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Book of Abstracts – Selected Papers

121st esd Online 2025 122nd esd Aveiro 2025

Advances in Tourism, Digital Technologies and Economic Strategies

Editors:

Humberto Nuno Rito Ribeiro, Sime Vucetic, Abdelhamid Nechad















March, 2025

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EXPERIENCES AND TECHNOLOGIES OF SMART TOURISM: AN ANALYTICAL APPROACH TO LITERATURE REVIEW

Iris Mihajlovic

Faculty of Economics and Business University of Dubrovnik; Branitelja Dubrovnika 41 iris.mihajlovic@unidu.hr

ABSTRACT

The paper focuses on examining relationships and communication in tourism based on the power of technology as a tool for reaching end users creating their personal experiences. This is evidenced by numerous literature and various aspects of individual tool evaluations. The dimension of added value contained in the positive effects of using ICT tooling, such as availability, concurrency of information, personalization based on tailored user requirements, real-time communication and marketing transparency that facilitates product management, have been specifically researched. Structural changes in the area of service marketing present the result of major changes that are reflected in other activities but also due to technological innovations. From demand perspectives, they are the result of tourist experiences and informatization. The formation of business models with a clearly defined development orientation, based on the values of knowledge, assumes a flexible business model that is based on goals that multiply the value of the company, the destination. Smart technologies and adequate ICT tooling enable more efficient evaluation of potential in space, providing a platform for emphasizing identity through a set of elements for product differentiation and space management. This is visible through positive customer experiences (CX). The results of numerous studies confirm the expansive dynamics of changes and differences in the level of acquired knowledge and digital competencies that depend on the geographical area and different levels of economic development are considered, as well as differences in the standard of living of the population, with which this could be associated. From the perspective of service providers, innovations are prerequisites for evolution. They are omnipresent in the transformation of organizational structures and cultures from production technologies to management perceptions with the aim of obtaining a productive process based on technological progress and a new management model in the area of labor-intensive activities.

Keywords: Customer Experience (CX), Personal Experience, Value Proposition, ICT tooling, Time

COMPARATIVE ANALYSIS OF PROS AND CONS OF MARKET-BASED AND BANK-BASED FINANCIAL SYSTEM IN THE LIGHTS OF THE FUTURE OF EUROPEAN COMPETITIVENESS

Katarina Katusic

katarina.katusic8@gmail.com

Ivana Bajakic

Department of Economics, Faculty of Law, University of Zagreb, Croatia ivana.bajakic@pravo.hr

Ozren Pilipovic

Department of Economics, Faculty of Law, University of Zagreb, Croatia opilipovic@pravo.hr

ABSTRACT

This paper analyses the comparative advantages and disadvantages of market-based and bankbased financial systems, emphasising their implications for the future competitiveness of the European Union. Market-based financial systems, characterised by a reliance on capital markets for funding, offer benefits such as enhanced liquidity, better access to diverse financing options, and increased transparency. These features can enhance the EU single market by effectively directing substantial household savings into cross-border investments, lowering financing costs for businesses, and boosting the wealth of EU households. However, they also present challenges, including volatility and vulnerability to market fluctuations, which can weaken financial stability. Conversely, bank-based financial systems emphasise the role of banks as intermediaries in channelling funds from savers to borrowers. This model provides stability and a more predictable funding environment, enabling long-term investments in critical sectors. Nonetheless, it may restrain competition and limit access to finance for smaller enterprises, potentially hampering innovation and economic diversification. As the European Union struggles with economic uncertainties and seeks to enhance its global competitiveness. contemplating these contrasting financial systems is beneficial. The ongoing integration of European markets and the push for digital finance further complicate this landscape. Policymakers must weigh the benefits of fostering a robust capital market against the need for a stable banking sector that supports sustainable growth and financial stability. This analysis highlights the necessity for a balanced approach, integrating the strengths of both systems to build a resilient financial framework that can adapt to future challenges. Ultimately, the effectiveness of EU's financial structure will significantly influence its ability to compete in an interconnected global economy encumbered by geopolitical uncertainties.

Keywords: market-based financial systems; bank-based financial systems; innovation, competitiveness, EU

STATUTORY INTEREST IN HIGH-INFLATION ECONOMIES: RETHINKING METHODOLOGIES THROUGH FINANCIAL VALUATION PRINCIPLES

Hrvoje Serdarusic

Josip Juraj Strossmayer University of Osijek, Faculty of Economics and Business Trg Ljudevita Gaja 7, HR-31000, Osijek, Croatia hrvoje.serdarusic@efos.hr

ABSTRACT

In business, every company does business with other businesses and at some point payment delays occur, putting businesses at risk of running into cash shortages or depleting their working capital, which is especially the case in times of high inflation. Such situations are difficult to reduce to the application of statutory interest rates, which are often credit-friendly and at odds with economic reality. In the case of late payments, the legal position is clear: the creditor is entitled to statutory interest rate for late payment, i.e. interest or costs for keeping the money owed to him and at the same time an incentive for the debtor to pay his debt. This paper examines the limitations of current methods of calculating statutory interest and in the context of Directive 2011/7/EU on combating late payment in commercial transactions, which aims to help normalize and harmonize commercial practices. The methodology includes a comparison of the statutory interest provisions of all EU member states to determine which provisions and practices are most advisable and which gaps in the rules exist. In addition, a case study is presented on Croatia, a country that has struggled with inflationary pressures during its economic transition. The results show that there is a need to develop a static model for the statutory interest rate that captures real economic realities and is applicable in both cash and accrual systems while ensuring fairness in business transactions. Practical implications for policy makers, financial institutions and regulators arise from the proposed dynamic approach, which varies with inflation across the EU. It is an approach that aims to improve the stability of the financial system and the economic fairness of outcomes in the presence of high inflation.

Keywords: Directive 2011/7/EU, Inflation, Statutory interest

CRITICAL ANALYSIS OF WEALTH DISTRIBUTION THEORY: CONTRIBUTIONS AND LIMITATIONS

Lahjouji Hamida

Pluridisciplinary Research and Innovation Laboratory (LPRI), Moroccan School of Engineering Sciences (EMSI), Casablanca, Morocco h.lahjouji@emsi.ma

El Haddadi Mariam

Pluridisciplinary Research and Innovation Laboratory (LPRI), Moroccan School of Engineering Sciences (EMSI), Casablanca, Morocco m.elhaddadi@emsi.ma

ABSTRACT

The persistent issue of wealth inequality has long been the subject of economic thought studies, aiming to understand the origin of wealth and its distribution among different economic agents. To address this question, several theories have been developed from the 18th century until today, originating from various schools of thought. These theories, beginning mainly with Adam Smith & David Ricardo and later reformed by Marx in the 19th century and Simon Kuznets & Nicholas Kaldor in the 20th century, provide a rich foundation of contributions. The present paper aims to analyze the theoretical contributions and empirical limitations in addressing the problem of unjust wealth distribution. By adopting a qualitative methodology, using the explorative method to examine the strengths and weaknesses of existing wealth redistribution theories. The qualitative results of this research revealed that the classical, social, and neoclassical wealth redistribution contributions are purely theoretical, with a lack of empirical evidence, and are limited in their temporal scope. On the other hand, the new theories present an empirical advancement, but these no longer hold. A new approach is needed.

Keywords: Critical analysis, Socio economic inequality, New theories, Unjust wealth distribution, Wealth distribution Theory

CREATING INTELLIGENT LIVING SPACES: THE ROLE OF DIGITAL TWINS IN SMART HOME SYSTEM OPTIMIZATION

Snjezana Krizanic

University of Zagreb
Faculty of Organization and Informatics
Pavlinska 2, 42000 Varaždin
skrizanic@foi.unizg.hr

Lea Masnec

University of Zagreb
Faculty of Organization and Informatics
Pavlinska 2, 42000 Varaždin
lmasnec@unizg.foi.hr

ABSTRACT

In the context of smart homes, digital twins enable real-time simulation, optimization, and predictive analysis, fostering more efficient and intelligent living environments. This research explores the application of digital twins in smart homes to enhance the quality of life and elevate living standards. Leveraging Internet of Things (IoT) devices and purpose-built applications, it becomes feasible to monitor and manage the daily operations of a smart home. Digital twins facilitate real-time tracking of home conditions, offering immediate feedback and actionable insights to optimize home settings. The difference between digital twins and simulations is that simulations use historical data, while digital twins communicate with the real world in real time, receiving and processing data collected in real time so that decisions can be made in time. The concept of the digital twin is excellent for making predictions in advance, when relevant information about events is needed before they occur. In the context of smart homes, the concept of the digital twin is proving invaluable for prediction, providing relevant insights and actionable information about potential events before they occur, improving the efficiency of property management and decision making. Research provides a comprehensive exploration of the role of digital twins in optimizing smart home systems. The study begins by introducing the concept of digital twins and their use for the purpose of smart home systems. The research presents use cases of digital twins in smart homes, utilizing IoT devices and specialized applications for seamless information exchange. By combining a literature review with practical examples, this paper highlights the transformative role of digital twins in creating smarter and more user-friendly living spaces.

Keywords: Digital twin, IoT, Simulation, Smart Home

THE IMPACT OF DIGITAL INNOVATION ON BUSINESS COMMUNICATION AND MANAGEMENT

Lidija Weinzierl

Juraj Dobrila University of Pula, Croatia lweinzierl@unipu.hr

Rozana Veselica Celic

Juraj Dobrila University of Pula, Croatia rozana.veselica@unipu.hr

ABSTRACT

This research examines the impact of digitalization on business communication, focusing on the use of tools and platforms such as email and social media. It explores how these technologies enhance communication efficiency, support decision-making, and foster collaboration, with particular attention to the changes driven by digital transformation and the COVID-19 pandemic. The study aims to identify the benefits and challenges associated with these tools in professional contexts. An anonymous survey was conducted among IT professionals and students in informatics and computer science to collect data on usage patterns, effectiveness, and challenges of digital communication tools. Participants reported their experiences during routine operations and under the unique circumstances of the pandemic. Key areas of focus included the frequency of tool usage, productivity improvements, and adaptations in workplace communication. The findings highlight significant adoption of digital tools, with participants emphasizing improved collaboration, faster decision-making, and increased workplace flexibility. The pandemic accelerated these trends, reinforcing the critical role of digital technologies in ensuring operational continuity. However, challenges such as security risks, technological limitations, and user adaptation were also identified, affecting the efficiency and reliability of these tools. This research contributes to understanding contemporary trends in business communication, particularly in the IT sector, and offers practical recommendations for optimizing digital tools. It provides a basis for future studies on the long-term implications of digitalization on work processes, organizational culture, and communication strategies, emphasizing the transformative role of digital platforms in modern professional environments.

Keywords: Business communication, COVID, digitalization, influence, informatization, organization, technology

IMPORTANCE OF ICT IN HUMAN RESOURCES MANAGEMENT AND EVALUATION IN EVENTS MANAGEMENT

Igor Klopotan

Polytechnic of Medjimurje, Croatia igor.kolopotan@mev.hr

Marija Valcic

Polytechnic of Medjimurje, Croatia marija.valcic@mev.hr

Marijan Bosancic

Polytechnic of Medjimurje, Croatia marijan.bosancic@mev.hr

ABSTRACT

One of the areas where communication and information technology can be used effectively is Events. Electronic human resources management is the use of information technology for human resources applications that enable easy interaction between employees and employers. The possibilities of technology for human resources management are endless. Today, this is strongly felt through the stages of event management, especially through human resources management. In principle, all human resources processes are supported by technology. The paper describes how communication and information technology can be used effectively in the planning and management of human resources in the organization of events.

Keywords: Event management, Human resources, Organization of Event, ICT, Electronic human resource management

SUSTAINABILITY PAYS OFF: THE CASE FOR ECO-FRIENDLY PACKAGING

Abdelhamid Nechad

Member of The Evolvepack project part of PRIMA Programme supported by European Union The National School of Business and Management of Tangier (ENCGT), University Abdelmalek Essaâdi – Morocco anechad@uae.ac.ma

Ahmed Maghni

Member of The Evolvepack project part of PRIMA Programme supported by European Union The National School of Business and Management of Tangier (ENCGT), University Abdelmalek Essaâdi – Morocco ahmed.maghni@uae.ac.ma

Souha Zejli

Member of The Evolvepack project part of PRIMA Programme supported by European Union The National School of Business and Management of Tangier (ENCGT), University Abdelmalek Essaâdi – Morocco souha.zejli@etu.uae.ac.ma

ABSTRACT

Amid the ever-increasing pressure on industries to adopt more sustainable practices, the transition to sustainable packaging represents both a big challenge and a great opportunity. This article emphasizes the transformative potential of packaging that deals with the environmental problem as well as the profit headroom, and thus, reshaping the food sector. The analysis sheds light on the emerging green revolution in packaging, examining groundbreaking materials by taking cellulose as a solid example, as well as their positive ecological impact. The article brings forth the mythical notion of high sustainability costs being debunked by asserting that packaging made from eco-friendly materials, in the long run, is much cheaper, use fewer resources, and create new market opportunities. Backed by financial and environmental metrics, like the infamous ROI (Return On Investment) and life cycle assessment through an LCC analysis (Life Cycle Costing), we present the way that businesses are able to track the dual benefits of both sustainability and profitability. The article-induced examples of successful projects that were conducted jointly by researchers and companies motivate other companies to implement the sustainable packaging as a key strategy for growing their business in the future, experiencing the benefits of it as the strategic and reputational advantages of the company. Finally, the article finishes with a call to collaborate in the development of the Mediterranean model for sustainable packaging innovation via initiatives like EVOLVEPACK.

Keywords: Sustainability, Packaging, Profitability, Life Cycle Costing

ANALYSIS OF PROJECT MANAGEMENT IN THE IMPLEMENTATION OF A STEM DEVELOPMENT PROJECT IN A RURAL COMMUNITY

Martina Vukasina

Lecturer, University of Applied Sciences Baltazar Zaprešić, Croatia mvukasina@bak.hr

Zlatko Barilovic

College Professor, University of Applied Sciences Baltazar Zaprešić, Croatia Assistant Professor, Alma Mater Europaea University, Slovenia zlatko.barilovic@bak.hr

Karlo Jurac

Senior Lecturer, University of Applied Sciences Baltazar Zaprešić, Croatia University of Novo Mesto Faculty of Business and Management Sciences, Slovenia kjurac@bak.hr

ABSTRACT

Project management is crucial for the successful implementation of initiatives that bring social and economic benefits, particularly in sectors such as education and digital transformation. It encompasses the application of knowledge, skills, tools, and methodologies to effectively plan, execute, monitor, and complete projects within given constraints. Well-structured project management ensures that resources are utilized efficiently, risks are anticipated and mitigated, and stakeholders remain engaged throughout the project lifecycle. This paper analyzes the "AgroSTEM" project, carried out by the Association for Rural Development Ravni Kotari in Zadar County (Croatia), with the goal of promoting STEM in rural communities. The case study covers key aspects of project management, including planning, resource allocation, risk management, communication, and an analysis of project success indicators. The research methodology relies on secondary sources. The results indicate that effective resource management, efficient stakeholder communication, and adaptability are key success factors for such a project. This paper contributes to a better understanding of the challenges and best practices in managing projects aimed at STEM development in rural areas, with a particular focus on the civil sector and NGO-led initiatives. By analyzing "AgroSTEM", the study provides valuable lessons for future projects and offers recommendations for improving project sustainability, scalability, and impact on local communities.

Keywords: Project Management, AgroSTEM, STEM, Civil Sector, Rural Development

THE ENTREPRENEURIAL INFRASTRUCTURE IN THE EXPLOITATION OF ENERGY RESOURCES IN THE CONTEXT OF THE GREEN TRANSITION – A CASE STUDY OF VARAŽDIN COUNTY

Melita Srpak

Varazdin County - Department of Physical Planning, Croatia melita.srpak@gmail.com

Darko Pavlovic

Polytechnic of Međimurje in Čakovec, Croatia darko.pavlovic@plinacro.hr

Igor Klopotan

Polytechnic of Međimurje in Čakovec, Croatia igor.klopotan@mev.hr

ABSTRACT

In the context of increasing energy consumption and climate change, energy independence has become a key strategic task for the Republic of Croatia. To reduce greenhouse gas emissions through decarbonization and promote sustainable development, it is essential to explore the possibilities of utilizing renewable energy sources. Geothermal research, predominantly conducted through petroleum-geological studies, indicates significant potential, with capacity estimates exceeding 500 MWe and the potential for production ranging between 750 and 1300 MWt, alongside substantial reserves of natural gas. This form of energy offers multiple economic and environmental benefits, including reduced CO2 emissions and contributions to the sustainability of energy development. The purpose and goal of this paper are to analyze the spatial and environmental aspects of exploiting energy resources in Varaždin County in the context of the green transition and the reduction of greenhouse gas emissions. Varaždin County, located in the Pannonian region of Croatia, is recognized as an area with high thermal gradients, indicative of the potential for utilizing geothermal energy. The history of geothermal resource research in this area is primarily based on geological studies, mainly focused on oil and gas deposits, which have revealed the presence of significant geothermal resources. Despite this, geothermal energy in Varaždin County has not yet been adequately exploited. Given the available geothermal resources, the area offers significant potential for energy production, which could substantially contribute to the region's energy independence and reduce reliance on fossil fuels. Research and exploitation activities, which are of strategic importance to the country, align with the State Spatial Development Plan, while at the local level, they are implemented according to the Varaždin County Spatial Plan (PPŽ), which defines areas designated for the exploration and exploitation of mineral resources. This approach ensures the long-term sustainability of geothermal energy use, environmental preservation, and the energy-secure development of Croatia, with a particular emphasis on Varaždin County, which possesses considerable geothermal potential that has yet to be fully

Keywords: decarbonization, geothermal energy, renewable energy sources, Varaždin County, Green Transition

TEACHING AND LEARNING HUMAN-COMPUTER INTERACTION (HCI): CURRENT AND EMERGING PRACTICES

Marija Valcic

Polytechnic of Medjimurje, Croatia marija.valcic@mev.hr

Nevenka Breslauer

Polytechnic of Medjimurje, Croatia nevenka.breslauer@mev.hr

Jadranka Herceg

Polytechnic of Medjimurje, Croatia Jadranka0herceg@gmail.com

ABSTRACT

Against the backdrop of the information age, new technologies are constantly affecting all aspects of people's lives, especially in the field of education. Through the impact of informatization on education in places further away from city centers, in smaller communities, classes on more remote islands, it has been determined that there is still a large gap between the basic construction of inaccessible informatization teaching and the teaching of teachers, professors in cities. This paper analyzes the challenges faced by remote classrooms against the backdrop of the information age by combining cases of informatization from practice and thus provides appropriate suggestions. So that everyone has equal opportunities in education and easier access to information, both gifted students and those with disabilities. When creating applicable computer programs for distance learning, it is important to know certain design principles when constructing and adapting the graphical interface to the user. By changing the graphical display of the screen, we directly encounter stylized transitions, or animations, and we achieve a certain attractiveness when selecting the offered content. Thus, dynamic navigation serves spatial orientation within virtual reality.

Keywords: Distance learning, Teachers, Digital Teaching, Educational Informatization, User Interface (UI), Graphical interface

FISCAL POLICY AND PUBLIC DEBT GROWTH IN KOSOVO POST-COVID-19 CRISIS: CHALLENGES AND PERSPECTIVES

Bedri Hamza

Faculty of Business and Economics, University of Tirana bedrihamza63@gmail.com

ABSTRACT

Fiscal policy and public debt are among the most critical topics of economic stability and sustainable development of a country. The COVID-19 pandemic has imposed a severe and widespread impact on the economies of numerous countries, resulting in serious complications for public finances and economic activity. The health crisis has pushed governments to take unprecedented measures to support their citizens and economies by increasing public spending and implementing stimulus policies. This unstable situation has increased concerns about the growth of public debt and has created uncertainty over the sustainability of state finances in both the short and long terms. This work aims at researching the interconnection between fiscal policy and the growth of public debt in Kosovo, explaining the impact of the fiscal policies up to now on the debt level and its sustainability. Although there have been ongoing efforts to stabilize the economy, Kosovo's public debt has followed a rising trend, and it represents one of the greatest challenges to the financial management and long-term development of Kosovo. The objective of this paper is to identify the determinants for the increase in debt, such as public expenditures, fiscal income and stimulus policies undertaken during times of economic crisis. Through a close review of information offered and a comparison of fiscal policy models, the paper will present recommendations for plausible action towards the management of public debt such that it is compatible with economic development and financial sustainability. The findings of this research will provide concrete recommendations to the Kosovo authorities, with a perspective of offering a sustainable fiscal trajectory and boosting investor and citizen confidence in the Kosovo financial system.

Keywords: Fiscal Policy, Public Debt, Economic Growth, Covid – 19 Pandemic, Kosovo

SYSTEM EFFICIENCY IN MANAGING LARGE DATA FLOW RESOURCES

Alen Simec

University of applied sciences Zagreb, Vrbik 8, Croatia alen.simec@tvz.hr

Hrvoje Janes

University of Applied Sciences Velika Gorica, Zagrebačka 5, Velika Gorica, Croatia hrvoje.janes@yvg.hr

ABSTRACT

In analyzing large volumes of data (commonly referred to as Big Data), particular attention should be given to the flow of these vast datasets and their impact on systems, computing infrastructures, and networks. Modern data ecosystems must handle unprecedented levels of throughput and complexity, demanding innovative approaches to data storage and retrieval. Consequently, both traditional relational database management systems (SQL) and non-relational (NoSQL) databases have emerged as critical tools. While SQL databases excel at handling structured data with well-defined schemas, NoSQL solutions are better suited for large-scale, unstructured, or semi-structured datasets that require high scalability and flexible schemas. The Web environment plays a central role in driving this continual influx of information, generating data at a global scale from an ever-increasing number of sources. Web applications, social media platforms, and interconnected devices contribute to the creation of complex data streams, which, when properly collected and analyzed, can inform strategic decision-making. As these flows of Big Data continue to evolve, organizations need robust, scalable architectures and interdisciplinary expertise to fully harness the potential of these data-rich environments for innovation and growth.

Keywords: Big Data, data analytics, data storage, decision-making, large volumes of data, NoSQL, scalability, unstructured data

THE IMPORTANCE OF FINANCIAL LITERACY FOR HIGHER EDUCATION

Humberto Nuno Rito Ribeiro

GOVCOPP; ESTGA, University of Aveiro, OSEAN, Portugal hnr@ua.pt

ABSTRACT

In general, higher education is often regarded as a seal of higher level of knowledge. Nevertheless, the financial literacy level among higher educated individuals is not necessarily good, or fair even. One of the reasons for such status, is the overall lack of financial subjects in higher education programs. In this paper, the issue of the low levels of financial literacy among higher education students and graduated individuals is discussed, being offered to the authorities a plan to improve such condition, as a way to increase the socio-economic quality of the population, by offer better prepared professionals on the most diverse areas, other than financial.

Keywords: Low Financial Literacy, Financial Literacy Benefits, Higher Education.

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GEMINI VS CHATGPT: GENERATIVE ARTIFICIAL INTELLIGENCE FOR FINANCIAL LITERACY

Humberto Nuno Rito Ribeiro

GOVCOPP; ESTGA, University of Aveiro, OSEAN, Portugal hnr@ua.pt

Sandra Raquel Pinto Alves

OSEAN, CEOS.PP, ESTG, Polytechnic Institute of Leiria, Portugal raquel.alves@ipleiria.pt

ABSTRACT

Despite financial literacy being considered critical for a better social and economic condition of societies; overall, most countries continue to exhibit poor levels of financial knowledge. On the other hand, technology continues to make is way on the society, with never-ending higher levels of penetration on the population. Therefore, one can wonder whether some of the most used artificial intelligence tools may be used in order to increase the overall level of financial literacy. This research examines whether artificial intelligence may provide some meaningful contribution to financial literacy, by the meanings of an analysis of two of the most well-known platforms: Google's Gemini versus OpenAI's ChatGPT.

Keywords: Financial Literacy, Artificial Intelligence, Language Models, ChatGPT, Gemini.

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ARTIFICIAL INTELLIGENCE AS A DRIVER FOR THE IMPROVEMENT OF FINANCIAL EDUCATION

Humberto Nuno Rito Ribeiro

GOVCOPP; ESTGA, University of Aveiro, OSEAN, Portugal hnr@ua.pt

ABSTRACT

In a society increasingly dominated by financial issues and digitalization, it is surprising that, despite the improvement of knowledge and ease of use of technologies, the population continues to have difficulties to deal with financial issues, showing inability to decide on relatively simple financial decisions. Some argue that this financial knowledge weakness may be a result of improper public policies, particular at the education level. Regardless such discussion, the matter of fact is that financial literacy continues to be a very relevant handicap for most individuals and populations. In this paper, the artificial Intelligence tools are analysed from a point of view of possible contributions for the improvement of Financial Education. The results obtained are not decisive, as one can suggest that if, on the one hand, artificial intelligence may indeed offer a very interesting contribution to better financial literacy levels; on the other, the quality of such contribution may be, in some cases, very poor.

Keywords: Financial Literacy, Financial Education Programs, Artificial Intelligence, Language Models.

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NAVIGATING NATIONAL IFRS ADOPTION: INSIGHTS FROM KEY STAKEHOLDERS ON ACCOUNTING REFORM IN PORTUGAL

Alexandra Fontes

University of Minho, Portugal alexandrafontes@eeg.uminho.pt

Carlos Alberto Menezes

University of Minho, Portugal menezes@eeg.uminho.pt

ABSTRACT

The widespread global adoption of International Financial Reporting Standards (IFRS) has prompted this study, which seeks to examine and analyze the perspectives of a targeted sample of professional and governmental organizations representing key stakeholder groups regarding the adoption of the IFRS model by unlisted non-financial companies in Portugal. This research employs a qualitative methodology, primarily based on grounded theory, combining interviews with documentary analysis. The findings indicate that Portuguese professional organizations have adopted a market- and legitimacy-oriented approach, emphasizing globalization and the associated benefits of adopting an IFRS-based system. The perceived advantages of accounting reform and international integration appear to outweigh concerns related to national constraints on implementing an IFRS model. Furthermore, the results underscore the critical role of collaboration between regulatory bodies and professional organizations in advancing accounting reform. This collaboration is essential for mobilizing strategic efforts to foster comprehensive engagement among diverse stakeholder groups.

Keywords: Harmonization/Convergence, International Financial Reporting Standards, Portuguese Accounting System, Accounting Change, Perceptions













