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Abstract
Boards of directors play a pivotal role as an internal corporate governance mechanism, especially crucial in ensuring the survival and strategic direction of new ventures. Unlike their counterparts in public and listed firms, boards in new ventures often possess greater flexibility and strategic decision-making responsibilities. This study utilizes the upper echelons and absorptive capacity theories to argue that the diversity of board networks significantly enhances the survival of new venture firms in emerging markets, with board experiential diversity acting as a moderating factor in this relationship. Emerging markets present unique, underexplored contexts where traditional models of business and governance frequently fail to account for local variabilities. In such markets, challenges include institutional voids, resource constraints, and fluctuating market demands, which can substantially impede a new venture's path to sustainability and success. The theoretical framework for this study posits that diverse and well-connected boards can provide new ventures with crucial competitive resources, including access to tacit knowledge, strategic guidance, and market insights that are otherwise unavailable within these volatile environments. Our methodological approach involves a comprehensive analysis combining a literature review, qualitative assessments, and a longitudinal dataset spanning over a decade from CrunchBase. This mixed-method analysis enables us to explore the depth and breadth of board member networks and their experiential diversity in influencing firm outcomes. We specifically examine how these factors affect the firm's ability to innovate and adapt within emerging markets, which is crucial for survival and competitiveness. The findings reveal that board network diversity directly correlates with improved survival rates of new ventures in these markets. More specifically, boards that exhibit a higher range of industry contacts and a broader scope of previous experiential engagements facilitate better strategic decision-making and innovation outputs. These boards leverage their diverse insights to guide the ventures through complex market terrains, enabling them to capitalize on emerging opportunities and navigate potential pitfalls. Furthermore, the moderating role of board experiential diversity is highlighted as a critical component in enhancing the effects of network

diversity. Boards that not only possess diverse networks but also encompass a wide range of experiences (industry, functional, and geographical) tend to implement more effective governance practices and innovation strategies. These boards are better positioned to assimilate and apply external knowledge, thereby improving the firm's absorptive capacity, which is vital for sustaining innovation and adapting strategies in response to market changes. This study contributes to the extant literature by delineating the specific mechanisms through which board diversity affects new venture survival in emerging markets. It extends the theoretical discussions around upper echelons and absorptive capacity theories by demonstrating how these can be practically applied to understand the dynamics of board effectiveness in new ventures outside the traditional Western contexts. Practically, the insights from this research advocate for a strategic approach to board composition in new ventures, emphasizing the importance of curating a board that is not only diverse but also well-connected and experienced. For practitioners and policymakers, these findings underscore the potential of leveraging board diversity as a strategic tool to enhance firm resilience and innovation capacity, particularly in emerging markets where unpredictability is a constant. In conclusion, the study establishes a nuanced understanding of how board member networks and their experiential diversity contribute fundamentally to the survival and growth of new ventures in emerging markets. It calls for further research into the specific types of networks and experiences that are most beneficial in different emerging market contexts and how these can be cultivated effectively.

Keywords: boards of directors, new ventures, emerging markets, diversity

KNOWLEDGE CONVERSION MECHANISMS FOR OPEN INNOVATION IN INTERLINKED-AMBIDEXTROUS GOVERNANCE STRUCTURES: AN EMPIRICAL FRAMEWORK

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Abstract
As industries converge and new solutions to complex challenges require collaboration across different organizations, management practice and research increasingly turn their attention to creating and leveraging business ecosystems for value creation. Such ecosystems are usually seen as collaborative networks enabling open innovation through knowledge flows between different organizations. This phenomenon is particularly evident in the agriculture industry, where organizations address overarching challenges like food security, sustainability, affordability, and the need for large-scale technological innovation through collaborating with a variety of stakeholders, including businesses, technology providers, academic institutions, government entities, and consumers. The resulting open innovation in these ecosystems can lead to more sustainable practices, innovative solutions to environmental challenges, or improved food supply. However, leveraging ecosystems for such value creation through open innovation is challenging due to competing governance structures between the ecosystem and the individual organizations. Accordingly, organizations in the ecosystem must find a suitable blend of formal and informal rules, procedures, claimant rights and other interfaces to facilitate the accumulation, development, and allocation of resources, as well as the distribution of organizational output and the resolution of internal conflicts with the required knowledge flows. Managed ecosystems aim to address this challenge by establishing a central organization that coordinates the ecosystem with ambidextrous governance structures to balance the internal exploitative business activities with the external, explorative ecosystem activities. This balance is crucial as it allows organizations to deploy and share existing knowledge and develop and integrate new knowledgefrom both within and outside their boundaries to drive innovation and solve complex challenges in the ecosystem. However, the specific knowledge conversion mechanisms and their interplay with ambidextrous governance structures to facilitate open innovation in managed ecosystems are currently poorly understood and thus investigated in this study. By employing an abductive research, the study builds on a first conceptual model derived from existing literature to subsequently collect and analyze qualitative data from various actors in the OCP Group's phosphate network. This single case study represents a complex managed ecosystem in the global fertilizer industry, centered on the extraction, processing, and distribution of phosphate and its derivatives. The ecosystem integrates large-scale mining operations, advanced chemical processing facilities, and innovative sustainability practices, like the efficient slurry pipeline transport system. Strengthened by global subsidiaries and strategic partnerships for market expansion and technological exchange, the ecosystem also emphasizes

community development and research through initiatives and educational institutions. As a result, the study proposes a novel empirical framework that specifies fundamental formal and informal knowledge conversion mechanisms in managed ecosystems for facilitating open innovation, including cross-sector partnerships, community engagement initiatives, integrated dynamic knowledge integration networks, and practical training programs. The subsequent description of their interplay and with ambidextrous governance structures highlights their reciprocity leading to an interlinked-ambidextrous ecosystem. The novel insights from the study are a relevant contribution to current open innovation research on knowledge flows and ambidextrous governance in business ecosystems. Here, the study provides a deeper understanding of interlinked-ambidextrous innovation units in ecosystems where organizations are interconnected with different stakeholders through multiple suitable governance structures and specific knowledge conversion mechanisms, which enables them to successfully combine exploration and exploitation activities for value creation. As governance structures delineate the distribution of jointly created value in ecosystems, a suitable design of the interplay of knowledge conversion mechanisms with an ambidextrous governance framework enables organizations to balance and integrate internal and external activities and controls for effective value creation and strategic adaptability in dynamic environments within the agriculture industry and beyond.

Keywords: open innovation, ambidexterity, governance structures, interlinked-ambidextrous units, knowledge conversions mechanisms

TOWARDS A MASS CUSTOMISED HEALTHCARE – HEALTHCARE PROFESSIONALS EXPERIENCE OF AI

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Abstract

A growing and aging population provides challenges for the healthcare sector, generating higher healthcare costs, and ineffective work process that results in long patient queues and problems with recruiting and retaining healthcare professionals. Artificial intelligence (AI) is considered as one means to provide efficient processes for healthcare professionals, e.g. in diagnostics and treatment recommendations. However, research has shown that there are many obstacles to successfully introducing and using AI applications in healthcare, especially by focusing on the organizational level. However, individual healthcare professionals have an important role to play in the transition towards information driven healthcare. Therefore, we address the healthcare professionals' perception of the usefulness and value of AI applications, as well as challenges and considerations of this new technology. The study is based on an exploratory approach with more than 350 healthcare professionals in Sweden, carried out beginning of 2024. The questionnaire includes perceptions of the use of AI and identifies potential challenges that need to be addressed. The respondents include doctors (92%) and nurses (8%). The sample consists of answers from 221 (62%) male and 136 (38%) female respondents. Most of the respondents work in public hospitals (54%) and health centers (20% public and 14% private). Several AI applications are used by healthcare professionals, spanning from administrative work reduction to new insights in the analysis of complex cases. Thematic analysis is conducted to create a model of perception of usefulness, values and problems (barriers). The analysis includes a stepwise analysis to identify patterns and themes. The results from the project provide insights into how the introduction of AI applications in healthcare changes the work of healthcare professionals and the perceived challenges that need to be addressed to improve their work by using AI. To some extent, implementation and use is based on healthcare professionals' interest in using new advanced technology but for others the decision to adopt AI is primarily based on formal decisions within the organization.

Respondents that have been using AI for at least six months, indicate AI supports decision making, with the main benefit consisting of a more effective and faster work process, while other respondents do not perceive any changes. A surprising result is that healthcare professionals have identified the possibility to test and evaluate new ideas and more complex cases. One interpretation is that AI has made the workload easier, which may allow for more innovative work. Another interpretation is that their experience-based knowledge is augmented by AI, and this makes it possible for them to handle more complex cases. However, others experience a learning paradox – challenging to find time and learn how to use the technology, while at the same time adopting by testing AI applications. Conclusions drawn from the ongoing study provide insights on the transformation phase towards implementing and using AI applications in healthcare.

Keywords: artificial intelligence, information driven healthcare, AI-applications, healthcare professions, decision-making

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FEELING BELONGING AND SUPPORT AS PREREQUISITES FOR MANAGER'S INNOVATIVE WORK BEHAVIOR

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Abstract
Business organizations resemble the people they are made up of, especially the managers. Therefore, it is conceivable that behaviors exerted by the latter shape the practices of the former in shaping today's workplace. Sustained competitiveness and business success demand continuous innovation, which requires intrapreneurial managers with innovative work behavior. Organizational innovation depends on people's behaviors, especially those in managerial roles. Researchers and practitioners have turned their attention to the drivers of innovative work behavior of managers. In this study, we investigate whether organizational-based job attitudes (workplace belongingness and management support) are related to the innovative work behavior of managers directly or through the underlying mechanism of intrapreneurial intention. Our hypotheses are grounded on the theory of planned behavior, place attachment theory, and perceived organizational support theory. Data were gathered from 233 managers working in various industries in Kosovo. We tested the hypothesized relationships using structural equation modeling. The results show that workplace belongingness relates to innovative work behavior, and management support relates to intrapreneurial intention. We find full mediation of intrapreneurial intention in the management support-innovative work behavior relationship. Our other mediation hypothesis is not supported. Our study sheds light on the attitude-intention-behavior chain and provides insights for fostering innovative work behavior among managers. The findings of this study suggest some noteworthy implications for practitioners. Management support is a necessary intervention to support intrapreneurship and, through it, the innovative work behavior of managers. Organizational leaders should conceive the support mechanisms to nurture positive, proactive, extra-role behaviors among managers. Another implication of study results is that workplace belongingness is an essential antecedent of innovative work behavior. Organizations should encourage a sense of belonging among seasoned and upcoming managers by highlighting value systems that resonate with them. Leaders should be aware that workplace belongingness increases if employees identify with them.

Keywords: belonging, support, intrapreneurial intention, innovative work behavior

NEXUS BETWEEN CHINESE RARE EARTH ELEMENT SUPPLY AND EUROPEAN CLEAN ENERGY TRANSITION: DOES GEOPOLITICS MATTER?

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Abstract
Approximately 98% of the rare earth materials used in the clean energy industry in European countries are imported from China. This study examines the impact of China's rare earth element supply on European renewable energy generation, specifically in the solar and wind energy sectors, over the period of 1990-2020. From the theoretical perspective, diverse economic doctrines, including the Heckscher-Ohlin theorem, illuminate trade relationships by analyzing the export of goods based on a nation's abundant factor of production, such as labor or capital. This framework explores trade dynamics and the equilibrium between nations with different specializations and resources. It aims to find an optimal balance between nations. However, the Gravity model, introduced in Tinbergen's (1962) seminal work, uses the gravitational equation to measure bilateral trade flows based on GDP and geographical proximity, revealing a parallel between the gravitational pull of celestial bodies and the inclination of nations to trade. To empirically analyze the gravity model, this study employs the robust method of moments quantile regression (MMQREG), to address heterogeneity in the distribution of China's rare earth supply among European countries. Additionally, to account for the issue of cross-sectional dependency (CD), this research applies the Driscoll and Kraay standard errors (DKSE) method to thoroughly scrutinize the robustness of its findings. Our findings reveal a monotonically positive relationship between China's rare earth elements and European solar energy production during bullish market conditions. Similarly, a favorable response is observed in wind energy production during bearish market conditions, while considering global and China-specific geopolitical risks. The study also finds a negative relationship between China's economic growth and mineral supply to Europe, with no significant impact from European income growth. Multiplicative economic growth adversely affects Chinese mineral supply. Notably, the study establishes a positive connection between oil prices, rare earth element export prices, geopolitical risks, and China's mineral exports. Distance negatively influences supply dynamics in the wind model but not in the solar energy model. Ultimately, policy frameworks should ensure a steady flow of China's rare earth supply to support Europe's clean energy and green deal goals, while addressing associated geopolitical risks.

Keywords: China's rare earth supply, solar energy, wind energy, economic growth, oil and rare earth elements' export price

DIGITAL TRANSFORMATION AND BUSINESS MODEL IN MANAGEMENT & BUSINESS RESEARCH: AN OVERVIEW AND FUTURE PERSPECTIVES

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Abstract
This bibliometric study investigates the interconnected dynamics of Digital Transformation (DT), Business Models (BM), and Cloud Computing (CC) within the sphere of research and innovation. Focusing on co-occurrences and linkages between these domains, the study unveils significant trends and patterns that shed light on the evolving landscape of digital business strategies. The analysis highlights a significant connection between DT and BM, particularly emphasizing DT's capacity to revolutionize business models. This relationship becomes more evident when examining the alignment of the three value dimensions with the components of the business model framework. The increase in this connection in the post-COVID-19 era underscores the urgency for organizations to adapt and innovate their business strategies, aligning them with changing customer behaviors and expectations. CC, as a pivotal technology, is identified as playing a central role in enabling and implementing DT initiatives. An intriguing aspect of the study is the observed surge in interest towards BM and CC during certain periods, signifying their escalating importance in the context of digital transformation. CC is acknowledged not only for enhancing operational efficiency, but also for shaping strategic directions within BM. The study delineates the dynamic, responsive connections between DT, BM, and CC, evolving in reaction to external events and technological advancements. From a broader perspective, the findings illustrate the varied impact of DT on BM, particularly highlighting the role of CC technologies in this transformation. To thrive in this constantly evolving landscape, organizations must thoughtfully develop strategies that focus on generating, delivering, and capturing value. Such strategies promote resilience, sustainability, and innovation, which are key to achieving long-term success and relevance in the digital era. Furthermore, the research underscores the importance of recognizing that the connections among DT, BM, and CC span various industries and sectors, contributing to a comprehensive transformation in organizational operations, value delivery, and stakeholder engagement. The study advocates for further research to delve deeper into these connections, exploring the complex interactions and potential synergies between these domains. In sum, this bibliometric analysis serves as a foundational investigation into the interactions between DT, BM, and CC. The evolving relationships underscore the significance of continuous research, innovation, and collaboration in fostering organizational success in the digital age. The insights gained from this study not only contribute to academic discourse, but also offer practical implications for businesses navigating the complexities of DT.

Keywords: digital transformation, business model, cloud computing, bibliometric analysis

DETERMINANTS OF PRODUCTION COSTS CHANGE IN FIRMS THAT IMPLEMENT RESOURCE EFFICIENCY STRATEGIES

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Abstract
Extant findings elaborate that resource efficiency strategies are positively related to decrease of production costs. Implementation of these strategies contributes to decrease of material and energy costs due to their lower use as well as decrease of labor costs due to better work conditions and higher labor productivity. The possibility to lower costs of production surely can motivate firms to implement resource efficiency strategies as its decrease is crucial for improving overall business performance. However, production costs decrease may not occur mostly due to rebound effect. Furthermore, scholars emphasize that implementation of resource efficient technologies may cause hidden production costs and thus hamper prospects of achieving benefits from its implementation. The paper aims to gain better understanding of relationship between resource efficiency strategies and production costs by studying determinants of production costs change in firms that implement resource efficiency strategies. In addition, the study explores if these effects differ among EU countries depending on the stage of their eco-innovation performance (measured by the Eco-innovation Scoreboard). Empirical part of the paper relies on micro data for over 10000 firms operating in 27 EU countries from Flesh Eurobarometer 498 - SMEs, green markets and resource efficiency, provided through GESIS Archive. Sample includes data on production cost change for firms that report resource efficiency actions. It is suspected that the unobservables that affect cost of productions are correlated with the unobservables that impact probability of resource efficiency actions. In other words, decision to implement resource efficiency action could be formed on the expected impact on production costs. Therefore, ordered probity with sample selection is implemented to explore determinants of production costs change. The positive estimates for ρ in all three models indicate that unobservables that affect production costs change tend to appear with unobservables that increase probability of resource efficiency actions implementation. Independent variables in the models include percent of turnover invested in resource efficiency, internal and external support to resource efficiency implementation and problems encountered during the process. Models also control for sector, market, firms' size and age. Preliminary results show differences in factors determining production cost change in firms operating in countries at different levels of eco-innovation development in EU. While the amount invested in resource efficiency strategy significantly affects probability of lowering production costs in eco-innovation leaders and catching-up countries, it is not significantly related to probability of production costs decrease in average eco-innovation group. Furthermore, whether firms rely on their own resources and expertise or include external support as well will differently reflect in production costs change. Internal supports appear more important in catching-up and average eco-innovation group of countries. Finally, the impact of problems faced during the process on production costs differ to certain extent. While costs of environmental actions and struggle with supply of materials, parts, product and services required for more resource efficiency strategies lower the probability of production costs decrease regardless of eco-innovation performance of the country, complex administrative and legal procedures as well as complex environmental

labelling and certification are more specific to catching-up and eco-innovation leaders respectively. The main findings point to the complex nature of benefiting from resource efficiency strategy in terms of production costs. Optimal investment and adequate internal resources and expertise are vital for achieving decrease in production costs. At the same time, difficulties related to adoption of procedures, their complexity, costs of environmental actions as well as inadequate supply may jeopardize firms' probability of having lower production costs as a result of implemented resource efficiency strategies. This research provides valuable insights for managers in firms that aim to implement resource efficiency strategies. They should focus on strengthening internal capabilities and resources as well as resilience to potential difficulties on the way to more resource efficient business.

Keywords: resource efficiency, production costs, ordered probity with selection

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SOCIOCULTURAL EDUCATION-RELATED MARGINALIZATION AND ITS EFFECT ON ENTREPRENEURIAL BEHAVIOR

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Abstract
Human behavior is a complex interplay of various factors, with sociocultural backgrounds exerting significant influence on individual attitudes. Certain factors can lead to societal marginalization or the classification of individuals into an “outsider” status. Because of the challenging context, entrepreneurs often act as societal underdogs, challenging prevailing norms and fostering innovation. But the (starting) prerequisites are not the same and therefore – based on the sociocultural background – outsidership also exists among entrepreneurial groups. While a growing body of research has focused on poverty and economic marginalization in entrepreneurship, there remains a dearth of understanding regarding the non-economic dimensions of outsider status. Thus, this study aims to explore the intersection of marginalization and education, recognizing education as a pivotal sociocultural factor shaping entrepreneurial behavior. Drawing on qualitative data gathered through 42 semi-structured interviews with marginalized entrepreneurs, we investigate how individuals lacking formal or economic education navigate entrepreneurial ventures. Our findings highlight several factors that contribute to marginalization, including limited business knowledge, lack of theoretical skills, and restricted access to professional networks. Education-related marginalized entrepreneurs employ various coping mechanisms such as self-directed learning, experiential learning, and active seeking of external support. Despite their diverse backgrounds, these individuals exhibit similarities in their behavioral patterns across various dimensions of the entrepreneurial process. These include opportunity identification, innovation, problem-solving, resource management, leadership, and risk management. Through our analysis, we unveil nuanced insights into the ways in which educational marginalization influences entrepreneurial dynamics. Our results shed light on common motivations and attributes among marginalized entrepreneurs, demonstrating heightened engagement within specific dimensions of the entrepreneurial process. At the same time, risk management is handled in a moderate way with prepared and relatively soft fallback options. Additionally, we identify dualistic patterns in behavior, which evolve over time, partly because of increasing educational attainment or are manifested in the compartmentalization of professional and personal domains. By contributing to the nascent literature on marginalized entrepreneurship with a newly established framework, our study expands scholarly understanding and points toward avenues for future research to delve deeper into the intricate dynamics of marginalization and entrepreneurial behavior. It therefore not only follows multiple calls for qualitative investigations in this field but also generates practice-relevant insights to better understand entrepreneurial behavior by focusing on the human influence of sociocultural backgrounds.

Keywords: organizational behavior, economic of minorities, races, indigenous peoples, and immigrants, human capital, entrepreneurship, economic sociology

REACHING UNCHARTERED HEIGHTS IN UNCERTRAIN TIMES: AI-DRIVEN BUSINESS MODEL INNOVATION IN THE SERVICE INDUSTRY

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Abstract
Artificial intelligence (AI) technologies provide novel opportunities to (re)shape various components of business models in the services industry, including value creation, value proposition, and value capture mechanisms. The service industry is therefore moving into a transformative phase. In particular, integrating AI technologies such as GenAI enhances the interaction between service provider and customer, ultimately disrupting the co-value creation mechanism. For instance, chatbots or service robots have become a compelling alternative to human service provision by addressing and processing customers' requests in a personalized, constantly available, and accurate manner at an efficient and cost-effective rate. This is leading to a paradigm shift and professionals in the service industry can leverage the multifaceted nature of AI to improve, for example, service quality, customer satisfaction and financial performance. In an increasingly competitive and fast-paced environment, this can be a decisive factor in gaining a competitive advantage over other service providers in uncertain times. The integration of AI technologies causes considerable strategic challenges for the top management of service providers. Firstly, they are required to understand how to fully leverage AI's capabilities to liberate or substitute human capacity to enable value creation innovation within the specific business model. For instance, organizational development and implementation cost should be considered. Secondly, they are required to carefully evaluate critical determinants of customers' acceptance and perception of AI-enabled services as AI design and functionality must align with customers' expectations to create true value propositions. Thirdly, they are required to understand opportunities to facilitate revenue generation and cost management. This might include utilizing AI to build dynamic revenue and pricing models as well as cost avoidance or reduction strategies. While research exploring customers' acceptance of AI-enabled service provision has substantially grown over the last five years, it remains rather unclear to what extent AI technologies impact service providers' value creation and value capture mechanisms from a scientific perspective. More specifically, it remains to be determined which service delivery processes and capabilities will be impacted by the integration of AI. Additionally, the dynamics of AI-enabled value creation on long-term profitability under the consideration of extensive development and maintenance costs remains rather unclear. Using an explorative approach through semi-structured interviews of top managers in the service industry, the aim of this research is to close this gap. To evaluate the impact of AI, we use a business model innovation (BMI) framework. BMI describes the strategic process of deliberately reconfiguring or improving an existing business model, including the main dimensions value creation, value proposition, and value capture. This will allow a better understanding and provide insights about the impact of AI on value creation and value capture mechanisms from a top management

perspective. The main research questions are 1) What are strategic considerations of top managers when assessing the feasibility and viability of integrating AI into their business model? 2) What components of value creation in the service industry can be expanded, improved, or replaced by introducing AI? While research exploring customers' acceptance of AI-enabled service provision has substantially grown over the last five years, it remains rather unclear to what extent AI technologies impact service providers value creation and value capture mechanisms from a scientific perspective. More specifically, it remains to be determined which service delivery processes and capabilities will be impacted by the integration of AI. Additionally, the dynamics of AI-enabled value creation on long-term profitability under the consideration of extensive development and maintenance costs remains rather unclear. Using a qualitative approach through semi-structured interviews of top managers in the service industry, the aim of this research is to close this gap. To evaluate the impact of AI, we use a BMI framework. BMI describes the strategic process of deliberately reconfiguring or improving an existing business model, including the main dimensions value creation, value proposition, and value capture. This will allow a better understanding and provide insights about the impact of AI on value creation and value capture mechanisms from a top management perspective. The main research questions are 1) What are strategic considerations of top managers when assessing the feasibility and viability of integrating AI into their business model? 2) What components of value creation in the service industry can be expanded, improved, or replaced by introducing AI?

Keywords: artificial intelligence, business model innovation, value creation, value capture, service industry

HOST-STATA-FRIENDLY BIT REFORMS AND FOREIGN DIRECT INVESTMENT

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Abstract
In recent decades, there is a growing criticism that foreign investors have often used the bilateral investment treaties (BITs) and the investor-state dispute settlement (ISDS) mechanism to constrain host States' sovereignty to safeguard public interests such as environmental protection and labor rights. This conflict between national sovereignty and global governance rules stimulates a burgeoning trend of host-state-friendly BIT reforms by providing greater regulatory freedom and government protections through the replacement of old-generation BITs with host-state-friendly BITs. This reflects a trend toward the balancing of sovereign rights to regulate and the foreign investor interests, often in the name of upholding public interests. In this study, we identify dozens of cases of BIT reforms around the world in the past decades, and classify the changes in different categories of treaties into host-state-friendly changes and foreign-investor-friendly changes, based on which we construct the pro-host-state index and the pro-foreign-investor index. We obtain robust findings that the host-state-friendly changes in BIT reforms significantly discourage subsequent cross-border merger flows, a major form of foreign direct investment (FDI), which is reflected in the decreases in the dollar volume and the frequency of merger deals. Moreover, host-state-friendly BIT reforms also reduce overall FDI and the investment expansion of multinational enterprises (MNEs) reflected in the establishment of affiliates. These negative effects of host-state-friendly changes are more striking when the host states are developing countries. Moreover, the negative effects of host-state-friendly changes are alleviated when host states' political risks are lower and public governance institutions are more adequate. This shows the importance of institutional strength of host states in enhancing the credibility of host-state-friendly BIT reforms and mitigating the negative effects on merger deal flows. Furthermore, we examine the impact of host-state-friendly changes in BIT reforms on the industrial structure adjustment of FDI. It is found that foreign capital is primarily deterred from investing in high-pollution-intensity industries, in host states with low-level labor employment protection, and in industries with high overall ESG risk exposure. This demonstrates that host-state-friendly BIT reforms have promoted public interests by guiding FDI toward ESG-friendly sectors. We further find that BIT reforms encourage jurisdictional or treaty arbitrage: ultimate investors are more likely to invest through a third-party country with an unreformed BIT than one with a reformed BIT. This study demonstrates that the pro-host-state BIT reforms have improved the industrial structure of FDI flows by discouraging foreign capital entry into high-ESG-risk-exposure industries. The weak institutions and political risk of host states, especially those developing countries, however,

have made foreign investors suspect that BIT reforms are simply a disguised tactic of host sovereignty expropriation and thus be deterred from making investments in the post-BIT-reform era. Improving institutional strength and government creditability is therefore a precondition for developing countries to achieve the expected goal of BIT reforms.

Keywords: BIT reforms, pro-host-state index, FDI flow and structure, cross-border M&As, MNE affiliates

BOUNCING BACK AND BOUNDING FORWARD: ROLE OF ENTREPRENEURIAL ORIENTATION AND INDIVIDUAL AMBIDEXTERITY IN SHAPING EMPLOYEE RESILIENCE

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Abstract
The tourism sector is under ongoing pressure created by several external stressors. These stressors include terrorism and wars, health crises, natural disasters, industry accidents, disruptive technologies, and, more recently, climate change. The external stressors cause disruptions in both the day-to-day operations and the financial performance of the firms in the sector to the extent that the very survival becomes challenging. Each firm in the industry needs to counter these disruptions and ensure its continued existence. However, it is seen that not all firms can withstand the pressure and thus face the consequences. A more in-depth analysis confirms that the ability to cope with continued adversity varies across the tourism sector due to the specific role of firm-level and employee-level mechanisms. According to scholars, how organizations handle disruptions can vary based on their strategies and decision-making processes. Heterogeneity can also arise from the availability of knowledge resources, leadership behavior, and employee capabilities. Notably, in a service-intensive industry like tourism, employee capabilities are a key aspect since they have to handle the persistent challenge of balancing the demands of various stakeholders in the face of disruptive events. It is, thus, not surprising that the scholarly literature considers developing employee resilience as a critical strategy to improve firms' ability to cope with disruptions. Despite acknowledging employees' critical role in improving their firms' coping ability, our comprehensive review indicates that the existing research on employee resilience lacks depth and width, offering fragmented findings and limited insights. For instance, although the extant literature suggests that individual and organizational-level factors influence employee resilience, we find few insights into how organization-level mechanisms shape employee resilience. Given the ever-rising volatility in the operating environment of the tourism industry, we observe that it is critical to evolve a better understanding of mechanisms to build and strengthen employees' ability to cope with crises and disruptions. Endeavoring to address the deficiency in the insights on employee resilience, we particularly note that despite the growing agreement that employee resilience is crucial to coping with crises in the tourism industry, the influence of entrepreneurial orientation

on employee resilience is unclear. As a result, we seek to empirically examine the relationship between entrepreneurial orientation and the three dimensions of employee resilience: cognitive, behavioral, and contextual. To offer a more nuanced understanding of the associations, we also propose to test the moderating role of ambidextrous leadership. Succinctly, we use the ambidexterity lens to clarify how entrepreneurial orientation impacts employee resilience. We propose to collect data through a time-lagged survey with individuals employed in the tourism industry on a full-time basis. The findings of our study are expected to offer agenda-setting insights for future research and action-oriented implications for firms in the industry.

Keywords: coping, employee ambidexterity, employee resilience, entrepreneurial orientation, tourism

COOPETITON AND SOCIAL INTERACTIONS: EXPLORING INTER-ORGANIZATIONAL RELATIONHIPS IN THE TOURISM SECTOR

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Abstract
The importance of social ties in interorganizational relations has been the subject of research for many years. Such research concerns various sectors of the economy – from the clothing to the bio-tech one. The analysis of the role of social relationships or the social embeddedness of entrepreneurs is also carried out with the reference to the tourism sector. In this case, entrepreneurs' social relations are of key importance. This is due to the fact that tourism is dominated by micro and small enterprises, often family ones, located in close geographical proximity. Moreover, their frequent and multidimensional cooperation is necessary to provide tourists with the most attractive and coherent offer of the tourist destination. All this means that social relationships between entities in the tourism sector occur very often, are of great importance and are strongly mixed with business relations. As previous research conducted among entities operating especially in small tourist areas has shown, social relationships of tourist entrepreneurs are based on: trust, close personal ties, emotional intimacy, respect for the partner, willingness to help, reciprocity or the so-called local patriotism. However, such research has so far been conducted mainly in relation to entities that cooperate and provide complementary goods and services, but are not necessarily competitors. Meanwhile, what is interesting is: what components (building blocks) of social relationships (whether similar to those mentioned or different) characterize the relations of competitors and how these components shape coopetition relations (allowing the generation of economic benefits, e.g. lowering the transaction costs of the business, transfer of knowledge, including tacit one, more effective marketing activities, etc.). The aim of the paper is therefore to identify and characterize the components of social relationships used in coopetition between tourism sector entities. Our research, completed in June 2021, presents the findings of 17 semi-structured Individual In-depth Interviews (IDIs) and one Focus Group Interview (FGI) with 5 entities representing entrepreneurs belonging to tourist (culinary) routes. Our findings show that the components of social relationships used in cooperation among competitors are similar to those, which have been identified in previous empirical studies. Such social relationships are also based on, among others, on trust, emotional bond, reciprocity or sense of community (e.g. due to belonging to the same route and the desire to preserve the culinary heritage of a given area). This is an interesting finding, because it would seem that social relations between competitors, due to tensions, may be significantly different from the social relationships of non-competitors.

Our research allows us to conclude that this results from the fact that our interviewees in general did not perceive themselves as rivals. In other words, their subjective perception differed from the objective circumstances (market and resource similarities) that placed them in the role of competitors. Moreover, it was not due to their limited perception capacity. The reason lies rather in the social relationships existing between competitors. When they existed, they made the research participants perceive each other more as partners, or even close acquaintances or friends, than as market competitors. Social relations often excluded the possibility of placing another entity in the role of a competitor. The conclusions from our research not only contribute to the existing knowledge about the components of social ties in relations between cooperating competitors (coopetition), but also have practical value. Due to the benefits for business operations resulting from maintaining and developing social relationships that our research also allowed to identify, competitors should treat such relationships as a kind of resource, enabling survival on the market and further development. Our research has some limitations – in particular, they concern the type of research used, which is not representative and is highly contextual. Additionally, the research was conducted during the lockdown caused by COVID-19 pandemic, and this may have had a negative impact on access to the research participants and their openness during the interview. Nevertheless, the research findings can be an introduction to further in-depth analyzes of this interesting issue, which at first glance seems to consist of conflicting elements (i.e. strong social relationships and competition).

Keywords: social relationships, inter-organizational relationships, coopetition, cooperation, tourism

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ARTIFICIAL INTELLIGENCE IN HIGHER EDUCATION – ADVANTAGES AND CHALLENGES OBSERVED THROUGH THE PERCEPTION OF Z GENERATION STUDENTS

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Abstract
Dynamic technological development, especially in the domain of the potentials and actual application of artificial intelligence (AI), has had a significant impact on almost all spheres of social activity, including the higher education sector. AI technology quickly and concisely collects, synthesizes and interprets information available from various sources, which enables the creation of flexible and efficient learning environment, adapted to the interests and needs of individuals. This technology facilitates and accelerates the process of acquiring knowledge. Through opening a space for the creation of numerous interactive educational platforms, it significantly improves the possibilities of independent learning and education. However, in parallel to the possibilities of introducing innovative and interactive learning methods, the use of AI in the field of higher education also brings a number of risks and ethical challenges, including checking the validity and reliability of the generated information, redefining the role of teaching staff, the impact of this technology on the development of social skills of students and issues regarding personal data protection. The advantages, but also the risks of AI are particularly relevant for members of Generation Z, who use various forms of modern technology in their daily lives and expect it to be applied in the higher education institutions as well. This generation, which is connected through the use of modern information and communication technologies at almost every moment, requires a different, so-called a hands-on approach to learning, with the inclusion of interactive apps and AI-based games. This imposes the need for redefining teaching curricula and significant modification of existing approaches to learning in the field of higher education, which emphasizes the need to conduct continuous research aimed at solving numerous issues that arise in this domain. Starting from the above, this paper analyses the perception and expectations of students belonging to the Z generation about the application of AI technology in formal higher education. Empirical data were collected by conducting an online survey in the first quarter of 2024, and were analyzed using the SPSS software package intended for research in the social sciences. The obtained results provide an insight into the perception of Z generation students about the advantages, possibilities and limitations of the use of AI for the purpose of learning, as well as knowledge about the potential negative effects and risks of its usage in the mentioned domain. The paper also addresses their views on the representation of AI in the existing system of formal higher education and the changes that need to be implemented in that direction in the future. The obtained results provide important guidelines to the teaching staff and policy makers in the field of formal higher education, about the improvements that should be made regarding the application of AI in the learning processes and the challenges that may arise, all that with the aim of modernizing higher education teaching methods and their alignment with the requirements of Z generation students, as well as the requirements of the contemporary market environment.

Keywords: artificial intelligence, Z generation, students, higher education

POSITIVE IMPACTS OF CHINA'S INVESTMENTS IN ELECTRIC CARS IN HUNGARY ON THE ELECTRIC CAR DEMAND IN THE EUROPEAN UNION

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Abstract
The increasing global demand for electric vehicles (EVs) has prompted significant investment from various stakeholders, including governments, manufacturers, and investors. China is a prominent investor in EV production and technology driven by environmental concerns, energy security, and economic competitiveness. As the world's largest automotive market, China has prioritized the development and adoption of electric vehicles to mitigate pollution, reduce reliance on imported oil, and foster innovation in the automotive sector. By leveraging its expertise in battery technology, manufacturing capabilities, and supportive policies, China has emerged as a global leader in electric mobility. Hungary has become a focal point for China's investments in the electric car industry because of its strategic location, skilled workforce, and favorable business environment. Chinese companies have established production facilities and research centers in Hungary, contributing to the growth of the local electric vehicle ecosystem. This influx of investment created jobs and spurred economic development in Hungary, with ripple effects on the broader European Union (EU) market. The positive impact of China's investments in electric cars in Hungary on electric car demand in the EU is manifold. First, the establishment of manufacturing facilities in Hungary has increased the availability of electric vehicles in the EU, diversifying the market and providing consumers with more choices. This expanded supply has helped alleviate supply constraints and drive down prices, making electric cars more accessible to European consumers. China's investments in electric vehicles have facilitated technology transfer and collaboration between Chinese and European companies. This has led to advancements in electric vehicle technology and design, resulting in higher-quality electric cars that meet the demands of EU consumers. Additionally, Chinese companies' presence in Hungary has catalyzed investments in research and development, further accelerating technological progress in the electric vehicle industry. China's investments have also stimulated the development of a charging infrastructure in Hungary, which serves as a gateway to the broader EU market. The establishment of charging stations and networks in Hungary addresses one of the key barriers to electric vehicle adoption, range anxiety, and promotes confidence among European consumers. Furthermore, Hungary's experience in deploying charging infrastructure can serve as a model for other EU countries, facilitating the expansion of electricity mobility across the region. In conclusion, China's investments in electric cars in Hungary have had a positive impact on electric car demand in the European Union. By enhancing supply, driving innovation, and expanding infrastructure, these investments contribute to the growth and maturation of the EU electric vehicle market, aligning with the region's goals of sustainability, innovation, and economic growth. As China continues to invest in electric mobility globally, the partnership between China and Hungary serves as a model for fostering collaboration and driving progress towards a greener and more sustainable future in the automotive industry. The European Union's (EU) pursuit of a sustainable and environmentally friendly future is greatly aided by the widespread adoption of electric vehicles

(EVs). China's substantial investments in electric car manufacturing in Hungary may serve as a significant catalyst for the increased demand for EVs across the European Union. This paper aims to analyze the positive impact of China's investments in electric cars in Hungary on the demand for EVs within the EU.

Keywords: electric car demand, China, FDI, Hungary, European Union

ELEVATING AI-DRIVEN MARKETING THROUGH DESIGN THINKING: A STRATEGIC APPROACH FOR COLLABORATIVE PROBLEM-SOLVING AND COMMUNICATION FOR SMES

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Abstract
Integrating artificial intelligence (AI) in marketing strategies has become common. Nevertheless, AI's practical and successful application in marketing projects demands a tactical and strategic approach that controls innovative technology and includes human-centered methods. This article studied the application of design thinking in AI-driven marketing as a strategic framework for Small and Medium Sizes Enterprises (SMEs), exploring collaborative problem-solving and communication. Based on comprehensive research, the author recognizes the evolution of AI technologies and their impact on marketing applications. AI presents unique opportunities for data analysis, personalization, and automation; however, its execution regularly faces challenges correlated to user acceptance, incorporation with existing methods, and ethical issues. Hence, design thinking, emphasizing empathy, ideation, and iterative prototyping, appears as a strategic framework for effectively addressing the challenges mentioned above and promoting innovation in AI-driven marketing for SMEs. This research explored how integrating design thinking philosophy can improve the effectiveness of AI-driven marketing projects for SMEs. Therefore, the author used a case study technique to achieve this intent. This technique was ideal as the research focused on examples of three SMEs that attempted to integrate AI and design thinking into their marketing strategies. Moreover, the author extracted critical insights from these three case studies regarding the impact of design thinking in controlling decision-making, nurturing alliances between cross-functional teams, and improving communication through the marketing processes. The three case studies on three SMEs underlined the enormous ability to blend AI and design thinking in marketing projects for SMEs and not only. Nevertheless, it is critical to hint that the effective implementation of such a modern attempt demands a comprehensive strategy that centers on user-centricity, collaboration, innovation, and creativity. By prioritizing user needs, nurturing creativity, and encouraging experimentation, SMEs can develop robust AI-driven marketing solutions that resonate successfully with the target audiences. Significantly, the collaborative philosophy of design thinking fosters alliances between different stakeholders facilitating efficient implementation and buy-in. Furthermore, despite the numerous benefits of AI-driven marketing, SMEs must overcome several challenges, such as resource constraints and organizational readiness. This research highlights the magnitude of embracing a strategic and human-centered methodology for AI-driven marketing. By adopting a design thinking philosophy, SMEs can improve customer experiences, and distinguish themselves in a progressively competitive business eco-system. Moreover, research proposes more advanced quantitative research to extract power design thinking in AI-driven marketing.

Keywords: artificial intelligence, design thinking, SMEs, marketing, strategies

FACTORS RELATED TO THE PERSONAL RISK IN THE MODEL ORGANIZATIONAL RESILIENCE BY STEPHANIE DUCHEK

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Abstract
Enterprises operate in a hyper-variable environment, which is defined by the BANI theory. The environment referred to as Brittle, Anxious, Non-linear, Incomprehensible has a significant impact on the results of operations of each type of organization. The main purpose of their existence is growth and development achieved, among others, by striving to maximize profit. The functioning of enterprises in the BANI environment requires building and supporting activities that increase their resilience. Research on organizational resilience is not a modern concept in the literature. Nevertheless, it was only in 2020 that Stephanie Duchek proposed a theoretical model for building resilience in organizations. The model defines resilience as a process consisting of three stages: Anticipation, Coping and Adaptation. This process is an orderly response to disruptions resulting from relations with the environment as well as internal unexpected events that may affect the effects of the organization's operations. Building resilience is based on the organization's internal capabilities, resources and procedures. The author herself points out that the proposed model does not explain the fundamental role of knowledge, structure and organizational culture in building an organization. A critical analysis of the literature and the analysis of the resilience model showed that the concept requires complementation in terms of determinants influencing the success of building resilience. It is proposed consideration factors related to personal risk because they may have a significant impact on building the organization's resilience. Researchers' findings so far indicate that the most important component of an organization is people, because they have resources to achieve jointly adopted strategic, tactical and operational goals. In S. Duchek's model, people as a resource, their knowledge, experience, skills and abilities, are of key importance in implementing subsequent stages of building resilience. On the other hand, the research confirmed the high importance of personnel risk for the functioning of organizations and that human capital is the main source of risk in their activities. Research confirms that personnel risk may adversely affect operations and result in financial, image or relationship losses. The article presents findings from theoretical research on the impact of personnel risk on the process of building organizational resilience. The research goal is to identify factors related to personal risk understood as intentional and unintentional events affecting employees and affecting the degree of achievement of organizational goals. Based on a critical analysis of the literature, six groups of factors were identified: employee turnover, sustainable employee engagement, the level of employee satisfaction, diversity in the team, communication and trust, leader development. Conclusions from theoretical research indicate that personnel risk factors "disrupt" all stages of the process of building organizational resilience and affect the factor preceding organizational resilience (the organization's knowledge base).

Keywords: organizational resilience, personal risk, organization management, literature review, critical review

FOUNDERS' DIVERSITY AND ADMISSION INTO SOCIAL IMPACT ACCELERATORS

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Abstract
In recent years, the accelerators of startup companies witnessed substantial growth and attention, becoming an important part of the entrepreneurial ecosystems around the globe. Participation into an acceleration program has been associated with numerous benefits and admission into a program may have profound implications for new ventures. However, such an admission is very challenging, with the median acceptance rate being around 10%. At the same time, founders do not typically receive feedback on why their applications were rejected. Empirical research on the drives of the accelerators' admission decisions is limited, consisting of a handful number of recent studies. This is surprising since knowledge of the factors that drive the decisions of accelerators may be of interest to firm founders, policy makers and other stakeholders of the startup ecosystem. The present study aims to close this gap in the literature. Using a cross-country sample of more than 9,000 startup ventures from over 100 countries, we find that diversity among the members of the founding team has a positively and statistically significant association with the likelihood to be admitted into the program of a social impact accelerator. This finding is robust across several specifications, and while accounting for the potential endogeneity of diversity. Our work contributes to various strands of the literature and has implications for new ventures seeking admission into accelerator programs. For example, we extend the growing literature on accelerators that has so far focused primarily on other issues, like the design and role of accelerators and the potential effects of accelerators on new venture outcomes. Additionally, our research contributes to a recent strand of the literature on the diversity of the top management team, that goes beyond the use of a simple ratio of foreign directors, and looks at specific aspects of the country of origin. However, these studies focus on the board of directors of large publicly listed corporations rather than the founding team of new ventures.

Keywords: accelerators, diversity of founding team, new ventures

ASSESSING THE PERSPECTIVES OF ORGANIC AGRI-FOOD PRODUCERS ON THE PROS AND CONS OF SELLING THROUGH RETAIL: A CASE STUDY IN CROATIA

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Abstract
Organic agriculture is a production system that sustains the health of soils, ecosystems, and people. It relies on ecological processes, biodiversity and cycles adapted to local conditions, rather than the use of inputs with adverse effects. Therefore, it is an approach focused on producing food using natural substances and processes, and responding to consumers' demand for organic products. Consumer demand for organic food has risen dramatically in the wake of series of high-profile scares about food safety, followed by high level of environmental concern. The development of ecological awareness and the need for the consumption of organic food have led to an increase in demand for organically produced food. Data show that in Europe there are over 420,000 organic agri-food producers and around 85,000 processors, while in Croatia in 2022, there were 6,132 organic agri-food producers and 380 processors registered. By introducing incentives for organic agriculture as a measure of agrarian-ecological programs, there has been growth and development of organic agriculture in most European countries, including Croatia. The most significant factor in the development of organic agriculture is the market, where family farms encounter with a range of challenges, such as legal regulations, awareness of organic agricultural methods and food production, higher costs, and distribution problems. With the development of organic food production, the market for organic agri-food products and consumer interest in purchasing organic food increases. EU countries significantly differ in the level of production and consumption of organic food, especially concerning the share of conventional production. Organic food market is developed in Denmark, Germany, France, the United Kingdom, Italy, and Spain, while Hungary, the Czech Republic, and Estonia market are still developing. Organic agri-food products predominantly are sold through supermarkets in mature European markets, while a smaller number of organic agri-food producers sell their products directly to consumers or through 'alternative' channels, such as specialized organic food stores, doorstep delivery, markets, etc. The distribution of organic food through retail, as opposed to direct sales, is still area about which little is known. The distribution through retail, compared to direct sales, also involves strict standardization and quality requirements, especially for fresh products (size, color, etc.), which are difficult to achieve in agricultural production, especially organic one. One of the main limitations for further development of the organic food market in Croatia is the low ability of farmers to independently enter the market. Therefore, cooperative behavior and strengthening of

partnerships between producers and retailers of organic agri-food products can significantly impact the development of the organic food market and organic food availability to end consumers Prior research has confirmed that the Croatian market also belongs to a developing market, as the market is still underdeveloped in terms of demand, with organic food mostly sold through direct distribution channel. Distribution channels for organic food products in Croatia are mainly associated with concepts such as 'local market', 'alternative market', 'direct sales', and 'short supply chains' because mostly they are still sold through direct channels, and less frequently through retail. Therefore, this paper provides a deeper understanding of the relationship between organic agri-food producer and retailer when retailing organic foods, based on the examination of perceptions of organic agri-food producers regarding the advantages and challenges of selling organic agri-food products through retail. Research results indicate that the greatest advantage of selling through retailers is expanding the market and increasing the number of organic food consumers, while the biggest challenges ahead lie in discussion of pricing.

Keywords: organic agriculture, organic food, organic agri-food producers, retailing, Croatia

COOPETITION MANAGEMENT CAPABILITY: CONCEPTUAL INTEGRATION UNDER A MULTILEVEL ORGANIZATIONAL APPROACH

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Abstract
The study of coopetition, the strategy by which companies cooperate and compete simultaneously to create value, is approaching its 30th anniversary. With a 13% of compound annual growth rate of published papers for the last 10 years, coopetition continues to gain more interest from scholars. There has been great progress in understanding this phenomenon, but the main research advancements must still be integrated into a coherent, all-encompassing body of knowledge. Several scholars have developed proposals to connect the concepts, but none have applied an organizational scheme that allows validating the comprehensiveness of the model and identifying the themes that require further development. We aim to fill this gap by developing a multilevel organizational conceptual model of dyadic interorganizational coopetition. Following a multilevel theory-building methodology, this work is based on a rigorous integrative literature review of 308 papers published in 1996 – 2021 and applies an inductive top-down theorizing process informed by organizational diagnostic models, organizational theory, and meta-organizational concepts. Our conceptual model is configured as a Driver-Process-Outcome framework that includes four dimensions, twenty-two theoretical units, twenty-two selected relationships between them; and three levels of analysis: interorganizational, organizational and individual. Each of the theoretical units and relationships is based on concepts identified in the existing literature on coopetition and organizational theory. By connecting these concepts and proposing new perspectives, the model contributes to the development of a theory of coopetition as an organizational phenomenon. The first dimension, antecedents of coopetition, which is equivalent to the Drivers block, examines not only the concepts that motivate the initiation of a coopetition relationship, but also how each of these concepts affects the performance of the relationship. The second dimension, the nature of coopetition (the first component of the Process block), focuses on coopetitive intensity and coopetitive tension, including its sources and formation process. The third dimension, coopetition management (the second component of the Process block), is the main part of our model, and identifies the organizational elements that contribute to coopetition management capability, such as several governance mechanisms (formal and relational), coopetitive motivational quality, and individual coopetitive capacity. The fourth dimension, coopetition results (equivalent to the Outcome block), includes individual results, results for partners, results for the dyad and results for society. This study makes the following contributions: it provides theoretical support for studying coopetition as an organization (metaorganization); it connects the existing concepts found in the academic literature on coopetition by integrating them into a multilevel organizational model; it develops the concept of coopetitive management capacity and links it with various elements of the organizational

view of coopetition, applying an alignment perspective; introduces a novel view to study and evaluate the level at which the context, each partner and the dyad of partners, favor the success of a coopetition relationship; it introduces three constructs related to coopetitive motivational quality that provide a foundation for the positive motivation of people in coopetitive relationships (quality of coopetitive purpose, coopetitive leadership and coopetitive culture); it introduces the concept of coopetitive organizational climate as a socio-psychological construct of coopetitive behavior; it identifies promising research directions for building a theory of coopetition mainly through the operationalization of theoretical units and validation of the conceptual model's relationships.

Keywords: coopetition, meta-organization, coopetition management capability, dynamic capabilities, conceptual model

UNDERSTANDING EMPLOYEE RETENTION IN THE SERVICE SECTOR: A MODEL-BASED APPROACH

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Abstract
The literature review revealed a significant research gap in the context of employee retention in the service sector. While several studies have revealed that sectoral and sector-specific characteristics may influence employee retention, few studies have been written regarding the service sector that focus on employee perceptions and use this approach to explore the factors that influence employee retention. This knowledge gap is particularly pronounced for service organisations in Hungary, and the present study aims to contribute to filling this research gap by constructing a model to identify factors influencing employee retention in the service sector. Data were collected through an online quantitative survey, which included 58 validated statements on employee satisfaction, organisational commitment, normative commitment and turnover intention. The survey included a total of 382 service sector employees. The results were evaluated and modelled using the PLS-SEM (Partial Least Squares – Structural Equation Modelling) method. Data analysis was performed using Smart-PLS software version 3.0. The first step in the data analysis was to validate the measurement model. Convergence validity was checked using Cronbach's α, Composite reliability (CR) and Average Variance Extracted (AVE). The values of these indicators indicated a high internal consistency of the measurement model. In the next step, the discriminant validity was checked using the Fornell-Larcker criterion, which showed that the measurement model fulfilled the discriminant validity criterion. Multicollinearity was rejected on the basis of the variance inflation factor (VIF). Model fit was assessed using the Standardized Root Mean Square Residual (SRMR), which (SRMR <0.08) showed good model fit. The generated model identifies 30 significant relationships among the 11 latent variables tested. The results show that Communication, Supervision and Organizational commitment have significant effects on Turnover intention in the service sector, while Normative commitment, Promotion, Co-workers, Pay and Nature of work have significant effects on Organizational commitment. The findings suggest that organisations in the service sector need to focus on organisational communication, satisfaction with supervisors, promotion opportunities, workplace community, pay and the nature of the work in order to achieve effective retention.

Keywords: service sector, employee retention, employee well-being

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THE CARBON TAX AND THE CRISIS IN AUSTRALIA'S NATIONAL ELECTRICITY MARKET

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Abstract
Australia experienced a significant energy crisis in 2022, marking it as the most severe of the century. This crisis garnered widespread attention in the media, and it was the first time that many Australians were urged by the government to reduce their electricity usage. The energy retailers struggled to cope, leading to some businesses failing, while consumers were instructed to limit electricity intensive activities to specific times, such as washing dishes after 10 pm. Additionally, generators were compelled to operate in a controlled pricing market with unplanned closures. This crisis prompted the Australian Energy Market Operator to suspend the National Electricity Market (NEM) from June 15 to June 24, 2022. This paper utilizes half-hourly data from Australia's National Electricity Market spanning from 2010 to 2016 to demonstrate that the carbon tax, which was introduced in 2012 and repealed in 2014, had a significant impact as intended. Indeed, our findings indicate that if the substitution effects induced by the tax had been sustained, natural gas might have played a much larger role in the transition, potentially mitigating the 2022 crisis and avoiding the policy mess that has characterized Australia's energy transition over the past decade. The carbon tax incentivized the replacement of black and brown coal-fired generation with gas and hydro. By focusing on the carbon tax's influence on pricing and the generation mix throughout the day, we provide evidence suggesting that the decision to repeal the tax was likely a costly policy mistake. Australia's carbon pricing mechanism came into effect on July 1, 2012, at a rate of $23 per ton of CO2 equivalent for the financial year 2012-2013. The carbon tax was initially set to increase to $25.40/tCO2e for the financial year 2014-2015, with the intention of transitioning to an emissions trading system by July 2015. During the initial three years, the fixed price period, the scheme encompassed 500 of Australia's largest polluting companies, including electricity generators. However, the Liberal-National coalition, having campaigned against the carbon tax, successfully repealed it on July 17, 2014, after winning the government in the 2013 federal election. In order to quantify the impact of the carbon tax on prices and the energy mix, we adopt an econometric regression model for each half-hour of the day. In doing so, we compare the prices (and energy mix) during the carbon tax period (2012-2014) with a period of roughly the same duration before (2010-12) and after (2014-16) it was in place. Our econometric approach allows us to control for a range of variables, including fuel prices, that also influence prices and the energy mix. In terms of prices, our findings suggest that the carbon tax led to increased electricity prices – on average, between $26.2 and $34.1. Moreover, when the tax was repealed, electricity prices decreased by about the same order of magnitude that they had increased when the tax was introduced. More interestingly, we find that the carbon tax induced a significant change in the energy mix, with a reduction in black and brown coal generation that was compensated for by natural gas and hydro generation. However, when the carbon tax was repealed, black and brown coal generation increased by more than it had decreased after the tax

was introduced. This "over-recovery" had a rather significant impact on natural gas generation, which decreased by substantially more than it had increased when the carbon tax was introduced. By contrast, the reverse was true for hydro generation. Therefore, our results suggest that post-carbon tax, coal and hydro-based generation became relatively more important than before the carbon tax, whilst the reverse is true for natural gas generation. These results suggest that the repeal of the carbon tax had profound consequences for the energy mix in the NEM and, arguably, contributed to the 2022 crisis.

Keywords: carbon tax, energy market, energy transition

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THE ROLE OF ENVIRONMENTAL TAXES AND OTHER POLITICAL INSTRUMENTS ON THE ROAD TO CLIMATE NEUTRALITY

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Abstract

The main objective of the paper is to provide a comprehensive view of the key policy instruments aimed at achieving climate neutrality by 2050 within the European Union. The increasing pressure on the environmental agenda from the European Union raises several questions on how to achieve the ambitious goals of putting in place workable and feasible mechanisms to protect the environment and thereby achieve climate neutrality. It is climate change and the 2050 climate neutrality targets set by the EU that bring the need for effective tools to improve the environment. This detailed review of the theoretical and empirical literature examines the effectiveness of environmental taxes, green innovation, carbon pricing and emission allowances. The topic is currently of great relevance given the context of academic, economic, and environmental policy debate, which is undergoing extensive discussion on policy instruments and potential directions of development. Beyond the effectiveness of environmental taxes, the literature also examines the role of environmental policies, technological innovation and research and development in the context of environmental degradation in the medium and long term. It is the relationship between innovation and environmental change that also accompanies the assumption of accelerated or unchanged GDP growth, as argued by the Porter hypothesis. The EU countries take a different approach in terms of support through innovation subsidies for companies that use resources for more environmentally friendly production processes. Different Member States also attach varying degrees of importance to the environment, which is also reflected in the number of instruments they have introduced on their territory. However, some instruments work in all Member States – environmental taxes, emission allowances and, more recently, the Carbon Border Adjustment Mechanism (CBAM). The positive side of environmental taxes lies in their dual role, as described by the double dividend hypothesis. However, the instruments also have some negatives, from which theoretical hypotheses such as Pollution Haven and Race to the Bottom have been formulated. Both are related to the shift of production and profits to countries with laxer environmental regulations, e.g. in terms of emission allowances, which are now partly given to companies free of charge. On the other hand, CBAM complements and strengthens the emissions trading system. The main objective of the CBAM is to equalize the carbon price between selected products imported from third countries and those produced domestically (in Europe) in selected emission-intensive sectors. The EU authorities expect the CBAM to protect European companies from competition from third countries from which raw materials are imported and to put pressure on the rest of the world to construct effective instruments to combat climate change. The pandemic period has put other policy instruments on hold, yet years of crisis, including the energy crisis, have contributed significantly to reducing emissions. More specifically, emissions from sectors subject to the European Emissions Trading Scheme (EU ETS) fell by 15.5% in 2023 compared to 2022. Methodologically, this comprehensive literature review is complemented by a multiple regression analysis that confirms the causality of GHG emissions and environmental tax revenues collected. Environmental policy instruments are combined; none of them alone contributes to significant environmental improvements, as confirmed by several major studies. Once the causality of GHG emissions and environmental tax revenues is confirmed, it is crucial for further PhD research and the formulation of tax policy recommendations to consider as many parameters and variables as possible for inclusion in future analyses. They can have positive or negative effects on the environment and together also to achieve ambitious climate neutrality targets.

Keywords: environmental taxes, environmental policies, carbon tax, emission allowances, climate neutrality

STARTUPS AND RESILIENCE: A 10-YEAR BIBLIOMETRIC ANALYSIS

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Abstract
The significant increase in startups in recent years, but also the simultaneous increase in environmental turbulence and uncertainty, especially unforeseeable events, show more than ever how important entrepreneurial resilience is. In other words, the survival of startups and individuals today depends on the ability to overcome critical situations and recover from setbacks, i.e. to adapt to new circumstances. The aim of this study is therefore to outline the research area by examining the main characteristics of publications on start-ups and resilience. As the bibliometric analysis of publications allows to quantify the interest of researchers in a particular topic, bibliometric methods were used to investigate studies related to these concepts, focusing on the following research objectives: understanding recent trends, most influential publications and journals, countries and authors, and emerging research directions. Specifically, the research was conducted in the Web of Science Core Collection database and the VOSviewer software version 1.6.20 was used for the analysis. In order to capture all relevant publications including various synonyms, the following query was used for the topic search (title, abstract and author keywords): resili* AND (start-up* OR "start up*" OR startup*). The initial topic query search resulted with 318 publications. In addition, the analysis was restricted to the last ten years (2014-2023), the English language and full articles, proceedings papers, and early access articles, so that the restricted search resulted with 255 publications that were included in the further analysis. Most of the publications are in the research areas of Business (43) and Management (40), followed by Engineering Electrical Electronic (36) and Environmental Science (34). The bibliometric analysis shows a significant increase in the number of publications, especially in 2023 (68) and 2022 and 2021 (43 and 46) compared to previous years (2020=18; 2019=26; etc.), and in the total number of citations (2014=2; 2023=685). Thus, the highest number of both publications and citations was in 2023, which indicates the importance of the analyzed topic. The average number of cited articles for all items in the results set is 10.05, while the H-index is 25. The citation analysis identified "Much Ado about Nothing? The Surprising Persistence of Nascent Entrepreneurs through Macroeconomic Crisis" by Davidsson & Gordon (2016), published in the journal Entrepreneurship Theory and Practice, as the most cited publication. Davidsson and Gordon are also the most cited authors. Although Sustainability is the journal with the most publications (11), Elsevier accounts for the most publications (55), including Science of the Total Environment, the second most influential journal with a total of 7 publications. As for the Web of Science Index, most publications are indexed in SCI-EXPANDED (104), followed by SSCI (78), ESCI (55), CPCI-S (37), etc. The

countries with the greatest number of publications were the USA (58) and the People's Republic of China (44), followed by England (22), Germany (22) and Italy (16), while the countries with the most citations were also the USA (589) and the People's Republic of China (451), but followed by Australia (327), Italy (258) and Germany (240). In terms of the network of co-authorship between countries, the greatest link is between the USA and the People's Republic of China (4) and the USA and England (4). The most frequently occurring keywords were resilience, Covid-19, entrepreneurship, startups and innovation. That is, the latest and most important emerging topics clustered around them are: crisis management, uncertainty, dynamic capabilities, absorptive capacity, readiness, disruption, organizational resilience, competitive strategy, innovation ecosystems, deep-tech, artificial intelligence, etc. The analysis shows the importance and growing need for further research in the area of startups and their link to resilience, but also their wider and future relationship to emerging topics such as organizational characteristics and digitalization.

Keywords: startups, resilience, crisis management, bibliometric analysis

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URGENT EMERGENCY PROJECT MANAGEMENT: THE CASE OF POST-CONFLICT PUBLIC ADMINISTRATION

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Abstract
Unexpected, unstable and uncertain events in today's turbulent environment requires continuous crisis management planning and proactive contingency processes for quick project interventions. The aim of Urgent Emergency Project Management is to conduct actions in crisis-driven environments. This paper examines the project management process of international organizations working on public sector projects in post-conflict countries in order to establish a lasting peace. The purpose of this work is to present an outline of the key practices and challenges of international entities working on such projects. Literature from the available post-conflict public administration body of knowledge as well as grey data from the post-conflict countries projects were discussed. Three participant observations were conducted with international organizations working on public projects in post-conflict countries. The research provides insight into the overall dynamics of post-conflict public sector management while crisscrossing them with the elements of Urgent Emergency Project Management. The research highlights several contextual factors such crisis management, public entrepreneurship, public administration reconstruction, international supply chain, and more. Study results indicate that in order to ensure that a modern and effective public administration is rebuilt and quality public services are delivered in a post-conflict country – international project managers need to rethink orthodox public project management processes. Ultimately, the research proposes several tools and processes that can be used by international entities whom are working on the said projects – most notably, a post-conflict public project process and a post-conflict public management entrepreneurial approach. On another note, the study also highlights the proactive (vigilance) and reactive (resilient) strategic approaches to post-conflict public project management.

Keywords: urgent emergency project management, public project management, crisis management, public administration, post-conflict countries

SOCIO-TECHNICAL TRANSITIONS AND ADOPTION OF RADICAL INNOVATION – THE CASE OF REMOTE PATIENT MONITORING IN SWEDEN

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Abstract
Remote patient monitoring (RPM) has been proposed as a technical solution to many of the challenges of healthcare since over 20 years in Sweden. However, despite its potential, widespread adoption and integration into mainstream healthcare systems have not yet materialized. Several reasons can be suggested for this unrealized mainstream adoption of RPM, but a main argument can be made in the socio-technical tradition of the multi-level perspective (MLP) that RPM challenges the established regime of provider-centered, specialized healthcare. This paper argues that to better understand and analyze how socio-technical transitions in a certain organizational field occur, there is a need to improve the conceptualization of transitions in organizational fields. This paper proposes a novel approach to conceptualizing the organizational field of healthcare. This is done by positioning actors in the organizational field according to the three different institutional spheres of the triple-helix: academia, industry and government and also along the value-chain. Towards the downstream end of the value-chain, the three spheres of the organizational field are perceived as intricately interconnected with broader societal dynamics, also termed 'landscape' in the MLP approach.
In order to understand and analyze the dominant regime within an organizational field, it is suggested to analyze it in terms of its constituent institutional logics, visualized "on top of the organizational field", as suggested by Geels (2020). Furthermore, the paper argues that the societal origins of institutional logics are structurally situated within specific positions within the organizational field. This implies that practices occurring at specific positions within the organizational field align more readily with the corresponding institutional logic. However, in order to advance a certain institutional logic to become dominant in the organizational field, there is a need for collective action to take place, driven by coalitions of actors to advocate for their interests and solidify their positions within the organizational field. For RPM, the argument posits that its practice naturally aligns with general practitioners and a patient-centered logic, conflicting with the prevailing provider-centered institutional logic. The empirical section of the paper delineates the insufficient structural capital of general practitioners in the organizational field of Swedish healthcare and therefore a lack of pioneering social groups that can drive the innovation of RPM and solidify the practice of RPM around a patient-centered institutional logic. Adoption of RPM hinges on resource reallocation towards primary care. This was difficult to effectuate, as power and influence resided at hospitals and regional staff centers in the care system. Professional societies are highly specialized and therefore unaccustomed and uncomfortable to see medicine from the primary care perspective needed. This meant that professional support was difficult to achieve. Engaging other actors in the organizational field necessitates meeting diverse logics' requirements. To engage other actors in the organizational field to shift from provider-centered care to a patient-centered care, there is a need that RPM is implemented in a way that ensures that other logics' requirements are met to a certain extent to fulfill legal requirements of regulations such as public procurement law and medical device regulations. The few successful initiatives to organize RPM according

to patient-centered logic, however, failed to meet these minimum criteria of other logics of the market, the state, and the professions. Dominant managerial logic in various regions of Sweden often override local projects and the interests of other actors, such as RPM companies and primary care, but also the interests of professions. The dominant managerial logic also visible in larger procurements that specified one winning contender, instead of maybe three or as many as met the requirements created a backlash of RPM companies that in response decided to withdraw from the industry.

Keywords: remote patient monitoring, institutional logics, institutional fields, socio-technical transition, adoption of innovation

SILVER ENTREPRENEURS: CHALLENGING AGE STEREOTYPES IN BUSINESS EXPANSION

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Abstract
The creation of micro and small enterprises is crucial for economic development. An important determinant influencing further business growth is related to various characteristics of the founder, such as the age at which the company was founded and the entrepreneur's motivations for starting the business. In aging societies of highly developed countries a phenomenon of establishing new businesses by individuals in the later stages of their careers is increasingly observed. In the literature, these individuals are referred to as silver entrepreneurs and it is assumed that they are individuals who start business activities at the age of fifty. The latest literature on the subject indicates that to better understand the phenomenon of silver entrepreneurship, studies should consider the ability of mature individuals to create successful enterprises. Consequently, an important research gap also lies in the propensity of this group to further develop their businesses and examine the differences in this process compared to other entrepreneurs. The main goal of this research is to explore the influence of entrepreneurial motivations during business initiation on subsequent enterprise development. The study also includes examining the impact of support from the entrepreneur's environment when starting a business on the willingness to develop the enterprise. An additional goal is to ascertain whether individuals initiating businesses beyond the age of fifty exhibit similar proclivities for enterprise development compared to their younger counterparts. The study employs logistic and ordinary least squares regression analyses to examine the impact of motivational factors and external support on business development, operationalized as plans for employment expansion. Key findings suggest that both internal motivations, such as the desire for challenge and activity, and external support from family and government significantly influence the propensity for business expansion. Interestingly, the study reveals no significant difference in the tendency towards business development between silver entrepreneurs and those who started earlier, challenging stereotypes about mature entrepreneurs' growth ambitions. This research contributes to the entrepreneurial literature by providing insights into the factors influencing business growth among an underexplored demographic group, highlighting the importance of supporting mature entrepreneurs.

Keywords: ageing, entrepreneurship, business growth, motivations

THE ROLE OF PERCEIVED ORGANIZATIONAL SUPPORT IN RAISING THE ORGANIZATIONAL CITIZENSHIP BEHAVIOR FOR THE ENVIRONMENT IN LOCAL GOVERNMENT: MEDIATION ANALYSIS OF LEADER-MEMBER EXCHANGE

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Abstract
Environmental topics are currently in the center of interest in society. At the local level, self-governments and their managers who can influence the implementation of environmental policies and objectives not only through formal procedures but also by supporting the extra role of the organizational behavior of their employees play an important role. Formal procedures are well set up in local government due to strict legislation and accountability to different stakeholders. The problem is the lack of support from local government management towards informal, mostly voluntary, decentralized and unplanned initiatives. The voluntary aspect is dominant because it is linked to the intrinsic values of the employees and strongly reinforces the effectiveness of green behavior. The topic is under-examined in the current scientific literature. There is a lack of knowledge about factors influencing organizational citizenship behavior for the environment in the local public administration field. The study focuses on examining organizational citizenship behavior for the environment of line managers who are an important element in the organizational structure. They are role models of behavior, carriers of ethics and values of public service, and support for subordinates in the implementation of voluntary environmental activities. The purpose of the study is to explore the relationship between perceived organizational support in local government offices and organizational citizenship behavior for the environment of managers and whether this association is mediated by leader-member exchange. Data was collected by a questionnaire survey of self-governments' managers in Slovakia. SEM method was used to test the hypotheses using SmartPLS software. The research discovered a positive association between perceived organizational support and managers' organizational citizenship behavior for the environment, which is mediated by leader-member exchange. Complete mediation was found, implying that leader-member exchange is largely contributing to the overall effect of perceived organizational support on organizational citizenship behavior for the environment. In the interpretation of our study it is important the awareness that perceived organizational support has been although declared as a significant factor influencing organizational citizenship behavior for the environment in the existing studies. But it appears that in public administration field, the overall effect is more significant when leader-member exchange, i.e., high quality of social exchange between leader and subordinate (between the mayor and middle management), enters the relationship. The cross-sectional study highlighted the significance of leader-member exchange in supporting the organizational citizenship behavior for the environment of managers in the field of public administration and implies important implications for environmental management in the relation with all privies. Promoting organizational citizenship behavior for the environment among managers as well as other local government employees contributes to increasing the effectiveness and efficiency of formal environmental instruments themselves. Even the direct effects of promoting organizational citizenship behavior for the environment

have been shown to increase the environmental performance of organizations, to increase their environmental and social responsibility and to promote the success of environmental projects.

Keywords: self-government, organizational citizenship behavior for the environment, perceived organizational support, leader-member exchange

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PAID PARENTAL LEAVE AND THE PRODUCTIVITY OF EMPLOYEE-INVENTORS (IN THE USA)

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Abstract
This paper examines the impact of state-mandated paid parental leave (PPL) on inventor productivity at public firms in the United States during the period of 1998-2019. We perform our analysis at the individual-level rather than the firm-level. Firms headquartered in states that mandate PPL may become more innovative for reasons unrelated to PPL. For instance, firms may face stronger demand for their innovation outcomes or more favorable financing conditions for innovative projects. In contrast, we utilize firms that have multiple research labs across different states; we compare employee-inventors who work at the same firm but in different states, therefore being exposed to the same firm-level factors but to different PPL benefits. To test our research question, we employ a difference-in-differences (DID) approach using state-wide PPL adoptions, which are largely exogenous to individuals located in the state. Using the sample of inventors working at multi-state firms over the period of 1998-2019, we find that PPL has a positive impact on inventor productivity. Inventors in PPL-states produce more patents and receive more citations, compared to the other inventors working at the same firm but in different states. We find stronger results among younger inventors, for whom child-birth/-bearing is more relevant. Surprisingly, we find that the productivity of male inventors increases significantly more than that of female inventors, although both genders exhibit increased productivity. Further, we investigate a potential channel for our findings; reduced labor market interruptions due to childbirth. To that end, we estimate a discrete-time hazard model that compares the likelihood of quitting patenting careers among inventors in PPL states versus non-PPL states within the firm. Our hazard estimation shows that post-PPL, inventors are significantly less likely to quit their patenting careers. That is, PPL reduces career discontinuity, which allows employee-inventors to focus on long-term R&D projects without loss of firm-specific knowledge. In case our results may capture mere time-trends of patenting activity, we perform a falsification test by using nonemployee-inventors. Because PPL is relevant only for employee-inventors, we should not observe any change in the productivity and career decision of nonemployee-inventors around state-mandated PPL. We find that this is indeed the case.

Keywords: gender gap, innovation, inventor, paid parental leave

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BRIDGING CAPITAL AND INNOVATION: FINANCING TRENDS IN LIFE SCIENCES

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Abstract
Explorations into investment in Life Science stand as a central, dynamic, and rapidly expanding area of study. We investigate diverse types of equity investments such as venture capital, business angels, corporate venture capital, governmental finance, and IPOs. To advance research in this area, we systematically reviewed 256 articles in Scopus and Web of Science about equity investments in Life Science from 1988 to 2023. We performed a bibliometric analysis by applying keywords, titles, and abstracts of identified articles to investigate what we know from previous studies on investments in Life Science. We identified eight clusters highlighting eight diverse discourses within the field, while also delineating the numerous academic disciplines engaged in it, such as management, entrepreneurship, innovation, and healthcare management. Subsequently, we constructed an equity investment framework that encapsulates eight distinct discourses within the research field, emphasizing the primary research inquiries and prevalent themes associated with each discourse. The eight distinct discourses shaping the narratives within the Life Science field, according to our tentative findings, are as follows: (1) Healthcare Adaptation to Financial Trends in Life Science: This discourse examines how healthcare systems respond to Life Science innovations in regard to financial matters; (2) Equity Finance in Life Science Business Models: Here, the focus is on Life Science ventures' business models and the role of equity finance; (3) Scaling in Life Science: This discourse outlines different strategies for scaling Life Science ventures, particularly considering external factors that influence growth; (4) Financial Aspects of Life Science Industry: Outlining various financial aspects of the Life Science industry, including funding mechanisms, revenue models, and investment trends; (5) Planning and Decision-Making: This discourse outlines the decision-making processes involved in advancing Life Science innovations to the dissemination stage; (6) Equity Finance and Risk in Research and Development: Here, the focus is on understanding the relationship between research and development efforts in Life Science in relation to risk management and equity finance; (7) Assets in Companies: This discourse outlines core assets held by Life Science companies and their implications for financial performance and strategic planning; (8) Owner or Management Perspective: Outlining the perspectives and strategies of entrepreneurs in navigating the financial landscape of the Life Science industry. We suggest a path for future research that reflects the broad spectrum of views in the literature and propose new opportunities for research that take an investment-based approach, explore investment in Life Science, and move the study

of investment to the support system of Life Science communities, healthcare organizations, and Life Science ventures.

Keywords: equity investment, life science, biotechnology, medical technology, innovation

ACTIVE AGING IN SLOVAKIA – CONCEPTS AND CONTEXTS

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Abstract
At the turn of the 21st century, all countries in the world are exposed to significant population changes, agreeing that the most significant feature of population behaviour in the 21st century will be demographic aging. In countries with a high proportion of older people, aging is causing the gradually rising social and health care costs for a rapidly aging population. One of the proposed solutions to the partial relief of burdened public systems is the concept of active aging, which is based not only on the physical activity of the individual, but also on the continued involvement of people in social, economic, spiritual, cultural spheres and participation in civic activities. In order to measure the level of older people´s participation in the labour market and in the social and family activities in European countries the Active Ageing Index (AAI) was constructed. Slovakia is part of an international comparison within the monitoring of indicators of active aging. The AAI is a composite measure, obtained by aggregating scores from four domains: employment, participation in society, independent, healthy, and secure living, and enabling environment. Twenty-two individual indicators in all domains are drawn using major European household and individual surveys. The crucial procedural part of the AAI construction involves determining weights to individual indicators. The subjective methods considered in this paper include the rank order method, the direct rating method, the pairwise comparison method and the analytic hierarchy process of Saaty. For aggregation of multiple indicators into one composite index multiple-criteria decision analysis methods (MCDA) are used. The main purpose of the methodology for the AAI construction is to reduce the number of indicators by aggregating them into four sub-indices. The best-known method used for the sub-indices construction is weighted sum (WS) model that is the simplest MCDA method. Three methods for data standardization and two MCDA methods were used: the WS method and the Euclidean distance from ideal object method. The results for each country in domains using the concrete weights and MCDA method were aggregated into the composite index - overall Active Ageing index. The countries were compared and their rank was added. As four weighting methods and four MSDA methods were used, 16 various ranks of countries were obtained. Minimum, maximum, and mean rank of each country were computed, and these statistics were compared with the overall AAI computed by the UNECE methodology. Thus, the weights used have a significant impact on the overall result of the composite index and hence on the ranking of the compared countries. The findings confirm that in Slovakia typical are low employment rates in oldest age categories, their low participation in voluntary activities, lifelong learning, the political participation, use of ICT and mental well-being but high proportion of unpaid work in the area of childcare or adult care. Strategies and approaches to care for the older population at both national and regional levels are responding to these realities.

Keywords: population ageing, active ageing, Active Ageing Index, multiple-criteria decision analysis methods

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LARGE INTRA-INDUSTRY PRODUCTIVITY GAPS BETWEEN FIRMS: CAN THEY PERSIST AND WHAT CAN REDUCE THEM?

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Abstract
Economic theory suggests that productivity differences between firms in different markets or industries cannot persist in the long term. Theoretical models of competition and market theory show that competitive pressure drives inefficient firms out of the market, so that in the long run there should not be significant productivity differences. Nevertheless, many empirical studies on productivity show that high productivity differences persist between firms, even within narrowly defined industries. Syverson (2004) reports that in the U.S. manufacturing sectors, the productivity of the top ten percent (p90) of firms is twice the productivity of the lowest ten percent (p10) of firms on average, and it is even higher in some sectors. According to Hsieh and Klenow (2009), in China and India, the average p90-p10 productivity range is 5:1. Productivity gaps can be reduced under competitive pressure through two mechanisms: due to market entries and exits, or through learning (technology transfer) between firms. On the one hand, competition can force inefficient firms to exit, leaving only companies with similar high efficiency in the market. This approach concentrates on the lack or constrains of market competition in explaining these large and persistent productivity differences, proxied by the dynamics of exits and entries (Syverson 2004, 2011), or competition advantages due to export activities (Melitz 2003). For example, Syverson (2004) examines the impact of spatial substitutability in product markets. In their study, they find that where producers are spatially densely clustered in a market, consumers can more easily switch between suppliers, which increases the intensity of competition locally and that an increase in this substitutability crowds out less efficient firms, leading to higher minimum and average productivity levels and lower productivity dispersion. Alternatively, competition may force inefficient firms to learn from more productive ones, so that they catch up with highly productive firms through knowledge and technology transfer between firms. There are several channels for knowledge and technology transfer between firms: R&D links between firms, supplier (vertical) links, or labor flows between firms. Following Arrow (1962), worker mobility has long been considered a major source of knowledge flow across firms: the hiring firm benefits from the embodied knowledge and skills of incoming labor, which has a positive effect on wages and productivity in the target company (Almeida and Kogut 1999; Zucker, Darby, and Torero 2002; Palomeras and Melero 2010; Stoyanov and Zubanov 2012) (Balsvik 2011; Poole 2013; Csáfordi et al. 2020). This suggests that knowledge transfers between firms can decrease productivity differences, while constraints to knowledge transfers can explain why productivity differences sustain. In this study I examine how the intensity and structure of labor mobility network between firms is associated with the productivity dispersion of industries. In empirical investigation, I use econometric analysis of the Hungarian administrative and firm data on labor mobility and productivity dispersion (using a Hungarian administrative data integration database, which is an anonymized employer-employee linked panel dataset created by matching five administrative data sources). I argue that it is not only the existence of labor flows between

firms that is of interest, but also the structure of this channel of knowledge transfer, how it links firms in the industry. I apply panel regression models with dependent variable TFP (total factor productivity) range (p90-p10 and p75-p25, normalized by TFP median) of firms within each industry. Explanatory variables are network characteristics of labor mobility within an industry and also between industries.

Keywords: firm productivity, productivity dispersion, knowledge spillover, labor mobility network, network characteristics

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TWIN TRANSFORMATION IN HIGH RELIABILITY ORGANIZATIONS

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Abstract
The imperative shifts towards Digitalization and Sustainability poses a dual challenge for established companies. This is especially relevant for so-called High-Reliability Organizations (HROs) functioning in critical sectors such as energy and healthcare. These organizations emphasize flawless operation within high-risk settings and are characterized by their complex business models that focus on enhanced security and efficiency. Faced with new market pressures and demanding regulations HROs must transform their foundational operating and business models to address emerging chances and risks for digitalization and sustainability, while maintaining their focus on security and efficiency. Growing research regards both sustainable and digital transformations for established companies. However, literature how specifically HROs address either of these transformation challenges is still limited and highly fragmented, and almost none considers the dual challenge of both transformations at the same time. To address this gap in research, this study investigates and synthesizes antecedents, barriers, drivers, and outcomes of digital and sustainable transformations in HROs from existing literature, compares them for possible reciprocal effects and combines the findings to conceptualize a unified framework for a "Twin Transformation" (TT) in HROs. Employing a systematic literature review (SLR), this study integrates two usually distinct research streams: Digital and Sustainable Transformation in HROs. By systematically sampling, analyzing and structuring literature from both domains, the study identifies overlapping and unique organizational factors influencing TT to compare and combine common factors across the two transformations. The SLR methodology facilitates a comprehensive, transparent, and replicable integration of the findings, further supported by a qualitative analysis based on transparent data structures. The study identifies the antecedents, drivers/barriers, and outcomes for both digital and sustainable transformation in HROs. Subsequently, the comparison and combination of the identified organizational factors allows to propose a conceptual framework for Twin Transformation in HROs with specified common and differentiated antecedents, drivers/barriers, and outcomes. By offering a holistic organizational view of TT, this paper guides HROs in navigating the complexities of the Digital and Sustainability "Twin Transformation". It emphasizes specific common antecedents, drivers/barriers, and outcomes to consider when addressing this dual challenge, as well as differentiated organizational factors that are critical for either one of the transformations. That way, the resulting conceptual framework lays out a possible path for HROs and potentially also other organizations and companies to follow in achieving digitized and sustainable operation and business models. This study presents a novel SLR that bridges the gap between Digital and Sustainability Transformation research with a specific focus on HROs. By proposing a comprehensive empirical framework for TT, it contributes to the academic discourse by addressing the

fragmented literature and setting a foundation for future research on combined digital and sustainable transformations, specifically within HROs.

Keywords: twin transformation, digital transformation, sustainability transformation, high-reliability organizations, systematic literature review

COOPETITION OF HIGH-TECH AND LOW-TECH FIRMS – THE PERSPECTIVE OF COOPETITION ATTRIBUTES AND COOPETITION PERFORMANCE

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Abstract

Coopetition – cooperation of competitors – continuously gains the growing interest of management scholars and practitioners. At the current stage of development of coopetition knowledge, it is claimed that next to the need for more in-depth qualitative research and large-scale quantitative studies it is claimed that we need to focus on methodological issues. This paper addresses two out of those recommendations, namely, presents results of large-scale research focused on the investigation of the industry contextuality of coopetition phenomena.

Coopetition is recognized as a phenomenon strongly influenced by the empirical context. Findings from various studies indicate that both leading in coopetition research aspects, namely the factors (antecedents, drivers) and effects of coopetition, may vary depending on the country, culture, or sector in which the study was conducted. This variation can be observed especially between firms operating in high-tech and low-tech industries. The aim of the article is to recognize differences among coopetitors operating in high-tech and low-tech industries regarding coopetition attributes and coopetition performance. Focusing on these two aspects is important because attributes are considered essential for the formation, implementation, and effects of coopetition, while coopetition performance represents an essential research stream in the field of coopetition. To achieve the above-mentioned goal, quantitative research was conducted on a sample of 1231 Polish manufacturing companies, including 322 high-tech and 909 low-tech ones, experienced in implementing coopetition strategies. The research results indicate that among the examined sub-samples, the perception of the considered variables is generally not distinctive, although some statistically significant differences can be observed. Concerning coopetition attributes, dynamics, paradoxicality, intensity, strength, conflict, and formality are perceived as slightly more relevant by managers from high-tech firms. Conversely, regarding asymmetry, managers from low-tech firms attribute higher relevance than those from high-tech firms. It should be noted that not all of these differences have been found to be statistically significant, while no differences have been found in the case of complexity, mutual dependence, tensions, competition intensity, investments, and trust.

Regarding coopetition performance, the situation looks similar as results vary, and no general conclusions can be drawn. We found that there is no difference between low-tech and high-tech firms only in the short-term perspective on coopetition performance. Simultaneously, in the case of both long-term coopetition performance and coopetition success (used here as a goal-related proxy for coopetition performance), low-tech firms are more efficient in coopetition execution. However, the differentiation between these two types of firms is statistically significant only in the long-term perspective on coopetition performance. The main conclusion drawn from the research is that the industry context generally attributed to coopetition is not of a general nature. Indeed, it is possible to identify attributes or components of coopetition performance undifferentiated by industry, at least in terms of differentiation based on the level of technological advancement. This means that despite being highly dynamic, paradoxical, and situational in nature, coopetition can be perceived as relatively stable in certain aspects, such as, for instance the perceived role of trust or relationship complexity. At the same time however, it is possible, to point out some significant differentiation criteria which should be considered, for instance, as control variables, in future research on coopetition.

Keywords: large-scale surveying, manufacturing companies, coopetition success, coopetition features, coopetition characteristics

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SALARY COMMUNICATION POLICY IN CROATIAN COMPANIES – DOES IT PAY OFF TO BE TRANSPARENT?

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Abstract
The increasing external pressure for more salary transparency in recent years poses major challenges for companies. New generations of employees, whose values include greater social and organizational justice, are demanding more information on salaries, but so are transnational bodies such as the European Commission, which recently adopted a new directive on salary transparency with the aim of reducing the pay gap between men and women. Although the policy of greater transparency certainly reduces the possibility of gender-related pay discrimination, it can have various negative consequences for employers, such as envy among colleagues, deviant or counterproductive behavior and higher employee turnover, among others. This paper examines the various outcomes of salary communication policies implemented by Croatian companies with regard to the most important indicators of employee attitudes resulting from the reward system – work engagement, employee retention and absenteeism. Specifically, a survey was conducted using a questionnaire with a sample of 61 medium and large companies to determine the communication policy with regard to greater transparency or secrecy of salaries and the way or channel of communication through which employees gain access to information about the salary system. The research found that salary information is predominantly communicated to employees verbally by a line manager, a third of organizations use formal written channels, while a negligible proportion of organizations use internal workshops and seminars. In addition, more than half of organizations have a policy of salary confidentiality or secrecy, while less than a tenth of organizations actively publish all salary range information to make it as accessible as possible to all employees. Transparent organizations rely on written instructions and documents to communicate salary information, while pay secrecy-oriented organizations use line managers as the primary source of information. Regarding the relationship between communication policies and various indicators of employee motivation, the research findings show somewhat contradictory results – for example, it appears that (1) organizations where managers do not share information about salaries with subordinates have fewer problems with retaining administrative employees, (2) fewer problems with work engagement of professionals are reported by organizations that organize training and workshops on salaries, and (3) more problems with absenteeism of professionals and administrative employees are reported by organizations that do not have a communication channel about salaries. The results clearly show the complexity of salary communication policy, which is quickly moving to the forefront of compensation issues in HR and could soon become a critical issue in compensation management. As these results confirm, it is characterized by tensions and paradoxes which put pressure on companies to rethink their compensation strategies and policies in the near future.

Keywords: compensation and benefits management, salary policies, salary communication, salary transparency, organizational performance

REDISTRIBUTIVE EFFECT OF THE PAYROLL TAX

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Abstract
Redistribution is one of the basic functions of taxation and public finance. The main purpose of redistribution is to alleviate pension and social inequalities among citizens by redistributing pensions. An essential function of redistribution is to shift funds from higher income earners to lower income earners. The redistributive function mitigates the disparity in individual incomes by having the richer individual pay the higher tax or payment. This in turn allows for increased incomes for poorer individuals through social transfers. The rule should be that the taxpayer with the higher income pays the higher tax. In the case of progressive taxation, the rate of taxation increases if the taxpayer's income increases. If the tax burden on the taxpayer decreases as income increases, the tax has a regressive impact on the system. The main objective of the paper is to compare Lorenz curves, Gini coefficients and effective progressivity indices of gross and net employment income, specifically in 2020 and 2022 in the Czech Republic and Croatia. The year 2020 was chosen because employment income was affected by various government measures due to the COVID-19 pandemic and the year 2022 because it was no longer affected by the pandemic. A mathematical and statistical method was used to analyze the redistributive effect of the payroll tax. The values of the Gini coefficient are based on the Lorenz curve and the more its values approach 0%, the more equitable the distribution of income. Conversely, the closer the values are to 100%, the more unequal the distribution of income. The Gini coefficient reached its lowest value in 2020 for net incomes, namely 23.1% in Croatia and 37.6% in the Czech Republic. It is therefore clear that when gross income is taxed, the Gini coefficient has fallen in both countries, but the value was significantly lower in Croatia. The indexes of effective progressivity, which are based on the Gini coefficients, confirmed the same conclusions, if income was taxed, the values came out to be more than 1, confirming the progressive impact. Also, in 2022, the values of the Gini coefficients came out lower for net income in both countries, but the values were higher than in 2020. It can be confirmed that in both countries the payroll tax has a progressive impact and most of all in 2020 when the world was affected by the COVID pandemic.

Keywords: payroll tax, Gini coefficient, Lorenz curve, effective progressivity index

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LITERATURE REVIEW OF SMALL FIRM RESILIENCE IN TURBULENT TIMES

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Abstract
The concept of firm resilience has received a lot of attention in recent years, due to multiple crises that firms are facing in the current volatile, uncertain, complex, and ambiguous (VUCA) world. As a result, the phenomenon of resilience has been widely examined in marketing, supply chain, and crisis management literature, among others. Although widely studied, there is still a lack of knowledge on the resilience of small and medium-sized enterprises (SMEs) and their strategic responses during and post-crisis. SMEs are especially vulnerable in turbulent times, due to their limited tangible and intangible resources that often constrain their ability to respond to crises, manage the associated risks, and ultimately, survive and recover after disruptive events. To contribute to this stream of literature, we conducted an integrative literature review to explore the state of the art and conduct the synthesis of new knowledge on the phenomenon. We focused on a critical analysis of 21 literature review papers published in top-level journals (ABS level 3 and above). We analyzed specifically their perspective on the resilience of SMEs, the impact of different crises, as well as the barriers to resilience, and specific strategies that SMEs used to become resilient in turbulent times. As a result, we introduced a holistic model of resilient SMEs, with its three stages. The first stage relates to the crisis, being seen as a causative factor of turbulence in the business environment of SMEs. In this case, we divided crises into exogenous and endogenous shocks. Second, we found that resilience in SMEs is being built through the cultivation of specific factors. We divided those into individual, organizational, and collaboration related factors. The third stage of the model consists of different coping strategies that SMEs can use to survive different crises. Finally, in addition to the theoretical and managerial implications of our study, we used the holistic framework and its components to introduce the research agenda for future studies on the topic.

Keywords: literature review, resilience, crisis, turbulence, small and medium-sized enterprises

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EMPOWERING SUSTAINABILITY: INTEGRATING RENEWABLE ENERGY COMMUNITIES WITH DOUGHNUT ECONOMICS FOR A RESILIENT FUTURE

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Abstract
Integrating the model of Renewable Energy Communities (RECs) with doughnut economics presents an innovative approach to sustainable development that prioritizes environmental health, social equity, and economic viability. Doughnut economics, proposed by economist Kate Raworth, provides a framework for sustainable development that operates within the planet's ecological limits while ensuring that everyone's basic needs are met. RECs, on the other hand, are localized groups that produce, consume, and potentially share renewable energy, fostering resilience, reducing emissions, and promoting social cohesion. In this study, we aim to propose how these two concepts can be integrated with each other. The study will be illustrated by empirical results collected during a qualitative survey of current and potential prosumers and experts in the energy, legal, policy, academic and housing communities. Our research team carried out semi-structured interviews from May to June 2023, each lasting from 50 to 75 minutes. In the study's second phase, these interviews were transcribed and scrutinized using MAXQDA software, prompting the development of a dual-level coding system. This system, crafted to underscore themes pertinent to our research queries, underwent iterative refinement to clarify any uncertainties in coding. Ultimately, the gathered data was amalgamated and examined through the lens of the PESTEL framework, encompassing political, economic, social, environmental, and legal dimensions. The results indicate that energy community goals must be established within the doughnuts boundaries, meaning firstly energy production from renewables, and secondly designing energy consumption patterns that ensure that resources are used efficiently and within the safe and just space for humanity, avoiding overuse or wastefulness. Next, the community engagement and governance issues cannot be underestimated. The participatory decision-making process is highly recommended, where decisions regarding energy production, distribution, and consumption are made through participatory approaches, ensuring to meet local needs and global sustainability criteria. Moreover, there is a need for educational programs to raise awareness about the importance of staying within the planets' ecological limits and how community energy projects can contribute to this goal. The implementation of educational programs is particularly important in countries such as Poland, where survey results indicate that economic rather than environmental factors are the main motivation for implementation and inclusion in energy communities. While creating RECs economic models, social equity issues must be underlined. In particular,

universal access to energy within the community including marginalized and low-income groups should align with the doughnut's social foundation. Citizenship approach, mentioned by the experts, is needed for creation of energy cooperatives, where profits from renewable energy projects are reinvested in the community to improve the well-being and fund other sustainable initiatives. The interpretation of the interviews revealed that a scalable model of RECs that can be adapted and replicated in different contexts are needed. It could contribute to the global effort to stay within the doughnut's ecological ceiling. Additionally, the formation of network among RECs to share knowledge, resources and best practices could be helpful. We also believe that some sustainable indicators that measure the RECs' performance against the ecological ceiling and social foundation of doughnut economics should be developed. Finally, all interviewees emphasized the importance of proper and stable policy frameworks. Such a framework should advocate for and contribute to the development of local, national, and international policies that support the integration of renewable energy communities within the doughnut economics framework. Additionally, some financial and technical support from governments, NGOs, and the private sector to provide the technical and financial resources is necessary for the development and expansion of RECs in the coming future. We believe that our proposed approach, illustrated by the outcomes from the qualitative study, may contribute to the transition towards a more sustainable and equitable global economy but also may empower local communities, making them key actors in the fight against climate change and in the pursuit of social well-being.

Keywords: doughnut economics, energy transition, renewable energy communities, qualitative study, interviews

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CHARACTERISTICS AND CATEGORIZATION OF EQUITY CARVE-OUTS: A SYSTEMATIC LITERATURE REVIEW

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Abstract
Many companies around the world are looking towards making their organization leaner by concentrating on their core competencies and shedding some of the cost-intensive human resources as a way of cost-cutting. Equity carve-out is one such method of divestiture that companies use to carve out business units or subsidiaries and sell off the equity to the public. By doing so the companies can restructure themselves and make some quick cash or raise immediate capital. Compared to other divestiture methods, it is the fastest way to access the capital without losing complete ownership and control over the unit. The companies could benefit by enhancing growth of the unit which would otherwise lose value in a bigger company or a conglomerate. The extant literature has documented the motives behind choosing equity carve-out and other divestiture methods, the impact on the carved-out subsidiaries and the parent companies as well as the likelihood of businesses/subsidiaries getting carved-out. There is detailed literature on the financial aspects around equity carve-out as it has been mainly used as a financial tool for largely financial benefit. Therefore, it would be crucial to find out which benefits companies have that are non-financial or which non-financial motives were the determining factors to divest. Additionally, it would be of great value to find out if the size of parent companies or subsidiaries, public image, employee reactions, leadership behavior, and such parameters determine the success of a carve-out. Collecting, structuring, characterizing, categorizing, and integrating this information would fill the gap in the existing literature. This categorization is of relevance for discussing potential benefits for companies and the strategies they apply if they decide to divest by carving out. This would enable companies to view equity carve-out not only as a financial tool but also acknowledge of its further strategic benefits. A systematic literature review is necessary to collate and contextualize existing research by first identifying and describing characteristics of equity carve-out and adding them into categories. This would help in broadening our understanding of all the relevant literature on equity carve-out. To cover extant literature, we have covered two online databases: EBSCOHost and Web of Science. We applied the keywords "Equity Carve-Out" i.a., "Split off IPO", "partial split-off", "partial IPO", "divest*", "asset sell-off" "sell off" as synonyms. For high-quality results, only peer-reviewed academic journals and English language results were included. After using the keyword string, we removed the duplicates. To ensure the papers belong to credible journals, we included all the journals that matched the quality threshold of impact factor >= 1.5 OR ABS >= 2. We continued excluding abstracts that were not relevant to the research topic. In the end, we analyzed full texts of the relevant studies and identified themes like motives of performing equity carve-outs, the relationship between parents and subsidiaries, information asymmetry, selection of the right divestiture method, value creation, financial performance, and implications. Furthermore, we shed light on future research approaches that academics could pursue.

Keywords: equity carve-out, divestiture

DIGITAL AND SUSTAINABLE BUSINESS MODELS OF SMALL BUSINESSES – INTERNAL AND EXTERNAL ANTECEDENTS OF BUSINESS MODEL TRANSITION

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Abstract
The major topics of sustainability and digitalization force small businesses to shift their established business models (BMs) towards digital and sustainable BMs. Due to their unique resource constraints, small businesses face difficulties within this transition process. To study this phenomenon, BMs have comprised a prominent research focus, and related scholarly discussions remain ongoing. A central research stream in these academic discussions is the transition towards digital BMs. Digitalization represents a significant trend and a crucial factor for the success and survival of small businesses. Digital transformation (DT) describes incremental and radical changes of a BM toward digital value proposition, digital value creation and delivery, and digital value capture. Although digitalization and DT have generated interest among scholars, a small business focus is still nascent in the literature. In addition to digitalization, sustainability has become a paramount topic in business research. Many scholars consider the necessity for businesses to shift towards sustainable and inclusive business models crucial for corporate success and societal well-being. The transformation toward a sustainable BM includes technological, organizational, and cultural aspects to tackle environmental and social challenges. While scholars have been extensively studying sustainability and the transformation to sustainable businesses in larger corporations, there remains a lack of studies focusing on the drivers and challenges unique to small businesses. Twin transition combines sustainability and digitalization in a concurrent transition toward sustainable and digital BMs. While some authors have begun to focus on sustainable and digital transformation and connecting digital transformation processes to environmental, economic, and social sustainability, an apparent concentration of scholars on the phenomena for the heterogeneous group of small businesses has yet to form. Barriers and drivers either for sustainable transition or for digital transition are well-established but are still nascent for twin transition. The arising research question is as follows: What are the internal and external antecedents for the transition towards digital and sustainable business models of small businesses? To answer this research question, a multi-staged research approach was chosen. As a first step, the study conducts a systematic literature review (SLR) based on articles in high-quality business and management journals. Small-business-specific barriers and drivers for either digital transformation or sustainable transformation were derived. In a second step a qualitative analysis of semi-structured interviews was utilized. The interviews were conducted with practitioners from various hierarchical levels across German and Austrian small businesses in several industries. The interview data were used to validate the derived internal and external factors and extract small-business-specific barriers and drivers for twin transition. Interview transcripts were coded manually, and barriers and drivers were clustered into aggregated dimensions using the Gioia

methodology. This work's main contribution is deriving small-businesses-specific barriers and drivers for twin transition. Furthermore, the categories of these internal and external antecedents are structured within a holistic framework. The barriers and drivers provide guidance for entrepreneurs and managers of small businesses to complete the twin transition pathway successfully. The presented study provides a comprehensive overview of internal and external drivers and barriers of twin transition with a clear focus on small businesses.

Keywords: small businesses, business model, transition, drivers, barriers

WHAT MAKES EMPLOYEES RISE AGAINST THE MACHINE: AI APPLICATIONS IN HRM

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Abstract

Artificial Intelligence (AI) applications in business have been steadily rising in the last decade. From automating human business processes to augmenting and in some cases, fully automating the processes or even developing autonomous systems, AI has been a significant buzzword in the corporate domain. While these technologies' applications have witnessed early adoption in areas, such as the gig economy, increasingly, we are seeing its uptake, for example, in the domain of human resource management (HRM) practices with increased proliferation of AI-assisted or enabled applications in HRM. Traditionally viewed as a 'people-focused business function, tasked with maintaining and managing human resources of an organization for high performance, HRM has embraced technological advancements to implement a range of AI applications in its sub-functional domain, such as in recruitment and selection, performance management, AI (including algorithms), training and development to managing employees. While some of these facets have been appreciated, for example, in approving employees' holidays, others, for example, in firing employees, are being intensely criticized as it lacks the 'human-ness' of HRM. Consequently, recently, a new phenomenon of algoactivism has been recognized which pertains to employees' utilized tactics to hinder, or sabotage AI's performance and utility. While algoactivism is a relatively novel phenomenon, the potential severity of its manifestation has already been noted with concern by both academicians and practitioners across the globe. Such concerns relate to expected financial and business-process-related returns expected by corporations while deploying AI. As AI applications are expected to rise in the future steadily, it has been critical for organizations to understand why employees engage in algoactivism and what could be done to alleviate, and perhaps even curtail its progressive exhibition. To this end, this study attempts to investigate algoactivism from the perspective of workers engaged in HRM in entry and middle-levels of management across two industries – technology (i.e., Information Technology) and hospitality (i.e., Hotels). The study is designed to leverage qualitative data collected through an open-ended written essay method from 50 employees in each industry. The data collection is focused on the United States of America (USA) and is being conducted online (e.g., MTurk) while adopting stringent criteria for selecting appropriate respondents. Analyzing the data through the grounded theory method, the results will provide nuanced insights into algoactivism from two different perspectives that consider the employees' role in the organizational hierarchy and their exposure to technological advancements. The findings are expected to significantly advance the existing theoretical knowledge on algoactivism from the point of view of HRM professionals which is a little investigated domain in past research on this topic. These findings can be used to develop practical measures that can help organizations improve employee acceptance of AI applications and perhaps encourage employees to actively adopt such applications to enhance organizational performance.

Keywords: artificial Intelligence, algorithms, algoactivism, HRM, employee

COMPETITIVENESS, CRONYISM AND REGULATION IN THE NEW EU MEMBER STATES: THE TALE OF TWO DEFICITS

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Abstract
The main motivation of the study stems from the absence of convergence of the eleven new EU member states (Bulgaria, Croatia, Czechia, Estonia, Latvia, Lithuania, Hungary, Poland, Romania, Slovakia and Slovenia). More than 10 years after their EU accession story had its positive conclusion, west-east or old-new division among the EU member states is still viable and reflects in a number of outcomes (labor market, migration, final goods and services market, etc.). Since convergence and productivity are often publicly presented through the term competitiveness, this paper investigates the role of cronyism and government regulation in the competitiveness of the eleven new EU member states from 2007-2016. The study has two research goals. The first is to summarize the existing theoretical work on competitiveness and cronyism, providing a bridge between the two terms. The second goal is empirical by testing the role of cronyism and government regulation on the overall competitiveness of the eleven new EU member states. Theoretical foundation of the study rests on two strands of the literature: political economy and theory of the firm. This line of argument leads to the crucial role of public institutions that provide 'rules of the game' – constraints and incentives – for economic agents. The government can influence the allocation of entrepreneurship between productive (e.g. innovation), unproductive (e.g. rent-seeking) and destructive (e.g. theft) activities. Our hypothesis is that business models established in the eleven new EU member states are a classic example of what the literature has classified as the political-economic system of cronyism and because of that these countries have lower levels of competitiveness. In crony systems, a higher level of government regulation positively affects overall competitiveness. Specifically, cronyism is a system which enables quasi-rents for economic agents who are close to the political elites. Resources are misallocated in the sense that economic agents invest their time and money in rent-seeking activities instead of innovation. A direct consequence of that is lower innovation activities and ultimately productivity which results in lower levels of overall competitiveness. A rather limited time period is solely determined by the availability of data on cronyism and government regulation collected by the World Economic Forum flagship publication Global Competitiveness Report. Our first variable of interest – cronyism – is measured as favoritism in decisions of government officials to well-connected individuals and companies when deciding public policies and contracts. Our second variable of interest – government regulation – measures how burdensome it is for business to comply with

governmental administrative requirements (e.g. permits, regulations, reporting). Methodologically, paper rests on the dynamic panel analysis which allows for the following results to be concluded. First, cronyism has a negative effect on competitiveness. Second, due to the crony environment in the sample, higher government regulation corrects for these 'crony externalities' ensuring higher competitiveness. The relevance of the results extends beyond this sample since they highlight that minimizing inefficiencies in the public sector and its connections with economic agents in the private sector (lowering the cronyism) are detrimental in achieving overall competitiveness. Having in mind our results, an exclusive focus on the wages, prices, and exchange rates when examining competitiveness of economies, as well as their (lack of) convergence, might indeed be a dangerous obsession.

Keywords: competitiveness, cronyism, regulation, new EU member states

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GLOBAL STRATEGIES FOR INNOVATIVENESS: ENHANCING ABSORPTIVE CAPACITY THROUGH HUMAN RESOURCE PRACTICES

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Abstract

This paper aims to address the evident lags in synthesis and interpretation of the interconnectedness behind employing human resource practices to enhance absorptive capacity and innovation. Despite the globally recognized importance of integrating human resource practices within the nexus of absorptive capacity and innovation, a gap remains in scholarly efforts to synthesize, interpret, and illuminate their interconnection. Addressing this gap, our study explores the dynamics between absorptive capacity and human resource practices, with a particular focus on their influence on organizational innovativeness and global competitive advantages. By investigating these underexplored domain intersections, we aspire to clarify the complex interplay between human resource strategies and the multifaceted process of absorptive capacity and to significantly enrich our understanding of how these practices, along with the pivotal role played by individuals within organizations, foster the organization's competency in assimilating, employing, and capitalizing on external knowledge. To perform an all-inclusive and robust review, we opted for a comprehensive research query around key terms in human resource practices, absorptive capacity, and innovation. We included articles, reviews, and editorials as relevant contributions on the topic that have been published in various forms without setting any restrictions on the publishing year. We ran the first query on Elsevier's Scopus and Web of Science on July 27, 2023, with regular updates until December 31, 2023, retrieving a final dataset of 100 papers based on the inclusion criteria related to dimensions and constituents as well as several informed discussions among the authors. Following the need for a guiding framework in our analysis, after re-reading the 100 selected papers, we constructed an Inputs-Processes-Outcomes framework grounded on the empirical scholarly evidence of a restricted sample containing 88 manuscripts. Next, to highlight the theoretical foundations (e.g., resource-based view, knowledge-based view, evolution theory and organizational learning theory) and principal research themes (e.g. knowledge dynamics, organizational structure and practices, innovation and development process, networking and social capital, performance management and development) alongside the IPO framework through illustration—which in turn helps researchers visualize the underlying intellectual structure and identify further research opportunities—we adopted Multiple Correspondence Analysis on the full final sample. As such, our operationalization of the systematic literature review approach enables a low-dimensional illustration of the original high-dimensional space, thereby allowing for further synthesis and advancement of the research domain.

Keywords: innovativeness, absorptive capacity, human resource practices, global strategies, organizational

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PERCEPTIONS OF YOUNG PEOPLE ABOUT SOLIDARITY

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Abstract
Solidarity is a fundamental value at the core of the European Union (EU). In times of crisis, organizations, projects, and activities that promote solidarity intertwine with principles of humanity and sustainability, contributing to the vision of a more cohesive Europe. However, the concept of solidarity resists a single, universally accepted definition. Its multifaceted nature, encompassing empathy, active citizenship, human rights, and inclusiveness, presents a rich and complex phenomenon that attracts the attention of experts across sociology, psychology, economics, law, and other disciplines. This inherent complexity offers a stimulating intellectual challenge for those seeking to understand the nuances of solidarity. This paper offers a unique perspective on young people's perception of solidarity, recognizing the vital role of youth in shaping the future of the EU and the significance of understanding their interpretations of this core value. With a historical lens, solidarity is traced as a concept throughout human civilization and later enshrined within the normative foundations of the European Union. Contemporary expressions of solidarity take on various forms, addressing a broad spectrum of current issues. This paper will systematically examine these issues through multiple aspects, including social solidarity, intergenerational solidarity, the relationship between solidarity and education, sustainable development, civic solidarity, and migration. The paper will draw upon theoretical frameworks and empirical research methods. A comprehensive literature review will establish the existing knowledge base on solidarity within sociology, psychology, political science, and related fields. Further, primary survey research will be conducted to elicit the perceptions of young people across diverse backgrounds within the EU. The analysis will pay particular attention to identifying common themes, potential generational differences, and the influence of socio-cultural factors on how young people understand and practice solidarity. This research holds significant implications for policymakers, educators, and civil society organizations working to strengthen solidarity within the European Union. By gaining a deeper understanding of youth perceptions, targeted initiatives can be designed to foster a greater sense of shared responsibility, social cohesion, and active engagement in addressing the challenges facing Europe and the world.

Keywords: solidarity, European Union law, youth perceptions, active citizenship, inclusiveness, intergenerational solidarity

IMPACT OF CHINA'S RARE EARTH SUPPLY ON EUROPE'S TRANSITION TO CLEAN ENERGY: THE INFLUENCE OF GEOPOLITICAL AND COUNTRY-SPECIFIC RISKS

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Abstract
The European Union is deeply committed to its Green Deal agenda, which includes the enactment of the Critical Materials Act of 2023 and the endeavor to utilize China's rare earth elements to facilitate clean energy transitions amidst ongoing geopolitical uncertainties. In response to the pressing climate crisis and in fulfilment of its obligations under the Paris Agreement of April 2016, the EU has meticulously formulated an extensive set of ambitious environmental targets. A central pillar of this commitment is the visionary European Green Deal. This is a strategically crafted framework that aims to facilitate a comprehensive shift towards carbon neutrality by 2050. However, this transition towards a low-carbon future heavily relies on the renewable energy sector, which is significantly influenced by the trade of materials, especially the importation of rare earth minerals from resource-rich economies beyond Europe's borders. The overarching objective of this transformative initiative is to decouple economic growth from resource depletion, thus ensuring the sustainable utilization of natural capital. Notably, the European Green Deal places utmost importance on inclusivity. It aims to prevent marginalization and ensure equitable access to the benefits and opportunities arising from the transition towards sustainability, including a secure and affordable energy supply. European nations, which heavily rely on Chinese rare earth elements, are highly exposed to risk factors. This situation calls for an examination of how Chinese rare earth element exports to European countries have helped facilitate the transition to cleaner energy from 1990 to 2021. This examination takes into account geopolitical and country-specific risk factors. The study focuses on 14 European nations: Austria, Denmark, Finland, France, Germany, Hungary, Italy, the Netherlands, Norway, Poland, Spain, Sweden, Switzerland, and the United Kingdom. The analysis considers the dynamics of country-specific and geopolitical risks. In this study, the dependent variable is the Chinese rare earth element exports to the European countries. The key independent variable of the study is the per capita output of renewable electricity in European countries. Additionally, this study takes into account several explanatory variables related to geopolitical threats. These include nuclear threats (GPRN), terror threats (GPRT), and war threats (GPRA). Furthermore, this research incorporates the disaggregated country risk indicator (CRI) obtained from the International Country Risk Guide (ICRG) developed by PRS Group. The CRI is divided into two trajectories: CRI positive (CRIP) and CRI negative (CRIN). Given the issue of cross-sectional dependency and heterogeneity among the variables, this study employs the dynamic common correlated effects (DCCE) technique. The research findings reveal a positive influence of Chinese rare earth element

exports on the advancement of cleaner energy transformation in European nations. Interestingly, while nuclear and terrorist threats do not exert an unfavorable impact, war threats impede the export of Chinese rare earth elements. Furthermore, positive country-risk indicators have a favorable effect on Chinese rare earth element exports, whereas negative country-risk indicators have a detrimental effect. These findings remain robust when subjected to a panel non-causality test with a GMM style. However, the research outcomes underscore the need for the formulation of pragmatic policies aimed at addressing geopolitical and country-specific risk factors. This should be done within the framework of a material trade-oriented club that involves both material exporters and importers.

Keywords: European clean energy transformation, Chinese rare earth elements exports, decomposed geopolitical risks, positive and negative country-risk factors, DCCE technique

SHIFT IN EUROPEAN-CENTRAL ASIAN TRADE DYNAMICS DUE TO THE US-EU SANCTIONS ON RUSSIA

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Abstract
This study aims to evaluate the changing trade patterns between European Union (EU) nations and five Central Asian countries - Kazakhstan, Kyrgyz Republic, Tajikistan, Turkmenistan, and Uzbekistan – due to the US-EU sanctions on Russia. In the wake of sanctions disrupting traditional trade flows, particularly in oil and agriculture, countries of the Central Asian region stand out as an alternative and a beacon of opportunity for diversifying and strengthening European trade frameworks in the region. These nations' historical ties, proximity, and resource-rich landscapes offer an opportunity for crafting resilient, sustainable, and mutually beneficial economic alliances. The imposition of sanctions against Russia has undeniably accelerated a critical examination of Europe's trade dependencies and energy security strategies, steering a course toward diversification and sustainability. With its abundant resources and the economic opportunity of Europe, Central Asia is poised to play a pivotal role in this strategic realignment. This paper delves into how European technological expertise and investment could synergize with Central Asia resources and labor, particularly in energy, agriculture, and manufacturing, to forge more robust but resilient partnerships. However, the specter of Russian influence in the region, especially in nations like Kazakhstan and Tajikistan, casts a shadow over these potential alliances. The study highlights the reconfiguration of trade routes, diversification of energy resources, and the emergence of new economic partnerships. The paper discusses the broader economic implications for the European Union, including challenges in logistics and increased costs, alongside opportunities such as enhanced energy security and new markets. It underscores the necessity of a strategic, proactive approach to mitigate the risks posed by overreliance on a single region and to navigate the complexities of geopolitical entanglements. This study employs a mixed-methods approach, combining quantitative analysis of trade data and qualitative review of existing trade policies. Statistical techniques are used to analyze trade patterns and trends before and after the imposition of sanctions. The research involves a review of academic literature to contextualize the findings and propose strategic recommendations. Furthermore, this study highlights the barriers hindering the deepening of EU-Central Asia economic ties, such as infrastructural inadequacies, regulatory discord, political unrest, and social inequities. This research contributes to understanding how geopolitical strategies affect international trade dynamics and regional economic landscapes. Emphasizing the critical role of a stable and economically integrated Central-Asia region in US national security, the paper advocates for a strategic realignment of EU-Central Asia trade relations away from the shadow of Russian and China influence. This

realignment meets the US objectives of regional stability, countering Russian sway, and ensures the continuity of crucial global economic flows. The findings suggest that while the sanctions present immediate economic challenges, they also catalyze long-term strategic benefits for Europe and Central Asia, fostering a more diversified and resilient trade network. The paper concludes with a call to action for the US and EU to actively engage in this realignment through diplomatic efforts, investments, and multilateral cooperation, aiming to construct a trade architecture that upholds democratic values, human rights, and long-term global economic sustainability by strengthening their relationship with countries of the Central-Asian region.

Keywords: US-EU sanctions on Russia, EU-Central Asia trade relations, geopolitical implications, strategic realignment, economic sustainability

MAPPING THE FIELD OF ORGANIZATIONAL PARADOXES: A BIBLIOMETRIC REVIEW OF THE LITERATURE

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Abstract
Organizational paradox literature has evolved from a niche to a mature research area. Thus, a bibliometric review is introduced to analyze the past (performance analysis) and understand the organizational paradox research domain's present intellectual structure (co-word, co-authorship, and co-citation analyses). Specifically, the author pursued answers to three research questions: (1) Which authors most influenced the organizational paradox research (both in terms of networking, productivity, and citations)? (2) What are the main topics of the organizational paradox research? (3) What are the relevant emerging and future directions for organizational paradox research? We searched the Web of Science Core Collection database and selected 468 primary and 23,906 secondary (i.e., cited) documents published until late February 2024. Performance analysis and science mapping were conducted using VOSviewer to provide a comprehensive, integrative, and objective literature review of the publication activities of organizational paradox scholars. Selected bibliometric techniques have shown that paradoxes are mainly studied simultaneously and unrelatedly across disciplines (e.g., strategic management, marketing, operations management, human resource management, and corporate social responsibility). However, these disciplinary silos must be bridged to arrive at convincing new insights into the phenomena. In addition, the present work unambiguously evidenced the blooming general interest in studying organizational paradoxes (the annual publication growth rate is 24% within the last five years). This bibliometric effort thus contributes to the existing knowledge base by systematically summarizing main (i.e., most productive) authors and publication outlets, indicating core (i.e., most cited) papers, and recognizing central themes and topics of scholarly interest. Moreover, three thematic clusters recognized by co-citation analysis (i.e., paradoxical leadership and paradox management theory, multilevel aspects of paradox and cooperation strategies, organizational ambidexterity and change) indicated interdisciplinary knowledge foundations of the organizational paradox research. Ultimately, managers and practitioners can find it helpful to understand the organizational paradox literature and get acquainted with paradoxical leadership and paradox management topics.

Keywords: organizational paradox, paradox research, bibliometric analysis, systematic review

ADOPTING SMART EDUCATION AS A NEW PARADIGM IN FORMAL HIGHER EDUCATION – EXPLORING PERCEPTION OF Z GENERATION

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Abstract
Dynamic scientific and technological development, whose importance came to the fore especially in the post-COVID-19 era, resulted in significant changes in almost all aspects of human life. The growth of the use of ICT on a daily basis has leveraged its impact in working and learning environment, and opened different approaches and perspectives in organizing teaching processes and methods, through introduction of a concept of smart education. It is a concept that, thanks to the application of a wide range of tools and programs based on artificial intelligence and other Internet-based sources, provides a flexible space for learning anywhere and anytime, adapted to the preferences and interests of each individual. At the same time, its integration into the domain of formal higher education is imposed as a necessary condition for adequate empowerment and preparation of students for the opportunities and challenges that the digitalization of modern society brings into contemporary working environment and labor market. However, although smart education gained attention among many researches and practitioners in recent years, it is an insufficiently explored concept yet, with various definitions, interpretations and possible ways of implementation. The variety of tools and sources inherent to smart education lists many different approaches in its integration into formal educational system, with significant differences in advantages and associated risks. Hence, future research is needed in order to explore the efficiency and effectiveness of various ways in which smart education can be included in the formal curricula, and their adaptation to the needs of students and labor market requirements. Considering the existing literature gap, this research explores perception and attitudes of Z generation students towards various forms of smart learning tools and the level of their implementation in HEIs. The paper also investigates the importance that Z generation gives to the integration of smart education in HEIs formal curricula and addresses the issue of redesigning teaching methods that should be made, in order to fully use the advantages of smart education concept, in line with expectations and requirements of Z generation students. The empirical data were collected during an online survey conducted in first quarter of 2024, and were analyzed using SPSS software package. Obtained results point out the necessity to integrate certain smart education tools into teaching processes at HEIs and highlights differences in their effectiveness according to the perception of Z generation students, thus offering suggestions to teachers and other decision makers that are important in shaping future improvements of formal higher education, in the light of smart education concept.

Keywords: smart education, HEIs, Z generation, students

CHANGE MANAGEMENT IN FAMILY BUSINESSES

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Abstract
This review explores the complexities of change management within family businesses, highlighting its integral role in their long-term success and sustainability. The study examines the unique challenges and strategies relevant to family-operated businesses, examining three interconnected domains—crisis management, leadership transitions, and organizational change. Key areas of emphasis include the dynamics of crisis navigation, the complexities of leadership succession, and the organizational transformations within these enterprises. Drawing on insights from seminal works, this review underscores the necessity for a multifaceted approach that integrates the preservation of family legacy with the adoption of innovative practices facilitated through effective communication and robust stakeholder engagement. The review points out substantial gaps in existing research, particularly the insufficient adaptation of traditional crisis management models to the unique dynamics of family businesses and a limited exploration into the emotional and relational nuances inherent in leadership transitions. These observations highlight the need for more tailored approaches that consider change management's familial and business components. In conclusion, this study aims to enhance the understanding of change management strategies in family businesses by proposing a broader perspective and suggesting future research directions. It calls for the development of nuanced models that address the specific needs of family firms during transitions, emphasizing the importance of emotional factors, communication, and active stakeholder involvement. By addressing these gaps, the research seeks to provide actionable insights that bolster resilience and adaptability in family businesses, supporting their ability to thrive through transformative periods and maintain competitive advantage. This contribution is vital for scholars and practitioners aiming to deepen the resilience of family firms amidst rapid change and competitive pressures, thereby fostering sustainable success.

Keywords: change management, family business, crisis management, leadership transition, organizational change

TECHNOLOGICAL INNOVATION SYSTEMS: AN INTEGRATED FRAMEWORK FOR ANALYSIS

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Abstract
Technological development takes place globally at high speed which necessitates strategically examining new technologies as well as their surrounding for successful implementation. Therefore, the technological innovation system (TIS) concept gains in importance since analysis happens on multiple levels capturing complex system interactions, which makes it a suitable tool for entrepreneurs, corporates as well as policy makers. TIS offers a holistic perspective and is a widely-used concept for analyzing the development, utilization and diffusion of new technologies and their dynamics, in particular in sustainability transition context. Within the TIS research area, several further developments have enhanced the initial TIS concept. Nevertheless, an integration of all these valuable contributions into one consolidated framework is missing. Therefore, the research objective of this research project is to elaborate an integrated TIS framework. Hence, this research project addresses the following research question: What is the current state of TIS research? Systematic literature review as well as grounded theory are chosen as methodologies. The result is an integrated TIS framework which comprises the following six aggregate dimensions: TIS Core, Structures, Influencing Factors, Context Factors, TIS Performance and TIS Life Cycle. Moreover, system interaction between the three TIS levels is illustrated. On micro-level TIS Core considers the general definition of TIS, the applied case-specific technology as well as the purpose indicating the motivation. The meso-level contains two aggregate dimensions that generate an overview of the whole market situation. First, Structures which consider technology and infrastructure as well as the influence of stakeholders. Second, Influencing Factors comprise of resources and capabilities, externalities, market as well as governance. Context Factors represent the macro-level and include the technological and structural context as well as macroeconomical context since TIS are not isolated systems but dependent on many other (external) variables such as economic particularities and broader societal constructs. Positive dynamics, negative dynamics as well as system dynamics affect the overall TIS Performance over time. Additionally, the framework is underlined by a time axis reflecting the TIS Life Cycle. TIS Life Cycle takes into account that there are different phases and types as well as the temporal evolvement since TIS are dynamic, not static systems. This research project contributes to the TIS research field by compiling an extensive literature overview as well as deriving an integrated TIS framework that comprises and enhances previous research. Its holistic and adaptable perspective makes it a relevant approach for strategic analysis and policy making regarding the interplay of innovation and technology entrepreneurship, especially within sustainable technology context. Moreover, the research results give recommendations for future research.

Keywords: technological innovation system, systematic literature review, innovation management, sustainability

TOWARDS SUSTAINABLE SMART CITIES: EXPLORING STAKEHOLDER ADOPTION OF SUSTAINABILITY-ORIENTED SMART CITY SERVICES

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Abstract
A smart city is a city, developed by utilizing a set of advanced information technologies to manage city's resources efficiently, while improving economic, and social living conditions for its residents. It consists of multiple stakeholders, that need to be included in its development, namely academia and research institutions, local and regional administrations, energy suppliers, investors, IT sector representatives, citizens, government, property developers, non-profit organizations, planners, policy makers, experts and scientists, political institutions, and media. Moreover, smart city must be integrated into the local community. Since urban environments are expanding rapidly and increasingly more people are moving to cities, with half of the world's population already living in them, smart city stakeholders' role in making the world more sustainable is crucial. Digitalization should be considered a tool to achieve sustainable development and improve the life of citizens by brings useful solutions for their life, but also consider its potential negative effects on the environment, ecology, and established socio-economic systems. Concepts of smart cities and sustainability have been well researched individually, while the literature on the relationship between them is still sparse. At the same time, adopting digital solutions is becoming increasingly difficult due to rapidly evolving innovations and the difficulty of managing the complexity of intertwining technologies. Therefore, the purpose of this paper is to shed light on the intertwining of these aspects and highlight the factors that can ensure sustainable development in smart cities. The main objective of the paper is to get a holistic understanding of how various smart city stakeholders perceive smart city services development, with an emphasis on how they even understand smart cities, where do they see barriers and drivers of smart city services development, what are the benefits and risks of it, what is their role in it, how they perceive the role of sustainability in it and how can it promote sustainable behaviour in end-users of smart city services. To answer those questions, I conducted 11 in-depth interviews with relevant stakeholders from public and private sector organizations and knowledge organizations. The most relevant stakeholders from each stakeholder group chosen, except from end users, which will be analysed in future research. After the interviews were transcribed, I conducted a thematic analysis of transcripts and proposed a conceptual framework for further analysis on end-users' adoption of sustainability-oriented smart city services. We analysed sustainability in terms of perceived importance of environmental, social, and economic sustainability to stakeholders, availability and development state of measurement tools for sustainability and methods from stakeholders to encourage behaviour change towards sustainability (mostly environmental) in users of their services. This qualitative research was proposed to examine stakeholders who are difficult to access in large numbers. Interviews were utilized as an opportunity to understand the relevance of theory and constructs selected for conducting quantitative study in future research and look to identify any new construct that might be relevant but not currently included in the existing sustainability-oriented smart city services adoption models. The results indicate various differences between stakeholders. All of them agree on the importance of sustainability of smart

city services development and perceive residents' quality of life as the main goal of it. They do not necessarily view digitalization as the most important factor in achieving that aim though. Especially stakeholders from knowledge institutions believe that technology on its own is not enough to achieve sustainability, but note that the values and habits of people need to change. They also point out that the letter takes a lot of time and that is why state regulations has to change as well, for cities to achieve sustainable development goals by 2030. Moreover, stakeholders from knowledge institutions, as well as those from public sector institutions argue, that there needs to be a better measurement system for measuring all aspects of sustainability in smart cities. Stakeholders from the private sector emphasize the importance of smart city services being easy to use, astatically pleasing, helpful and fun. They see possibility of such services for measuring and encouraging sustainable behaviour in residents by informing them on their consumption and using gamification elements and including local community in their development.

Keywords: smart cities, sustainability, service adoption, stakeholder engagement, behaviour change

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BOUNDARY-SPANNING BETWEEN EXPLORATIVE AND EXPLOITATIVE UNITS – EFFECTS ON INNOVATION PERFORMANCE

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Abstract
In today's competitive and volatile markets, organizations need to be ambidextrous to succeed, that is, they need to explore and exploit simultaneously. In extant literature, structural ambidexterity as a specific form of ambidexterity has received immense attention. The general idea of this approach is to separate exploration and exploitation into distinct organizational units, meaning that the two orientations are differentiated using organizational structure. More recently, however, researchers began to acknowledge that integration – as a counterpart to differentiation – at the unit level might represent an important and so far, often neglected success factor for organizations pursuing ambidexterity, especially when it comes to knowledge transfer, coordination and information flow between units. Drawing on Social Capital Theory and literature on knowledge exchange across units and teams, we investigate the role of boundary-spanning between explorative and exploitative units that are structurally separated with regard to their relation to product innovation performance of subsequent organizations. Our aim is to provide concrete quantitative evidence and a detailed picture regarding the effects that boundary-spanning (i.e., activities to build "bridges" across organizational boundaries) between explorative and exploitative units have on the product innovation performance (i.e., share of turnover with new-to-firm and new-to-market product innovations as well as innovation speed as a mediator). In addition to testing whether boundary-spanning activities between explorative and exploitative units are positively related to product innovation performance, we also test whether this relationship is subject to a too-much-of-a-good-thing effect, which would be reflected in a curvilinear relationship between boundary-spanning and innovation performance measures, forming an inverted U-shape function. Using data from Swiss manufacturing companies collected in the European Manufacturing Survey (EMS) 2018, we conduct a quantitative analysis using both partial least squares structural equation modelling (PLS-SEM) as well as necessary condition analysis (NCA), as the two approaches offer complementary strengths and insights. Our analyses are based on a sample of n=479 complete cases in which structural ambidexterity (or blended forms of structural ambidexterity) were present. The results of our study not only show that boundary-spanning between explorative and exploitative units has a positive effect on product innovation performance (i.e., share of turnover with i) new-to-firm products and ii) new-to-market products), but also that boundary-spanning between explorative and exploitative units is indeed a necessary condition for high product innovation performance with regard to both new-to-firm products (i.e., product innovation in general) as well as new-to-market products (i.e., more radical product innovation). In addition, our results show that boundary-spanning between explorative and exploitative units

is negatively related to innovation speed, meaning that more boundary-spanning could in fact, and contrary to our expectation, lead to slower product innovation processes. This effect is, however, only marginally significant. Nevertheless, this refutes the hypothesis that bridging ties between separated explorative and exploitative units not only lead to better results, but also to faster outcomes. Instead, our results indicate that bridging ties can indeed lead to better (i.e., more successful in terms of share of turnover), but not to faster product innovation in ambidextrous organizations. What is particularly interesting here, however, is the fact that innovation speed – also in the opposite direction of our hypotheses – is negatively associated with product innovation performance. These results, hence, demonstrate that innovation speed is not necessarily a good thing and that product innovation processes should not be rushed, but instead, must be managed with due care and diligence. In summary, our results lend support to the claim that boundary-spanning activities between explorative and exploitative units are a mandatory prerequisite (i.e., a must-have) for ambidextrous organizations wanting to achieve a high product innovation performance. The study provides in-depth, empirical insights into the effects that boundary-spanning activities between explorative and exploitative units have on the product innovation performance of organizations pursuing structural ambidexterity or blended forms of structural ambidexterity. These insights are highly relevant for researchers and practitioners alike, as there is currently not enough quantitative evidence on how boundary-spanning activities as well as the thereby established relational or bridging ties, connectedness, and social capital between explorative and exploitative units influence the outcomes in structurally ambidextrous organizations. We extend the current body of knowledge regarding this important question and provide a detailed, multifaceted quantitative analysis using different, complementary methods.

Keywords: ambidexterity, boundary-spanning, social capital theory, innovation performance, innovation speed

COLLABORATION BEFORE COMPETITION: HOW SMART CITY ENTREPRENEURS CO-CREATE TEMPORARY ECOSYSTEMS TO BUILD CAPACITY FOR LEARNING

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Abstract
This paper delves into the learning processes of smart city entrepreneurs (SCEs), who integrate aspects of social, digital, and urban entrepreneurship to address challenges in urban sustainability through innovative digital solutions. The knowledge, abilities, and competencies necessary for individuals to succeed as SCEs remain largely unexplored. To fill this void, our research employs entrepreneurial learning as a conceptual framework. We conducted our study in Edinburgh, UK, where we engaged with 34 entrepreneurs active in the smart city sector through interviews. Our analysis questions the prevalent belief that innovation is solely driven by competition, proposing instead that emphasizing collaboration can enhance the ability to learn, innovate, and achieve sustained success within temporary ecosystems. Our findings highlight SCEs as a prime example of this dynamic. Furthermore, our research contributes to the broader understanding of entrepreneurial learning by highlighting the significant, yet often underestimated, role of temporary ecosystems and intermediaries in promoting collaborative knowledge exchange and implicit learning processes. We also offer practical recommendations for policymakers to bolster SCEs' strategic learning capabilities through diverse learning methodologies.

Keywords: smart city entrepreneurship, entrepreneurial learning, temporary ecosystems for learning, collaboration, capacity for learning

DIVERGING EFFECTS OF JOB CRAFTING DIMENSIONS IN THE RELATIONSHIP BETWEEN WORK ENVIRONMENT PERCEPTIONS AND INNOVATIVE BEHAVIOR

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Abstract

Our study investigates the link between the incongruence of employees' perceived and ideal work environment and their innovative behavior via the different job crafting dimensions. Job crafting is described as a proactive strategy for individuals to improve their work situation when there is a discrepancy between their ideal and their actual perception. The findings demonstrate that increasing challenging job demands promotes innovative behavior, whereas increasing resources and decreasing demands have a negative linkage on innovative behavior. Thus, innovative behavior is shown to be more likely when individuals engage in proactive challenges, despite any misfit between their current and ideal work environment. We applied a cross-sectional research design, utilizing regression and mediation analyses to examine the relationship between the incongruence of employees' perceived and ideal work environment and innovative behavior. Data from more than 10,000 employees were gathered through standardized self-report measures, with Confirmatory Factor Analysis (CFA) ensuring the reliability and validity of the constructs examined. The findings extend job crafting literature by emphasizing the need to differentiate between the different job crafting dimensions. Specifically, they reveal that the proactive pursuit of challenging demands can foster innovative behavior. This suggests that employees are not passive recipients of their work environment; rather, they actively modify their roles, seeking challenges that can lead to innovation. The study's implications are twofold: theoretically, it advances our understanding of how job crafting behaviors relate to innovation, and practically, it underscores for organizations the significance of considering individual crafting behaviors to unlock innovative potential on an organizational level. Limitations of the study are the cross-sectional design and the reliance on self-reported measures, which constrain causal inferences and a holistic view of job crafting behaviors. Future research could adopt longitudinal or experimental approaches and incorporate multiple perspectives to better understand the dynamics of job crafting, misfit, and innovative behavior over time.

Keywords: misfit, job crafting, job demands-resources, innovation

TESTING THE EFFICIENCY OF CLASSIC THEORIES OF CAPITAL STRUCTURE IN DIFFERENT BUSINESS FRAMEWORKS

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Abstract
The aim of this paper is to test the empirical power of the trade-off and the pecking order theory in explaining the capital structure decisions of non-financial companies from selected countries with bank-oriented financial system. The trade-off theory suggests changes in financial leverage are due to deviations from the optimal debt ratio. It employs a partial adjustment model where companies move towards their optimal capital structure, considering adjustment costs. Pecking order theory posits that companies primarily use internal cash flows and issue debt when necessary, with equity issuance as a last resort. As these theories were developed and mostly tested on companies in highly developed countries with market-oriented financial systems, the idea is to test whether they are also suitable for explaining debt-to-equity ratios of companies operating in different environmental conditions. The study employs firm-level data from the Amadeus database spanning from 2007 to 2017, covering medium to very large non-financial companies across Croatia, Slovenia, Bosnia and Herzegovina, Serbia and Macedonia. Results we obtained performing panel data analysis indicate that neither theory fully explains the financing behavior observed in the sample. Overall, companies in the sample do not exhibit strong target-reverting behavior predicted by the trade-off theory, nor do they strictly adhere to the pecking order theory. Differences are observed across countries, with some exhibiting better alignment with one theory over the other. EU countries (Croatia and Slovenia) tend to lean towards the pecking order theory, while non-EU countries (Macedonia, Bosnia and Herzegovina and Serbia) show more target-adjustment behavior. When differentiated by company size, large companies show signs of both theories being complementary, adjusting towards target debt levels while also relying on debt to finance deficits. Medium-sized companies appear to follow the pecking order theory more closely, while extra-large companies do not show clear adherence to either theory. Furthermore, unquoted companies tend to align more with the pecking order theory, relying on debt when internal funds are insufficient. Quoted companies, on the other hand, exhibit behavior more in line with the trade-off theory, adjusting their debt levels to maintain target ratios. It should be emphasized that the coefficients did not reach the theoretically predicted values nor the values obtained in other relevant empirical studies. The discrepancies from theoretical predictions can be attributed to factors such as limited financing options, higher financing costs, and the focus on financial stability rather than debt-equity optimization, especially in economically unstable environments. Firms may

prioritize maintaining financial flexibility over adhering strictly to theoretical models, preserving debt capacity for future needs. Overall, obtained results cast doubt on the efficiency of classical capital structure theories in explaining the financing choices of various companies around the world and points to the need for further research into other internal and external factors that should be taken into account and accordingly implemented into capital structure theories.

Keywords: financial leverage, trade-off theory, pecking order theory, debt-equity optimisation, target-adjustment

DIGITAL TRANSFORMATION AND COLLABORATIVE INNOVATION: CASE STUDIES FROM CROATIA'S AND MONTENEGRO'S JOURNEY TOWARDS SMART SPECIALIZATION AND IT INTEGRATION

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Abstract
As technology advances rapidly and economies become more knowledge-driven, countries are striving to utilize the power of digital transformation and collaborative innovation to drive long-term growth and competitiveness. In this research, we investigate on how Croatia and Montenegro have practiced intelligent specialization. This article analyses collaborative innovation and digital transformation in Croatia and Montenegro. It emphasizes various initiatives designed to facilitate information technology integration and smart specialization. The study is based on an in-depth examination of successful partnership models while promoting smart specialization principles. Several pioneering projects have been implemented, both in Croatia and Montenegro, such as developing digital forums enabling citizens to access governmental facilities, such as monitoring air quality levels. Other examples comprise the innovations, such as consolidated data systems in mineral mining and processing industries, and innovative marine information systems. Significantly, all these initiatives showcase a comprehensive integration framework blending Industry 4.0 technologies alongside specialized implementations, thereby promoting economic growth, modernizing educational services, and improving public administration operations at a large scale by utilizing cutting-edge technological solutions. Based on the presented findings, we underline the importance of international partnerships in cultivating entrepreneurial skills, enhancing competencies, and exchanging best practices tailored to national contexts. Results indicate on how digital platforms; process management and stakeholder collaboration are leveraged to enable sustainable economic development and innovation across public and commercial sectors. Revealed results provide insightful perspectives on both opportunities and challenges that arise from digital transformation initiatives as well as cooperative innovation efforts within a broader regional context.

Keywords: digital transformation, collaborative innovation, smart specialization, information technology integration, sustainable economic development

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CIRCULAR ECONOMY TRANSITION FOR SUSTAINABLE DEVELOPMENT: UNVEILING THE ROLE OF GREEN INNOVATION AND OPEN STRATEGIES

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Abstract
As a consequence of the outbreaking awareness of environmental and social grand challenges posed by traditional production systems in recent decades, the concept of a circular economy (CE) has emerged as an alternative approach to pursue sustainable development. In contrast to linear economic models, CE advocates for a renewable production and consumption approach that emphasize resource efficiency, waste reduction, and perpetual material utilization within a closed loop. By prioritizing responsible material sourcing and production, besides proper waste management and recycling infrastructure, the CE transition enables economic growth while mitigating environmental and social negative externalities. Businesses play a pivotal role in driving the transition towards a renewable economy by adopting circular business models, which involve the innovation of processes and product design according to the CE principles. Thus, companies can exploit sustainable opportunities by properly taking advantage of innovation management. Previous studies highlighted the role of sustainable innovation and eco-innovation alongside corporate sustainability and, more specifically, the literature even introduced the concept of circular-oriented innovations. In this vein, innovation management is crucial for implementing circular practices in businesses, as it may facilitate the development of sustainable products and processes aligned with CE principles. Drawing on resource-based theory, specifically referring to the theoretical extensions offered by the natural-resource-based view of the firm, this study explores how green product and process innovations facilitate the adoption of circular practices. Companies' involvement in developing green innovation, which focuses on minimizing environmental impact and promoting sustainability, may be indeed related to the implementation of circular practices. Accordingly, the proactive approach of companies to green product and process innovation allows them to capitalize on critical knowledge and employees' skill base that simplifies the organizational transition towards circular models. Furthermore, we build on the stakeholder-resource-based view of the firm to introduce the moderating role of open innovation on the previous relationships. An open approach to innovation is supposed to strengthen such relationships due to the collaboration mechanisms aimed at gathering critical resources and knowledge from stakeholders. As suggested by previous studies, inbound and outbound strategies allow companies to access and exploit critical external resources to develop circular innovations. To empirically assess these relationships, we will collect data from about 300 managers of European companies through

online surveys. After advancing some diagnostics to ensure data normality, the absence of common method bias and multicollinearity effects among the variables, the authors advance a confirmatory factor analysis to ascertain data validity and reliability. In conclusion, the covariance-based structural equation modelling technique is employed for hypothesis testing. As a result, we expect to prove the relationship of the aforementioned variables by providing some generalizable findings. Confirming the positive associations between green innovation and the implementation of circular practices in businesses, besides the moderating role of open innovation, this study would contribute to the understanding of innovation management in the context of CE building on the resource-based theory. Therefore, it is the authors' intention to emphasize the role of green innovation in developing internal knowledge and skills that would facilitate the CE transition. Leveraging such critical resources thanks to open innovation strategies allows companies to achieve sustainable development by drawing on stakeholders as resources. By highlighting the role of green innovation and open innovation practices, we aim to provide practical insights for managers who pursue embracing a renewable production and consumption system.

Keywords: innovation management, circular economy, green innovation, open innovation, sustainable development

EFFECTS OF ABOLISHING THE SURTAX ON PERSONAL INCOME TAX IN CROATIA

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Abstract
This paper is based on research into fiscal decentralization in Croatia, with a special focus on recent changes in the tax system. The introduction emphasizes the importance of decentralizing fiscal responsibility as a key goal of many developed countries. Croatia has recently undergone significant changes, including the abolition of the surtax on personal income tax (PIT) and the empowerment of local units to independently determine income tax rates. The aim is to provide a comprehensive overview of the theoretical foundations of fiscal decentralization, the history of the surtax on PIT in Croatia, and to analyze the effects of recent changes in the tax system. The paper thoroughly explores theories of fiscal decentralization, highlighting important concepts such as the transfer of power and responsibility from central to local government levels. Various perspectives of economists are analyzed, including the works of Richard A. Musgrave, Paul Samuelson, Charles M. Tiebout, and Wallace E. Oates. Special attention is given to Tiebout's theorem, which emphasizes the importance of local preferences in the decentralization process. Furthermore, the paper describes the history of the surtax on PIT in Croatia – from its first legal provisions to recent changes. According to data from 2021, the average tax burden on income in Croatia is 35.9%, while the EU-27 average is 51.5%. Secondly, the empirical analysis investigates the effects of recent changes in the tax system. The key results are as follows. As many as 45.5% (253 out of 556) of local units decided to tax income up to EUR 50,400 per year (applying a lower rate) at a lower rate than it was in 2023, while only 5.4% (30 out of 556) decided to increase tax burden. For an income of over 50,400 euros per year (applying a higher rate), the number of those units that reduced the burden is even higher – 46.04% of them (256 out of 556). Rates were increased in only 5.58% (31 out of 556) of local units. Moreover, if we analyze the local units that had a surtax on PIT in 2023, 80.3% of them reduced or canceled it in 2024. Finally, the strategies of local units in adapting to the new tax regulations are explored, including changes in PIT rates and the tax on vacation houses. It is evident that a large number of local units decided to take advantage of the possibility of compensating for lost income by increasing the tax rate on vacation houses. Thus, 43.2% of them (240 out of 556) increased the rate. In conclusion, recommendations are made for further steps to strengthen fiscal decentralization in Croatia, with an emphasis on the need for further monitoring of the effects of recent changes in the tax system.

Keywords: fiscal decentralization, Tiebout's model, local taxes, fiscal equalization

THE CONCEPT AND EMERGENCE OF DIGITAL PLATFORM WORK

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Abstract
Digital labour platforms, which emerged in the mid-2000s, have fundamentally changed the structure of the labour market by creating conditions for work without a traditional workplace. This phenomenon, also known as the "gig economy", is characterised by the temporary work relationships and entrepreneurial elements which allow persons to choose the nature, time and place of work. Digital platforms, such as *Airbnb* and *Uber*, can be divided into two main categories: some of them allow property rentals (*Airbnb*), while others mediate the provision of personal services (rides, food delivery). These platforms allow geographically dispersed workers to offer their services to a wide range of customers online; the payments and assessments are also made digitally. Platform work has become popular for several reasons. First, digitalisation and globalisation have enabled companies to operate more efficiently by using public and internal digital systems. Second, the Internet has provided a niche for the creation of new markets and the capture of the existing ones, for example, through e-commerce platforms. It is also important to mention economic insecurity and insufficient flexibility of the traditional labour market as significant factors which motivate persons to provide services through digital platforms. Although this labour model offers flexibility and autonomy, it also raises concerns about worker safety and rights since platforms often treat workers as independent contractors rather than traditional employees, and provide minimal social guarantees. Scientific literature suggests several categories of digital platform work, ranging from the work performed by highly skilled professionals who operate as independent contractors to the tasks executed by lower-skilled persons, such as food delivery or microtasking, i.e. digital platform work covers a variety of services, from high-tech consulting to simple tasks the execution of which is impossible without human intervention. Although the development of digital platform work offers many opportunities, it also poses the challenges in terms of the regulation of working conditions and execution of workers' rights. Digital labour platforms represent a type of economic activity which mediates between customers (the supply side) and workers (the demand side), thus contributing to the innovative model of work and consumption. They use algorithms to connect the supply and demand sides. The algorithmic management of platforms can help coordinate labour supply and demand, but at the same time may lead to insecure working conditions and the challenges to ensure that labour relations are properly regulated. Thus, it is necessary to further research and address the legal and social aspects of digital platform work in order to protect the interests of workers and ensure the smooth functioning of the labour market.

Keywords: digital work platforms, gig economy, algorithmic management of platforms

KNOWLEDGE TRANSFER BETWEEN HIGH-TECH FIRMS AND UNIVERSITY IN SILICON FEN

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Abstract
Knowledge transfer between high-tech firms and university is of importance in sustainable development of economies. Silicon Fen (SF) is a cluster of high-tech firms located around the University of Cambridge (UoC) in the UK. Here, a short history of SF is provided, highlighting its early formation and growth, and the role of spin-off firms on its evolution. Then, the technological bonds between SF firms and UoC are evaluated based on patent analysis. With respect to the business sectors of SF firms. A measure, called technological collaboration strength (TCS) is introduced for such evaluation. It is reported that the majority of joint patents are generated by the Pharma/Biotech sector of SF with the highest value of TCS. Moreover, the patent's economic values across various business disciplines in SF are calculated based on the total counts of citations. The observations are discussed based on the formation of spin-off firms by senior academics of the university in the SF business cluster, facilitating the knowledge transfer. This phenomenon can explain the strong technological bond between UoC and the Pharma/Biotech sector of SF.

Keywords: silicon fen; university–industry collaboration; patent analysis; spin-off firms

RESILIENCE-BUILDING IN FAMILY FIRMS: STRATEGIES IN THE FACE OF ADVERSITY

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Abstract
In the context of an ever-evolving and unpredictable external environment, the concept of resilience has garnered significant attention, particularly within family firms. Family firms, known for their unique challenges, are in dire need of strategies to enhance their resilience. While the importance of resilience is widely recognized, there remains a conspicuous gap in the understanding of how family firms react and adapt to a series of global economic adversities over time, such as COVID or the financial crisis. By examining the strategic patterns of family firms across different periods of adversity, the present study fills this critical gap, offering insights into the dynamic process of resilience-building in family firms. The methodological approach employs an in-depth multiple-case study of eight German family firms from different industries, with a varying size, ownership structure and family involvement. It combines semi-structured interviews, participant observations, and a thorough review of secondary materials, such as annual reports, newspaper articles, dossiers and site visits, for further triangulation of the data. This methodology not only ensures scientific rigor and validity of the findings, but it also provides a groundbreaking perspective on the resilience-building mechanisms employed by a diverse sample of family firms. Central to the findings are six aggregate dimensions entailing detailed strategic patterns identified as critical to the resilience-building of family firms. These dimensions are a continuous reflection on family values and dynamics, long-term business promises, the augmentation of social capital, proactive business development, efficacious crisis management, and an enhanced security mindset, which are then integrated in an overarching framework. For each strategic pattern, examples and case excerpts are presented that vividly illustrate their operating mechanisms, offering a granular view of how these strategies collectively contribute to the resilience of these firms. While immediate and short-term crisis response remains a crucial step to counter adversities, several strategic patterns in resilient family firms draw upon long-term oriented planning, relation management and mutual trust between family and businesses' ecosystem. The theoretical and practical implications of the present study are profound. Theoretically, it contributes to the family firm resilience literature by proposing a new theoretical framework and appertaining patterns that capture the dynamic nature of resilience-building in family firms. Practically, it offers actionable insights for family business owners, managers, and policymakers, guiding them in the development and implementation of resilience strategies.

Keywords: resilience, family firms, multiple-case study, adversity

EXPLORING THE GREEN M&A PHENOMENON – A MULTIPLE-CASE STUDY APPROACH

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Abstract
Environmental grand challenges such as marine pollution or climate change persist, highlighting the importance of environmental protection. As firms are a reason for these problems, they face increasing pressure from stakeholders to do business environmentally friendly. For example, policy makers introduce new regulations such as the Corporate Sustainability Reporting Directive mandating firms to publish information on how their operations impact the environment. Therefore, green development has become an important issue for firms, with firms making significant green investments. A specific mode of green investments are Green Mergers and Acquisitions (GM&As) which allow firms to access green resources and capabilities and drive green development quickly. However, research on GM&As is scarce and controversial with motives and objectives for conducting such transactions being ambiguous. On one side, scholars argue that GM&As facilitate green transformation whereas other scholars claim that GM&As are a mere impression management tool to respond to external pressure. As GM&As have increasingly garnered attention from scholars and practitioners alike, gaining a differentiated understanding of the various types of GM&As is important. Furthermore, deriving a comprehensive picture over motives and objectives of GM&As holds great value to advance our limited understanding of those corporate activities and helps to clarify the rather ambiguous findings. Drawing on efficiency and legitimacy theory, this article conducts a multiple-case study based on firms from heavy polluting industries and low polluting industries which are headquartered in the European Union. Firms were chosen due to their theoretical importance (i.e. polar types). Based on the information gathered during semi-structured interviews, complemented by secondary data for each case, the paper derives a typology of four different GM&A types along the dimensions efficiency and legitimacy: 1) greenwasher, 2) responder, 3) opportunist and 4) transformer. While the greenwasher and opportunist are driven by external pressure to establish legitimacy, the opportunist's objective is to become more efficient (e.g. more efficient manufacturing process) in its operations whereas the greenwasher's objective is to use GM&As as an impression management tool. The transformer and responder are motivated internally, with the responder solely reacting to changing market environments (i.e. push to become more sustainable) without increasing efficiency. The transformer, however, strives to become more efficient in its operations with the objective to transform its operation to become more sustainable. By deriving this typology, this paper contributes to theory by highlighting the connection between the motivation and objective to conduct GM&As, shedding light on the interplay between them. Furthermore, understanding the interplay among the motives and objectives of firms pursuing GM&As provides stakeholders with a better understanding which firms strive to become more sustainable and which firms solely use such transactions as an impression management tool. Therefore, stakeholders, such as policy makers, can navigate the landscape of firms claiming to be sustainable and such firms which truly intend to transform themselves and act accordingly.

Keywords: acquisition, merger, corporate social responsibility, firm strategy

DYNAMIC CAPABILITIES FOR ECOSYSTEM INNOVATION: A HEALTHCARE ECOSYSTEM STUDY

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Abstract
This study draws on dynamic capabilities to investigate ecosystem innovation, exploring the interplay between regulation and digitalization in shaping market landscapes. It particularly focuses on innovations in healthcare, examining how dynamic capabilities in ecosystems foster transformative solutions. The healthcare ecosystem is facing the challenge of adapting and innovating amidst strict regulations and diverse stakeholders. This presents a unique industrial landscape, with the need to consider innovations in the healthcare sector as a separate case. The existing literature emphasizes that dynamic capabilities, especially sensing, seizing, and transforming, are crucial for ecosystem players to effectively orchestrate long-term innovations. However, the specific role of these capabilities in addressing the unique challenges posed by regulation and diverse stakeholders in the healthcare sector remains largely unexplored. There is a lack of concrete insights into how these capabilities contribute to fostering innovations in the healthcare ecosystem. This study focuses on the German healthcare ecosystem as it tackles with the profound challenge of adapting and innovating within the constraints of stringent regulations and a diverse stakeholder landscape. The study aligns with the issuance of the Hospital Future Act which compels the entire healthcare ecosystem in Germany to undergo comprehensive digitization. By investigating this evolving landscape, this research aims to contribute valuable knowledge on the intersection of ecosystem innovation and dynamic capabilities, leveraging the German healthcare case as a timely and insightful example. To address the research question of how dynamic capabilities in innovation ecosystems foster transformative solutions, we adopt an embedded case study design, focusing on the German healthcare ecosystem. Applying the inductive approach for concept development this research paper builds on qualitative data collected through interviews from diverse actors in the German healthcare sector. This study offers a targeted framework to reveal the unique ecosystem innovation capabilities needed in the healthcare system. It specifically examines the convergence of regulatory structures and multiple stakeholders in creating innovative solutions for the healthcare sector. These findings not only offer valuable implications for scholars and practitioners navigating the evolving landscape of healthcare innovation, but also enhance the broader understanding of dynamic capabilities in innovation ecosystems.

Keywords: dynamic capabilities, ecosystem innovation and strategy

QUALITY OF INSTITUTIONAL ARRANGEMENTS IN FOOD SECTOR AND THEIR INFLUENCE ON SUSTAINABILITY

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Abstract
Sustainable food production relies on a resilient and well-balanced food system that considers economic, environmental, and social factors—the triple bottom line. Recent research has shown increasing interest in analyzing institutional arrangements for green, smart approaches to food production. The dynamics of networks within the food system play a crucial role in shaping sustainable agribusiness practices. Many studies utilize empirical evidence to illustrate that farmers with formal agreements are more inclined to adopt changes leading to new production practices. However, it remains unclear whether formal contracts (networks) outperform informal ones, which depend on strong community ties and local development. Institutional arrangements significantly influence the strategies employed in sustainable food business development. The paper explores innovative perspectives, highlighting the role of institutional arrangements in achieving sustainability in the food sector, focusing on Serbia as an example. The research, based on a sample of 131 farms, aims to differentiate how the type of agreement farmers have affects various indicators and strategies related to food sector sustainability. Economic, environmental, and social indicators are utilized to explore this influence. The methodology employs hypothesis testing to assess the quality of institutional arrangements and their impact on sustainability in food production. The Mann-Whitney test is utilized to compare two identified independent samples of institutional arrangements. The overall quality of institutional arrangements emerges as a highly influential factor shaping entrepreneurs' behavior towards achieving more sustainable production models in agribusiness. Furthermore, observed differences yield varied perspectives on the potential impacts on sustainable production—environmental, societal, and economic – on farmers' practices. It appears that farmers with informal arrangements, generally more entrepreneurial in nature compared to their counterparts, exhibit less awareness of sustainable business strategies, posing significant challenges for future food production. Nonetheless, this scenario also presents opportunities for policy interventions.

Keywords: food sector, institutional arrangements, sustainability, triple-bottom line

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AN ANALYSIS OF CASHIERLESS TECHNOLOGY ACCEPTANCE AMONG UNIVERSITY STUDENTS IN CROATIA

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Abstract
Consumer habits are constantly changing and the need to shop quickly and conveniently is becoming increasingly important. For approximately 10 years several startups have developed this new technological innovation which has emerged as a new challenge for some retailers. Amazon was the first high-profile company to adopt the technology. In 2023, Konzum launched the first automated shop in Zagreb, Croatia. It is still regarded as a technology that is limited in Croatia and worldwide, but further expansion of the market is expected. This study presents an analysis of the user acceptance of this innovation among students in higher education institutions in Croatia. Exploring the adoption among Generation Z is important, given that they will be the next generation to purchase with their own income soon. We applied the Unified Theory of Technology Acceptance and Use (UTAUT2) to examine factors influencing attitudes towards cashless transactions. Seven hypotheses were developed based on previous literature and research models. The research was based on an online survey conducted among university students across Croatia (n=406). Respondents rated 29 statements on a Likert scale of 1 to 7, where 1 was ‘strongly disagree’ and 7 was ‘strongly agree’. Variance-based structural equation modelling (PLS-SEM) was used to analyze the primary data. Measurement and structural model estimations were made. The study found that the new trend in smart retail could serve retailers to find a new way to improve their competitiveness. According to our results Behavioral Intention is significantly influenced by most UTAUT2 predictors such as Performance Expectancy, Effort Expectancy, Social Influence, Hedonic Motivation, and Price Sensitivity. Facilitating Conditions and Atmosphere had no statistical influence on Behavioral Intention. This study provides implications for existing research on the acceptance of new technologies and contributes to relevant literature on customer behavior. The current study has some

implications for marketers and retailers, given the importance of customer perception in improving business performance. Stakeholders and policymakers planning to introduce or keep using this cashless technology can be guided by our results.

Keywords: smart retail, cashierless stores, unmanned stores, technology acceptance and use, PLS-SEM

IMPACT OF DEMOGRAPHIC CHARACTERISTICS AND PENSION INVESTMENT CONTRACT FEATURES ON INVESTMENT DECISION DURING FINANCIAL MARKET DOWNTURNS

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Abstract
The study examines the impact of demographic characteristics and features of individual pension investment contracts on the investment choices of pension savers during the financial market downturn triggered by the COVID-19 pandemic in 2020. The research utilizes the data from a leading private pension saving company in Slovakia, and encompasses 7,636 observations of 3,818 pension savers. The data captures their investment behavior both prior to and during the significant financial market downturn of 2020. The key research question aims to identify, how the demographic characteristics of pension savers and the duration of their pension saving contracts affect their fund allocation decisions during the periods of substantial financial instability on the specific case study of the downturn of 2020. A fixed-effects model is employed to analyze the influence of such variables as gender, age, contract length, portfolio value, and prevailing financial market conditions. The dependent variable in the analysis is defined as the deviation in actual fund allocation away from the theoretically optimal portfolio allocation. This observed deviation is captured as a shift towards more conservative investments into bond portfolio. The fixed-effects approach is particularly suitable, when controlling for unobserved, time-invariant characteristics that could bias the estimates, and it can provide more precise and valid results compared to a pooled OLS model. The results of the analysis demonstrate significant impacts of portfolio value and pension investment contract duration on investment choices of individual pension investors. The results suggest that higher portfolio values and longer contract durations of individual investors are associated with less shifts in asset allocation towards a conservative portfolio during the financial market downturns. This indicates a lower risk aversion among savers, who have more substantial portfolios, or are engaged with pension funds for longer period of time, and thus, have more experience with investment in financial assets and fluctuations on the financial markets. Furthermore, the analysis also revealed gender differences in investment behavior of pension investors, where women were shown to have a tendency towards more conservative investment decisions compared to men. Our research confirms that demographic characteristics and the features of the pension investment contract have significant effect on pension savers' investment behavior, particularly during the period of perceived financial instability. The findings also suggest that policymakers and pension fund managers should consider the

significance of these factors when designing strategies to guide pension savers towards optimal investment decisions and enhance financial security of future retirees.

Keywords: pension investment decisions, demographic characteristics, pension investment contract features, financial market downturns, fixed-effects model, Slovakia

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SUSTAINABLE TOURISM DEVELOPMENT OF A CITY UPON THE COVID-19 PANDEMIC

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Abstract
Since the COVID-19 outbreak, cities have been challenged more than ever to manage efficiently their sustainable tourism development. This paper aims to examine how local people perceive a sustainable image of their city as a tourist destination by looking at four sustainability pillars, i.e., environmental, cultural, social, and economic. It also attempts to explore whether residents' pro-sustainable behaviour has changed since the COVID-19 pandemic and how this behaviour is related to their perceptions of a sustainable destination image of their city. Moreover, it seeks to understand the pro-sustainable behaviour of tourists from the residents' viewpoints. To address all these research objectives, an empirical investigation was conducted in the city of Rome during July 2023. Rome has been selected for this research purpose not only because it is one of the major tourist destinations worldwide, but also owing to its engagement with sustainable tourism development. The research was conducted among residents due to the key role of this type of stakeholders in sustainable development and city branding. A total of 563 residents participated in the research. Once the unqualified responses were removed, the final sample consisted of 506 respondents. The findings of this study demonstrate that perception levels of environmental and social sustainability among residents of Rome are rather low, while cultural and, especially, economic sustainability received higher evaluations. In addition, residents reported a relatively high pro-sustainable behaviour in their everyday lives, although the opinions regarding the impact of the COVID-19 pandemic on it were divided. Furthermore, residents' pro-sustainable behaviour is found to be positively associated with their perceptions of a sustainable destination image. Finally, residents believe that tourists do not behave sustainably while visiting their city and that the COVID-19 pandemic did not have much influence on this behaviour. These research findings have a number of implications for local authorities and destination management stakeholders.

Keywords: sustainable destination image, pro-sustainable behaviour, residents, Rome, COVID-19 pandemic

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TERMS, CONDITIONS AND TAX POLICY OF DIGITAL PLATFORM WORK

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Abstract
Digital platform work offers new opportunities for business companies and workers, for example for those who may find it difficult to enter the traditional labor market. Generally speaking, it is work done through, on, or mediated by a digital platform. The most common platform business model is an electronic marketplace for matching labor supply and demand. It is often associated with, for example, professions and works in the transport sector (carriers and taxi drivers), as well as the work of cleaners and assistants. Digital platform workers are monitored through algorithms which affect work allocation, compensation, and accumulate the worker data that can be used for greater supervision and control. As noted by De Stefano et al. (2021), modern digital labor platforms create the economic conditions for service providers (workers) and customers (clients) to connect with each other. These platforms unilaterally set operating rules and recognize the status of independent contractors over traditional employees. The examples of the "Amazon Mechanical Turk", "Doordash", "Ola", "Taskrabbit", "Handy" and "Instacart" indicate that workers are qualified as independent contractors without the traditional guarantees, such as social security or unemployment benefits. Previous studies disclose that platforms do not employ workers and do not provide any guarantees, but simply connect service providers (contractors) with customers, leaving contractors responsible for complying with the relevant legal regulations and managing operational costs. Though flexible, this model poses challenges in terms of workers' rights and social protection. While many platforms follow the model where workers are treated as independent contractors, a few platforms, like "Wonolo" and "Upwork", offer other alternatives. They allow contractors to work for wages and exercise certain employee rights. The platform "Hilfr" offers two types of conditions for cleaning assistants: assistants can operate as freelancers or automatically acquire the status of an employee after 100 hours of work under a collective agreement which provides additional rights and guarantees for platform workers. Summarizing, digital labor platforms represent the innovative labor market model which provides flexibility for both employers and workers, but at the same time poses new challenges in terms of the qualification of labor relations and legal regulation. Qualification of workers as independent contractors often means that they are deprived from the traditional employment-related social guarantees, which can lead to serious social security issues and legal disputes. The practice of digital platforms shows how important it is to improve legal regulations to adequately protect both parties in the employment relationship.

Keywords: digital labor platforms, legal regulation, innovative labor market model, social security, tax policy

INDICATORS OF THE SUSTAINABILITY INDEX OF PENSION SYSTEMS AND THEIR WEIGHTS

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Abstract
Optimizing the weights of individual indicators of the global pension index can be investigated by applying multi-criteria decision-making methods. Specific attention when evaluating and assigning weights to individual indicators is devoted to three prominent methodologies. Saaty's analytical hierarchy process, pairwise comparison, and the fuzzy best-worst method. Using these methodologies, the objective is to increase the accuracy and relevance of the index given the dynamic nature of global pension systems. Furthermore, examining the statistical properties of the weights obtained using each method at different levels of uncertainty clarifies the robustness of the solutions provided. Our research offers insight into the best solution for evaluating and classifying pension systems that address the sensitivity of the index to changes in the chosen evaluation method. Additionally, examining the implications of changing the weights in the Global Pension Index demonstrates the potential impact on the overall assessment of pension systems. This research contributes to the continuous improvement of the global pension index and assists policymakers, researchers, and stakeholders in making informed decisions about pension system improvements and reforms. Increasingly, the sustainability of pension systems has become a critical concern amidst demographic shifts and economic uncertainties. This study delves into the intricate process of weighting indicators within the global pension index, recognising the diverse socioeconomic contexts in which pension systems operate worldwide. Through rigorous analysis, we evaluated the robustness of various weighting methodologies, shedding light on their effectiveness in capturing the nuanced dynamics of pension systems. Furthermore, our research underscores the importance of transparency and accountability in the decision-making process, advocating for an inclusive approach that considers stakeholders' perspectives. By fostering dialogue and knowledge sharing, this study aims to foster a collaborative environment conducive to the development of sustainable pension systems worldwide. Furthermore, our study emphasizes the need for ongoing monitoring and adaptation of pension systems to ensure their resilience in the face of evolving challenges. We explore potential synergies between different indicators and methodologies, seeking to enhance the completeness of the global pension index. Furthermore, we highlight the role of technological advancements and data analytics in refining the assessment framework for pension system sustainability. Lastly, our findings underscore the importance of interdisciplinary collaboration and cross-sectoral partnerships in driving meaningful reforms and innovations in pension governance.

Keywords: sustainability, indicator, multi criteria decision making, methodology, weight

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MASTERING COMPUTING IN THE ERA OF TECHNOSTRESS: THE INESCAPABLE INFLUENCE OF TECHNOLOGY AND TASK RELIANCE

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Abstract

This study examines the moderating effects that influence the association between technostress creators and computer self-efficacy (CSE). Employing a cross-sectional research design with two measurement points, data were collected from over 180 employees via an online survey. The research deepens our comprehension of the elements impacting CSE and illuminates the significance of specific technostress creators and their interactions. The theoretical derivation is grounded in the Self-Determination Theory and pertains to variables representing autonomy, competence, and relatedness. The focus of the analysis was on the moderating effects of perceived task interdependence (PTI) and information and communication technology dependence (ICTD) on the link between technostress creators and CSE. The moderating influence of PTI was found to alleviate the negative link between techno-overload and techno-complexity on CSE. On the other side, the moderating role of ICTD mitigated the negative link between techno-invasion, techno-insecurity, and techno-uncertainty on CSE. An important contribution of this study to the technostress literature stems from the diverse inhibitory effects observed in each sub-dimension of technostress. Consequently, it undertook a categorization of technostress creators into emotional dimensions (techno-invasion, techno-insecurity, techno-uncertainty) and functional dimensions (techno-complexity, techno-overload). This classification was necessitated by the disparate outcomes identified, highlighting the intricate nature of technostress. The findings underscore the need for future research to delve into individual perceptions of technostress creators, advocating for a more nuanced understanding of the technostress phenomenon. Furthermore, the results accentuate the exigency for organizational-level interventions to effectively implement a digitalization strategy. The study illuminates the pivotal role of organizational factors, such as PTI and ICTD, in shaping the impact of technostress creators on CSE. This insight advocates for comprehensive organizational strategies aimed at mitigating the adverse effects of technostress. In summary, this study not only contributes to the technostress literature by identifying various significant interactions between different technostress creators and organizational factors but also provides a comprehensive perspective that enriches the understanding of the complex dynamics involved in technostress. It provides valuable perspectives for researchers and practitioners alike, assisting them in navigating the challenges posed by digitalization in the workplace.

Keywords: technostress, computer self-efficacy, perceived task interdependence, ICT-dependence, technology use

HOW DOES THE LITERATURE UNDERSTAND THE BUSINESS ECOSYSTEM CONTEXT AND ITS RELATIONSHIP WITH FIRM STRATEGY AND CRITICAL CAPABILITIES?

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Abstract
The business environment, often referred to as the business ecosystem (BE), has garnered significant attention in contemporary economic literature due to its evolution amidst complexity and external pressures on business sustainability, particularly with the rise of sustainability and ESG trends. Research by the BCG Henderson Institute found that in annual reports, the term "ecosystem" occurs 13 times more frequently now than it did a decade ago. Despite the increasing research interest over the last three decades, there remains ambiguity regarding the definition, boundaries, structure, and processes of the business ecosystem concept. To assess the existing empirical research on business ecosystems, a structured literature review (SLR) was conducted as part of the author's Ph.D. dissertation. The review spanned from 2000 to 2023 and encompassed three key databases (Web of Science, Scopus, and Google Scholar), supplemented by articles from key authors between 1993 and 2000. The search criteria focused on articles mentioning "business ecosystem" in their title, abstract, or keywords. A total of 120 English-language articles primarily focusing on strategic management, innovation, and technology were included. In contrast, the articles that discuss biological and natural ecosystems, social ecosystems, the economy as an ecosystem, industrial ecosystems, and ecosystem models of technology evolution were excluded. The main aspects of the BE concept were analyzed with the co-word content analysis method through the following dimensions: definition, structure, actors, relations-dynamics, results-performance, and future research areas. Analysis of the literature revealed a predominant focus on conceptual discussions of the business ecosystem, highlighting its features and roles within the broader economy. However, more attention needs to be given to more profound meaning, practical implications, inter-member relationships, and the strategic significance of the business ecosystem for individual firm members, as well as their strategy, behavior, and performance. Additionally, most studies relied on literature reviews or secondary data analyses, indicating a need for more extensive empirical research, particularly at the firm level, to understand business ecosystems' contextual dynamics and implications. The findings underscore the need for further empirical research, particularly within the IT industry, to elucidate how firms perceive the business ecosystem context, its influence directions, and its relationship with strategic behavior, critical capabilities, and performance. Such research aims to provide a comprehensive and multidisciplinary understanding of the business ecosystem phenomenon, contributing to its standardization and practical applications. Moreover, by investigating the correlation between business ecosystem structure, firm strategy, capabilities, and performance, this study seeks to identify critical success factors within the ecosystem environment. The anticipated insights will inform regulators, institutional members, and business leaders, influencing strategic management practices and future research directions.

Keywords: business ecosystem, strategy, dynamic capabilities, performance, future research areas

Acknowledgement: This abstract is part of the author's Ph.D. research at the Faculty of Economics and Business, University of Rijeka.

INVESTIGATING THE MOTIVATIONAL FACTORS BEHIND SECOND-HAND CLOTHING PURCHASES

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Abstract
The fashion industry is one of the most dynamic and influential sectors in the global economy. However, it is also one of the most resource-intensive and polluting industries. The production of new clothing involves substantial energy use, water consumption, chemical pollution, and waste generation. As a result, there is a growing interest in more sustainable alternatives to conventional fashion consumption, one of which is the purchase of second-hand clothing. Second-hand clothing, once stigmatized, has seen a resurgence in popularity in recent years. This shift in consumer behavior is driven by a variety of factors, including economic considerations, environmental consciousness, treasure-hunting fun, and the perceived quality and longevity of second-hand items. This paper aims to explore the motivational factors that influence second-hand clothing purchases. Understanding these motivations is crucial for businesses seeking to tap into the second-hand clothing market, as well as for policymakers aiming to promote sustainable consumption practices. This research aims to assess the growing body of literature on sustainable fashion and consumer behavior, providing valuable insights into the motivations behind second-hand clothing purchases. The authors investigated the available literature on the topic to find and assess the most important dimensions, statements, and underlying models and theories of the driving motivational factors of second-hand clothing purchases. The review of the literature revealed that there is only minimal research available in Central and Eastern European countries, with a heavy focus being on the United States and Asia. Therefore, the authors set out to construct a model suitable to utilize among Hungarian consumers, which also accommodated recent changes in second-hand clothing shopping, such as the rise of online markets. The model is aimed to be applicable for evaluation with the PLS-SEM (partial least squares – structural equation modelling) method, which, based on the literature, is the predominant method of analysis related to motivational factors of second-hand clothing purchases.

Keywords: second-hand clothing, motivational factors, consumer behavior

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REGULATION OF MARKETS IN CRYPTO-ASSETS

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Abstract
The Regulation on Markets in Crypto-Assets (MiCAR) entry into legal force on 29th June 2023 announced European Union as regulatory leader in the area of crypto-assets on a global scale. Regulatory framework for markets in crypto-assets is being developed in various jurisdictions but none other had yet labor to produce any comparable to MiCAR. Consequently, questions of normative optimism and regulatory adequacy of such ambitious project arose. This research analyses regulatory solutions of MiCAR in its subject matter, scope, definitions, asset referenced tokens, e-money tokens and other crypto-assets. Token-centric view of the crypto sphere adopted by the MiCAR is elaborated. In that respect proclaimed ideal of technology neutrality in legislation is rejected by this research as completely inadequate for digital age. Distributed ledger technology that includes blockchain is example of the solidity of such legislative critique. The preexisting regulatory framework of the EU Law especially in markets in financial services is very much used as normative role model for crypto-assets. Inherent danger here is to disregard decentralized and global nature of crypto-assets based on blockchain technology in imposing formal regulatory requirements that will impede autonomous development of crypto networks. Other inherent danger is enforceability of such regulatory approach. Competent authorities, for example, are allowed to suspend or prohibit an offer to the public of crypto-assets or the admission of such crypto-assets to trading when such an offer to the public or admission to trading does not comply with the applicable requirements of MiCAR. However, it is not clear that such prohibitions or suspensions can be effective due to the global reach of markets in crypto-assets. The research detects and elaborates on significant areas of the relevant markets like decentralized finances that fall outside of the scope of the MiCAR and formulates conclusions of the need for future revisions in order to achieve comprehensive regulation.

Keywords: markets in crypto-assets, MiCAR, cryptocurrencies, EU Law, regulation

MILITARY SPENDING AND THE FEAR HYPOTHESIS

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Abstract

This paper analyzes the relevance of the fear hypothesis on military expenditures. The fear hypothesis is one of three postulated hypotheses of military spending advocated by Castillo et al. (2001). They examined data from 1870-1939 and suggested that military expenditures critically depend on ambition, fear, and legitimacy. However, global military attitudes have shifted in recent decades, potentially delegitimizing their underlying three hypotheses. We evaluate the fear hypothesis, mostly focusing on the influence of Russia. In particular, we attempt to examine the effects of the distance to a potential threat country on military spending. We find little evidence of increasing military spending based on the proximity of threatening nations. Instead, we find that membership in organizations such as NATO does have a statistically significant mitigating effect on military spending. We expect that the fear hypothesis will have become more significant than it was in the period of data discussed by Castillo et al., which included the turmoil periods of imperialism and colonialism in world history. Increases in military spending by countries with shorter distances between their biggest threat would be evidence supporting the fear hypothesis. Based on this study, it appears that the Castillo et al. A fear hypothesis does not play a significant role in a country’s level of military spending. With the proliferation of nuclear weapons, this result is not entirely unsurprising. Political scientists have suggested that while nuclear arsenals ostensibly make the world more dangerous, they may deter conflict (Waltz 1981). This theory could explain why some countries do not seem to increase military spending in the face of nearby threats. Despite the insignificance of distance on military spending, membership in treaty organizations did show a statistically significant reduction in spending. Regardless of their commitment to protecting one another, most NATO member states have consistently not spent 2% of GDP on military expenditures, as the alliance requires. These countries are a prime example of the free rider problem: they rely on the larger countries in NATO, primarily the United States, to fund military production. At the same time, they remain confident that they can reap the benefits if necessary. Nevertheless, although this is not a direct measure of the fear hypothesis, membership in these organizations may act as a quasi-method of mitigating fear; if a country knows that an alliance supports them, they may be less motivated to increase military spending under threatening circumstances.

Keywords: military spending, panel data, GMM estimates

RESEARCH AND DEVELOPMENT EXPENDITURES' EFFICIENCY IN BALTIC STATES

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Abstract
Research and development (R&D) expenditures play a significant role in companies' and countries' efforts to become innovative and market competitive. The study aims to attempt to quantitatively describe the impact of R&D expenditures on competitiveness for the selected competitive determinants: turnover, gross value added, and labor productivity in selected countries in the manufacturing sector. The study covers the three Baltic countries, Estonia, Lithuania, and Latvia, and the period 2010–2020 and uses statistical data published by EUROSTAT for the industrial processing sector in selected Baltic states during 2010–2020. The authors adopted the value of productivity per employee as a measure of the increase in competitiveness. Due to the period covered by the analysis, all values were expressed in one currency at constant prices from the base period, i.e., the 2010 year. To determine the stationarity of the variables accepted for analysis, the authors performed the Augmented Dickey-Fuller test (ADF) for selected variables. For each of them, an ADF test was used, and the significance of the delay from the order of 1 was tested for the Akaike Information Criterion. The multiple regression method was used to determine the relationship between the adopted factors: employment, investment expenditure, research, and development expenditure in the current and previous year, and selected dependent variables: turnover, gross value added, and labor productivity. The authors conducted the classification according to the principle: the higher the value of the Hellwig's taxonomy measure used, the higher the level of innovation in the tested country's manufacturing sector. Only in the case of Estonia the statistically significant positive correlation between R&D expenditure and value-added and labor productivity was recorded. The paper shows variations in the size of the outlays as well as their dynamics among the countries analyzed. The low level of R&D expenditure's impact on measures of competitiveness, with their low baseline value, is a negative factor. The results indicate low efficiency in R&D spending in the countries analyzed. The source of Estonia's positive results should rather be attributed to innovative corporate tax legislative solutions stimulating R&D investments. Future research should pay particular attention to organizational solutions and the impact of the business environment on the growth of business competitiveness.

Keywords: R&D expenditures, Baltic states, manufacturing sector

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