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#### **Preface**

Economic development refers to enhancing economic activities in a society, resulting in positive changes in both the socio-economic structure and living standards. Sustainable economic development aims to eradicate poverty, inequality, and unemployment, ultimately promoting social inclusion and improving the overall quality of life. Consequently, analyzing this crucial issue requires a highly interdisciplinary approach.

Organizing is an evolutionary phenomenon, distinctive because of the laws of existence and maintaining all structures in all processes of their functioning. As such, it is a civilizational phenomenon that occurs as a component of human, individual, and social activities and as a factor in the overall development of man and society. On the other hand, as a deliberate human activity, organizing involves seeking solutions to problems that occur on the way to achieving specific goals. No goal can be achieved without appropriate or necessary, or at least minimal organization of conditions, factors, and processes needed for goal achievement. However, the new era requires new types of leaders and managers and new forms of organization; demands those who are willing and able to lead the company/corporation/ state, in a distinct competitive environment, with all the good and bad sides brought by the globalization of world economy.

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

Association of Economists and Managers of the Balkans headquartered in Belgrade – Serbia in cooperation with the Institute of Business Economics and Industrial Sociology of the Faculty of Mechanical Engineering & Economics Sciences at Graz University of Technology headquartered in Graz – Austria; along with the partner institutions, namely the Center for Advanced Studies in Management and Economics (CEFAGE-UE), Institute for Advanced Studies and Research, University of Evora, Portugal; Department of Law, Economics and Sociology, University of Magna Graecia, Catanzaro, Italy; Faculty of Economics, University of South Bohemia, České Budějovice, Czech Republic; Rio de Janeiro Institute College (Faculdade Instituto Rio de Janeiro – FIURJ), Rio de Janeiro, Brazil, and the European Professors of Industrial Engineering and Management (EPIEM) organized 9th International Scientific-Business Conference titled: Leadership, Innovation, Management, and Economics: Integrated Politics of Research – LIMEN 2023 on December 7, 2023 at the Graz University of Technology, Graz, Austria in a hybrid format (in-person, online and virtually).

LIMEN 2023 conference addresses various contemporary business and economic challenges. The evolution of implicit leadership theories is explored, highlighting shifts in understanding leadership. AI-driven HR practices in SMEs, the application of large language models in recruitment, and the integration of crowdsourcing with intellectual capital for enterprise renewal are examined for their innovative potential. The impact of management styles on employee well-being, the relationship between innovation and competitive advantage, and eco-innovation in Albania's accommodation sector are analyzed for their implications on business strategy and sustainability. The digital transformation of retail, AR/VR in marketing, and content marketing's role in consumer loyalty are also discussed, alongside the ethical concerns of greenwashing in marketing communication. Other studies investigate the sustainability index in corporate performance, the resilience of eco-metals, mobile banking acceptance in Austria and Romania, and the role of standards and patents in Western Balkan economic growth. Income inequalities in Greece's post-COVID tourism industry and logistics in unstable markets are assessed for their broader economic impacts, etc.

The keynote speaker at the LIMEN 2023 conference was Professor Sandra Lovrenčić, Full Professor, Head of the Department of Theoretical and Applied Foundations of Information Sciences, Head of Centre for Volunteering and Humanitarian Work, University of Zagreb Faculty of Organization and Informatics, Varaždin, Croatia with the topic "Artificial Intelligence and (Knowledge) Management".

Within publications from the LIMEN 2023 conference:

- 20 double peer-reviewed papers have been published in the LIMEN 2023 Selected Papers,
- 55 double peer-reviewed papers have been published in the LIMEN 2023 Conference Proceedings,
- 67 abstracts have been published in the LIMEN 2023 Book of Abstracts.

Altogether LIMEN 2023 publications have more than 800 pages. All full papers have DOI numbers and ORCID iD integration.

Participation in the conference took more than 250 researchers representing 24 different countries from different universities, eminent faculties, scientific institutes, colleges, various ministries, local governments, public and private enterprises, multinational companies, associations, etc.



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## Managerial Competencies in Sustainable Supply Chains Towards a 4.0 to 5.0 Economy Transformation

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**Abstract:** In many sectors of the economy, the global changes brought about by Covid 19, the war in Ukraine and the ensuing economic crisis have called into question the previously used managerial competencies needed to effectively manage companies in sustainable supply chains. The phrase sustainability has now become a permanent part of the global economy, and the EU economy is transitioning from a 4.0 to a 5.0 economy, with increasing attention being paid to the soft competencies of future managers. In the face of an increasingly unstable economy, many entrepreneurs and economists today are asking whether existing models of managerial competencies in companies or supply chains are still appropriate and adapted to the current economic situation. The purpose of this article is to present competency models in supply chains and determine the importance of specific social competencies for doing business in the face of the aforementioned challenges.

Design/methodology/approach: surveys were conducted among selected experts from the pharmaceutical, automotive and medical industries. Experts and highly qualified managers employed by transnational companies were asked to determine the importance of managerial competencies. The pharmaceutical, automotive and medical sectors were selected for the survey. This choice is motivated primarily by specific characteristics. The pharmaceutical sector is given special importance not only economically, but also socially, providing life-saving drugs. Similarly, the medical sector, with a special focus on life-saving equipment. The automotive sector is characterized by a high variability of innovations introduced in a short period, which can affect the improvement and variability of competencies.

Originality and value: the work is intended to answer the following question: what managerial competencies appear to be necessary for future managers in the medical pharmaceutical and automotive industries under conditions of a turbulent environment, economic crises and transformation towards a 5.0 economy? The answer to this question is crucial for scientific and educational centers that aim to train future managers at the highest level of specific managerial competencies and skills in a business environment. Due to the dynamic development of the aforementioned industries, it is reasonable to identify needs in the areas of managerial skills.

**Keywords:** *Managerial competencies, Economy transformation, Sustainability* 

## Development of a Mathematical Model for the Selection of Successful Candidates for a Company

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**Abstract:** The problem of an effective recruitment process is to identify the best candidate for a job at the right time through an organization-specific sourcing mechanism. It is a methodical process for hiring bright individuals who can contribute to the expansion of the business. The hiring procedure usually aims to identify the most qualified and motivated applicants with the required professional skills. Nevertheless, many companies take into account the soft skills of the candidates, which are associated with an employee's work style and disposition. At the same time, it is important to evaluate the candidate as a whole according to the application of the set of criteria and their weights. In addition, the problem of the choice of the successful candidate exists, because several possible candidates can submit their application and participate in the selection process. The candidates estimate their chances of being selected, can take different strategies to improve their skills and consider their rational behavior. The company also analyses the potential of each candidate for an open job position and the perspectives of her/his employment, the possible advantages for the company. On the other side, the company has the interest to minimize the potential risks and extra costs associated with new candidates. All of the mentioned factors prove that it is necessary to develop some detailed mechanism of the candidates' selection based on the appropriate mathematical model and algorithm for seeking the optimal solution.

In this research, the model of candidate' selection was developed. This model is based on the application of matrix games. The two possible candidates were considered as players, who can take the different strategies. The professional and soft skills of the candidates are evaluated by different criteria and a scale from 1 to 10 is used for each criterion. The decision maker is the HR manager, who is responsible for hiring personnel or who carries out functional duties for the creation and development of internal personal potential and provides the program of career development in the company. This HR manager compares two candidates and chooses the best one according to her/his utility function and suggestions about the importance of the skills of the ideal candidate for a certain position in the company. The problem is what is the best strategy for a candidate if she/he would like to get this position and obtain the highest possible benefit.

Such an approach allows for formalization of the procedure of hiring candidates in the different job positions in the company, nevertheless, the role of psychological issues and individual attitudes of HR managers to possible candidates is important. So if the utility function and scheme of benefits for the payoff matrix are different, the optimal solutions for mixed strategies also will be varied.

The developed model can be used for the improvement of the recruitment process and the preparation of the candidate for the competition in the training. The elements of this model can be implemented in the software for the recruitment process in the company and allow to organize this procedure more effectively.

**Keywords:** Recruitment, Model, Game theory, Strategy, Optimal solution

## Modern Aspects of Innovation Culture in the Field of the Food Industry as Part of the Agri-Food Chain

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**Abstract:** Innovation is the driving force behind the development of enterprises and is vital to their survival. Starting a new business is often accompanied by the discovery of new market niches, the offering of innovative products, or the launch of new approaches to satisfy consumer preferences. Within a constantly changing environment, enterprises need to build an innovation culture that ensures the preservation of the focus on innovation.

This report reviews the current concepts of innovation culture and the factors that determine it. Special attention is paid to the specifics of food industry enterprises. The food industry is representative of the low-tech sectors in terms of research and development costs. However, as a result of global crises (climate change, military conflicts, and interrupted supply chains), the importance of the sector and its potential to offer quality and healthy food is growing.

The study analyses the interrelationship between innovation culture and the level of innovation activity in the field of food production as part of the agri-food chain. On this basis, a model of an innovation culture in the field of food production is proposed.

The report represents case studies of the practice of enterprises in the sector. The aim is to test the relevance of the model and to identify the main factors that help enterprises develop innovation-oriented behavior, as well as the barriers that prevent it.

In the end, guidelines for further improvements of the model and ideas for further areas of research are proposed.

**Keywords:** Innovation culture, Food-processing industry, Supply chain

## **Business Strategies in Croatian Small Farms**

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**Abstract:** Considering that agriculture is a special and important segment in every economy due to the variable and turbulent environment, it is important that farmers (entrepreneurs) recognize and select an appropriate business strategy to reach higher revenues, have better usage of resources and survive in the market. Each farmer adapts his farm strategy based on their own capabilities and depending on the type of agricultural activity. They must be entrepreneurial, and creative and make fast and important decisions. An indispensable part of the analysis of entrepreneurship in European agriculture is the Common Agricultural Policy (CAP) of the European Union, as well as the other national and local programs and measures that support farmers. They all serve as support in business and the adoption of individual business strategies such as diversification or specialization.

The research part of the paper describes the methodological framework of the research in which we applied the qualitative analysis of primary data collected by in-depth interviews. The paper describes the design of the research instrument, the editing of the collected material and analysis of empirical data concerning ethical standards important for the data collected. Qualitative research allows us to obtain better quality information on the motivation and problems that Croatian small (mostly family) farms face.

Some research participants use a specialization of their farms as a strategy in their business. The reasons why they have chosen this are the lack of labor to carry out the cultivation of other cultures (vegetables) on the farm, they have trouble recognizing all the needs in the market, or are too small to use the full potential of the product. The research results also show that part of the respondents decided to diversify their offerings. The recognized demand for tourist destinations in the countryside, as well as the possibility of offering their products through the gastro-segment, are just some of the reasons why certain farmers have decided to expand the range of their products and services. Furthermore, in the business itself, they emphasize great dissatisfaction with the work of key institutions that should support this sector. These limitations mitigate farmers' opportunities to use their full potential. In addition, they also point out the problem of insufficiently qualified and uninterested employees, as well as the problem of financing and procuring new and advanced machinery. The study shows that there is a lot of space for improvements in the support system to this branch of the economy vital for the prosperity and survival of people.

**Keywords:** Family farm, Small farm, Business strategy, Agriculture, Diversification, Specialization, Qualitative analysis

### **Business Models in Sustainable Entrepreneurship Theory**

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**Abstract:** One of the highest-researched areas and fully focused interest fields in today's scholarly research is sustainable development. Seen from a business perspective it cannot dissipate itself from the main actor making business possible, entrepreneurship. Hence, this study researches and finds common ground in the earlier studies for the place of sustainable entrepreneurship integrated into various business models. The paper highlights and focuses inevitably on digital technologies, this being the actual and future vehicle into which business will travel but not confine. The authors of this study research the various well-designated fields of Sustainable Development and Entrepreneurship and add to the already laid down foundations of research in a digital world. The main focus of the study is categorization and awareness of the existing studies in the field and where this leads further down the sustainable entrepreneurship road.

**Keywords:** Sustainable development, Entrepreneurship, Business models, Technology in business

#### **Sustainable Business Models to Reduce Food Waste**

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**Abstract:** Food waste is an emerging problem today, global in nature, but which must be tackled at a local level. A large amount of food products is wasted every day, often already prepared, which cannot be stored and sold the next day. This problem is faced by restaurants, cafes and supermarkets which, in general, apply the following responses to their surplus food products: waste, donate, or sell.

The objective of this work is to explore each of these alternatives, with emphasis on the solutions to donate or sell, which oppose the option of wasting. In fact, donating or selling constitutes more sustainable practices intending to minimize the problem inherent to food waste. However, whatever option is taken, will have several environmental and economic implications.

**Keywords:** Sustainable business models, Food waste reduction

# Business Processes and Their Importance in the Management of Production Companies – A Case Study of the Dairy Industry in the Republic of Serbia

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**Abstract:** In modern conditions, when companies face global competition, there is an expressed desire to find new ways to increase performance, both by increasing the quality of products and processes and by reducing business costs. In order to identify new ways more easily, more and more companies are accepting process orientation as a necessity and condition for successful business. Process orientation facilitates the identification of activities and tasks that contribute to the creation of value, i.e. ensures a triple positive effect on business, through the quality, costs and time of process realization Viewing the company as a system of integrated processes leads to a series of changes. First of all, jobs are not arouped according to kinship, as is the case with a traditional (functional) organization, but are linked to the execution of a specific process. This leads to the formation of teams that encourage cross-functional cooperation, which eliminates classic rigid organizational units, as well as barriers between them, which is one of the main disadvantages of the functional way of organizing. Emphasizing the role of teams and cross-functional cooperation increases the ability to make decisions at lower levels, thus freeing higher levels of management from a series of tactical and operational decisions. This leads to an increase in organizational capacities. Maturity models of business process management represent the operationalization of process orientation. In this sense, they contain a certain number of elements whose maturity level (development, quality) should be measured, monitored and improved, to increase the maturity level of process-based management. Maturity models allow companies to look at business comprehensively, and to identify strengths and weaknesses that significantly determine their business success. According to the above, the subject of the research is the analysis of the maturity model of business process management, the evaluation of the importance of the elements that form the basis of the model, as well as the influence of certain factors on the level of maturity of business process management. In order to examine the possibility of applying the maturity model of business process management in dairy industry companies in the Republic of Serbia, the subject of the research is to identify the characteristics of these companies and identify the key determinants of their success.

**Keywords:** Quality, Processes, Management, Marketing

## Al Implementation Barriers in Companies: A Qualitative Approach to Understand What Is Failing in Practice

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**Abstract:** Artificial intelligence holds great potential for companies and will massively change the way we work in the future. One of the challenges in practice relates to the introduction of Al. An understanding of the implementation hurdles is a prerequisite for understanding why it fails, what challenges companies face and what measures need to be taken. This article reviews and evaluates both practical and academic literature on implementation hurdles based on a literature review. It shows that the problems can be condensed into a few overarching categories. The results help with targeted measures for implementing Al in companies.

**Keywords:** Artificial Intelligence, Implementation barriers, Qualitative approach, Companies

### Supply Management and Purchasing – A Study in Industrial Context

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**Abstract:** Given the economic context we currently find ourselves in, the area of purchasing and supply represents a relevant factor for the competitiveness of logistics chains and for organizations that form part of them. Recent studies show that a significant part of the results obtained in the activity of companies are based on strategic management of purchases, inventory management and information flows, as well as the control of costs.

In the new paradigm of sustainability and resilience, Logistics 5.0 introduced the need for automation, but above all, the need for efficient communications processes. Therefore, it is crucial to adapt supervision, control and data collection systems to new industry challenges.

The continuous reduction of product life cycle and product development time results in perpetual changes in manufacturing processes. This has put enormous pressure on production and logistics activities that must be carried out with higher quality in less time.

From a customer/supplier perspective, purchasing and supply management are likely to impact activities in which the diversity of flows and the dependence on these inputs is very significant, as is the case with most activities of industrial companies. It is in this context that the present work was developed, by studying the process of Purchasing and management of inventories in an industrial supply chain.

In the methodological field, this work was initially preceded by a literature review and document analysis in the main reference bases at the scientific level, which allowed the development of a methodology for analysis and management of information regarding Purchasing and Supply Management in the industrial context. The results obtained allowed a more efficient level of production activity and a better performance of the supply chain.

**Keywords:** Supply management, Purchasing, Information system, Efficiency

# Skills for Smooth Green and Digital Transition of Logistics and Supply Chains

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**Abstract:** The logistics and supply chain management sector currently faces numerous challenges. Probably one of the biggest of them is the insufficient knowledge related to green and digital transition which hinders their ability for long-term ensuring sector resilience. The key question is how to effectively address this issue by rapidly incorporating skills crucial for both the green and digital transition in logistics and supply and efficiently developing them for decision-makers and employees in the logistics and supply chain management field. The key to success lies in developing a system that rapidly responds to these challenges and changing business environmental needs, offering interdisciplinary knowledge for future logistics and supply chain professionals. The overarching areas of education are green and digital logistics, as well as the supply chains of the future, serving as key quidelines for the sustainable future of the European Union based on simultaneous green and digital transition. In this way, higher education institutions in logistics and supply chain management can enhance their role and purpose, contributing significantly to the cohesion and balanced sustainable development of the sector and society as a whole by demonstrating rapid adaptability, resilience, and responsiveness to environmental needs. The main goal of the research was to identify the necessary skills in the areas of sustainability and digitalization as well as transferable skills in logistics and supply chain management. The main aim was to determine perceptions of three groups of respondents regarding the currently required skills and skills from the three previously mentioned areas that will be needed in the sector in the next five years. The main findings of the empirical research conducted in companies from the logistics and supply chain management sector, among students specializing in logistics and supply chain management and academics in the logistics and supply chain management field, generally indicate a positive perception of further developing sustainable, digital, and cross-functional skills. All target groups involved in the empirical research emphasize an increase in the relevance of these skills over the next five years compared to the current time.

**Keywords:** Green and digital transition, Resilience, Skills, Logistics, Supply chain management

### Disruptive Technologies and the Reshaping of Platforms' Obligations, as Source of the Platform-Centered Liability toward Consumers

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**Abstract:** The paper approaches the problematics of redefining the platforms' obligations, in their capacity as digital services intermediaries, while facing the challenges of the platform-centered liability towards consumers. Disruptive technologies and the expanded use of digital services are incentivizing the need for reshaping the 'intermediary'-modeled liability towards the service recipients. When defining the expanding models of the digital services providers and digital intermediaries' liability towards consumers, the paradigm contoured in article 6, 3rd para. of the Digital Services Act (DSA) might serve as a referential tool in configuring platforms' liability for non-compliance to the transparency standards, with respect to the concluding of distance business-to-consumers contracts, intermediated by platforms. The paper addresses the hypotheses when, either the inaccurate providing of the specific items of information, either the non-transparent or insufficient information provided to consumers, have led the average consumer to erroneously rely on the intermediary platform's legal capacity as a provider of the autonomous or embedded diaital content which had been subject to the B2C intermediated contracts. Congruently, the paper focuses on the invalidation of the contractual terms aiming at the establishing of limitations for the platform intermediary provider's liability towards consumers for damageable or misleading conduct; especially in cases when the effectiveness of the contractual exemption from the incidence of supplementary rules is lacunary, the transparency standards become essential from the consumer's perspective in online adhesion contracts. The distinguishing between digital product safety and digital product liability, which remains problematic in the platform-intermediated contracts concluded with trade and service professionals, is fueled by the need to clarify the conditions for liability exemptions and necessitates the 'refining' of the draped line between liabilities connected with the activities performed or the content provided by the online platforms.

**Keywords:** Disruptive technologies, Platforms' obligations, Platform-centered liability, Digital services, Providers, Digital intermediaries, Consumers

### **Consumer Attitudes Towards Digital Banking Marketing Communications**

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**Abstract:** The paper presents an analysis of a Bank's marketing communication and its influence on consumer behavior. The study itself was motivated by the need to affirm the use of digital marketing in the banking sector and the relationship between bank growth and customer behavior. The research used primary quantitative research, implementing a structured questionnaire of 25 questions, analyzing in which way and through which digital channels consumers are informed, are using and evaluating the services offered by a bank. From the analysis, it was concluded that Sparkasse Bank uses different channels and strategies for digital marketing, which achieves positive results in its work, especially when satisfying customers with its services. A conclusion obtained from the overall research is that the level of use of digital marketing in Sparkasse Bank is within the world standards and that Sparkasse Bank chooses digital marketing methods in a way that is consistent with their goals and the demographic structure of the respondents.

**Keywords:** Digital marketing, Omnichannel, Banking, Customer awareness, Services

### The Role of Artificial Intelligence in Sales and Marketing

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**Abstract:** Within the intricate landscape of sales and marketing, the role of artificial intelligence (AI) stands as a pivotal factor, with its influence on the efficacy and triumph of professionals being of profound significance. The competitive environment has undergone a notable transformation through the assimilation of AI technologies, thereby redefining strategic approaches and the attainment of success in sales and marketing domains. This paper presents a systematic literature review aimed at comprehensively synthesizing the existing body of knowledge regarding the role of artificial intelligence in sales and marketing professionals. The study employs the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) methodology, a recognized and rigorous approach, to systematically collect, assess, and synthesize relevant research findings. Through the systematic review, this paper explores key aspects, including the influence of AI on sales performance, customer relationship management, marketing effectiveness, and decision-making processes within the sales and marketing domains. By synthesizing the diverse range of research findings, the study aims to provide a holistic view of how artificial intelligence contributes to success in these fields. By elucidating the multifaceted connection between artificial intelligence and professional success, this research offers opportunities to enhance recruitment, training, and development strategies. Ultimately, this paper contributes to a deeper understanding of the vital role AI plays in the competitive world of sales and marketing. By synthesizing the existing body of knowledge, this research contributes to a comprehensive understanding of the impact of artificial intelligence in these domains, paving the way for informed decision-making and strategic development in the industry.

**Keywords:** Artificial Intelligence, Sales, Marketing, PRISMA, Customer Relationship Management

# The Role of Integrated Communications in Building and Maintaining the Reputation of Company

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**Abstract:** Under the conditions of uncertainty and rapid changes in the business environment, high competition, the prevalence of information and communication technologies, the reputation, which is formed thanks to the systematic communications of the company with various target groups and through the experience of interaction with it, plays an increasingly important role in the viability of the company. The article examines the global trends of today, which give impetus to the development of integrated company communications, which combine marketing communications, sustainable development communications, intra-organizational communications, crisis communications, etc. On the basis of numerous studies, the positive impact of integrated communications on the company's reputation is analyzed (according to the Global RepTrak 100 study, an annual ranking of the corporate reputation of the world's leading companies). The emphasis in the article is made on the need to use proactive communications, communication from the practices of sustainable development of companies, CEO communications and corporate communications aimed at changing the behavior of target groups.

**Keywords:** Integrated communications, Reputation, Sustainable development communications

### Impact of the Moderating Effect of Gender Parity vs. Good Governance Mechanisms on ESG Disclosure in European Sustainable Companies

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**Abstract:** The purpose of this research is to analyse how corporate governance mechanisms influence the environmental, social and governance (ESG) performance in Europe. European countries have been selected as they are considered leading economies in contributing to sustainable development. In addition, the introduction of Directive 2014/95/EU marked a definitive step in the transition from voluntary to mandatory non-financial reporting. Furthermore, the European Commission (EC) is strongly committed to establishing policies that promote gender equality in political and economic decision-making spheres.

This research considers sustainable companies listed on the various European stock exchanges and included in the Euronext Vigeo Europe 120 Index. This index is made up of the 120 companies with the highest level of ESG commitment and, therefore, formally considered sustainable by the European capital market. It analyses the period 2013-2022 and uses a panel of data consisting of 940 observations. In parallel, the impact of the moderating effect of gender parity on women's decision-making in governments is analysed at a general level (Global Gender Gap Index), with relevance in its economic and political dimensions. The aim is to verify whether this moderating effect will produce an expansive effect on the level of diffusion of ESG criteria considering key aspects of good governance such as (i) the board gender diversity, (ii) the non-executive directors, (iii) the busy directors, and (iv) the stakeholder's engagement in the strategic decisions of European companies.

To extend this study, each of the three ESG performances separately, i.e., environmental performance, social performance and governance performance, are also considered as complementary dependent variables. This is intended to make the overall results more nuanced and to identify whether any of these pillars play a more relevant role in the degree of ESG disclosure.

The most relevant results indicate that the empowerment of women in senior institutional positions and, mainly in the dimensions related to economic, equal opportunities and political aspects, plays a very relevant role as it has a positive impact on the level of ESG performance in the context of European sustainable companies. Furthermore, this level of performance is mainly explained by the performance related to the good corporate governance practices that these companies have been implementing for years. The task performed by non-executive directors as well as busy directors in this process stands out, with the activity carried out by stakeholders' engagement being particularly noteworthy.

Aspects related to environmental and social preservation seem not to have been addressed as expected, therefore, European sustainable companies should make a special effort to engage not only in good governance but also in the other two pillars that make up the ESG criteria.

**Keywords:** Sustainable finance, ESG performance, Global Gender Gap Index, Board gender diversity, Non-executive directors, Busy directors, Stakeholder engagement

# The Moderating Role of Gender Diversity on Board: The Relevance of European Sustainable Firm Performance

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**Abstract:** This study aims to analyze the moderating role of gender diversity on firm performance, considering the inclusion of some board characteristics namely, CEO duality, board size and board meeting. This study uses the generalized method of moments (GMM) to investigate the relationship between board gender diversity and firm performance using the data from 2012- 2021 of the 120 most sustainable companies in Europe included in the Euro Vigeo 120 Index.

The principal results indicate that gender diversity on the board directly does not affect firm performance, but indirectly when moderate activities with the CEO duality and board meet help to preserve/increase the firm performance. These results are different when the sample is divided according to financial orientation, market-oriented or bank-oriented. For market-oriented companies, the moderating role of gender diversity on the board does not show significance for CEO duality, board size and board meetings. Taking into account that sustainable companies with market-oriented have the best firm performance and a higher proportion of gender diversity on board, this effect may be because market agents do not see the inclusion of female members on board as a differentiating factor. Moreover, when analyzing the moderating role of gender diversity for European sustainable firms with bank oriented is observe a different behavior. For CEO duality and board size, gender diversity on board reduces the positive impact of these two board characteristics on firm performance. On the other hand, for board meetings, gender diversity on the board produces a positive effect on firm performance. This could be because females show their leadership style by influencing board decisions, improving the effectiveness of meetings and improving firm performance.

This study represents an opportunity to understand the behavior of sustainable companies in the European region, allowing us to recognize the influence of gender diversity in corporate governance structures such as the board of directors. Limited empirical studies have been conducted on the relationship between board gender diversity and firm performance in sustainable companies. It is worth highlighting the importance of these sustainable companies, they allow the creation of social, environmental and economic value. Therefore, they behave differently than traditional companies. Where sustainable indices are an indicator of the sustainable performance of these companies, serving as a reference for different stakeholders.

Therefore, there is still no consensus regarding the link between board gender diversity and firm performance based on the mixed and sometimes contradictory results in prior research. Therefore, this study extends the current literature in the context of European sustainable companies, showing that a female member on the board can moderate the relationship between the board of directors and firm performance, with the type of financial orientation being a relevant factor in this study.

**Keywords:** Gender diversity, Board of directors, Firm performance, European sustainable firms, Bank - or market-oriented

# The Challenges of Integrated Reporting for Businesses in Developing Countries

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**Abstract:** Financial reporting is crucial in every decision-making. Considering the developments of the last years, it is necessary to direct the attention toward non-financial reporting, without diminishing the importance of financial reporting. This paper focuses on the importance of non-financial reporting for a more sustainable economy. With the development of markets and globalization, businesses today are in increasingly fierce competition, where there is a need for other non-financial indicators that show the impact of this business in society or the community. These non-financial indicators make a difference not only in the decision-making of the readers of the annual report, but they influence a more stable economy, a better environment, and an increase in well-being in general. Are businesses in developing countries ready for such a report? (Lozano, 2015) What is the role of the United Nations as a promoter for the application of The Sustainable Development Goals (Adams, 2017)? This paper will be based on a questionnaire addressed to business managers and accountants. In the conclusions of the paper, we will see a general approach and the challenges of businesses in Albania regarding non-financial reporting.

**Keywords:** *Integrated reporting, Sustainable economy* 

### The Role of Organizational Management in Crisis Situations

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**Abstract:** Leadership is the only ship alone in a storm (Faye Wattleton). The disturbances produced by the economic, social and asymmetric crises through which the society goes determine a new management concept of the organizational environment regarding the prevention of the effects of crises, as well as the reduction of their effects in the short, medium and long term.

The role of management as well as leadership in the current context regarding crises is an essential one in preventing the emergence of crises, the spread of these crises, but also the actions to combat their effects and post-crisis economic-social relaunch.

Leadership and organizational management can ensure the adaptation of the organizational environment at the local, regional and global level for the prevention, limitation, mitigation and resolution of crises, as well as short-, medium- and long-term anti-crisis measures to ensure economic and social stability.

**Keywords:** Crisis, Leadership, Organizational environment, Performance

### Exploring the Nexus of Regional Development, Innovation and Fiscal Policy in the Just Transition: A Comprehensive Literature Review

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**Abstract:** The paper looks at the relationship between regional development (RD), innovation (I), fiscal policy (FP), and the Just Transition (JT) and how it provides the foundation for informed decisions and evidence-based policymaking.

Caught in a conundrum of the Just Transition under the Green Deal, geopolitical upheaval due to military events in Europe's vicinity, and complicated economic conditions (particularly high inflation and increased poverty rates), the current analyses on the Just Transition paint a bleak image. The tradeoff between continuing with the Transition, particularly towards European energy independence, and maintaining short-term competitiveness by using cheap coal resources is one that policymakers should consider by relying on an overview of practices. This overview, coming also from non-European regions, may spur disruptive ideas, which may, in turn, prove to be the unusual solution to an unsolvable problem.

The method chosen for this framework is the bibliometric literature review on three axes (RD-I, FP-RD, JT-RD) for academic articles, policy documents, and reports related to the Just Transition from the past 15 years (2008 – 2023). This method allows for identifying the trends of the RD strategies in relation to fiscal incentives and innovation. It concludes that proper and effective regional development for a green and socially equitable society may depend on appropriate fiscal measures and innovation policies. Secondly, the gaps in the literature highlighted following the presentation of publication trends and keyword analysis are discussed.

Lastly, the article dedicates a section to the JT in the mining regions, and, more specifically, the coal-mining regions of Romania, as a case of atypicality in its Just Transition, in view of its constant chase to find the best regional incentives.

**Keywords:** Just Transition, Fiscality, Regional development, Innovation, Romania

# Shadow Economy in Bulgaria: Some Results from a Questionnaire Survey among Businesses

#### Venelin Boshnakov

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**Abstract:** The paper suggests some empirical evidence on selected issues concerning the spread of the shadow economy in Bulgaria utilizing sample data from a questionnaire survey among representatives of business organizations conducted in 2023. Respondents have ownership, managerial, or expert positions within the firm and expressed their opinions about the spread of the shadow economy as well as various aspects of transactions underreporting practices in their branch. Survey evidence is suggested as a ground for the evaluation of the impact of these practices on the potential for private business development, also perceived as barriers to the successful market transformations of the Bulgarian economy. Attitudes of business people are supportive of the opinion that restraining corruption and bureaucratic barriers along with enhancement of the transparency of public decision-making – at both local and central levels – can assist positively in favor of shrinking the shadow operations scope. Furthermore, increasing the effectiveness of law enforcement and judiciary systems seems to be an important condition for encouraging domestic entrepreneurship, foreign investment, and desired stable economic growth.

**Keywords:** Shadow economy, Business survey, Bulgaria

### The Impact of Public Expenditures on The Economic Growth of Albania

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**Abstract:** The main purpose of this paper is to analyze public expenditures and their impact on economic arowth in Albania. It is widely recognized that an increase in public expenditures translates into an increase in GDP level. The analysis of the impact of public expenditures is associated with elements that affect both positively and negatively on economic growth. Therefore, this is a topic that requires continuous study, not only for governance but also to understand the impact they have on each individual and the economy as a whole. Albania is a small country with an open economy, so the study of the impact of public expenditures on the economy is very important to understand their use as an instrument of fiscal policy and to predict trends in the future. In the conditions of change and reformation of fiscal policies, it is likely that the structure of government expenditures will also change. To study the level of expenditures helps to understand in which functions the government has mostly directed the income it has available received from different sources. We also highlight which government functions are well covered by spending and which are at low levels and require more attention. In this paper are taken into study health public expenditures, defense public expenditures, education public expenditures and total public expenditures. These variables are analyzed based on the econometric model. These variables have the highest impact on the level of GDP. These variables are analyzed based on the econometric model.

Keywords: Public expenditures, GDP, Albania

# **Key Observations on Factors Influencing Transfer Pricing Practices. A Comprehensive Review**

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**Abstract:** The contemporary business landscape, shaped by economic globalization, technological advancements, and increased cross-border transactions, presents both challenges and opportunities for global enterprises. Within this dynamic context, the strategic operations of multinational corporations are significantly influenced by transfer pricing decisions. This article undertakes a comprehensive exploration of the intricate factors that contribute to the shaping of TP decisions, leveraging insights from a diverse range of studies spanning multiple decades. The primary objective is to identify the factors that play a pivotal role in the decision-making process for determining transfer prices. To accomplish this aim, the authors initiated a thorough search for articles addressing the intricacies of TP decisions. These articles served as foundational resources, providing essential insights into the conceptual framework of transfer pricing. Through an analysis of existing literature, the author successfully pinpointed key factors that have been consistently recognized as having a substantial impact on the TP determination process.

**Keywords:** Transfer pricing, Globalization, Influential factors

# Bank Performance and Efficiency during Housing Crisis: Evidence from the Portuguese Banking Sector

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**Abstract:** In this study, we aim to analyze how performance and efficiency changed in the Portuguese banking sector, during the period 2018-2022. In this period, several national and international events affected the performance and efficiency of banks. For example, we have the crisis caused by the COVID-19 pandemic and more recently the housing crisis, along with inflation and interest rate crisis.

The increase in interest rates on housing loans has contributed to the reduction in inflation. However, the lack of houses in the Portuguese market has led to prices remaining high. Following two distinct perspectives, performance and efficiency analysis, we will analyze how banks are dealing with this event.

**Keywords:** Banking efficiency, Banking performance, DEA

# Identifying Money Laundering Risk Indicators: Evidence from Bulgaria

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**Abstract:** The study of the fight against money laundering in Bulgaria takes on a heightened significance due to the country's unique geopolitical and economic context. As a member of the European Union and a key regional player, Bulgaria assumes a pivotal role in preventing cross-border crimes, including money laundering. The present study aims to analyze how modern technologies can bolster this crucial role, facilitating monitoring and analysis processes to enhance the effectiveness of audit and tax inspections in the country.

The research applied practical methods involving digital tools and technological solutions such as artificial intelligence and machine learning. These tools were used to identify risk patterns and anomalies in transaction data, demonstrating their real-world application and effectiveness. They enable fast and accurate analysis of large volumes of data, which is particularly important in the context of sophisticated money laundering schemes.

The results of the study underscore the potential benefits of technological innovation in the field of financial audits. With the aid of digital technologies, supervisory authorities in Bulgaria stand to significantly enhance their ability to detect financial abuses, including money laundering and tax evasion.

In conclusion, the study reiterates the pressing need for further integration of modern technological solutions in the practices of audit and tax services in Bulgaria. This integration is crucial to ensure the effectiveness of control mechanisms and the country's ability to respond to current and future challenges in the fight against crimes in the financial sphere, underscoring the urgency of this matter.

**Keywords:** Prevention of money laundering, Financial technologies in Bulgaria, Audits, Tax control, Cross-border crimes

### **Detecting Fraud in Accounting Using Selected Methods**

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**Abstract:** In practice, the methods of committing economic crime take the form of corruption, misappropriation of assets and fraudulent financial reporting. In the case of fraudulent financial reporting, it is primarily a falsification of financial and non-financial information. Some Slovak companies were revealed as tax-fraudulent entities. Some methods of detecting accounting fraud were used in their cases in the article. Findings in this context brought interesting connections.

**Keywords:** Financial statements, Benford's law, Beneish M-score

### **Internal Control System as a Function of Company Profitability**

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**Abstract:** In order to effectively and efficiently manage the company, it is necessary to establish an adequate internal control system. Internal accounting control represents a complex system of financial controls aimed at providing reasonable assurance of the efficiency and success of the company's operations. In a very turbulent and dynamic environment, management has the task of establishing a system of efficient and effective decision-making, and this implies accurate, reliable and credible information about the company's financial and business performance, as well as information about business risks, which should be indicated by the internal control system. In this paper, we will analyze the internal control system as one of the crucial tools in the fight against business and financial risks, as well as the projection of distorted financial information, which is the basis for making decisions by the company's management.

Keywords: Internal control, Profitability, Internal audit

# Current Problems of Complex Management of Mineral Resources in the Mineral Economy of Serbia

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**Abstract:** The success of mineral resource management is directly reflected in the conditions and way of functioning of the country's mineral sector and its mineral economy. The subject management has an impact on three levels of consideration, namely: (a) geological exploration of metallic, non-metallic and energy mineral raw materials; (b) the natural form of mineral production of the necessary mineral raw materials; and (c) the economic effects of mineral production on producing companies and social reproduction as a whole. Current problems relate to all three levels of consideration with varying degrees of complexity and impact on the functioning of the mineral economy of Serbia.

The news of geological exploration is related to the still unresolved situation surrounding the public protests of environmental organizations related to the geological exploration of lithium in the found, explored and defined lithium and pine deposit Jadar in western Serbia. On the one hand, environmental organizations are demanding the complete cancellation of further geological exploration on the Jadar project. On the other hand, the Government of the Republic of Serbia withdrew the spatial plan for the area in question, which was the basis for planning eventual exploitation after the completion of geological exploration. On the third side, companies that are engaged in the realization of geological exploration based on the obtained exploration rights, ask the state to enable them to explore, to determine what is found in a certain area, regardless of the subsequent action. On the fourth side, the geologists participating in the exploration are looking for safe conditions for moving around the terrain and carrying out the geological exploration foreseen by the project.

Current events in mineral production are primarily related to problems in the production of sufficient quantities of certain mineral raw materials. Among them, the problem of producing sufficient quantities of coal, of which Serbia has significant mineral reserves, is especially pronounced. Over a long period, due to non-investment in the maintenance and development of coal production capacities, a situation arose where Serbia became an importer of coal instead of an exporter. A special problem arose with an unexpected consequence in the form of reduced electricity production in the crisis period, where coal was used as the main energy source. This has put Serbia in a special situation of endangering energy security and energy stability, with a special energy dependence in conditions of rising energy prices due to the consequences of the Russian-Ukrainian war conflict. Another prominent problem is endangering the future potential production of lithium, especially important for the production of lithium batteries for mobile phones, laptop computers and electric cars. As a result of political and environmental protests, activities on the preparation of feasibility and feasibility studies for future exploitation have been significantly slowed down, with a high degree of uncertainty for further implementation. Considering the mineral potential, this means the non-realization of potential plans for Serbia's ranking as a world-significant lithium mineral producer.

News about the economic effects of mineral production appears in two directions. The non-realization of mineral coal production led to a decrease in the profits of mines, both with surface exploitation, and especially mines with underground exploitation, which were otherwise in severe economic problems due to high production costs. On the other hand, economic problems have been created for thermal power plants, due to the reduced possibility of producing electricity from domestic coal. Significantly, the costs of producing electricity from imported coal have increased in comparison to the limited lower price of electricity in Serbia, which the state controls to ensure social peace and keep prices lower than market prices.

In this way, the economic assessment of the profitability of the use of mineral reserves appears as a very significant and influential factor in the success of the functioning of the mineral economy of Serbia in the current crisis conditions. At the same time, the additional importance and impact of the mineral economy on the upcoming economic and social development as part of the initiated European integrations on the way to Serbia's full membership in the EU is manifested.

**Keywords:** Mineral resources, Mineral economy, Mineral market, Mineral production

### Assessing the Dynamics of Crude Oil Price Fluctuations: An In-depth Analysis of Trends, Drivers, and Implications

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**Abstract:** In this study, the authors examine the changes in crude oil prices from 1995 to 2022, highlighting the significant factors and their effects. This study's primary goal is to thoroughly explore the long-term patterns in the oil market, determining the causes of price volatility and their impact on international economies and energy policy. The study uses a multidisciplinary methodology combining fundamental analysis and econometric techniques to produce novel insights. It explores existing variables such as supply and demand, macroeconomic indicators, and geopolitical events, as well as developing variables like the adoption of renewable energy, environmental legislation, and technical breakthroughs in the energy industry. One of the main conclusions is the growing impact of non-traditional factors on oil price swings, such as regulations addressing climate change and the advancement of electric vehicles. The study highlights the necessity for diverse energy solutions in a constantly evolving world and shows how these new factors transform the energy landscape. Furthermore, by offering a nuanced viewpoint on the complex relationship between oil prices and global economic stability, this research contributes a significant new dimension to previous work. The information in this article helps us comprehend the intricate workings of the oil market and provides valuable information for players in the sector, investors, and policymakers as they negotiate the changing energy landscape.

**Keywords:** Crude oil prices, Fluctuations, Determinants, Energy policy, Climate change, Electric vehicles, Energy market, Economic stability

# Realizing Carbon Neutrality in the European Automotive Industry. Reality or Just Greenwashing?

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**Abstract:** International agreements to reduce global warming affect the automotive industry in several ways. On the one hand, they need to reduce carbon dioxide emissions from production, and on the other, they need to introduce technological innovations in vehicles that will reduce and, in the longer term, eliminate emissions during use. The focus on carbon neutrality in the automotive industry has changed both product and production. To reduce emissions during vehicle use, car manufacturers developed innovative technologies to replace internal combustion engine cars with pure (battery) electric vehicles. By reducing the energy consumption of their production and moving towards electromobility, car companies are not only trying to meet tightening regulations but also taking advantage of the positive (eco-friendly) image that the transformation creates. Low carbon footprint, net-zero emissions and reduced ecological footprint are key terms in their communication. However, many examples show that this communication can distract attention from the overall environmental impact of these companies.

This research aims to assess the green communication of automotive companies. How have companies set short and long-term goals to reduce the carbon footprint of their production and products? To what extent are these targets in line with real, measurable emission indicators? Are the changes part of general modernisation or are they additional commitments to carbon neutrality?

The study analyzed the corporate communication of selected European companies. We also looked at corporate strategies to reduce emissions and compared them with real-world processes. The study found that companies often communicate their efficiency-enhancing decisions as environmental objectives in the face of rising raw material and energy costs and increased competition. Technological changes in the finished product, including their actions to replace internal combustion technology are, however, only a means of meeting tightening standards. The competition in the market and the huge capital requirements for improvements are pushing the long-term view and the implementation of real solutions into the background. In fact, the introduction of new technologies only shows a decreasing carbon footprint for certain parameters, and overall, the trend is the opposite.

**Keywords:** Global value chain, Automotive industry, Electromobility, Decarbonisation, Greenwashing

### **European Union Cohesion Policy and Urban Development: Perspectives for South-East Europe**

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**Abstract:** The cohesion policy is the most significant EU investment policy, the main goal of which is to reduce the uneven development of individual members of the Union or its specific geographic sections. The European Union seeks to support the economic development of less developed areas, improve social well-being and encourage territorial cooperation, which is reflected in the European priorities of economic, social and territorial cohesion. In this context, the importance of urban development is increasingly emphasized, as one of the most important interest areas of the new Cohesion Policy, given the high and increasing levels of Urbanization of the Union, as well as the need for revitalization of individual city areas, especially in Central and Eastern Europe. The growth and progress of urban areas in Europe depend on external and internal factors related to, for example, the degree of economic activity and economic trends, migrations and demographic challenges, infrastructure and technological changes, climate change and/or increasingly numerous (geo)political challenges. The analysis indicates the importance of adequate strategies, policies and instruments and relevant resources to the creation of the positive effects of the development of cities in the EU, especially with the help of effective and meaningful projects of urban development, which is especially important for the survival and prosperity of numerous cities in new (and future) European Union members.

**Keywords:** European Cohesion Policy, Urban development, South-East Europe

### **European Union Industry and the Support for a Green Transition**

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**Abstract:** Recent discussions about the future of the European Economy and its development potential focus mostly on a Green and Digital Transition, based on different and innovative approaches to the application of energy, resources and capital. Member States, working together with the EU, need to invest significant efforts and resources in this transition and economic resilience, under the influence of recent and expected changes related to demographic trends, climate change, technological progress and growing geo-political instabilities worldwide. A common strategic and financial "push" toward the achievements of a needed transition for most countries in Europe lacks clarity, coordination and sometimes determination. Therefore, our research involves the assessment of the priorities of economic transition, and the relevance of national and supranational investments in the EU, especially in the context of a Green European Economy. National support through State Aid and the development of green industries in the European Union include many strategies, measures and instruments aimed at stimulating environmentally sustainable economic growth in Europe. Besides research and innovation in green and efficient technologies, fiscal incentives for companies that use renewable energy, or facilitation of requlation for faster green transition, it is essential to induce the development of "green" jobs, as well as transparent and sustainable State Aid. Our research tackles all these aspects, with a goal to provide a comprehensive picture of how the EU and its Member States provide competitive advantage to European companies in global "green" markets.

**Keywords:** European Union, Green industry and transition, State aid

# **Evolution of Ecological Economics and Bioeconomy for Sustainable Development. A review**

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**Abstract:** This paper presents a literature review analysis of the evolutionary trajectory between Ecological Economics and Bioeconomy, exploring their interconnected development and emerging paradigm shift towards sustainable development. The need for creative economic models that balance the environment and the economy grows as the world community struggles to address issues like resource depletion and environmental degradation. The paper examines fundamental principles of Ecological Economics and the evolution of Bioeconomy, a paradigm integrating biological resources into economic activities while preserving ecological integrity. It reviews key theoretical frameworks and policy interventions exemplifying the convergence of Ecological Economics and Bioeconomy. Insights from the literature highlight the potential for additional synergies between these two fields, offering a holistic approach to sustainable development. The paper concludes by outlining future research directions to further advance the integration of Ecological Economics and Bioeconomy for the benefit of our planet and future generations.

**Keywords:** Bioeconomy, Ecological economics, Sustainable development

# Analysis of Benefits and Challenges of One-Stop Shops Solution for Residential Building Energy Renovation

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**Abstract:** The Energy Union prioritizes energy efficiency to reduce pollution and reliance on imports. With 40% of Europe's energy consumed by buildings, upgrading existing structures is crucial for a clean energy transition, necessitating standardized, One-Stop-Shops (OSSs) for homeowner guidance and financing. OSSs solutions for energy efficiency measures in buildings are comprehensive programs or services that aim to streamline and simplify the process of improving buildings' energy performance. This paper aims to analyze the concept of OSSs as a key mechanism supporting enhanced energy efficiency in residential, business, and public buildings. The paper focuses on the key benefits and associated barriers and challenges of OSSs operation, so as to provide recommendations for accelerating building renovations toward a clean energy transition. The study underscores the importance of recognizing OSSs or analogous structures as facilitators for various stakeholders, including citizens, SMEs, and public authorities, to undertake projects related to the clean energy transition.

**Keywords:** Clean energy transition, Sustainable development, Decision support, Energy efficiency, Energy renovation, One-Stop-Shops, Building sector, Renovation barriers

# Smart City – Innovative Approach to City and Urban Regions Development

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**Abstract:** Regions, cities, and municipalities are currently confronted with new challenges, because of the systemic shift in the economy towards a post-industrial economy and Industry 4.0. An accompanying phenomenon is the transformation of society into a knowledge-based, civically developed society that effectively and sustainably valorises natural and human capital. The syneraistic effect of these processes affects all spheres of social life, including production sectors, social and technical infrastructure, service sector, leisure activities and tourism, with a shift from governance to management. Innovative approaches to the development of cities and urban regions are accompanied and supported by cooperation and a combination of technical and technological, organizational, institutional, behavioural, and environmental innovations. Innovative approaches do require effective use of the internal cooperation potential of various key players in the city, municipality, and region, as well as external cooperation with neighbouring municipalities and cities, enabling and ensuring a rational division of activities among them. Innovations have become a phenomenon of regional development. The analysis of the European Innovation Index structure and status of indicators has presented disparities at the regional level in the EU. However, the indicators have become a valuable resource for a regional policy strategy as an accelerator of the growth of the region's innovative performance with a focus on supporting areas e.g., research, development and innovation, business environment and the use of the region's potential and resources. The concept of Smart City development has become a basis for the integration of new approaches associated with the challenges of current development. Smart City is a strategic management concept that makes it possible to use modern technologies for the benefit of citizens and organizations so that the city and region can live comfortably and do business successfully. The Smart City concept is presented as part of the organizational strategy of the city, municipality, and region as expressed in formalized city strategic documents. The development of a smart city and neighbouring regions based on innovations is driven by effective communication, partnerships and cooperation among key stakeholders who have different roles, various degrees of accountability, distinct capacities, and motivation, and can come up with different initiatives and activities. The concept of Smart City emphasizes the principle of integrated development. The complex of interconnected economic, technological, and social challenges to which self-government bodies must respond instigated the interest in the concept of Smart city solutions. They require an integrated approach at the level of the city, the catchment region, across all dimensions to provide the citizens with high-value services. The purpose of the paper is to provide insight into the innovative approach of local self-government to the implementation of a Smart City concept by means of systemic and management tools. Public sector management, including local self-governments, needs to upgrade the knowledge and skills, attitudes, and behaviors of public administration managers, as they represent an integral part of the success of the implementation of the Smart City concept.

**Keywords:** Smart city, Innovation, Integrated development, Public sector, Management

# Perception of General Population about the Sustainability Consciousness: Their Knowingness, Attitudes and Behaviours

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**Abstract:** The focus of the paper is on analyzing the perception of the general population about their sustainability knowingness, sustainability attitudes and sustainability behaviour. We used descriptive statistics and t-tests to confirm the set hypothesis. In the sample of 323 respondents, differences among males and females were found in the perception of their awareness of sustainability knowledge. The woman perceived their knowledge about sustainability as higher than men. Further no differences in the perception of sustainable attitudes and sustainable behaviour were found between males and females. Research results indicate a gap between respondents' knowledge about sustainability and their attitudes toward sustainability and more over their sustainable behaviour. This research adds to the new knowledge in analyzing the perception of general population sustainability consciousness since differences in the perception among males and females were found positive and significant.

**Keywords:** Sustainability consciousness, Sustainability knowingness, Sustainability attitudes, Sustainability behavior

# Harnessing Regional Trade Agreements as Catalysts for Climate-Smart Trade: The Case of Western Balkans Countries

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**Abstract:** The concept of climate-smart trade is gaining momentum as trade agreements increasingly incorporate provisions to balance economic growth and environmental conservation. While in the past, environmental and climate issues played a minor role in international trade agreements, recently there has been a growing trend towards incorporating climate-smart provisions, particularly in regional trade agreements (RTAs). These provisions aim to promote sustainable development, pursue international environmental goals, ensure a level playing field, and enhance environmental cooperation. The paper analyzes the emergence of environmental and climate-related provisions in free trade agreements. It attempts to define them, explain how they are incorporated into free trade agreements, and assess the reasons for the increased number of such provisions. The paper then briefly analyses statistical data related to the types of environmental and climate-related provisions contained in FTAs, before going into details of the climate-smart provisions of the regional trade agreements in the Western Balkans.

**Keywords:** Climate-smart trade, Environmental provisions, Regional trade agreements, Western Balkans

### **Smart Specialization and Competitiveness within Industry 5.0**

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**Abstract:** As the business world survived after the COVID -19 pandemic, according to "traditional" Porters' competitiveness models, the traditional industrial sectors lost their competitive advantage. So, they have to do "some" virtualization to be more competitive in the common economic world.

The paper aims to discuss the possibilities of smart specialization for increasing the competitiveness of traditional industrial sectors. The basis for analysis is the need of traditional industries for smart change under Industry 5.0 in order to survive in the digital business world. However, how such digital and smart specialization is to be done is the key problem discussed in the paper. The main results of the desk and practical research in the paper are found in the next points: 1. Application of Industry 5.0's competitive approach to the "old" traditional industries and 2. Introduction of competitive roadmap based on smart specialization and social platforms.

**Keywords:** Smart specialization, (Digital) competitiveness, Industry 5.0

### The Economic Value of Personal Data in the Digital Economy

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**Abstract:** Personal data can be seen as an economic asset generated by the identity and behavior of individuals who are traded in exchange for higher-quality services and products. The volume of stored personal data is increasing rapidly. In the two-sided market mechanism, online platforms act as intermediaries that collect data from consumers and sell advertising slots to companies, the use of personal data removes information asymmetries and contributes to the efficiency of online transactions, the lack of self-determination of personal data by consumers can lead to the uneven exchange of economic value. Unless appropriate measures are taken, such concerns about how data is used threaten to reduce individuals' willingness to share their personal information. Personal data can help businesses perform 'churn detection', identifying customers more likely to leave a retailer. Using such techniques, companies can implement marketing actions to increase customer loyalty. Detecting customer churn is important for businesses because the cost of retaining existing customers is usually lower than the cost of acquiring new customers. Targeted Internet advertising plays a useful informational role for users, as they can see adverts relevant to their potential unique interests. Voluntary data sharing by users is accompanied by explicit rewards and other promotional offers In the current study we explore the advertisements by the online platforms and their relation with personal data transfer. To explore the economic value of personal data, we apply a survey. Correlation analysis is applied.

**Keywords:** Digital economy, Risk management, Personal data

### **Types of Online Forms of Payment and Digital Currencies**

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**Abstract:** The Internet is now part of everyday life. With its development and technological advancement, numerous types of Internet payments have emerged, such as credit cards, prepaid cards, e-wallets, etc. This article describes the available forms of online payments on the Internet, mobile payment forms, digital currencies and cryptocurrencies and their application. It also discusses the advantages and disadvantages of these types of online payments. Finally, an analysis of research on the use of online payments and cryptocurrencies in the Republic of Croatia was conducted to provide an up-to-date and realistic picture of Internet and online payment systems and cryptocurrencies in the Republic of Croatia.

**Keywords:** Internet payments, Mobile payments, Online payments, Cryptocurrencies, Digital currencies, Bitcoin

### **Algorithmic Trading using Machine Learning**

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**Abstract:** This article delves into the automation of TradingView's "Machine Learning" indicator, crafted by the skilled developers "chhagansinghmeena" and "JDEHORTY". Our primary focus centers on the application of the Cosine Similarity algorithm, utilized to construct a robust trading strategy for the BTC/USDT pair. A comprehensive backtesting process spanning from August 2017 to September 2023 validates the algorithm's effectiveness. The core of this strategy lies in the automation facilitated by Pine Script 5, tailor-made for the TradingView platform. We detail how the Cosine Similarity algorithm is instrumental in guiding trading decisions based on historical data patterns. This algorithm quantifies the similarity or dissimilarity between current market conditions and past data, acting as a compass for strategic trading. In conclusion, our journey exemplifies the power of algorithmic trading when informed by machine learning. The Cosine Similarity-based strategy demonstrated exceptional promise, but our commitment to refinement and adaptation remains unwavering. As we continue to explore the frontiers of algorithmic trading, we remain steadfast in our pursuit of innovative strategies that can navigate the dynamic landscape of digital assets and financial markets with precision and profitability

**Keywords:** Cosine similarity, Machine learning, Algorithmic trading, BTC/USDT, Pine script, Backtesting

### A System for Automated Testing of Relational Database Operations Skills

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**Abstract:** For decades, automated testing systems have been used in programming education, allowing the learner to immediately understand the correctness of the written code without waiting for verification by the teacher. However, no such systems exist for testing relational database queries. The proposed web-based system allows defining the database structure and filling it with test data; the definition of tasks, loading of correct solutions and automated testing of the student's solutions by comparing the results obtained by him with the correct ones. The system also offers functionality to monitor the test solutions of all participants in the session in order to avoid fraud. It has also been successfully used during national student data processing competitions.

**Keywords:** Relational databases, Automated testing, CRUD operations

# How to Boost Cybersecurity to Deal with Cyber Attacks and Hotel Data Security Breaches?

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**Abstract:** It is evident that the various types of security incidents such as unauthorized access, denial of service, malware attacks, zero-day attacks, data breaches, social engineering, phishing, etc. have increased in scope, intensity and sophistication of execution. In the era of digitalization and general use of the Internet, cyber threats have not bypassed the tourism and hotel industry. Hotel cybersecurity is a key element for the competitiveness of the hotel industry. In recent years, the issue of cybersecurity has gained more and more attention due to the increasing number of cyber attacks and their attempts. The hospitality industry is particularly at risk because it holds quests' data. The objective of this paper is to analyze cybersecurity and security practices of information and network systems, cyber threats, and techniques to prevent cyber attacks on hotels. Based on relevant academic literature, it defines the term data security, identifies the types of data breaches in hotels, and provides an overview of best practices for hotel cybersecurity. The goal of this research is to examine potential threats, identify security vulnerabilities, and establish baseline security requirements that reduce the possibility of damage and ensure business continuity. The research confirms that data breaches are a worrisome and damaging threat and that cybersecurity in hotels is very low. Hotels are particularly vulnerable because they handle a large amount of personal data from quests and customers. This paper not only expands theoretical knowledge in cybersecurity, but also provides implications for hotel company management in designing and strengthening cybersecurity to implement preventive, detective, and reactive measures to prevent, detect, and respond to data breaches and maintain healthy cyber hygiene.

**Keywords:** Cybersecurity, Cyber attacks, Data breaches, Hotel industry, Digitalization

### Cyber Security Risks in the Process of Digitalization of Public Administration in Romania

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**Abstract:** The transition to digital Public Administration is not only a change in technological methods but also a transformation in the way societies interact with their governments. Access to information and services is much simpler and transparency increases. It is like an upgrade to governance for the digital age. Innovation in the public sector is the key to making the Administration more agile and adapted to the ever-changing needs of society. By embracing emerging technologies and thinking creatively, governments can deliver more efficient services and approach complex issues more sustainably. It is a great way to ensure that the public sector keeps pace with progress and that citizens benefit from the best possible services. In this way, cyber security becomes more and more vital as we move towards increased digitalization. As technology advances, cyber risks become more sophisticated. Protecting sensitive data and infrastructure is essential to ensure efficient Public Administration and citizens' confidence in using digital services. Digitalization not only changes the way we work and interact but also the way we understand and shape society. It is like an engine that pushes forward progress, opening up new opportunities and fundamentally changing aspects such as education, health and even the way citizens relate to government.

**Keywords:** Public administration, Digitalization, Security risk, Citizen, Technology, Artificial Intelligence (AI), Ransomware, Phishing, Public service, Digital education

### The Specifics of the Disaster Risk Management System as Part of the Modern Security Approach

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**Abstract:** On the international and world level, there is a growing concern among experts and environmental activists due to the increasing frequency and severity of hazards and disasters, partly due to factors related to climate change. In many countries that implement disaster prevention measures, there have been attempts to introduce political, legal, technical, financial and institutional measures that will reduce the destructive effects on the lives and existence of individuals and communities. The role of the Hyogo Framework for Action, which mandates special efforts to significantly reduce losses due to disasters in the lives and social, economic and environmental assets of communities and countries, is particularly pronounced. Achieving such goals requires a shift from reactive emergency aid to proactive disaster risk reduction in the pre-disaster stages by strengthening prevention, mitigation and preparedness. In the modern security approach related to the prevention of various forms of disasters, special attention is paid to the complex and practically very important question of the analysis of the disaster risk management system.

For a wider social activity of this type, a set of tools for assessing the existing structures and capacities of national, district and local institutions, which are responsible for the disaster risk management system, is particularly important. In order to improve the efficiency of the subject management, it is necessary to integrate the issues of disaster risk management into development planning, especially individual disaster-prone areas and vulnerable sectors and population groups. It is fully realistic to expect that the strategic use of disaster risk management will improve the understanding of the strengths, weaknesses, opportunities and threats faced by the existing institutional structures of the disaster risk management system and their implications for ongoing processes of institutional changes. The process of disaster risk assessment and analysis is actually the first important step towards strengthening existing disaster risk management systems and progress in the subject domain, which is becoming one of the most important aspects of security in the modern world.

The initial part of the disaster risk management system includes the initial definition of key terms and the main conceptual frameworks of the way and necessary work procedures in disaster risk management. In the continuation of the system, it is necessary to plan the institutional assessment of disasters as part of the disaster risk management system. The next significant segment includes the assessment of the disaster risk management system at the national level, as a significant part of the subject analysis and risk assessment segment. At the modern level, many very important issues are addressed, among which are the role of national institutions in the disaster risk management system, the reasons for institutional assessment at the national level, the way to start the risk assessment, then the way to monitor information during the assessment of the risk of disasters at the national level. In the complete system, the presentation of the assessment of the disaster risk management system at the district level follows, as a lower and more detailed analytical part of the analysis and risk assessment segment. At the same time, an additional issue compared to the previous national level is the concretization of issues and problems to be solved at the district level, with mediation in activities between the national and local levels. Methodologically, there follows a part with a presentation of the assessment of the disaster risk management system at the community level, as the lowest and most detailed part of the analysis and segment of the subject assessment. The final part shows the necessary elements of data analysis and interpretation, specifying a series of possible steps and tools for analyzing and synthesizing the information collected during the assessment so that it is available in a form that facilitates making the necessary decisions about institutional reform and building the necessary capacities.

Through this approach to the analysis of the disaster risk management system, a practical and applicable disaster risk management procedure is created, with the method and steps of implementation within a specific area/territory or appropriate organizational and territorial-political unit. In this way, a significant improvement of the disaster risk assessment activities outlined in the Hyogo framework is made possible, through an effective proactive approach to reducing the number of disasters and significantly reducing the loss of lives and social, economic and environmental assets of certain communities and countries.

**Keywords:** Risk, Disaster, Management, System, Security

# Digitalisation in Agribusiness - Challenges for Employers and Workers

#### Pavlina Ivanova

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**Abstract:** Digitalisation in agribusiness is a tool to both increase productivity, increase competitiveness in the sector and ensure a more sustainable use of resources. New ways of working contribute to optimizing production processes on farms, improving risk management, and enhancing strategic decision-making capabilities. Yet it also reveals many challenges for both employers and workers themselves. These are usually related to changing jobs, ensuring workers have the necessary competences, and providing training to improve skills, and are often also related to working conditions and worklife balance. In this context, the paper aims to review the literature, formulate relevant definitions and draw conclusions, which will answer the questions: How has digitalization in agribusiness changed the working environment and conditions? What are the challenges for employers, workers and educational institutions?

**Keywords:** Digitalization, Agribusiness, Workforce, Competences, Working conditions

## **Cooperation and Competition in Rural Areas: Social Effects**

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**Abstract:** In the highly variable business environment in which firms operate, competition encourages better use of available resources. At the local level, firms compete with each other for both economic success and prestige, and due to the complex interconnectedness of economic and social relations, this can have an impact on both cooperation and competition between them. When a balance between cooperation and competition is struck at the local level, the interaction between the two can create good collaboration, and the effects are not only economic but also social. In this context, this report aims to define and discuss the social effects of competition and cooperation in rural areas, in particular in terms of employment, education and living environment.

**Keywords:** Cooperation, Competition, Employment, Workforce, Rural areas

# **Population Forecasts and Their Impact on Business Demography**

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**Abstract:** The paper aims to point out the use of demographic forecasts in the development of Slovakia's population. Based on accurate data on the population and their forecast for the future, the demographics of businesses can count on the creation, development and demise of the monitored enterprises. It is interesting to observe the population and the distribution of the population in individual regions of Slovakia, respectively in individual age groups. It is also important to realize that population forecasts indicate structural changes and the dynamics of the expected transformation of the composition of the population while revealing alarming developments associated with the aging of the population in Slovakia.

**Keywords:** Population trends, Population structure of the Slovak Republic, Projection methods

# Opportunities and Potentialities of Industrial Tourism Based on New Experiences in the Puglia Region, Italy

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**Abstract:** Today, developing new business models is a widespread practice, which consists of identifying and implementing innovation, to create value for customers, support growth, and promote access to new markets. In particular, this phenomenon also involves the tourism and hospitality industries; in these sectors, innovations may concern products (e.g., new hotel services or new attractions), sources of supply (new niche operators), new markets, and new ways of organizing businesses.

In particular, tourism has experienced expansion and diversification, making it one of the largest economic sectors in the world. In this context, industrial tourism represents a possible development of new business models in the tourism sector. Industrial tourism can be defined as visits to sites that enable residents and tourists to learn about operational activities through visits to, and tours of, active businesses and corporate museums founded by companies. Industrial tourism can help active businesses improve their corporate image, while also promoting local areas where the production unit is located. World Tourism Organization has put its attention to industrial tourism since it is a new way to promote the destinations through historical, artistic, and cultural heritage, archaeological sites, archives, business museums, eco-museums, and the opening of companies to the public when the companies decide to open the doors to visitors during their daily activities.

Through an industrial tourism approach, there are innovative ways to enjoy a destination, both as a rediscovery of industrial archeology and as an awareness process of knowledge on the production processes in the past or the present. In this way, the aim could be promoting industrial tourism through sites of industrial archaeology (linked to buildings that are symbols of the past manufacturing of the territory), industrial production, crafts, and traditional production processes (wine, beer, pasta, bread, dairy products). These sites should be able to excite, to tell a story, a city, or a trade, to transfer the identity and history of the local area, but also its habits and traditions.

Industrial tourism is a growing phenomenon in Italy, especially in Puglia, which is an Italian area, characterized by relevant historical, artistic, cultural, and natural heritage. This heritage takes shape in different expressions connected with industrial tourism too, like craftsmanship, sculpture, restoration, dressmaking, food and wine products (especially bread, wine, oil, and beer).

Through this approach, the "Made in Italy" brand would become more attractive in these territories, as well as a way to develop new markets and increase the marketing of local products. This aspect matches with better promotion of companies and industrial archeologic sites (history, supply chains, production processes, places, tools, territory, and products), as well as the lifestyle, the productions, and the people who identify the territory.

Our work aims at conceptualizing industrial tourism, through an analysis of the emerging business models, both from a literature review and some cases and concrete experiences. More specifically, concerning the concrete experiences, the focus will be on three cases in Puglia. In the empirical analysis, we will study the development of industrial tourism projects, considered offered services, target audiences, promotion techniques, strategic choices made by management, and the potential effects. The research method is based on multiple case studies, through analysis, direct observation, and research interviews with the people involved in industrial tourism projects.

The expected results of this work are the development of a framework of opportunities that the promotion of industrial tourism could favor in a local tourism context: the businesses of a local area could have greater visibility and some activities could be more easily marketed, increasing new sales forms and new markets (for example e-commerce).

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Moreover, this new kind of tourism also implies new challenges for the companies involved in industrial tourism processes: new staff is necessary, and it should be able to interface with tourists; it should be involved in welcoming and organizing tourism events, thus creating new professional skills, but potentially new jobs too.

The tourism companies, like travel agencies, could be involved in these processes because they could have new specific targets, interested in experiencing this form of tourism, which could favor the participation of organized and school groups.

**Keywords:** Industrial tourism, Business tour, Tourism development, Destination management

# Creative Tourism: An Engine of Innovation and Economic Growth in Today's World

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**Abstract:** In the field of economics, creativity represents the ability to produce work and also to perform new, unexpected, original, but at the same time appropriate and useful, beneficial activities. The importance of creativity lies, for example, in innovations, new discoveries, creativity can lead to new directions in art and the like. If we apply creativity to tourism, the result can be an increase in the attractiveness of a specific place or the entire (creative) tourism region. The main goal of the presented article is to map the use of creativity in selected companies and institutions of the travel industry in Slovakia, to identify the strengths of the use of creativity and at the same time, in connection with the revealed shortcomings, to identify areas in which improvement and development of the potential of creative tourism is possible. To achieve the main goal, the article will use the primary data obtained through sociological inquiry in the form of a questionnaire among companies and institutions of the tourism industry in Slovakia and also among their consumers. The analysis showed that there is no significant difference in the intensity of the use of innovation and creativity between the studied areas in Slovakia. It has been confirmed that tourism companies and institutions do not have enough financial resources in Slovakia to further develop creativity. The last finding was the creation of own innovations by tourism companies and institutions, not taking them from abroad, or from other businesses.

**Keywords:** Creative tourism, Innovations in tourism, Economic growth

# Impact of Tourism Management at the Territorial Level on Tourism Enterprise Management

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**Abstract:** Tourism enterprise management is part of tourism management. The successful management of the tourism enterprise that is performed by its managers depends on considering the trends and patterns of tourism management at the different territorial levels - global, supranational, national, regional, and local. That is why the managers of the tourism enterprise must know and comply with the managerial decisions, which are taken in the field of tourism at the different territorial levels. Management decisions in the field of tourism at the global, supranational, national, regional, and local levels have an impact on the functioning and management of the individual tourism enterprise. The paper examines the place of tourism enterprise management in the tourism management system at the different territorial levels. In this direction, important examples of how tourism management at different territorial levels (global, national, supranational, regional, and local) affects the management of the individual tourism enterprise are presented and analyzed. Particular attention is paid to the influence of tourism management in Bulgaria at the national, regional, and local levels on the management of tourism enterprises. As a result of the analysis, it can be concluded that to achieve success tourism enterprise managers should consider the impact of tourism management at different territorial levels on tourism enterprises when developing plans and programs and making decisions as regards general management and financial, marketing and personnel management.

**Keywords:** Tourism management, Tourism enterprise, Bulgaria

# The Goa Protocol as a Basis for Developing Sustainable Tourism in Bulgaria

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**Abstract:** The main factors for achieving the priorities of sustainable tourism are presented. The road map, which includes five main priorities, enables the implementation of the model of sustainable tourism. These five priorities include Green tourism, digitization in tourism activities, inclusion of medium, small and micro enterprises in the implementation of tourism activities, which in turn will allow a more complete integration of tourism in the regional economy and improve the level of management of the specific tourist destinations, as well as the acquisition of habits by ever wider segments of the population, attracted in the activities of providing tourist products.

At the same time, the implementation of each of the stated priorities will have its forms of expression in individual countries, based on the peculiarities of the national economy, social development, culture, attitude to tourism and many other factors. Special attention is paid to the prospects for the implementation of the "road map" and its components in our country.

Theoretical studies show that such a management model can be the network, synergistic system, which is more flexible and covers all subsystems of the tourism industry.

**Keywords:** Sustainable tourism, Management model, Synergistic management system

# Analysis of the Indicators of the Leading Hotel and Recreational Complexes and Their Efficiency in Slovakia

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**Abstract:** Tourism plays an important role in the economy of Slovakia; this industry is included in one of the priorities of the country's economic development. The development of tourism includes plans to modify infrastructure and transport connections, improve the consumer service system, revive cultural traditions and national crafts, and attract foreign capital. The development of tourism in the country is facilitated by various regional programs financed by EU structural funds. These programs are aimed, first of all, at a comprehensive solution to the problems of depressed regions, which in Slovakia include the eastern and northeastern regions and where the standard of living is significantly lower and unemployment rates are higher. At the same time, these regions have remarkable tourism and recreational potential due to the presence of mountains, forests, rivers, and natural reserves. Popular ski resorts and eco-tourism areas in Slovakia are located in these regions.

The western, central and southern regions of Slovakia, where there is a network of health institutions, and sports and spa centers, are also interesting for consumers of tourism and health services. In addition, various regions of Slovakia have a rich cultural and historical potential, represented by well-preserved castles, historical and ethnographic museums, traditional festivals and folklore celebrations.

Despite the great possibilities of tourism and recreational potential in Slovakia, the most successful are fairly large and medium-sized hotels, while small hotel-recreational complexes are forced to survive in conditions of fierce competition and limited resources.

This article carried out an analysis of fairly large, medium and small hotel-recreational complexes, which have been included in various ratings in Slovakia in recent years. The indicators of income, added value and profit are studied, their dynamics are shown, and the occupancy rates of the hotel capacities, average prices, the number of overnight stays, and visits by foreign and domestic quests are studied.

Based on these indicators, a cluster analysis of data from hotel-recreational complexes was carried out and certain groups of hotel-recreational complexes with similar characteristics were identified. Using the DEA method, examples of the effective use of hotel-recreational complexes were obtained and recommendations were made for other tourist institutions where the indicators were not effective. These research results can be useful in developing and improving strategies for the management of hotel and recreational complexes in Slovakia. At the same time, it is necessary to conduct more detailed qualitative and quantitative study of tourism and hotel potential, since there are significant regional differences in the structure and trends in changes in various types of tourism potential, problems with insufficiently effective use of various types of tourism potential in certain regions of the country. In addition, the need to forecast various tourist flows and create favorable conditions for a higher level of development of foreign and domestic tourism in Slovakia is very important.

**Keywords:** Tourism, Hotel and recreational complexes, Cluster analysis, DEA method, Efficiency

# Optimizing Forecasting Strategies: Evaluating Holt-Winters Models for Hotel Reservation Trends

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**Abstract:** This study undertakes the task of forecasting seasonal time series data, employing Holt-Winters' multiplicative and additive forecasting models. The dataset under scrutiny comprises historical records detailing the daily count of reservations alongside corresponding prices across various room categories in a Vlora-based hotel in Albania, spanning the years 2021 to 2023, post the COVID-19 pandemic. The data originates from the hotel's internal records. Through the utilization of Holt-Winters exponential smoothing techniques, this study discerns distinct trends and seasonal patterns within the daily reservation counts for each room category during the aforementioned period. The process involves establishing initial values and smoothing parameters, crucial for unveiling these patterns. The primary aim is to identify the most effective forecasting method for both the reservation counts across room categories and the price fluctuations. Additionally, an analysis is conducted to compare the influx of foreign citizens arriving in Albania with the consequent impact on increased reservations and pricing within the hotel structure. The central focus of this study is to ascertain the optimal approach while determining the superior methodology for handling such forecasts. Through this comparative analysis, the research seeks to delineate the most favorable approach amidst varied methodologies.

**Keywords:** Holt-Winters Models, Dynamic pricing, Exponential smoothing

## **Marketing in Tourism Services**

## **Dorentina Derguti**

**Abstract:** The purpose of marketing is to create value for customers and in return, receive value from them. Many people think of marketing only in terms of sales and advertising (Kotler). The business concept of marketing involves the company's approach in determining the product or service program so that it can best meet the needs of consumers in terms of time, space and acceptable prices, while also achieving profit for itself (Jakupi, 1995). The tourism product encompasses travel, accommodation, recreational activities and other activities. In these cases, the influence of marketing and tour operators plays a role in tourist flows.

Many tourist activities are interconnected. Taking a beach resort as an example, the number of visitors that can visit the beach and the capacity of accommodation facilities in all sectors are planned with other supporting activities that are in function and service to the visitors. This is closely related to tourism marketing – the tourist market.

Tourism consumption is the basis for tourism development. It is carried out by both: domestic (local) and international tourists. Tourism brings progress. As one of the biggest sectors in the global economy, it has great power to bridge cultures, generate new opportunities and promote sustainable development. This industry is a powerful force for progress and mutual understanding. But in order to deliver its full benefits, this force must be protected and nurtured. This topic will be illustrated with an utterance in which it is said: "Investing in People, Planet and Prosperity".

Together, we put people first, nurture our planet and foster prosperity through responsible tourism.

To get closer to that topic discussion, 12 Tourism Marketing Strategies were prepared:

- 1. Get to know your clients:
  - What makes them want to travel?
  - Where do they find out about where they're going?
  - How do they like to make plans?
  - What makes them mad about researching, and booking?
- 2. Make sure your website works well.
- 3. Concentrate on mobile phone (think with Google).
- 4. Be social (social media is one of the best ways for the tourism business to mark itself).
- 5. Live Video Marketina.
- 6. Get those emails out.
- 7. Let people book online (study, compare deals, choose the best ones).
- 8. Use reviews to your advantage (feedback).
- 9. Blog consistently (are good for sharing stories, unique information about a place, travel tips, post regularly).
- 10. Do SEO right: SEO is more important than ever tour and exercise providers.
- 11. Set up your: "Google my Business" listing or improve it.
- 12. Pay attention to experience (experiential marketing: interactive marketing).

Marketers predict demand, identify more profitable target markets, create comprehensive profiles and design strategies. In conclusion, travel and tourism have significantly shaped the global economy and brought people together from different cultures and backgrounds.

**Keywords:** Tourism marketing, Advertising, Strategies, Invest, Consumption

# From Vision to Reality: The Transformative Power of Consultancy Services for Non-governmental Organizations

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**Abstract:** Non-governmental organisations (NGOs) and civil society have become one of the most important actors in society over the last fifty years. The way they operate in society and the importance of their work to modern society have been the subject of much research. Non-governmental organisations are also seen as great consultants, offering business advice and working with large international companies. Slowly, they have entered the arena of business consulting providers.

On the other hand, there is very little research on how others, especially consultants, can help with business consulting for NGOs and, more importantly, what kind of consulting they need.

The purpose of this article is to analyse the results of the government programme aimed at building the capacity of NGOs throughout Croatia but also to find out, through five interviews and case studies with NGOs that have used these services, what type of advice or training was most helpful, along with the other types of assistance they might use.

The results of this research can help in better understanding of the civil sector and creation of more appropriate third sector (civil sector) development programmes, but also if a well-developed and organised, civil sector helps build more open and democratic societies.

**Keywords:** Non-governmental organizations, Consulatncy services, Sustainability, Case study method

# University to Work Transitions, Digitalisation Agenda, and Institutional Trust – A Study of the Western Balkans

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**Abstract:** This study investigates the effects of COVID-19 on university-to-work (UTW) transitions for the case of the Western Balkans 6 (WB6) countries (Albania, Bosnia and Herzegovina, Kosovo\*, Montenegro, North Macedonia, and Serbia). Using three strategic years, 2019 (pre-Covid19), 2020 (during-Covid19), and 2021 (post-Covid19) offers an interesting opportunity to capture quasi-experimental data (with three repeated measures) about what initially started as a health shock but that resulted in a fully-fledged economic shock. Across the WB6 region, there were variations in policy responses to COVID-19, therefore providing a natural experiment research design to assess the effects of such events in terms of STW.

In this study, we have used Albania as a reference economy as the digitalisation agenda started earlier (since 2013) and by 2019 nearly all public services were available online. In this context, digital literacy was less affected by the COVID-19 pandemic, at least compared with the other WB countries, therefore suggesting a best-fit control group.

**Keywords:** University-to-work transitions, Western Balkans, Post-communist, Covid-19, Cohort analysis

<sup>\*</sup> Under the UN Resolution 1244.

# Perspectives on Teaching Methods: Insights from Three Generations of Bulgarian Students

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**Abstract:** This article aims to identify the attitudes of different generations regarding certain aspects of the teaching approaches used during the education of economic disciplines. The data were collected through an online survey with a structured questionnaire and were processed by rank correlation using Kendall's tau-b and Spearman methods. As a result of the research, it was established that there is no dependence between the characteristics of individual generations and the preferred learning methods. At the same time, distinctive generational characteristics do not influence the attitudes toward acquiring new knowledge and skills during the educational process. Consequently, concerns among instructors regarding the adequacy of their teaching methods in the classroom are not warranted.

**Keywords:** Lecturer's behaviour, Teaching methods, Generations, Economy

# **Quality of Online Learning during Covid-19: Evidence from Serbian Higher Education**

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**Abstract:** The COVID-19 pandemic has had a tremendous impact on the education system worldwide, including in Serbia, leading to a transformation in traditional education. Higher education institutions (HEI) have faced a significant challenge in ensuring the adequate quality of online education to maintain and enhance student satisfaction. To prevent physical contact and the spread of the epidemic, HEIs encountered the challenge of utilizing new technologies to organize and conduct online classes. The research aims to analyze data on students' expectations and satisfaction with the quality of online learning during the pandemic on a sample of 308 university students. Additionally, the study highlights the key advantages and disadvantages of online education and explores future intentions regarding this learning format. The results indicated a relatively high level of student satisfaction with online education during the pandemic period, as well as that student satisfaction, plays a crucial role in shaping the future intentions of students to use online learning platforms.

**Keywords:** Higher education, Online learning, Quality of education, Student satisfaction, Serbia

# The impact of Formal Education on Financial Literacy and Financial Behaviour – The case of Republic of North Macedonia

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**Abstract:** This research aims to meticulously analyse and quantify the impact of financial education on both financial literacy and behaviour, underscoring a vital connection between them. The study surveyed 237 respondents, employing a quantitative research technique to collect primary data through a comprehensive questionnaire. The data analysis encompassed a range of statistical approaches, including descriptive analysis, normality tests, ANOVA, correlation tests, and t-tests, all conducted using Microsoft Excel. The research summarizes and examines these topics in detail, indicating that financial literacy levels in our country are notably deficient. This deficiency becomes evident as individuals struggle to accurately assess their financial knowledge. These findings underscore the importance of integrating financial education into our educational system. Rather than being seen as the privilege of a select few with privileged access to financial information or financial guidance, financial literacy should be regarded as a fundamental right and universal need.

**Keywords:** Financial literacy, Financial education, Financial behavior, Analysis, Correlation

# On Legislative and Institutional Reforms in the Pre-university Education System in Albania

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**Abstract:** The change in the political and economic system that occurred at the beginning of the 90s conditioned the need for deep reforms in the pre-university education system in Albania. During the 30 years, 1992-2022, all the components of this system were included in this reform process. Its object is the reforms in the legislation, the organizational structures, the operation of the system, the reconceptualization of the objectives and goals that the system must achieve, the instruments and the paths that must be followed for the alignment of this system with the educational systems of other countries in the region and the EU. Through the reforms, it is intended that the system of pre-university education in Albania develops and functions following the principles and requirements that are conditioned by the development of the economy in the conditions of globalization, the open market and the free movement of people. These reforms and the policies for their implementation, in any case, are concentrated expressions of the efforts of Albanian society to function and develop as a self-governing society following the requirements of the democratic governing system.

**Keywords:** Reforms, Pre-university education system, Albania

# Students' Understanding of Workplace Diversity: The Case of Republic of North Macedonia

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**Abstract:** Considering the increased importance of individuals' diversity-orientated competencies for successful integration in any organization and for achieving the targeted level of performance, a study that aims to investigate how students understand diversity and what determines their understanding of diversity has been designed. In order to investigate students' understanding of diversity the Reaction-to-Diversity Inventory and the Workplace Diversity Survey developed by De Meuse and Hostager (2001) was used. The questionnaire was distributed electronically among students from the Faculty of Economics – Skopje. The total number of responders was 136. The analysis of the responses on Reaction-to-Diversity Inventory has shown that most of the students relate diversity with the term unity (34), which refers to the organizational outcomes as one of the dimensions of diversity. The results from the multiple regression analysis indicate that teachers'/professors' engagement in educating on diversity and students' gender are the most important determinants of students' understanding of diversity.

**Keywords:** Diversity, Diversity-orientated competences, Diversity-orientated human resource management, Students, Educating on diversity

# Accessibility of Electronic Resources for Students with Disabilities

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**Abstract:** The rapid development of technologies is increasingly entering the realm of education, providing more opportunities and ways to adapt the learning environment to the individual needs of students with disabilities. The current paper aims to explore the types of educational electronic resources published on the e-learning platform of the University of Economics - Varna and analyze their accessibility for learners with special educational needs. As a result of this analysis, recommendations will be provided regarding the type and structure of electronic resources published on the e-learning platform of the University of Economics - Varna, so that they can be fully utilized by students with disabilities.

**Keywords:** Accessibility, Disabilities, Education, Electronic Resources

# Analysis of Al Mobile Applications for Ensuring Digital Accessibility in Higher Education for People with Disabilities

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**Abstract:** Over 1 billion people worldwide have some form of disability, and the increasing number of these individuals necessitates their inclusion in health systems and workplaces. Artificial intelligence (AI) is revolutionizing accessibility and digital inclusion for these individuals. AI solutions can improve everyday tasks, and mobile applications can help them remain autonomous. AI can be applied to any disability profile, such as visually impaired people using Seeing AI to read mail or place documents, people with reduced mobility using virtual personal assistants like Amazon Alexa, and people with cognitive disabilities using text summarization applications. AI technology supports the inclusion of people with disabilities in learning and work environments, providing new opportunities for social and digital inclusion. This paper aims to explore mobile applications for people with disabilities that enhance digital accessibility in higher education. An experiment was conducted with readability analysis of texts automatically generated with Otter.ai to audit its accessibility for people with special needs.

**Keywords:** Artificial Intelligence, Digital accessibility, Higher education accessibility

# **Evaluating Research Work** through a System of Impact Indicators

#### Matilda Alexandrova

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**Abstract:** The main challenge facing research evaluation processes is the formation of a system of indicators for research impact. The paper examines the key function of such indicators to provide feedback about the expected effects of scientific results – actual or potential. An overview is suggested concerning the requirements for constituting such indicators, taking into account the strategic aspects of the realization of research outputs and the need to ensure appropriate information provision. It is argued that the construction of such a system of impact indicators should take into account not only the specific situation and circumstances of the field of research (often interdisciplinary) but also the conditions for flexible adaptation of such a system, taking into consideration the requirements of funding institutions in national, European and international contexts.

**Keywords:** Research impact, Research output evaluation, Impact indicators

# The Database Directive in the Landscape of Modern Databases

#### Albena Dobreva

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**Abstract:** The digital fraternity of data and technology has changed existing and driven new legal regulations worldwide. Announced as an original European contribution, the sui generis right will not apply to certain data after the entry into force of Article 43 of the Data Act. The specifics of the legal protection of electronic databases are determined by their technical nature. This paper offers results establishing the need to review the applicability of the Database Directive to the new generation of databases in the information society. Whether and how the Directive fits into the modern data landscape and its legal framework is just as important a question as the answer to the expectations that it will contribute to the development of the information market of the European Union. The analysis drawn from the technical nature of specific databases and court judgments shows the relevance of the debate about the place of the Database Directive in the European Data Strategy, which is now dominated by the EU's Big Five Data Laws.

**Keywords:** Databases, Court judgments, Sui generis, Considerations of a technical nature

## **Berlin Processes or Open Balkans, Two Ways Towards Europe?**

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**Abstract:** The Berlin process was initiated by Germany in 2014 as a platform for high-level cooperation between Albania, Bosnia-Herzegovina, Kosovo\*, North Macedonia, Montenegro and Serbia as well as some EU member states. In a way, the Berlin Process was a gesture to the Western Balkan countries that they had not been forgotten, and also an attempt to maintain their momentum of integration with regards to Europe.

The process was initially projected to last for four years but was continued beyond that. The greatest achievement of the Berlin Process is undoubtedly the Connectivity Agenda; its strong focus on physical, digital and people-to-people connectivity. It also facilitated – with the involvement of civil society – the EU integration process of the Western Balkans without creating new mechanisms, institutions or funding schemes, but keeping in mind the final objective of the enlargement process: EU membership. The Berlin Process also provided a fertile ground for enhanced economic cooperation. The Multi-Annual Action Plan for a Regional Economic Area (REA), aims to establish a barrier-free region in which the flow of people, goods, services and capital could be exercised. Building on the REA's goals and strong economic focus, the Sofia Summit (2020) introduced the Common Regional Market (CRM) initiative. A year prior to the idea of the CRM, leaders of Western Balkans announced their vision to establish a regional cooperation mechanism, informally known back then as Mini-Schengen. Officially named the Open Balkan initiative, it builds on the ideas of the REA and CRM by keeping their strong economic focus and desire to have the four freedoms established in the Western Balkans. The Open Balkan's novelty derives from its regional ownership; although it borrows many aspects from planned or existing, EU-supervised mechanisms, it has been solely driven by local actors right from its inception. In 2019, a new area of cooperation started in the region. The regional policy was shifting the focus from the political direction to the regional economic area.

The search for regional cooperation in the Balkans dates back to the 1990s. The Central European Free Trade Agreement (CEFTA), which was signed on 21 December 1992 and includes non-European Union (EU) member countries, is one of the first agreements signed to develop commercial relations in the Balkans and is still active. Currently, it is seen that Serbia, Albania, North Macedonia, Moldova, Montenegro, Bosnia and Herzegovina and Kosovo\*\* are members of CEFTA. Despite the ongoing instability process today, it is seen that the Balkan countries are in an effort to increase regional cooperation. "Open Balkan" is an economic regional initiative generated by regional ownership that enables the cooperation between the three countries of the region, Albania, Northern Macedonia and Serbia. It aims to implement the four EU freedoms such as; the movement of people, goods, services and capital and promote the three countries to open borders in order to facilitate the lives of citizens and the cooperation between the business communities.

**Keywords:** Mini-Schengen, Agreement, Regional cooperation, Balkan countries, Members, Signed, Legislation, Region, Integration process

<sup>\*</sup> Under the UN Resolution 1244.

<sup>\*\*</sup> Under the UN Resolution 1244.

# The Legal and Ethical Imperatives for AI Regulation in the Macedonian Legislative System

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**Abstract:** This paper provides a critical analysis of the imperative for enacting specific Artificial Intelligence (AI) regulations within the Macedonian legal system. By dissecting the intersectionality of AI with fundamental legal principles and ethical tenets, the paper underscores the necessity for Macedonian law to preemptively engage with the multifaceted challenges posed by AI technologies. It further considers the ramifications of the European Union's AI Act as well as other EU standards important for Macedonia's legislative alignment, particularly in light of its EU accession goals. Advocating for a jurisprudentially sound and ethically informed legislative blueprint, the paper proposes a regulatory regime that harmonizes with Macedonia's legal ethos and its socio-economic fabric. This regime posits an inclusive legal dialogue involving a spectrum of stakeholders, thereby ensuring that AI advances within a framework that is both legally robust and ethically congruent. In effectuating such legislation, Macedonia can position itself as a paradigmatic figure in regional AI law, promoting a balance between innovation and the rule of law.

Keywords: AI, Regulation, Law, Ethics, Innovation, Standards