic impacts it generates in the destination and the local community. However, seasonality, labour shortages, lower wages, high turnover rates, etc., are some of the issues faced by the hotel industry. In such conditions, managers in the hotel industry must combine different strategies and human resource management skills to compete in the tourism market. Accordingly, the aim of this paper is to identify the challenges faced by managers in the modern operation of hotel companies. To this end, interviews were conducted with managers at various levels in several hotel companies in the Zadar County area. Based on the literature review and research results, recommendations are provided to address challenges in human resource management in hotel industry.

Keywords: tourism, hotel industry, human resource management, human resource management in hotel industry

Accessible tourism as key aspect of a sustainable tourism policy: A case study from Croatia

Vanja Krajinović, Nevenka Čavlek

University of Zagreb, Faculty of Economics and Business, Croatia

ABSTRACT: Accessibility of facilities means that they can be easily used or reached by people with disabilities. However, as there is a growing awareness in society that everyone encounters certain barriers as they get older, more attention should be paid to the concept of inclusive design. This approach is about creating accessible products and experiences that can be used and understood by as many people as possible. In such an environment, it would be much easier to develop accessible tourism products and services that could be offered to both domestic and international tourists. Currently, accessible tourism in Croatia is not reaching its potential, but this state should be analysed from different angles, as its development is not only a matter of tourism policy, but should also be considered from a broader social perspective. Different stakeholders at all levels of governance should be involved in this process, but above all, special attention should be paid to the demand side of the market, the consumers who know and understand best the particular requirements of this specific demand segment. Tourism should be accessible to all people and this inclusion is one of the basic prerequisites for sustainable tourism development in any country. Therefore, the focus of this paper is to analyse the current barriers to the development of accessible tourism in Croatia, but also to provide guidelines for future strategies. The primary research was conducted in two phases – first among people with disabilities and then among the general population. The research results show that accessible tourism in Croatia is not sufficiently developed, although the potential demand for this special interest tourism offers considerable opportunities. However, one of the biggest challenges is the level of public awareness of the specific needs and requirements of this demand segment. Based on these findings, this paper discusses the position of accessible tourism development in the context of sustainable tourism policy in Croatia.

Keywords: accessible tourism, tourism policy, sustainable tourism development, inclusiveness

Ethics and Corporate Social Responsibility as a tool for long-term sustainability and profitability of businesses

Konstantina Manikaki, Persefoni Polychronidou
International Hellenic University, Department of Economic Sciences, Greece

ABSTRACT: In this paper the relation between Business Ethics and the financial viability of business entities is examined. The driving forces of Business Ethics (BE) and Corporate Social Responsibility (CSR) act to create long-term sustainable businesses. The concepts of ethics and BE and how the dimensions of BE contribute to the profitability of firms are indicated. The adoption of CSR practices gives companies a significant competitive advantage in the industry in which they operate. To better understand the importance of CSR, reference is made to the most widely used CSR models as well as the EBEN (European Business Ethics Network) model. The literature review is rich in international level studies on the impact of BE and CSR on business profitability. A very significant proportion of these studies confirm the positive correlation between these variables. The purpose of this paper is to strengthen the research part through conducting quantitative research to the workforce of the companies operating in the prefecture of Serres, Greece. The general conclusion is that the need for the implementation of BE, CSR and corporate governance systems is imperative. It is not enough for a company to only increase its profits, but it must also improve its image and reputation through the adoption of ethical behavior, the implementation of BE systems and its contribution to the protection of the environment

Keywords: Business Ethics, Corporate Social Responsibility, Corporate Governance, Profitability, Financial Sustainability

Multidimensional digital branding model of intangible cultural heritage - example of Croatian lace-making

Ivan Medić, Aleksandra Krajnović, Antonija Ražov
University of Zadar, Department of Economics, Croatia

ABSTRACT: Heritage economics is an under-researched scientific field. On the other hand, with the growing awareness of the importance of valorizing and preserving cultural heritage as an important feature of the cultural and national identity of each country, the question arises of how to brand elements of cultural heritage, thereby strengthening their recognition and visibility, especially for new marketing generations. The problem of insufficient visibility and inadequate branding of cultural heritage is identified especially when it comes to intangible heritage, which is the subject of research in this paper. Namely, it seems that the marketing efforts in the field of heritage branding have so far been made primarily by UNESCO and its list of protected cultural assets. However, elements at the level of national protection often remain in the shadows, which is a problem in the Republic of Croatia as well. The paper examines the branding model of Croatian lace making, considering the fact that in 2009 this traditional Croatian skill was entered on UNESCO's Representative List of the Intangible Cultural Heritage of Humanity under the name *Lace making in Croatia*. The model presented in the paper represents a platform according to which elements of intangible cultural heritage that have not reached the level of UNESCO protection, but are protected at the national level, can be branded. A multidimensional branding model of Croatian lace making is proposed, with a special focus on the stakeholder networking approach. The model consists of the following dimensions: education, events, strengthening of digital presence, cooperation with fashion industry, branding through tourism and sports, branding for youth and children, storytelling and branding based on new experiences and innovative ways of use, as well as co-branding with famous people and influencers. Methodologically, the model was created by a combination of the Delphi method and brainstorming within the author's research team as well as through a focus group of students of the management program at the Department of Economics of the University of Zadar, which was held in the Marketing Management course in May 2024. As a successful case-study, and related to the research topic - lace making, the paper also gives a brief overview of the lightning-fast increase in the popularity of lace and lace products among all generations caused by the Croatian representative at the world-famous Eurosong 2024 Festival, Marko Purišić alias Baby Lasagna. This also proves that through famous people - influencers and other prominent individuals, as well as through the cooperation of various institutions, the power of the brand and its visibility can be significantly increased, especially when it comes to, for young people, neglected and forgotten elements of the national heritage, such as Baby Lasagna done for the Croatian lace brand on an international level.

Keywords:: economics of cultural heritage, branding of cultural products, marketing of intangible heritage elements, lace making, lace making in Croatia, digital branding, Baby Lasagna phenomenon

Climate risk and sustainable economic practices in Croatian insurance industry

Ksenija Milošević, Lidija Pranjić,
PhD students, Libertas International University

ABSTRACT: Every year natural disasters induced by climate change globally cause property damage exceeding hundreds of billions of dollars. As in the most cases such damage is minimally or not at all insured, it is necessary to pay more attention to insurance of damages caused by climate change, that is, to climate risks that may have different influences on insurance companies, depending on the types of risks they insure, strategies for distributing their own investments, company size and etc. At the same time, the Sustainable Development Goals (SDG) were determined by the Sustainable Development Program until 2030, which was adopted by the United Nations in September 2015. Following the aforementioned document, the European Commission in the years that followed passed a series of regulations that established the framework for sustainable development at all levels of society in the European Union, including financial sector, among which the most significant were the Action Plan on Financing Sustainable Growth (2018), the European Green Deal (2019) and the Strategy for Financing the Transition to a Sustainable Economy (2021). Therefore, on the example of the insurance market of the Republic of Croatia, the connection between climate risks and sustainability risks in the operations of insurance companies, as well as branches of insurance companies from the EU operating in the Republic of Croatia, will be pointed out.

Keywords: Sustainable Development Goals, Sustainability risks, Insurance companies, EU branches of insurance companies, Climate risks

Ethical Aspects of Workplace Equality: Students' Perceptions of Gender Equality

Božena Krce Miočić, Barbara Čudina

University of Zadar, Department of Tourism and Communication Studies, Croatia

ABSTRACT: Gender inequality in profit and non-profit organizations is a complex phenomenon studied from various perspectives—sociological, economic, ethnological, psychological, legal and others. In recent decades, research has recorded improvements in gender equality, yet unfortunately, women's inequality remains evident through phenomena such as the "glass ceiling," and through lower salary, job segregation, sexual harassment, and more. Additionally, women are often underrepresented in positions of power and decision-making roles and face greater barriers when attempting to break into traditionally male-dominated fields. In Croatia, recent studies indicate a characteristic polarization of attitudes on the sexism/egalitarianism scale, influenced by variables such as gender, age, level of education and region. Therefore, it is assumed that there is space in Croatian society to encourage a more gender-equal perspective on the relationships between men and women with the goal of improving current conditions. One group of population that will impact this improvement is highly educated young people (students), who will enter the labor market in the coming years and will be in positions of power in the next decade. Based on that, this paper will present the results of a survey on whether students, as young and educated individuals, are patriarchally inclined or if they are still supportive of gender egalitarianism. The survey was conducted using a targeted sample of students from the University of Zadar, employing a structured questionnaire as the measurement tool. The research was carried out online using a snowball sampling method. The data collected via the questionnaire will be coded and tabulated according to the research objectives and analyzed using descriptive and inferential statistical methods to determine students' attitudes and opinions on the current state of gender equality in the workplace and how their beliefs and attitudes may influence their understanding of this complex issue. Based on the results, recommendations will be made for policymakers on how to create equal opportunities for everyone in the workplace.

Keywords: Gender inequality, workplace equality, student attitudes, gender egalitarianism

Determinants that influence the emergence and success of public sector entrepreneurship

Bojan Morić Milovanović, Zoran Bubaš, Matea Cvjetković, Jasmina Mašović
Institute of Public Finance, Zagreb, Croatia

ABSTRACT: Public sector entrepreneurship (PSE) can be described as the implementation of innovative activities that take place in uncertain circumstances and transform business activities to serve the public interest. By introducing creative solutions and adapting to fast-changing environments, public sector organizations can improve the quality of their services and better meet citizens' needs. This, in turn, enhances their performance and the country's economic growth. However, as a relatively new field of study, PSE lacks a thorough understanding of the factors that affect its emergence and success. The manifestations of PSE are often compared to private sector business activities, specifically the entrepreneurial activities of small and medium-sized enterprises. Recent research in PSE emphasizes that the two sectors cannot be accurately compared since they do not operate within the same business contexts or share the same business goals. Thus, this paper aims to provide a detailed analysis of determinants that shape the success of public sector entrepreneurship in particular. These are further qualified as internal and external determinants. Internal elements comprise the organizational structure, decision-making, control, and rewards/motivation, while the external elements include the political context, complexity, dynamism, and munificence. This literature review can lay the groundwork for further empirical studies focusing on Croatian public companies by identifying factors shaping public sector entrepreneurship. The conclusion suggests several topics for future research.

Keywords: Public sector entrepreneurship, innovation, organizational determinants, external determinants

Regional Disparities in Supporting Local Entrepreneurship Case study of Eastern and Western Poland

Elżbieta Ociepa-Kicińska¹, Rafał Czyżycki², Tomasz Skica³, Jacek Rodzinka⁴

^{1,2}Faculty of Economics, Finance and Management, University of Szczecin, Szczecin, Poland

³Department of Entrepreneurship, University of Information Technology and Management in Rzeszow, Poland

⁴Institute for Financial Research and Analyses, University of Information Technology and Management in Rzeszow, Poland

ABSTRACT: The unique socio-economic conditions, the historical context of different regions and the peculiarities of the Eastern part of Poland, which is also the Eastern wall of the EU, may limit the generalizability of the results to other areas in Poland or in other countries. The purpose of this study is to verify whether there are differences in the tools for supporting local entrepreneurship used in Western and Eastern Poland. We are based on a survey conducted among 657 Polish municipalities. Data analysis using statistical methods was based on 4 groups of tools for supporting local entrepreneurship: 1) cooperation with entrepreneurs, 2) finance, taxes, administration, 3) attracting investors and funds from outside and 4) supporting NGOs. On this basis, we verify whether Eastern and Western Polish municipalities use individual support instruments to a similar degree, look for a pattern in this support, and verify whether there is a relationship between the tools used and the level of local entrepreneurship. Analysis of this phenomenon can be particularly helpful for understanding the specific needs and conditions of a given region. This is particularly important when the Polish Eastern Wall is adjacent to areas of armed conflict. These unique contexts determine the need to design support mechanisms dedicated to specific areas.

Keywords: Local entrepreneurship, regional disparities, support tools, municipal policies

Estimating willingness of cruise tourists to pay for the improvement of transportation infrastructure

Marija Opačak Eror, Marina Čačić, Andrea Skejić, Lucija Špoljarić, Andrej Zec, Alisa Žanko
University of Zadar, Department of Tourism and Communication Sciences, Croatia

ABSTRACT: The main purpose of this study is to explore the economic value potentially collected by a future electric tram route that would transfer tourists more efficiently from Gaženica Port to the Zadar city center, which is proposed to be built as means of improvement of transportation infrastructure aimed at mitigating its environmental impact, based on cruising tourists' marginal willingness to pay (WTP). The idea of this research is inspired by recent debate on the issue of how to address environmental concerns over the road congestion especially during peak summer season in the city. Following similar nonmarket valuation studies, a double bounded dichotomous choice contingent valuation method in survey design and data collection was adopted, followed by parameter estimation using the logit model. The support of 86% of respondents was estimated. The economic valuation indicates that the cruising tourists are willing to pay €4.5 per person for a tram ticket, which can be translated into an aggregate of €1,080,000 for cruising tourists in Zadar. By attributing this value information to the electric tram budget, policy makers may be willing to commit to an environmentally sustainable project to address the peak season traffic burden.

Keywords: WTP, cruising tourism, environment, sustainability, infrastructure projects

Analysis of Croatian public procurement notes: Green public procurement as a strategic tool to encourage sustainable food production

Monika Perica

PhD student, Libertas International University

ABSTRACT: Public procurement is recognized as a tool that can encourage sustainable production. It is possible to supply green, ecological, innovative products and services through public procurement. This paper analyzes the opportunity offered to public contracting authorities in the Republic of Croatia in the transformation of the existing economy to a sustainable economy, through the inclusion of SME companies in procurement procedures and the inclusion of various selection criteria, which promote all three sustainability goals. The paper analyzes the procedures of public procurement of food and agricultural products specifically procurement of consumable eggs in the period from 2013 to 2021 in the Republic of Croatia. The research showed that sustainable procurement criteria were used for the first time in 2021- the last observed year. In the procurements that were studied, it can be concluded that the public contracting authorities put a stronger focus on the environmental pillar of sustainability and less or almost none on the economic and social pillar. The research identified the potentials and opportunities that public procurement provides in the transformation of the economy to a sustainable economy. The volume of demand and production is calculated, through which it can be seen that public procurement is a powerful tool that can encourage producers to produce ecological products. In the procurements carried out the contractors are SME companies, mainly producers of food products and they can be the carrier of innovation and transformation of the economy into a sustainable economy. The paper will empirically confirm that public procurement is a powerful tool in the transformation of the economy to a sustainable economy but that is not used enough in the observed period for the observed products in the Republic of Croatia.

Keywords:: Public procurement of food, Green public procurement, Sustainable food, Strategic tool for transformation, SME

Consumer Preferences and Willingness to Pay for Wild-Caught vs. Farmed Fish in Croatia: Aligning Preferences with Blue Economy Sustainability through Data Storytelling

Josipa Perkov, Marijana Jerić, Sonja Brlečić Valčić
University of Zadar, Department of Economics, Croatia

ABSTRACT: As global sustainability initiatives continue to evolve, understanding consumer behaviour regarding fish consumption is vital for advancing Croatia's Blue Economy. This study investigates the preferences and willingness to pay (WTP) of 218 Croatian consumers for wild-caught versus farmed fish, focusing on how socioeconomic factors, quality perceptions, and environmental concerns shape purchasing behaviour. Using data from an online survey, analysed through Spearman Correlation, Kruskal-Wallis tests, and ordinal logistic regression, we found that perceived quality is the primary driver of consumer preference for wild-caught fish. Income levels and consumption frequency significantly influence WTP for these options. Contrary to expectations, consumers who perceive farmed fish as environmentally friendly are less likely to pay a premium for wild-caught fish, suggesting evolving attitudes toward sustainability. A key goal of this study is to present these research findings through data storytelling, blending academic rigor with accessibility to ensure the insights resonate with a broad range of stakeholders. The results suggest that while Croatian consumers value wild-caught fish for perceived quality, promoting the environmental and economic benefits of farmed fish could better align consumer preferences with sustainability goals. This study provides actionable insights for policymakers, industry stakeholders, and the seafood sector, advocating targeted strategies to reshape consumer perceptions and support the Blue Economy.

Keywords: Blue Economy, consumer preferences, willingness to pay, fisheries, aquaculture, sustainability, data storytelling

Measuring the level of digital economy development in Spain and Croatia

Anita Peša¹, Miguel Ángel Latorre Guillem², Andrea Rados Bajlo³

¹Department of Economics, University of Zadar, Croatia

²Universidad Católica de Valencia, Spain

³PhD student, Joint doctoral study of the University of Zadar and Libertas International University

ABSTRACT: This paper examines the contribution of digitalization to economic growth of Spain in comparison with Croatia. The main reason for comparing Spain and Croatia is to measure the effects of digitalization whether such effects depend on the levels of development of the country. The Digital Economy and Society Index (DESI) published by the European Commission is used to explore the potential of the digital economy. This study employs a panel dataset consisting of 5 years from 2015 to 2020 for Croatia and Spain using the regression, studies the influence of the consumption index growth by the purchasing power parity, rate of the unemployment among the active population, government expenditure on education, research and development expenditure on the structural units of DESI. The aim of this paper is to present a comparability analysis between the level of development of the digitalization between Spain and Croatia. The results show that digitalization has a positive contribution to economic growth in both countries.

Keywords: digitalization, DESI, digital economy

What can we learn from crowdfunding campaigns in Croatia?

Anamaria Pojatina, Gabrijela Vidić

University of Zadar, Department of Tourism and Communication Studies, Croatia

ABSTRACT: This paper aims to identify the key factors influencing the success of crowdfunding campaigns in Croatia, with a particular emphasis on communication strategies and the main challenges encountered during campaign execution. The study explores how various crowdfunding models and strategies impact the attainment of financial goals, while also highlighting the obstacles faced by organizations. The research was conducted in 2024 through structured interviews with representatives from six Croatian organizations across different industries. The reward-based model emerged as the most widely used crowdfunding approach, with social media and video campaigns playing a critical role in achieving campaign objectives. This research provides insights into the challenges organizations face at each stage of the campaign—before, during, and after—particularly in terms of insufficient preparation, lack of pre-campaign activities, and limited public awareness of crowdfunding. Despite these challenges, all analyzed campaigns successfully met their goals. The conclusions of this study underscore the importance of thorough preparation, including pre-campaign activities, and the need for continuous communication with donors via digital channels. The findings offer recommendations for enhancing the effectiveness of future crowdfunding efforts in achieving fundraising success.

Keywords: crowdfunding, crowdfunding platforms, project financing, crowdfunding campaign success factors, Croatia

Ethics in adult education: Research into attitudes of adult students on the use of artificial intelligence in educational systems

Dinko Štetić

PhD student, Libertas International University

ABSTRACT: In this paper, the attitudes of adult learners toward the ethical aspects of using artificial intelligence (AI) in educational systems are explored. The development and integration of AI technologies in education raise numerous questions related to privacy, bias, transparency, and accountability, which are key ethical issues in modern education. By using a combination of quantitative and qualitative research methods, data were collected from adult learners enrolled in various educational programs to investigate their perceptions and concerns regarding the use of AI in educational systems. The results show that learners have diverse attitudes towards the application of AI, recognizing the potential benefits in personalization and improving the quality of education, while also expressing concerns about possible negative implications for privacy and ethical standards. This paper contributes to a better understanding of the complexity of ethical issues in adult education, particularly in the context of the increasingly prevalent role of artificial intelligence.

Keywords: ethics, adult education, AI, educational processes

The impact of tourism on „real estate bubble“ – the example of Croatia

Marko Turkalj¹, Antonio Vlahov²

¹Coastventure S.L., 38660 Costa Adeje, Santa Cruz de Tenerife, Spain

²Faculty of Economics and Business Zagreb, University of Zagreb

ABSTRACT: Housing affordability is one of the fundamental social factors that significantly influences the quality of life for the inhabitants of a country. The ability to purchase residential property at an affordable price entails a range of economic benefits such as increased local spending, reduced population outmigration, more job opportunities, and ultimately, a more stable national economy. In the Republic of Croatia, there is a trend of low housing affordability due to the continuous rise in real estate prices. This trend has resulted from the combination of various market phenomena, with tourism being the most significant. Attractive tourist resources and an excellent geographical location have made Croatia one of Europe's leading tourist destinations. With the growing number of visitors and increasing demand from key tourist markets, many have recognized the opportunity of renting private accommodations to tourists as a profitable business. However, the strong interest from many segments of society in renting out private accommodations makes the Croatian economy increasingly dependent on tourism, which could lead to negative effects on the local population. In a country where residents are mostly property owners, there is a significant risk of a sharp decline in property values in the event of a market crash. In the case of mortgage financing, homeowners would then be paying more on their mortgages than the value of their properties, often resulting in foreclosures and loss of real estate. In Croatia, real estate prices, in addition to tourism, are influenced by several other factors such as interest rates, subsidized housing loans, and extremely favorable tax treatment for property owners. As a result of these factors, an environment of high property and rental prices has been created, which disrupts housing affordability. This raises the question of whether a real estate bubble is present in the Croatian market. In this paper, in addition to the impact of tourism, are explored factors that contribute to deepening the crisis and creating negative consequences for the local population. The existence of a real estate bubble has been tested by using machine learning methods. Also in the paper are presented guidelines for ensuring sustainable development.

Keywords: housing affordability, real estate bubble, tourism, Croatia

The Role of Leadership and Fairness in Shaping Employee Satisfaction in Hotels of Zadar County

Jurica Bosna¹, Ivana Vuksan Ćusa¹, Marija Predovan Medić², Anita Bukovec³

¹Department of Economics, University of Zadar, Croatia

²Department of Health Studies, University of Zadar, Croatia

³PhD student, Joint doctoral study of the University of Zadar and Libertas International University

ABSTRACT: Human resource management is crucial for the success of any organization, and employee satisfaction significantly contributes to realizing their potential. This research examines the relationship between leadership styles and organizational justice with employee satisfaction in hotel enterprises in Zadar County. The results show that distributive justice has the greatest positive impact on employee satisfaction, while an autocratic leadership style negatively affects it, decreasing motivation and increasing stress. On the other hand, transformational leadership positively influences satisfaction by motivating employees and involving them in decision-making. Employees in hotels in Zadar County are generally satisfied with their jobs, with a predominant transactional leadership style focused on achieving goals through clearly defined tasks and rewarding success. Managers demonstrate a high degree of interpersonal justice, treating employees with respect and empathy. In conclusion, hotel management in Zadar County is assessed as effective due to its high level of efficiency and respect for employees. However, to increase employee satisfaction in hotel enterprises in Zadar County, management should more frequently adopt a democratic leadership style and work on enhancing distributive justice, as these factors have the strongest positive influence on employee satisfaction.

Keywords: human resource management, employee satisfaction, leadership styles, organizational justice, hotel industry.

Economic Evaluation of Consumer Environmental-Energy Preferences in the Hotel Industry

Konstantinos Velaoras, PhD student
Agricultural University of Athens, Greece

ABSTRACT: This research investigates the economic implications of consumer preferences for environmental and energy-efficient practices in the hotel industry. By utilizing survey methodologies and economic models, the study identifies the critical factors influencing customer choices, such as the adoption of sustainable practices, energy-saving technologies, and eco-friendly certifications. The analysis underscores the growing significance of environmental consciousness in shaping consumer behavior and reveals the potential for hotels to enhance competitiveness through sustainability initiatives. Furthermore, the findings suggest that integrating green practices not only meets guest expectations but also contributes to long-term financial and environmental benefits. These insights provide valuable guidelines for hoteliers aiming to align their services with the evolving preferences of environmentally aware travelers and global sustainability objectives.

Keywords: Environmental preferences, Energy efficiency, Hotel industry, Consumer behavior, Sustainability

Generation Z and the Croatian Labour Market: Navigating Challenges and Opportunities in a New Age

Krešimir Žnidar

PRIZMA CPI, Petra Grgeca, Zagreb, Croatia

ABSTRACT: The contemporary Croatian labour market faces a series of challenges, including rapid technological advancement, shifts in employment patterns, and the evolving nature of work. These issues are particularly relevant for Generation Z, the newest participants in the workforce. Generation Z is characterized by growing up in a digital environment, possessing a unique set of values, and holding specific perspectives on the current labour market and its dynamics. This study examines the relationship between the labour market and Generation Z (students population) using empirical quantitative data collected through a questionnaire focused on the attitudes, expectations, and experiences of this generation. The research addresses key themes such as the impact of job automation and the gig economy on employment opportunities, the importance of work-life balance, and the pursuit of meaningful work. Furthermore, it explores Generation Z's preferences regarding workplace culture, the significance they place on diversity and inclusion, and their attitudes toward traditional and flexible forms of work. By analysing these aspects, the aim is to provide a deeper insight into how Generation Z evaluates the labour market and what they seek in terms of career development and professional fulfilment. The results of this study contribute to a more profound understanding of the unique challenges and opportunities Generation Z faces in today's labour market. By connecting these insights with current trends, the research aims to inform relevant stakeholders about the changing needs and expectations of this generation. The study offers a nuanced perspective on how the labour market can adapt to support Generation Z in achieving sustainable and meaningful employment outcomes.

Keywords: Generation Z, labour market, work-life balance, gig economy, employment expectations, career development

The Transformative Potential of Laser-Induced Breakdown Spectroscopy (LIBS) in Industry 4.0 and Digital Transformation

¹Haider M. Al-Juboori, ¹Syed Zuhaib Haider Rizvi, ²Bettina Eichler-Löbermann, ³Muhammad S. bin Roslan, ⁴Josephine Ying Chyi Liew, ⁵Marcel Ackermann

¹Dept. of Electronics Engineering and Communications, South East Technological University, Carlow, Ireland

²Department of Physics and Chemistry, FAST, University Tun Hussein Onn Malaysia (UTHM), Johor, Malaysia

³Faculty of Agricultural and Environmental Sciences, University of Rostock, D-18051 Rostock, Germany

⁴Department of Science and Mathematics, Universiti Tun Hussein Onn Malaysia, Johor, Malaysia.

⁵Department of Physics, Faculty of Science, Universiti Putra Malaysia, 43400, UPM Serdang, Malaysia

ABSTRACT: As enterprises and businesses evolve through the adoption of Industry 4.0 and digitalization, advanced analytical tools become crucial. Laser-Induced Breakdown Spectroscopy (LIBS), a state-of-the-art technique, is pivotal in this transition. This work explores how LIBS disrupts traditional industries, supports digital transformation, and aligns with Industry 4.0 principles by enhancing material analysis, process optimization, and quality control. Industry 4.0 integrates cyber-physical systems, IoT, and advanced data analytics into manufacturing and other sectors. The aim is to create smart factories characterized by connectivity, automation, machine learning, and real-time data exchange. Precise, rapid material characterization is essential in this context, and LIBS delivers this capability, offering real-time, in situ analysis with minimal sample preparation. In principle, LIBS works by focusing a high-powered laser pulse on a sample, creating a plasma that emits light. The spectrum of this emitted light, characteristic of the sample's elemental composition, is analysed to determine the presence and concentration of elements. This non-destructive technique can analyse solids, liquids, or gases, making it versatile for various industrial applications. The paper will explain an effective system design and roadmap for Laser-Induced Breakdown Spectroscopy (LIBS), which is essential in driving the transformation of traditional industries towards Industry 4.0 and digitalization. Offering rapid, precise, and versatile material analysis, LIBS supports innovations in manufacturing, mining, environmental monitoring, and pharmaceuticals. Worth mentioning, LIBS integration with IoT, big data, and cyber-physical systems amplifies its impact, enabling smarter, more efficient, and sustainable industrial processes. As industries evolve, LIBS technology will play a crucial role in ensuring a seamless and transformative shift to a more intelligent and interconnected industrial future.

Keywords: laser-induced breakdown spectroscopy (LIBS), disruptive technologies transforming traditional industries, digital transformation and industry 4.0, elements identification in soil, environmental sustainability and digital tech

Green Organization - Has it arrived in the company or is it still a vision? An explorative study based on an expert survey on the importance of sustainability and the implementation of sustainability management in companies

Daniela Ludin¹, Christina Arngold³, Meltem Balli⁴, Erika Mueller⁵, Wanja Wellbrock²
^{1,2}Faculty of Economics, ^{3,4}Faculty of Management and Sales, ⁵Sustainability Department
Heilbronn University, Heilbronn, Germany

ABSTRACT: Scientists and activists have been taking part in the sustainability debate for decades and calling for a rethink in politics and society. A change is becoming noticeable that is also having an impact on companies. They cannot avoid dealing with the issue of sustainability, as internal and external stakeholders exert pressure on them due to their interests. Based on an online survey, this explorative empirical study identifies and analyses what companies understand by the term "sustainability" and what importance is currently attached to sustainability management in companies. In addition, the main advantages of sustainable management for companies and obstacles to the implementation of sustainability in companies are also identified. The results of the study show that sustainability is of great importance to the companies surveyed. For the most part, companies have an understanding of sustainability. Reasons for "sustainable entrepreneurship" are based in particular on economic and "green" motives; the main reason is therefore to improve the image of the companies. The main obstacles to implementing "sustainable entrepreneurship" are the time required, the high costs and uncertainty about the economic benefits. The sustainability requirements are hardly or only partially perceived as a burden. Corporate goals and guidelines together form an important factor in establishing sustainability in the organizational culture. Companies voluntarily align themselves partially or completely with standardized environmental management norms.

Keywords: Sustainability, sustainable entrepreneurship, corporate management, barriers to sustainability, environmental norms

Sustainability Education in Elementary Schools - An Explorative Empirical Study of Chances and Challenges Based on a Teacher Survey in Germany

Daniela Ludin¹, Sarah Liebendoerfer³, Erika Mueller⁴, Wanja Wellbrock²

^{1,2} Faculty of Economics, ³Faculty of Management and Sales, ⁴Sustainability Department
Heilbronn University, Heilbronn, Germany

ABSTRACT: The topic of sustainability has become increasingly important in recent decades and has become a key concept in various areas of society. The early integration of sustainability principles into education is of crucial importance, as the elementary school years represent a decisive phase in children's development. During this phase, fundamental values, attitudes, and behaviours are formed that will have a significant impact on their later lives and their relationship with the environment. Elementary school offer a unique opportunity to reach people from different social backgrounds and thus impart a common basic knowledge that can serve as a basis for shaping a sustainable society. Elementary school are therefore an ideal place to introduce children to the principles of sustainability and sensitize them to the challenges of the 21st century. The challenge lies in crafting an effective sustainability education program for children, along with ensuring that teachers are equipped with the requisite knowledge. The aim of the study was to explore the current state of sustainability education in elementary school. It took a closer look at whether elementary school children are old enough to be confronted with sustainability, what methods already exist and what the challenges are in implementing sustainability education. In summary, the research findings provide valuable insights into the current state of sustainability education in elementary schools in Baden-Württemberg, Germany. The survey revealed that sustainability is not consistently integrated into the curriculum, with a significant proportion of respondents indicating limited coverage. However, it is encouraging to see that some schools are actively promoting sustainability through various initiatives and projects. Furthermore, elementary school teachers recognize the importance of sustainability education and express a strong desire to sensitize children to this critical topic from a young age. This consensus among teachers suggests a potential opportunity for educational authorities to prioritize and support the integration of sustainability topics into the curriculum. Despite the willingness of many teachers to raise awareness of sustainability, there is a need for increased access to training and professional development in this area. A substantial portion of respondents reported limited or no opportunities for sustainability focused training, highlighting the need for more comprehensive teacher education in this regard. Challenges and barriers to sustainability education include budget constraints, a lack of appropriate teaching resources, and potential resistance from teachers and parents. These challenges underscore the importance of allocating resources, providing necessary materials, and fostering acceptance within the school community to facilitate the successful integration of sustainability into elementary school education. In conclusion, while there is room for improvement, the survey results suggest a growing awareness of the significance of sustainability education in elementary schools. The findings call for targeted efforts to enhance curriculum integration, teacher training, and resource provision to promote a more sustainable and environmentally conscious generation of students in Baden- Württemberg. **Keywords:** Sustainability education, elementary schools, curriculum integration, teacher training, environmental awareness, challenges in education

Do football players act sustainably? An explorative study focusing on opportunities and limits of sustainable consumption and disposal of football boots based on a survey at two amateur football clubs in Southern Germany

Daniela Ludin¹, Fitim Avdyli³, Tom Weiwadel⁴, Erika Mueller⁵, Wanja Wellbrock²
^{1,2} Faculty of Economics, ^{3,4} Faculty of Management and Sales, ⁵ Sustainability Department
Heilbronn University, Heilbronn, Germany

ABSTRACT: The aim of the study was to investigate if football players act sustainably. The theoretical background is set by the scientific fields of sports science, textile industry and fast fashion and sustainable consumption. An explorative survey of football players of two amateur football clubs in Southern Germany was executed to generate an overview on purchasing and disposing behaviour concerning football boots. Results show, that players of both football clubs are not very sustainably oriented. The vast majority dispose their football boots in the trash rather choosing sustainable options. Similarly, not enough attention is paid to environmentally friendly aspects such as sustainable packaging or ecological material when buying. Most players hardly pay attention to these criteria. They pay more attention to comfort criteria such as appearance or fit. This is also reflected in the respondents' prioritization of sustainability. However, the majority of both clubs ensure a longer product life cycle through care and by using their foot-ball boots for a long time.

Keywords: Sustainability, football players, purchasing behaviour, disposal behaviour, football boots, sustainable consumption

The potential for artificial intelligence technologies in developing sustainable cities in Croatia

Monika Mikulec

PhD student, Libertas International University

ABSTRACT: With population growth, cities can face significant challenges such as environmental degradation, resource depletion, social inequality and infrastructure strain. In order to improve the living conditions of residents and meet the Global Sustainable Development Goals from 2015, whose goal 11 (SDG 11) aims to create inclusive, safe, resilient and sustainable cities, there is a need to transform urban areas into sustainable and smart cities. This paper presents a comparative analysis of the certain cities of Croatia which AI technologies are applied, as well as an analysis of how AI technologies could potentially support sustainable development. The main objective of this paper is to explore the importance of potential applying AI technologies for the complete and long term sustainability of cities. Therefore, the paper explores the current state of certain sustainable cities in Croatia and critically analyses relevant examples of good practice. The paper concludes that AI technologies could highly support long term sustainable development and improve the conditions conducive to resource efficiency, infrastructure management optimization and service delivery improvement. Research also shows it is possible to improve the quality of life, and meet the economic, environmental and social needs of current and future generations.

Keywords: Artificial intelligence technology, Sustainable development goals, Long term sustainable cities in Croatia, Sustainable development



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