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MAPPING SOCIO-TECHNICAL INTERACTIONS IN CAMPUS ENERGY TRANSITIONS

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Abstract
Universities are important actors in energy transitions, functioning not only as large energy consumers but also as testbeds for sustainable solutions and drivers of societal change. A wide range of technical interventions has been proposed to reduce campus energy consumption, including building retrofits, HVAC optimization or renewable energy integration. In parallel, behavioral and user-centered approaches such as feedback systems, gamification and occupant voting have been tested. While these interventions demonstrate significant potential for improving energy efficiency and user satisfaction, existing studies tend to examine them in isolation, often overlooking the complex interactions between stakeholder groups and institutional contexts. This creates a fragmented understanding of campus energy transitions, where technical effectiveness does not necessarily translate into successful implementation. Also, limited attention has been paid to stakeholder dynamics, despite evidence that universities operate as highly interconnected, multi-actor environments with competing interests and priorities. This study seeks to explore how socio-technical interactions influence energy-saving outcomes on university campuses. A structured participatory workshop was conducted in September 2025, where 10 diverse stakeholders were engaged in a systematic process of variable elicitation, clustering, and causal mapping. The mapping process first helped identify relationships between focal variables (campus energy footprint and user acceptance of campus energy systems). It further revealed their connections to second-order variables, including infrastructural factors (building temperature, on-campus lighting, equipment use, energy retrofits), behavioral factors (energy use practices, mobility choices), and enabling conditions (programs to promote energy awareness, proximity to public transport, institutional requirements). In particular, causal relationships form feedback loops linking infrastructure, comfort, acceptance, and behavior. This indicates that technical interventions affect energy outcomes indirectly through user experience and acceptance. At the same time, behavioral interventions such as education and gamification influence how energy systems are adopted and used. Therefore, the findings show that infrastructural measures and user expectations should be aligned to increase the effectiveness and speed of campus energy transition.

Keywords: campus energy, energy transition, energy-saving behavior, participatory systems mapping, stakeholder engagement

GOVERNMENT POLICIES AND ECONOMIC GROWTH: EVIDENCE FROM EMERGING ECONOMIES IN EUROPE AND CENTRAL ASIA

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Abstract
The former socialist countries of Central and Eastern Europe and Central Asia (CEECA) have experienced substantial economic growth over the past three decades. From 1995 to 2023, their output grew at an average annual rate of 3.8%. During this period, average annual GDP growth across CEECA countries ranged from 0.8% to 7.1%, with an overall coefficient of variation close to 1.3. These disparities raise an important question: why have some former socialist countries achieved significantly stronger growth than others, and to what extent have government policies contributed to these differences? The aim of this paper is to evaluate the relative importance of government policies in shaping growth dynamics across the CEECA countries versus the impact of other factors beyond government control. We first estimate a set of panel models, by means of Arellano-Bond GMM estimation method, using the 1995-2023 panel data for 25 CEECA countries. To evaluate relative contribution of three vectors of growth drivers (government policies, country characteristics and global trends), we then apply the standardized beta method, using the estimated coefficients from the panel regressions. Our findings show that government policies account for more than half of the variation in economic growth, while country characteristics explain about one quarter and global economic trends slightly more than one fifth. Key policy variables influencing growth are fiscal policy and changes in institutional quality, which together account for over 60% of the impact of policy-related factors and explain about one-third of the variation in economic growth across CEECA countries. Trade and capital flow openness, as well as low inflation, are also important for growth, but their impact is comparatively smaller. This is the first empirical study on economic growth in post-socialist economies to provide a quantitative estimate of the relative importance of government policies compared to factors beyond government control-such as country characteristics and global economic trends-in shaping growth dynamics.

Keywords: economic growth, government policy, emerging economies

STRATEGIC AGILITY, RESILIENCE, AND AMBIDEXTERITY IN STARTUPS WITHIN VUCA WORLD

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Abstract
With the world becoming increasingly volatile, uncertain, complex and ambiguous (VUCA), it has become increasingly difficult for startups to enter and remain in the market, survive and outperform competitors. By concentrating on the functions of strategic agility, organizational resilience, and ambidexterity, this study investigates how startups attain and maintain performance in a volatile, uncertain, complex, and ambiguous (VUCA) environment. This structured review paper is anchored in a critical review and synthesis of literature on strategic management, entrepreneurship, and organizational theory with particular focus on strategic agility, startup resilience and organizational ambidexterity within the context of a VUCA world. It consists of three main parts: first, it focuses on the conceptualization of VUCA environments and their implications for startups; then, on the analysis of strategic agility, resilience, and ambidexterity as key organizational capabilities; and third, a discussion of how these elements interact and contribute to startup excellence. From our review of the literature, we found that most studies tend to focus on one area of either agility, resilience or ambidexterity at a time, especially with studies that try to intertwine the concept with the VUCA framework. Thus, in this paper, we try to fill that gap by consolidating as much of the literature we reviewed to answer our research question: How do strategic agility, resilience and ambidexterity interact to allow startups to navigate and consistently perform in a VUCA world? By reviewing the existing literature, we examine how startups both navigate and thrive in times of disruption through pivoting (changing course or direction), business model innovation, adaptive decision-making, and continuously reconfiguring resources to match their environment. And at the same time, manage to balance exploration and exploitation activities. We also look at how leadership, human capital, and organizational culture play a role in determining how startups respond to volatility and uncertainty in a VUCA world. Findings indicate that startups have to change according to the environment if they want to survive and gain an advantage over their

competitors. The entrepreneurial world is constantly changing due to exponential technological change/advancements, dynamic market conditions, and unprecedented global disruptions. This constantly changing environment calls for important skills such as strategic agility, organizational resilience and ambidexterity, which have a direct impact on startup success. Growth and innovation are no longer considered the only factors that determine startup excellence. Rather, the ability to respond and react to uncertain times and continue performing consistently over a long period is something that's included in the definition. In addition, the review found that strategic agility allows startups to perceive, recognize, and respond rapidly to frequent changes that occur in their environment. Resilience allows them to better absorb shocks and stand back up after disruptions. Ambidexterity allows them to leverage parallel streams of exploration and exploitation activities, which allows them to be efficient in the short term and innovative in the long run, allowing for adaptation and thus guaranteeing sustainable competitiveness. In this vein, digitalization and emerging technologies allow these startups to be more efficient in decision-making, operation, and opportunity recognition, which further exalts these abilities. Another gap in the literature is the lack of research from developing countries and environments with limited resources. We found that most of the literature reviewed was developed from either data obtained from startups in developed economies or was published by researchers from developed countries. This creates a gap in which we don't know how startups can or do thrive in VUCA conditions with limited resources. Therefore, more context-aware and interdisciplinary research is required. We believe this paper will make an academic contribution to the field by compiling scattered information and allowing for a better understanding of how startups can attain and continue excellence in a VUCA world. The paper highlights several key points that future research should take into consideration in studying how startups develop agility, resilience and ambidexterity to deal with constant disruption.

Keywords: strategic agility; organizational resilience; ambidexterity; startups; VUCA world

BLUE STATES, RED RHETORIC: HOW IDEOLOGY SHAPES CORPORATE ESG-WASHING PRACTICES

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Abstract
This study examines whether the external political environment shapes corporate ESG-washing, defined as the exaggeration or misrepresentation of a firm's environmental, social, and governance (ESG) commitments to enhance its public image. We focus on whether state-level political ideology influences the alignment between firms' ESG disclosures and their underlying ESG performance. While prior research shows that political ideology affects both corporate social responsibility and ESG reporting, less is known about whether it also shapes the gap between what firms say and what they actually do. Our study addresses this gap by investigating whether firms headquartered in different political environments differ in their propensity to engage in ESG-washing. The empirical analysis covers the 500 largest U.S. public non-financial firms over the 2017–2023 period. ESG-washing is measured as a peer-relative mismatch between ESG disclosure and ESG performance: firms are classified as having a higher ESG-washing risk when they disclose more ESG information than industry peers while exhibiting comparatively weaker ESG performance. We also examine the three subcomponents of ESG-washing—greenwashing, social washing, and governance washing. State-level political ideology is captured by a composite State Ideology Index, based on presidential election outcomes, the partisan composition of congressional delegations, and the party affiliations of governors and state legislatures. We estimate panel regression models with time-fixed effects and clustered standard errors, and conduct robustness checks using alternative ideology measures and sample specifications. The results show that, for most firms, ESG disclosure broadly aligns with or falls short of sector-adjusted ESG performance; however, a meaningful minority of firms exhibit persistently positive ESG-washing scores, indicating a higher risk of overstating their ESG commitment. More importantly, firms headquartered in Democratic-leaning states engage in significantly less ESG-washing than firms headquartered in Republican-leaning states. This difference is driven by lower levels of greenwashing and social washing, whereas no significant difference emerges for governance washing. Overall, the study provides evidence that partisan political environments shape the extent to which firms "walk the talk" in environmental and social domains, with implications for investors, policymakers, and the design of more credible ESG disclosure standards.

Keywords: ESG-washing, greenwashing, social washing, state political ideology, United States

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DYNAMIC CONTRACTS WITH BACKWARD-LOOKING PARTICIPATION: VOLATILITY AS A CONTROL DEVICE

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Abstract
This paper develops a continuous-time dynamic principal–agent model to analyze flexible labor contracts in environments where participation decisions are endogenous and backward-looking. Motivated by the rise of gig economy arrangements characterized by frequent renegotiation, performance-based pay, and reversible participation, the model departs from standard formulations by introducing a reference value that captures the agent's wage demand as an exponentially weighted average of past realized net payoffs. This backward-looking participation constraint implies that current contracts affect not only contemporaneous effort and pay, but also future willingness to work through the stochastic evolution of the reference value. The principal dynamically chooses fixed pay and output-based incentives, taking into account both incentive provision and the intertemporal control of the agent's wage demand. Formally, the resulting stochastic control problem is characterized by the reference value as the key state variable, which summarizes the agent's past experience and governs future participation decisions. The model is analyzed under both first best (observable effort) and second-best (moral hazard) settings using stochastic control methods. A central mechanism is volatility transfer: performance-based pay exposes the agent to output risk, which influences the dynamics of the reference value and thereby future participation. In the first-best case, the principal uses maximal volatility as a control device to drive the reference value toward its lower bound, after which volatility is optimally eliminated, and the employment relationship stabilizes. In the second-best case, however, incentives require a strictly positive output share, implying persistent volatility and ongoing fluctuations in wages and employment. Optimal contracts exhibit a threshold structure: when the agent's reference value exceeds an endogenous upper bound, the principal suspends contracting, generating endogenous job rationing and voluntary unemployment. The long-run implications are characterized via the stationary distribution of the reference value, allowing evaluation of average output, wages, profits, and participation. A key result is that the agent's sensitivity to recent payoffs governs the

effectiveness of volatility-based control. At moderate levels, higher sensitivity enhances the principal's ability to regulate wage demands and extract surplus, while at high levels it destabilizes the system, leading to erratic participation and reduced profitability. This generates a non-monotonic relationship between sensitivity and long-run performance, highlighting a fundamental trade-off between exploitability and controllability. Overall, the paper shows that performance-based pay serves not only as an incentive mechanism but also as an intertemporal control instrument, and that flexible contracts create inherently fragile systems in which volatility both enables and limits control.

Keywords: dynamic contracting, continuous-time principal–agent model, volatility transfer, backward-looking participation constraint, stochastic control

FEELING GREEN OR THINKING CLEARLY? PREDICTING CLIMATE INTENTIONS AMONG UNIVERSITY STUDENTS

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Abstract
This study examines psychological and ideological predictors of climate-related attitudes and behavioral intentions among university students in Croatia. While prior research has established the importance of environmental values and political orientation in shaping climate attitudes, less is known about the relative roles of nature connectedness, moral emotions, and actively open-minded thinking in predicting both attitudinal and behavioral outcomes. Using a final cleaned sample of 368 students, we analyze how total nature relatedness, actively open-minded thinking (AOT), life satisfaction, political orientation, age, anticipated shame, and gender predict four outcomes: (1) perceived personal responsibility for the climate crisis, (2) concern about climate change, (3) acceptance of environmentally responsible transport choices, and (4) consideration of carbon footprint when choosing travel destinations. Ordinary least squares regression was used for attitudinal outcomes (personal responsibility and concern), while logistic regression models were estimated for the two behavioral intention measures. Two versions of the AOT scale were tested separately to ensure robustness. Results show that nature relatedness is the most consistent predictor across models. Students with stronger emotional and cognitive connection to nature report significantly higher personal responsibility for climate change and greater concern about climate issues. Moreover, nature relatedness substantially increases the likelihood of engaging in environmentally conscious travel behavior, particularly when choosing transport modes. In logistic models, a one-unit increase in nature relatedness approximately doubles the odds of considering environmental impact in transport decisions. This suggests that fostering a sense of connectedness to nature may be a powerful lever for promoting both climate attitudes and behavior. Anticipated shame emerges as equally robust and, in some cases, stronger predictor. Students who report that they would feel ashamed if others knew they chose high-carbon travel options exhibit significantly higher responsibility and concern scores and are substantially more likely to consider environmental consequences in both transport and destination choices. Odds ratios indicate that shame increases the likelihood of pro-environmental travel decisions by two to five times, depending on the specification. These findings highlight the central role of moral emotions in shaping climate-related decision-making and suggest that internalized social norms may be more influential than

ideological positioning. Political orientation displays a more limited and domain-specific effect. Right-leaning students report significantly lower concern about climate change, but political orientation does not significantly predict personal responsibility or behavioral intentions. This pattern suggests that while ideology shapes general climate attitudes, it may not directly translate into concrete behavioral commitments in this student population. Gender differences are also evident. Male students consistently report lower levels of climate responsibility and concern compared to female students. However, gender differences do not significantly predict behavioral measures once other variables are controlled. One of the most theoretically intriguing findings concerns actively open-minded thinking (AOT). While one version of the AOT measure shows a modest positive association with personal responsibility, AOT is either unrelated or negatively associated with behavioral outcomes. In particular, higher AOT scores predict a lower likelihood of accepting environmental restrictions in transport and a lower probability of considering carbon footprint when selecting travel destinations. These results suggest a potential tension between cognitive reflectiveness and moralized environmental behavior. Individuals high in open-minded thinking may be less driven by social pressure or moral emotions and more inclined to critically evaluate or resist behavioral norms framed as obligations. Overall, the findings indicate that affective and identity-based factors—particularly nature connectedness and anticipated shame—are more powerful predictors of climate-related behavior than political ideology or cognitive style among Croatian students. Interventions aimed at strengthening emotional engagement with nature and activating internalized social norms may therefore be more effective than purely informational or ideological appeals. The study contributes to the growing literature emphasizing the importance of moral emotions and environmental identity in understanding pro-environmental behavior in younger populations.

Keywords: climate-related attitudes, actively open-minded thinking, nature relatedness, anticipated shame, students

Acknowledgement: This study is supported by the Croatian Science Foundation under the project number HRZZ-IP-2024-05-1450.

EMPOWERING REGIONS FOR THE FUTURE: MAPPING INNOVATION AND INSTITUTIONAL DYNAMICS IN REGIONAL COMPETITIVENESS THROUGH A DECISION TREE APPROACH

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Abstract
Regional development in the European Union is increasingly shaped by the ability of regions to generate innovation, adapt to technological change, and build competitive advantages within a multi-level governance system. In this context, both innovation capacity and institutional quality are central to regional competitiveness. While previous studies have emphasized the importance of innovation for regional growth and the role of institutions in development, the mutual relationships between institutional and innovation indicators at the regional level remain insufficiently described and empirically grounded. The availability of detailed regional data in the EU Regional Competitiveness Index (RCI) 2.0 makes it possible to examine these dynamics more systematically. The objective of this study is to enhance the existing literature by analyzing the relationship between institutions and innovation indicators at the regional level within the EU. More specifically, the study compares the performance and mutual relations of these indicators across EU regions, taking into account path dependencies. It addresses three research questions: what is the relationship between institutional quality and innovation in regional competitiveness; how do these factors influence the performance of European regions; and whether similarities can be identified among regions with comparable institutional and innovation settings. The analysis is based on data from the EU Regional Competitiveness Index 2.0 covering 233 NUTS 2 regions in the EU. The dataset includes 15 indicators drawn from four pillars of regional competitiveness: Institutions, Technological Readiness, Business Sophistication, and Innovation. The study applies a comparative analytical framework using two categorical variables: development phase (post-socialist versus Western capitalist regions) and capital city status. The empirical strategy combines hierarchical cluster analysis based on the Pearson correlation matrix and heatmap visualization, Wilcoxon two-sample tests, Kruskal-Wallis tests with stepwise multiple comparison procedures, and CART (Classification and Regression Trees) decision tree modelling. A novel contribution of the study is the use of decision tree models to create maps of European regions by translating terminal nodes into

groups of regions with similar characteristics. The results show strong and significant relationships between institutional and innovation-related indicators. In particular, the three institutional indicators of corruption, quality and accountability, and impartiality are highly correlated with each other and also strongly associated with several innovation-related indicators. The strongest association is found between corruption and individuals buying over the internet. Overall, almost all correlations between institutional and innovation-related indicators are significant, suggesting that institutional quality and innovation capacity are closely intertwined in regional competitiveness. The findings confirm that institutions play a decisive role in regional development and that institutional quality and innovation capacity jointly shape regional competitiveness. Regions with high-quality institutions and strong innovation indicators are well positioned for advanced development phases, whereas regions with weaker institutions but active innovation landscapes represent key opportunities for policy intervention. The study therefore suggests that EU smart specialization strategies should be revised so that institutional improvement becomes an integrated part of these strategies in order to foster more balanced and sustainable regional growth across Europe.

Keywords: regional development, institutions, technological readiness, business sophistication, innovation

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BEYOND SHORT INTEREST: SHORT-SELLING INTENSITY AND EXTREME PRICE DECLINES

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Abstract
This paper studies the role of short-selling activity and securities lending market dynamics in predicting and shaping extreme negative stock price movements. I introduce a novel measure of short-selling intensity (SSI), defined as the ratio of short-selling volume to lending market supply, which captures the degree of effective shorting pressure in the market. Conceptually, SSI differs from traditional measures such as short interest by incorporating both flow-based trading activity and constraints in the lending market, thereby providing a more granular proxy for marginal short-selling demand. Using a large panel of U.S. equities from 2009 onward, I examine the ability of SSI to predict the occurrence of severe price declines associated with short-selling restrictions under Rule 201 of the U.S. Securities and Exchange Commission. In a series of logistic regressions, I model the probability that a stock experiences a daily return below −10%, controlling for lagged returns and fixed effects. The results show that SSI is a strong and robust predictor of such events. A one standard deviation increase in SSI significantly raises the likelihood of a large price drop, even after accounting for recent return dynamics. Comparative analysis reveals that SSI dominates traditional short interest measures in predictive power. While short interest captures the stock of outstanding short positions, it fails to distinguish between active shorting pressure and passive positioning. In contrast, SSI improves model fit substantially, increasing pseudo-R^2 by over five percentage points relative to a baseline model with return controls. When both measures are included jointly, the results uncover a nuanced interaction: short interest exhibits a sign reversal across horizons, reflecting the coexistence of short covering in the short run and position building over longer horizons. This pattern is obscured in standalone specifications but becomes evident when SSI is held constant, highlighting the complementary nature of flow- and stock-based measures of short-selling activity. Beyond predictive performance, the findings have implications for market stability and the functioning of regulatory constraints. Elevated SSI levels indicate periods in which short-selling demand is high relative to available lending supply, potentially amplifying downward price pressure and increasing the likelihood of triggering regulatory thresholds. This suggests that constraints in the lending market play a central role in the transmission of shocks during periods of market stress. To further explore the causal impact of short-selling constraints, the paper proposes a regression discontinuity design around the −10% return threshold that activates Rule 201. By interacting treatment effects with ex ante predicted probabilities derived from SSI, the analysis aims to assess whether the effectiveness of short-selling restrictions depends on underlying market conditions. This approach provides a novel framework for linking predictive signals to ex post regulatory outcomes. Overall, the paper contributes to the literature by introducing a new measure of short-selling intensity, demonstrating its empirical relevance, and offering new insights into the interaction between lending markets, trading activity, and market regulation during periods of stress.

Keywords: asset pricing, government policy and regulation, information and market efficiency, general financial markets, panel data models

INFORMATIONAL VALUE OF OVER-INDEBTEDNESS DISCLOSURES: EMPIRICAL EVIDENCE FROM AUSTRIA

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Abstract
Austrian accounting standards place particular emphasis on creditor protection, reflecting the significant role traditionally played by bank financing for businesses. According to the Austrian Commercial Code (UGB), specific disclosures are required in the notes if a corporation`s balance sheet shows over-indebtedness. Corporations are obliged to disclose whether the accounting-based over-indebtedness also exists from an insolvency law perspective (Section 225 UGB). If a corporation becomes over-indebted under insolvency law, the executive board must file for insolvency. As the criteria used to assess over-indebtedness under insolvency law are not legally defined, Austrian case law sets out a two-stage model: the existence of insolvency-related over-indebtedness is assessed based on an over-indebtedness status at liquidation values (static level) and on a continuance prognosis (dynamic level). A positive status indicates that, in the event of liquidation, the proceeds from the sale of all assets would exceed the company`s liabilities. A positive continuance prognosis reveals that the company is likely to be solvent in the future, taking into account planned restructuring measures. The executive board has to decide which instrument is used to initiate the review process. If a positive finding is made using the first instrument, the application of the second instrument is no longer required. An existing over-indebtedness under insolvency law always requires both instruments to show a negative result. The prevailing literature assumes that a continuance prognosis is preferred in practice since it inherently involves addressing how to overcome a crisis – something that is essential in any crisis situation. By contrast, an over-indebtedness status at liquidation values assumes the corporation`s dissolution and the collection and documentation of the relevant data often cause significant costs. This study focuses on the disclosures in the notes in the case of balance sheet over-indebtedness using a mixed methods approach. The notes are investigated using a qualitative content analysis and the data are evaluated using descriptive statistics. The study is based on data from 69 large Austrian corporations that report balance sheet over-indebtedness in at least one financial year between 2020 and 2024. The results show that 41 corporations report negative equity once, whereas 28 do so in multiple periods during the observation window. A total of 122 notes are therefore analyzed. More than 40% of the corporations report negative equity in 2020. As of February

2026, 60 of these companies are still considered to be solvent. The median level of negative equity exhibits peaks in 2022 and 2024 (2020: € 6.27 million; 2021: € 7.14 million; 2022: € 15.98 million; 2023: € 8.82 million, 2024: € 12.73 million). Substantial differences between median and mean values suggest the presence of outliers. Approximately 95% of all notes contain no more than 500 words explaining the occurrence of negative equity. Corporations, that show negative equity over multiple periods tend to reuse their disclosures regarding over-indebtedness without making any significant changes, except to the figures. The study further reveals that only two notes report the application of over-indebtedness status based on liquidation values to assess insolvency-related over-indebtedness, whereas 35 notes report using continuance prognosis. A total of 85 notes provides either no or only insufficient information regarding the assessment method used. However, 94 notes include information on specific planned measures to address the financial distress. Financial measures are mentioned most frequently (equity measures: 45; debt measures: 67). Operative measures (e.g. sales adjustments or cost management initiatives) are reported in 40 notes, while organizational measures, such as restructuring, are discussed in 9 notes. Furthermore, 98 notes fail to address the underlying causes of the negative equity. To sum up, although corporations favor the continuance prognosis, the information provided in the notes is largely insufficient and offers only limited insight into the underlying assumptions and assessments. The empirical findings could contribute to the ongoing debate on abolishing disclosure requirements under Section 225 of the Austrian Commercial Code, by demonstrating the limited informational value and practical relevance of such disclosures.

Keywords: continuance prognosis, notes, over-indebtedness, insolvency

VAT PASS-THROUGH IN THE HOSPITALITY SECTOR IN CROATIA

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Abstract

This paper examines the pass-through of value-added tax (VAT) changes to consumer prices in the hospitality sector in Croatia. The aim of this study was to examine the extent and dynamics of the pass-through of value-added tax (VAT) changes to consumer prices, with particular emphasis on testing whether VAT increases and VAT reductions are transmitted symmetrically to consumer prices. Evidence on VAT pass-through in transition economies remains limited, particularly for the hospitality sector. Using monthly data on the Harmonized Index of Consumer Prices (HICP) for restaurants and cafés over the period 2010–2019, the analysis applies a distributed-lag econometric model with panel-corrected standard errors (PCSE) to estimate both immediate and delayed effects of VAT changes on prices. The results indicate that the pass-through of VAT reductions to consumer prices was highly incomplete suggesting that firms retained a significant portion of the tax relief. In contrast, the pass-through of VAT increases was substantially higher, although it also remained incomplete. These findings point to a pronounced asymmetry: prices respond more strongly to tax increases than to tax decreases. The low degree of pass-through in the case of VAT reductions is consistent with inelastic demand for hospitality services and market structures characterized by monopolistic competition, where firms possess some degree of pricing power. Additional explanations include menu costs and concurrent policy changes, notably the introduction of fiscalization measures aimed at reducing tax evasion, which likely influenced observed price dynamics. The increase in reported turnover following the reform suggests that reduced tax evasion, rather than increased demand, played a key role. Overall, the study contributes to the empirical literature on tax incidence by highlighting the importance of market structure, behavioral responses, and institutional context in shaping VAT pass-through. The results carry important policy implications, suggesting that reductions in indirect taxes may not fully benefit consumers in sectors with limited competition and low-price elasticity of demand.

Keywords: VAT pass-through, hospitality sector, tax incidence

CHANGES IN THE DISTRIBUTION OF GROSS INSURANCE PREMIUMS DESCRIBED BY CONCENTRATION MEASURES: THE CASE OF THE INSURANCE MARKET OF BOSNIA AND HERZEGOVINA

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Abstract
The subject and objective of the paper is the distribution and trend of gross life and non-life insurance premiums using eleven concentration measures in Bosnia and Herzegovina in the period 2005-2024. In the analyzed 20 years, the number of insurance companies ranged from 23 to 27 companies. Out of 24 active insurance companies in 2024, 15 companies deal with non-life insurance, and 9 companies have non-life and life insurance in their portfolio. Eleven numerical concentration measures were applied to analyze the concentration of the insurance market in BiH. The values of the concentration ratios C2 and C5 are relatively high for the life insurance market throughout the observed period. At the beginning of the period in 2005, C2 is 49% and C5 is 80%, which shows a high concentration of gross premiums in 2 and 5 companies. In 2024, C2 is slightly lower, approximately 43%, while C5 is higher, at 88%. The Herfindhal-Hirschman Index (HHI) values range from 0.1655 to 0.1777, which describes a moderately concentrated life insurance market. For the non-life insurance market, the C2 concentration ratio ranges from 20% (2017) to 26% (2024), while C5 is calculated to be 40% (2017) and almost 50% (2024). The HHI values for non-life insurance gross premiums range from 0.056 (2017) to 0.071 (2024), which describes a non-concentrated market, i.e. a market with a high level of competition. The Gini coefficient for life insurance also oscillates, between 0.390 (2024) and 0.572 (2010), which means that the coefficient follows a trend of a slight linear decline and describes a picture of a moderate to low level of premium concentration. In the non-life insurance market, the Gini coefficient is lower than for life insurance and ranges in the interval from 0.386 (2022) to 0.492 (2008), and in 2024 the value of the Gini coefficient is 0.422, which indicates a low level of insurance premium concentration. The Rozenbluth and Hall-Tideman concentration indices are approximately zero for non-life insurance premium, which indicates a large number of companies with an approximately significant share of premium in the total market premium. For life insurance premium, the Rozenbluth and Hall-Tideman indices are slightly higher than for non-life insurance premium, but not significantly. This shows that the life insurance market shows a slight concentration of insurance premium.
The life insurance premium entropy coefficient takes values between 1.877 and 1.986 which is around the middle of the entropy value interval that describes a moderate premium concentration market. The entropy of the non-life insurance premium receives the values of

approximately the upper quartile in the entropy value interval, which shows a low level of premium concentration, i.e. a non-concentrated insurance market. Oscillations of the entropy coefficient of both life and non-life insurances approximately follow a polynomial of the third degree whose model shows a certain level of quality. The standard error and the coefficient of determination of the trend model of the third degree for the entropy indices are smaller than those of the linear and quadratic trends. The third-degree polynomial model for non-life insurance entropy indices has higher polynomial coefficients in absolute terms, and the model quality indicators are higher than for life insurance. The short-term forecast of the movement of the entropy index according to the formed trend model predicts the growth of the entropy index in the next 5 years for the life and non-life insurance market. This means that there is no expectation of an increase in premium concentration, or a decrease in the number of companies.

Keywords: insurance gross premium, Herfindhal-Hirschman, Gini; entropy, Rosenbluth and Hall-Tideman index, trend, Bosnia and Herzegovina

SHUTTING DOWN THE EXCHANGE RATE CHANNEL: A COUNTERFACTUAL ANALYSIS OF ERPT IN THE EURO AREA

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Abstract
In recent years, the topic of Exchange Rate Pass-Through (ERPT) has gained renewed attention among economists, central banks, and international institutions. This resurgence has been driven by a convergence of structural and cyclical factors, but it was sharply amplified by the 2021–2024 inflationary episode—a period marked by widespread supply chain disruptions, energy price shocks, and a swift reconfiguration of global monetary policy. These dynamics have forced policymakers to re-evaluate the role of exchange rate fluctuations in shaping domestic inflation, particularly in open economies such as the euro area. A defining feature of this period was the monetary policy divergence between the United States and the euro area. While the U.S. Federal Reserve began aggressively raising interest rates as early as March 2022 in response to rapidly rising inflation, the European Central Bank (ECB) maintained negative interest rates and continued asset purchases well into mid-2022. This asynchronous policy stance contributed to a marked depreciation of the euro, especially against the U.S. dollar. Given the euro area's reliance on imported energy and dollar-denominated commodities, the weakening of the euro further exacerbated domestic inflationary pressures through higher import costs. These developments sparked discussion on long-standing policy and research questions around the size, speed, and conditionality of ERPT. For central banks, an accurate understanding of ERPT is essential not only for inflation forecasting but also for determining the appropriate degree of monetary tightening or accommodation—especially when a large share of inflation is imported rather than domestically generated. At the same time, the recent inflationary episode has revealed important gaps in our understanding of ERPT. Most existing estimates are derived from either reduced-form regressions that assume exogenous exchange rate shocks or structural VARs that do not directly isolate the specific role of the exchange rate in transmitting inflationary pressures. Moreover, the extent to which pass-through operates via import prices—as opposed to broader macroeconomic channels—remains an open empirical question. In this paper, we offer a novel empirical approach to measuring ERPT that directly addresses this gap. We apply a counterfactual structural VAR identification strategy, that allows us to explicitly isolate the marginal contribution of the exchange rate channel to domestic inflation. Specifically, we focus on an appreciation shock to the euro and construct a counterfactual scenario in which this exchange rate movement does not affect import prices—neither in the short run nor the long run. This is implemented by imposing sign restrictions on the impulse response functions that force the response of import prices to an exchange rate shock to be zero. By comparing this counterfactual to the baseline model—where ERPT is active—we estimate how much of the observed price response is actually transmitted via the exchange rate-import price channel. This methodology allows us to move beyond unconditional

or shock-dependent estimates and instead produce a marginal and structural measure of ERPT that is directly relevant for policymakers. Importantly, our results show that while the ERPT channel significantly amplifies the disinflationary effect of appreciation, the statistical distinction between the baseline and counterfactual models is not always strong. In most cases, the 68% credible interval of the baseline model covers the counterfactual, suggesting that while ERPT is economically meaningful, its magnitude should be interpreted with some caution. By introducing this counterfactual framework, we contribute to the literature by offering a clearer, more policy-relevant way to measure ERPT—one that is especially useful in periods of external price shocks, global monetary divergence, and inflation uncertainty. In doing so, we provide a tool that central banks can use to disentangle the direct inflationary impact of exchange rate movements from broader structural forces shaping price dynamics.

Keywords: ERPT, euro area, counterfactual analysis, SVAR

ECONOMIC INDEPENDENCE AND LIFETIME INCOME SECURITY AS SOURCES OF BARGAINING POWER WITHIN THE HOUSEHOLD

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Abstract
The position of women of different ages within households is shaped by a wide range of interrelated factors, among which their level of economic independence plays a particularly significant and multifaceted role, influencing both their autonomy and their relative power in decision-making processes. This study therefore examines in detail the relationship between women's economic independence, their intra-household bargaining power, and their exposure to economic control, while also taking into account differences across various demographic groups. From a theoretical perspective, the analysis is grounded in established frameworks, including theories of household bargaining, economic vulnerability, and life-cycle inequality, which together provide a comprehensive lens for understanding how economic conditions shape gendered power dynamics. Within this framework, economic independence is conceptualized as a multidimensional construct that encompasses employment status, type of employment contract, primary source of income, and financial resilience, the latter being determined by income level and the availability of savings. Using Slovenian EU-GBV 2020 survey data focusing on women who are currently in partnerships, we construct an economic vulnerability index that integrates key dimensions such as income source, employment stability, and financial resilience, thereby capturing the complexity of women's economic positions. We then estimate weighted logistic regression models in order to assess how economic vulnerability is associated with the likelihood of experiencing economic control by a current partner and additionally examine how employment contract type relates to intimate partner violence, while incorporating a range of relevant controls and mediating variables. Furthermore, interaction terms are included to test whether financial resilience mitigates or buffers the adverse effects of economic vulnerability. The results indicate that women who lack income independence face significantly higher odds of experiencing economic control, while financial resilience emerges as particularly important for those engaged in less stable forms of employment. By incorporating a life-cycle perspective, the study also highlights patterns of intergenerational inequality and emphasizes how economic independence evolves across different stages of life, thereby contributing to policy-relevant insights. Overall, the paper underscores that economic autonomy functions as a crucial protective mechanism and highlights the importance of employment stability, income security, and intergenerationally sensitive social policies in shaping the position of women in society.

Keywords: incentive to work, financial resilience, lifetime income redistribution, welfare state, intra-household bargaining

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THE SHARENTING PARADOX: LESS COMMERCIAL CONTENT CREATES MORE VALUE

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Abstract
Professional sharenting is known as the parental practice of sharing children's lives on social media. It has become a business practice in which parent influencers turn family life into brand content. In recent years, this practice has evolved into a commercial strategy, where children become integral to parent influencers' revenue-generating activities. Within this context, professional sharenting reflects a tension between awareness of children's digital privacy risks and the continued use of their images and personal information for value creation. Parents engage in this practice for two distinct but interconnected purposes. On one hand, generating immediate income through sponsored content and on the other hand, building long-term brand value through more organic, identity-driven content. This dual role shifts parenting from primarily safeguarding a child's privacy toward managing the child's visibility as a strategic resource. As everyday family life becomes increasingly commodified, an important question emerges regarding the effectiveness of these different strategies. Specifically, it remains unclear whether the engagement value associated with children persists when content moves from authentic self-presentation to explicit commercial promotion. The objective of this study is to examine how the strategic use of children in professional sharenting differs between sponsored content aimed at immediate commercial gain and non-sponsored content focused on long-term brand building, with respect to audience reach and engagement. This study examines a central tension in digital marketing and business strategy: are children more valuable to parent influencers as direct monetization devices in sponsored posts or as authenticity cues in organic content that builds the influencer's long-term brand? We analyze 1,685 Instagram posts published between August 1, 2025, and January 22, 2026, by 20 top parent influencer accounts. For each post, we collect post text, format, video duration, likes, shares, comments, views, music, profile tags, collaborators, and paid-promotion status. To control differences in audience size, we calculate engagement rates for each post. We then combine descriptive statistics and independent-samples t-tests to compare sponsored and non-sponsored content, complemented by thematic text analysis to identify recurring sharenting themes. Preliminary results show that Reels dominate the sample, sponsored posts remain a minority, and collaborator tags indicate a broader partnership ecosystem around parent-influencer brands. Most importantly, non-sponsored posts significantly outperform sponsored posts on likes, comments, shares, total interactions, and engagement rate, whereas views do not differ significantly. The contrast is especially large for likes, with non-sponsored posts averaging 14,222 compared with 2,807 for sponsored posts. These findings suggest that audiences respond more positively when children

function as support for parental identity performance and perceived authenticity than when they are used in overtly monetized promotional content. The paper contributes to influencer marketing and digital business research by distinguishing between two strategic logics of professional sharenting: short-term commercial conversion and long-term persona building. It also advances the sharenting literature by showing that the strongest market value of child visibility may lie in indirect brand capitalization rather than explicit advertising, which sharpens the privacy trade-off at the center of the practice. For scholars, the study offers a business-facing explanation of why organic family content may outperform sponsored family content; for practitioners and policymakers, it highlights the need to evaluate child-centered influencer strategies not only in terms of reach and engagement, but also in terms of commercialization boundaries, disclosure, and the ethics of turning children into recurring assets of digital reputation.

Keywords: professional sharenting, influencer marketing, child privacy, authenticity, Instagram, engagement

THE RELEVANCE OF AIGC AS A STRATEGIC DRIVER OF BRAND RESONANCE THROUGH EMOTIONAL ATTACHEMENT, ENGAGEMENT INTENSITY, AND CONSUMER BRAND RELANTIONSHIP STRENGTH IN HYBRID DIGITAL ECOSYSTEM

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Abstract
The experiences between branding and consumer experiences continue to transform. Marketing and branding practitioners worried about user-generated and brand-generated content to achieve high brand resonance; however, today, AI-generated (AIGC) content has created disruption. AIGC is fundamentally transforming brand communication with a hybrid digital ecosystem. Digital mechanisms and physical experiences are merging, thus offering new user-experiences during consumer journeys. Thus, brands must communicate effectively with their consumers to resonate. In this context, social, psychological and time risks are valued as they address whether the product will obtain the appropriate image, whether the product will or will not strengthen the customer's expectations, and if the product does not deliver expected benefits, what is the opportunity cost of the search time to replace it. While the available literature and scholarship explore AIGC as technological adoption, content personalization, and automation, there are limited empirical insights into the strategic relevance of AIGC for developing higher-order brand results, such as brand resonance. Emotional attachment, engagement intensity, and consumer-brand relationship strength are untested and unexplored. Hence, understanding this gap is significant, as today's consumers heavily depend on emotional and rational capital rather than transactional communication alone. Consumers expect emotional belongingness from brands, and the content's style, type, and quality make a significant difference. In this research, the main research objective was to explore whether AIGC serves as a strategic driver of brand resonance and to test the mediating roles of emotional attachment, engagement intensity, and consumer-brand relationship strength within hybrid digital ecosystems. For additional reliability and validity, this research was grounded in brand resonance theory. Brand resonance is the emotional association between a brand and its consumers; thus, this theory deepens consumer-centricity, which leads to brand loyalty. Accordingly, this approach positions AIGC as an interactive stimulus capable of transforming brand dynamics in the consumer journey. The authors used quantitative research methodology. Using Qualtrics software, a survey study was created. The survey was divided into five sections to better understand relationships and associations between AIGC perception, emotional attachment, engagement intensity, consumer–brand relationship strength, and brand resonance. Over the eight months, using snowball, convenience, and purposive sampling, 341 valid cases were obtained. The primary target sample comprised marketing and brand practitioners with experience with AIGC across digital and phygital platforms. Data was analyzed using SPSS30. Descriptive and inferential analyses were performed to assess relationships among constructs.

The results revealed that AIGC has a significant positive impact on emotional attachment and engagement intensity, which together strengthen consumer-brand relationship quality. Moreover, emotional attachment was the strongest predictor of brand resonance, indicating that emotional mechanisms play a significant role in translating AI-driven content into long-lasting brand resonance. Furthermore, engagement intensity strengthened relationships, improving brand resonance in hybrid ecosystems. This validates that emotionally resonant brands connect with consumers on a deeper level, leading to greater engagement with consumer pain points. This research contributes to branding and digital marketing scholarship by empirically integrating AIGC into brand resonance frameworks. This strengthens literature by better understanding AI-mediated consumer and brand relationships. From a practical perspective, this results position AIGC as a mediator that promotes affective engagement and relational continuity, thereby encouraging businesses to improve long-term brand equity and resonance in today's transformation ecosystems.

Keywords: branding, marketing, AI generated content, brand resonance, digital marketing

NETWORK ANALYSIS AND MARKET HIERARCHY DURING CRISIS EPISODES: A CRITICAL LITERATURE REVIEW AND RESEARCH AGENDA FOR SMALL CAPITAL MARKETS

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Abstract
This paper presents a critical literature review of financial network analysis, with a focus on Minimum Spanning Tree (MST) methodology and its application to stock market structure during crisis episodes. The review synthesizes international empirical findings alongside the limited body of Croatian capital market research. Its main aim is to identify gaps in the existing literature and to propose a research agenda for future empirical work on small, less liquid equity markets. The CROBEX index serves as the primary candidate for future investigation. MST methodology was introduced to financial market analysis in the late 1990s and has since become a standard tool for extracting hierarchical structure from stock return correlations. The approach retains only the most informative connections between assets, reducing market complexity into an interpretable topology. This topology reflects both sector groupings and the distribution of systemic importance across the market. The literature shows that MST structures carry economically meaningful information. Peripheral nodes offer superior diversification properties, while hub nodes represent systemically important assets whose distress can spread broadly through the market. In terms of crisis dynamics, empirical evidence shows that systemic shock episodes produce denser and more centralized network topologies. This reflects broad asset co-movement and herding behavior, documented across both developed and emerging markets. The literature further suggests that the sectoral composition of central nodes varies across crisis types. Financial, pandemic, and geopolitical shocks may therefore leave distinct topological signatures in market hierarchy. This comparative dimension remains underexplored, particularly for smaller equity markets where structural constraints may amplify the dynamics observed on major indices. Research on the Croatian capital market has addressed trading volume dynamics, liquidity determinants, and index efficiency. However, network-based structural analysis is almost entirely absent. The only network study directly targeting CROBEX compares partial correlation networks of trading volume changes across two market periods. It finds greater centralization during the crisis year and higher modularity in the more recent period. This establishes an important baseline, but return-based MST analysis, crisis-type comparison, and sectoral alignment of Zagreb Stock Exchange constituents remain empirically untested. This gap is particularly notable given Croatia's EU accession in 2013 and the structural changes it introduced to the domestic capital market. Based on this review, a research agenda is proposed. It is centered on return-based MST analysis of CROBEX constituents across three crisis windows: the global financial crisis of 2008–2009, the COVID-19 shock of 2020, and the geopolitical and inflationary disruption of 2022. Each window would be paired with a pre-crisis baseline. Adding a sectoral overlay using ICB classification would enable a direct comparison of network structures across the three crisis episodes. Given the limited liquidity and narrow sectoral composition of CROBEX, the results may differ from findings on major indices. For this reason, the Croatian market represents a particularly interesting case for this type of analysis.

Keywords: minimum spanning tree, financial networks, market hierarchy, CROBEX, crisis episodes

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ARTIFICIAL INTELLIGENCE IN CORPORATE GOVERNANCE: CATALYZING STRATEGIC AGILITY IN DYNAMIC MARKETS

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Abstract
Artificial intelligence (AI) is instigating a structural paradigm shift in corporate governance, transcending the automation of routine administrative tasks to directly impact the micro-foundations of strategic agility. Operating within the Dynamic Capabilities View of the firm, this paper reviews current literature to examine how board structures and algorithmic tools interact to translate digital integration into sustained market performance. We posit that AI profoundly augments the three core meta-capabilities of strategic agility: strategic sensitivity, leadership unity, and resource fluidity. By deploying advanced machine learning models, firms can process vast streams of unstructured alternative data to detect weak market signals with unprecedented temporal responsiveness, fundamentally overcoming human cognitive limits and strategic myopia. Crucially, this algorithmic market sensing disrupts the traditional principal-agent problem by systematically shrinking the long-standing information gap between corporate insiders and external stakeholders. However, while AI reduces traditional information asymmetry regarding raw data access, it introduces a novel dimension of "intelligence asymmetry", where competitive advantage relies on the advanced computational capacity to interpret and operationalize data. Consequently, boards face an imperative to cultivate intelligence symmetry through independent algorithmic tools and continuous technological literacy. The structural mechanics of the board play a surprisingly decisive role in this technological transition. Synthesizing agency theory with empirical evidence, we find that smaller corporate boards are structurally better equipped to bypass bureaucratic friction, rapidly acquire highly sought-after AI-skilled human capital, and execute high-velocity decisions regarding emergent technologies. Yet, the mere acquisition of software is insufficient to generate a true dynamic capability. Contemporary corporate governance is undergoing a profound metamorphosis from backward-looking, retrospective audits to continuous, dynamic predictive forecasting. This shift allows companies to reallocate capital on the fly and tackle Environmental, Social, and Governance (ESG) risks before they escalate. But relying on algorithms to help run a company is not without its growing pains. The main problem is that advanced machine learning models often act as opaque "black boxes". When directors cannot explain how a system reached a specific conclusion, it directly conflicts with their legal duty to remain transparent and accountable. When the math happens behind closed doors, companies open themselves up to mounting legal liabilities and regulatory headaches, especially with

emerging laws like the EU AI Act. Worse, these models risk quietly amplifying old historical biases already baked into the training data. Moving forward, boards have a very clear line to walk. They have to find a way to harness the incredible speed of automated market tracking without ever sacrificing real, accountable human oversight. We conclude that achieving true strategic agility requires the architecture of a tightly coupled human-machine system, often institutionalized through specialized AI ethics boards or tech committees, that merges algorithmic foresight with nuanced, ethical human judgment. Ultimately, the future of corporate governance relies on mastering this reflexivity, ensuring that technological adaptability does not result in the absorption of unmanageable, existential risk.

Keywords: corporate governance, artificial intelligence, strategic agility, dynamic capabilities, information asymmetry

SUPPORTING HEALTHY AGEING AT WORK: EXPECTATIONS AND REALITIES OF EMPLOYMENT IN MID-TO-LATER LIFE

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Abstract
In recent years, there has been increased interest in exploring opportunities and barriers to extending working lives beyond traditional retirement ages. While the ageing demographic is commonly portrayed as a societal challenge across all OECD countries, the increase in the number of people in mid-to-later life who remain in the workplace is a possible solution in sectors that struggle to attract employees. However, this requires a significant change in the way businesses and policy makers treat and support mid-to-later life workers. Although current national policies across the globe aim to create opportunities for people to work for longer and to delay retirement, the realities of work in mid-to-later life have become increasingly complex due to changes in the way work is conducted and organized. Health, in particular, remains one of the most significant contributors to mid-to-later life workers leaving the workforce early, with, for example, one in four UK workers over the age of 50 retiring early due to health reasons. Current research suggests that this is partly due to the current one-size-fits-all approach to workplace health support, treating workers as a homogeneous group. In this paper we focus on the organizational and individual attitudes and approaches towards the use of digital technologies to support healthy ageing in the workplace. We draw our data from a large mixed-methods study conducted in the UK with employers in the finance, manufacturing and social care sectors, during which a digital health intervention was designed. The findings suggest a range of opportunities and barriers to better support healthy ageing in the workplace. For employers, the provision of workplace health support is not only costly, but also a source of frustration, given often low employee uptake. Moreover, there is no shared understanding among employers that caring for workers' health is also their responsibility. For employees, health remains somewhat of a 'taboo' topic in the workplace. Many choose not to disclose their health issues often due to concerns that they will be seen as old and therefore in decline, which in turn makes them fear for their livelihoods. Employees also often share with employers the perspective that their health is solely (or predominantly) their own responsibility and often do not recognize how their health needs are related to their employment and other factors, such as caring responsibilities. The use of digital technologies provides a partial solution to some of these challenges, from providing bespoke and personalized opportunities to reflect on one's own health, to signposting the most appropriate available supports. However, more needs to be done to address the fundamental issues of trust and to embed a truly human-centered employer approach to supporting healthy ageing in the workplace.

Keywords: mid-to-later life work, workplace health interventions, extending working lives, digital technologies

WORKPLACE DEVIANCE THROUGH THE LENS OF SENSEMAKING THEORY

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Abstract
This study reconceptualizes workplace deviant behavior by grounding it in the sensemaking theory, emphasizing how employees actively interpret, construct and respond to organizational realities. Rather than viewing deviance solely as a reaction to structural factors, this perspective highlights how individuals make sense of ambiguous situations, fairness perceptions, and social cues in their work environment. Building on prior research on workplace deviance (e.g., Robinson & Bennett, 1995; Bennett & Robinson, 2000) and organizational justice (e.g., Greenberg, 1990; Colquitt, 2001), the study argues that employees' subjective interpretations play a central role in shaping deviant responses. From a sensemaking theory perspective, employees do not passively experience organizational conditions; instead, they actively construct meaning through cognitive and social processes. Their interpretations are influenced by organizational transparency, which shapes trust and clarity of communication (Schnackenberg & Tomlinson, 2016; Rawlins, 2008), a caring climate, which signals the extent to which the organization values employee well-being (Victor & Cullen, 1987; Peterson, 2002), and procedural justice, reflecting fairness in decision-making processes (Greenberg, 1990; Colquitt, 2001). When these factors are perceived as inconsistent, unfair, or unclear, employees may justify deviant behaviors as reasonable responses (Fox et al., 2001; Michel & Hargis, 2017). Importantly, sensemaking theory provides a dynamic lens to understand how deviant behavior evolves over time, as employees continuously update their interpretations based on new information and experiences. This approach integrates cognitive processes with social and organizational influences, offering a nuanced explanation of why employees engage in deviance beyond traditional causal models. By applying sensemaking theory to transparency, caring climate, and procedural justice, this study advances the literature by showing how employees' meaning-making processes mediate the impact of organizational conditions on deviant behavior. Unlike previous research that focuses mainly on objective conditions, this perspective highlights how similar organizational situations can produce different behavioral outcomes depending on employees' interpretations. In this study, quantitative design was employed, and data were collected via self-report surveys from 575 public sector employees. Overall, this research contributes to the workplace deviance literature by positioning sensemaking theory as a framework that links organizational practices with employee interpretations, offering a deeper understanding of why deviance occurs and how it can be mitigated through transparent, fair, and caring organizational environments.

Keywords: sensemaking theory, transparency, caring climate, deviant behavior, procedural justice

ECOLOGICAL AWARENESS ACROSS GENERATIONS: PERSPECTIVES ON ATTITUDES IN AN ERA OF ENVIRONMENTAL CHANGE

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Abstract
Ecological awareness, understood as the complex of attitudes, values, and behavioral orientations towards the natural environment and climate change, is not a uniform phenomenon. Its meaning, intensity, and expression are deeply embedded in the historical, economic, and social contexts through which individuals have lived. Generational experience is therefore a critical, yet often overlooked, dimension in understanding how people relate to environmental challenges. While existing research has made considerable progress in mapping environmental attitudes across populations, comparatively little attention has been paid to the way in which generational belonging shapes the very foundation of ecological awareness as a construct. This gap is particularly relevant in Central European societies, where environmental discourse has developed under specific social and economic conditions that reflect diverse historical trajectories. This study offers a conceptual analysis of ecological awareness as a generationally differentiated phenomenon, drawing on the context of ongoing research conducted within the international ECOCARE project in Slovakia. We examine the theoretical foundations underlying the distinction between two generational cohorts: adults aged 18-30, who have grown up amid intensifying climate discourse and digital information environments, and adults aged 55+, whose environmental orientations have been shaped by distinct historical experiences, different consumption patterns, and direct long-term observation of environmental change. These two cohorts do not simply differ in the degree of their ecological awareness but in the very way they conceptualize the relationship between human society and the natural environment. Younger adults tend to frame environmental issues through the lens of global climate urgency, systemic responsibility, and future-oriented risk, while older adults are more likely to draw on lived experience, practical resource conservation, and a historically grounded understanding of environmental degradation. We argue that applying a single conceptual framework across these cohorts' risks obscuring these meaningful differences in how ecological awareness is formed, expressed, and acted upon. The study identifies key theoretical tensions in existing approaches to measuring environmental attitudes and proposes a generationally sensitive analytical perspective that better reflects the diversity of environmental orientations in contemporary Slovak society. The findings have implications for research design, environmental education, and policy communication targeting different age groups. To assess the level of ecological awareness in both age cohorts, a questionnaire survey method was

employed. The collected data are currently being analyzed using descriptive and inferential statistics, while correlation analysis will be applied to identify statistically significant factors influencing the examined attitudes.

Keywords: ecological awareness, generational comparison, environmental attitudes, Central Europe, Slovakia

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MANAGING AGE DIVERSITY IN ORGANIZATIONS: ANALYSIS OF A SLOVENIAN MINISTRY

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Abstract
The increasing aging of the workforce and rapid demographic changes present significant challenges for modern organizations, particularly in preserving knowledge, maintaining productivity, and fostering intergenerational collaboration. In knowledge-based economies, knowledge is recognized as a key strategic resource, and its effective management, especially the transfer of tacit knowledge from older to younger employees, has become essential for sustaining competitive advantage. At the same time, organizations face the risk of losing valuable experience due to retirement, while also dealing with age-related stereotypes, insufficient institutional support, and gaps in structured age management practices. The main objective of this research is to explore the role of age management in organizations with a specific focus on knowledge transfer processes, intergenerational collaboration, and the inclusion of older employees, as well as to identify existing practices, challenges, and opportunities for improvement in promoting active and healthy aging in the workplace. The study represents a project-based collaboration that included students and was grounded in a real case of a Slovenian ministry, thereby combining academic learning with practical organizational analysis. It integrates both theoretical and empirical approaches, the theoretical part is based on a comprehensive review of literature related to knowledge management, intergenerational leadership, and age management, while the empirical part is based on qualitative research conducted through a focus group with employees of the selected Slovenian ministry. The findings indicate that organizations are aware of the importance of knowledge transfer and intergenerational collaboration, often implementing informal practices such as mentoring and student involvement to facilitate the transfer of knowledge and ensure continuity of expertise. However, the results also reveal a lack of systematic and structured organizational support, particularly in human resource management practices, career development, and retirement transition planning. Older employees demonstrate strong intrinsic motivation, a sense of purpose, and willingness to share knowledge, but they also experience uncertainty and emotional challenges related to retirement, highlighting the importance of psychosocial dimensions in age management. The research concludes that effective age management requires a holistic and strategic approach that integrates knowledge management, human resource policies, and organizational culture, including formalized mentoring systems, reverse mentoring, intergenerational collaboration initiatives, and support programs for employees approaching retirement. By moving beyond informal practices and adopting comprehensive and inclusive strategies, organizations can better utilize the potential of an age-diverse

workforce, enhance knowledge continuity, and support active and healthy aging, ultimately strengthening their long-term sustainability and competitiveness.

Keywords: age management, knowledge management, intergenerational collaboration, active and healthy ageing

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INSIGHTS INTO GENERATION Z'S MUSEUM SHOPS EXPERIENCE: EXPECTATIONS AND REALITIES

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Abstract

The study aimed to explore the experiences of young visitors (Generation Z) in museum shops (physical and digital). Both physical and digital museum shops, are largely neglected in the museum marketing literature for decades. This is due to nature of museum sector, which is mostly non-profit and slow to adapt to market conditions in which museums today operate. Special challenge for museums represents new generation of visitors, i.e. Generation Z, whose museums struggle to attract and retain. This also creates new challenges for museum shops as part of museums' experience. Employing a qualitative observational method, the study used a purposive sample of 68 young visitors (aged 20–23) who engaged with 19 self-selected museum shops. Findings revealed a polarization in visitor experiences, split between those satisfied with the experience and those who were highly dissatisfied. Participants expected a shopping experience comparable to modern retail standards, seeking engaging products with educational or entertaining narratives, such as souvenirs with stories (both educational and entertaining). Furthermore, they desired purchases that provided personal meaning while supporting the museum's institutional activities. Primary obstacles in digital shops include poor discoverability, outdated web design, a lack of functional filtering, and uninspiring assortments at high prices. Physical shops faced similar challenges, specifically regarding limited space and unappealing inventory (products available in the shop). The main issues with digital museum shop experience (web shops) were related to problem of navigating and finding web shop sections on the web site, in some cases outdated web shop design, lack of categories (and filters), poor navigation, unavailability of products, limited and not-interesting assortment, and high prices. Physical shops had fewer but similar problems, limited space, and in some cases limited, not-interesting assortment with occasional high prices. Furthermore, the experiences in both physical and digital shops were very similar, regardless of museum type or size. The study provides new insights into young visitors' experiences in museum shops (both physical and digital) with limitations related to the sample size and method used (observations).

Keywords: museum shops, Generation Z, experiences, retail activities, qualitative research

COORDINATING DUAL-GOAL TRANSACTION PLATFORMS: STRATEGIES FOR MANAGING TENSIONS

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Abstract
Transaction platform research has mostly focused on economically driven platforms such as Amazon, Airbnb, and Meta, highlighting profit-oriented governance, centralized coordination, and efficiency-driven growth. While this literature has generated important insights, it largely overlooks platforms that intentionally pursue dual goals by combining economic viability with social-change objectives. Operating with such dual goals creates persistent tensions, especially as platforms must coordinate diverse actors whose interests, resources, and value logics only partially align. Existing platform governance models provide limited explanations of how these tensions are managed over time, particularly in environments marked by institutional instability and resource limitations. To fill this gap, this study aims to explore how transaction platforms that pursue both social and economic objectives coordinate collective action to navigate dual-goal tensions while maintaining growth and social impact. Using insights from the literature on transaction platforms and collective action, we conducted a qualitative, comparative case study of four transaction platforms. Data was gathered through in-depth interviews, observations, and archival materials, and analyzed inductively to understand how platform coordinators interpret tensions and implement coordination strategies over time. The findings reveal three recurring dual-goal tensions influencing platform development: a mission tension between social purpose and economic viability; a governance tension between centralized control and decentralized participation; and a multi-actor tension arising from the expansion of actor diversity. To address these tensions, platforms employ three coordination strategies: framing, convening, and multivocality, each carried out through specific practices and strategic actions. Framing practices shape shared understanding of purpose and legitimacy by connecting economic discipline, rules, and external endorsements to social impact. Convening practices organize participation and collective learning by aligning actor interests, integrating decentralized contributions, and maintaining strategic oversight. Multivocality practices allow platforms to expand and sustain diverse participation while mobilizing heterogeneous actors for generative impact without losing coherence. Rather than eliminating tensions, these strategies help make them manageable and productive, enabling platforms to evolve via negotiated and distributed forms of coordination. The study concludes that dual-goal transaction platforms are systems of

collective action where coordination emerges through continuous interaction among platform actors. By theorizing coordination strategies that link collective action with dual-goal fulfilment, this research broadens transaction platform literature beyond profit-oriented models and provides a framework for understanding how platforms can contribute to social change while maintaining economic viability.

Keywords: transaction platforms, dual goals, tensions, coordination strategies, collective action

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NEW AND EMERGING SKILLS IN THE EUROPEAN UNION

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Abstract
The rapid transformation of labor markets driven by digitalization, technological advancement, and evolving socioeconomic conditions has intensified the need to systematically identify and integrate new and emerging skills into existing occupational classification frameworks. Horizon Europe SkillsPULSE project (Skills – Predicting, Understanding, and Locating Shortages in Europe) focuses on anticipating and addressing skill shortages across EU Member States. One of the project objectives is to examine how new and emerging kills can be identified, analyzed, and integrated within the European Skills, Competences, Qualifications and Occupations (ESCO) framework, using evidence from online job vacancy (OJV) data provided by Lightcast for the period 2018–2024. The methodological approach draws on annual percentage shares of skill occurrences calculated across three main analytical dimensions: occupational groups at ISCO level 3, economic sectors defined by NACE rev.2 classification, and individual EU-27 Member States and the United Kingdom. New skills are defined as those absent from job postings in 2018 but appearing among the top twenty most demanded competencies in 2024. Emerging skills are identified based on significant growth in frequency over the same period. The analysis covers all 3,161 ESCO-classified skills and categorizes them into four taxonomic groups: Skills (S), Knowledge (K), Transversal Skills and Competences (T), and Language Skills and Knowledge (L). The results reveal several cross-cutting trends shaping contemporary skill demand in Europe. Task-based operational skills dominate across all analyzed dimensions, while knowledge-based competencies show strong presence in technically specialized and regulated occupations. Digital and visual content skills – including e-learning, ICT market knowledge, and the use of computer-aided engineering software – emerge consistently across sectors well beyond traditional ICT roles, reflecting broad-based digitalization of operational practices. Interpersonal skills, notably the capacity to "keep company," have gained widespread prominence across occupational groups and sectors, underscoring a growing emphasis on social presence and human interaction in increasingly automated work environments. The project also examines strategic skill domains including green, digital, and social care-related competencies, identifying both technical operational skills and broader systemic capabilities relevant to ecological and digital transitions. In addition, the projections suggest that self-management and transversal competencies – such as managing time, working independently, and assuming responsibility – will maintain or increase their prominence. Further methodological contribution involves the application of natural language processing techniques and vector embeddings (using the Mpnet and MiniLM models) to semi-automatically match unclassified skill expressions from job postings to existing ESCO entries. This process identified 22 high-confidence candidate skills not yet represented in the ESCO taxonomy, predominantly in digital and IT domains. The findings contribute to a better understanding of how emerging skill trends can be systematically captured, classified, and integrated into existing frameworks, and highlight the value of combining large-scale OJV data with AI-assisted classification methods for responsive labor market intelligence.

Keywords: emerging skills, ESCO framework, online job vacancies, labor market, skill shortages

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IMPROVEMENT OF PROFESSIONAL COMPETENCES AND PERSONAL VALUES OF EMPLOYEES OF THE PUBLIC ADMINISTRATION IN THE CONTEXT OF LIFELONG LEARNING

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Abstract
In today's society, the development of information technologies, digitalization and transformation of public administration bring about significant changes in the professional activities of employees of public administration. These processes call for ever higher and more dynamic professional competences, which include not only specific knowledge and skills but also the ability to adapt flexibly to change, think critically and function effectively in a complex institutional environment. Consequently, the development of professional competences in the context of lifelong learning becomes a strategic prerequisite for the quality, efficient and sustainable functioning of public administration. At the same time, the development of professional competences cannot be seen in isolation from the individual's personal values, which significantly affect attitudes towards learning, motivation to engage in development processes and ability to apply the acquired knowledge in practice. Personal values define priorities, action models and career development directions, thus establishing a close link between individual and institutional development. These interactions are particularly important in the context of lifelong learning, where learning is perceived as a continuous, self-guided and development-oriented process. The study analyses the improvement of the professional competences of employees of the public administration within the framework of lifelong learning, paying particular attention to the impact of personal values on this process. Factors contributing to or hindering the effective development of competences are identified and the coherence between institutional initiatives and individual motivational aspects is assessed. The results of the study contribute to the understanding of how to build a targeted and sustainable framework for the development of competences in public administration.

Keywords: worker development, personal values, public administration

COMMON CARBON CYCLES: A QUANTILE FACTOR VIEW OF GLOBAL CO_2 DYNAMICS

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Abstract
Climate change is a global phenomenon affecting all countries, regardless of borders. The largest contributor to this phenomenon is carbon dioxide (CO_2) emissions. The emissions generated by one country affect the atmosphere as a whole and, in turn, all other countries. This interconnectedness implies that understanding the dynamics of CO_2 emissions requires a global perspective rather than a purely domestic one. Therefore, it is important to understand how CO_2 emissions move across countries to better understand both climate economics and international policy design. Much of the existing literature focuses on determinants of admissions at the country level; there is far less literature on the degree of global carbon co-movement. Current empirical work examines the determinants of emissions, with a singular focus on the roles of economic growth, energy consumption, industrialization, and policy interventions. While such approaches have been successful in individualized country-level research, their broader global implications are overlooked. Global factors such as energy price shocks, technological changes, and business cycles are not considered as elements relating to emissions movements. The actions of one country affecting surrounding countries are not considered in such CO_2 emissions studies. The use of traditional dynamic factor models and panel data assumes countries respond homogeneously to global shocks, focusing on average dynamics. As a mean-based econometric model, their focus is on average relationships and assumes global shocks uniformly distribute emissions. This assumption is severely restrictive, completely overlooking that heavy polluters, high-emission countries, respond differently to global economic, energy, or policy shocks than green leaders, carbon-efficient countries, due to their size and capital. For example, changes in energy prices, industrial cycles, or even global recessions have larger effects on admissions in the upper tail of the distribution due to the high usage in that region. This results in amplified responses that are not captured using such models. This paper argues that global CO_2 emissions are inherently distributional rather than uniform. By using a quantile-based framework, this research seeks to determine whether common global factors have a greater effect during periods of high or low emission intensity, rather than focusing solely on the center of the distribution. This framework allows the identification of latent global factors driving emissions and the examination of how their influence varies across different points in the emission distribution. Understanding these dynamics is crucial for assessing systematic carbon risk and for coordinating climate policies that are robust to even extreme emission states. The contribution of this study is to deepen the understanding of global emission synchronization beyond average effects. The following questions are addressed: (1) Does the strength of the global emissions

movement differ across quantiles of the emissions distribution?; (2) Is synchronization stronger during high or low intensity emissions periods?; (3) Do global CO_2 emissions share common underlying factors across countries? By answering these questions, this paper contributes to climate economics and econometrics literature. Regarding policy, understanding that extreme emission states are more tightly linked globally is crucial for coordinating climate policies and assessing systemic environmental risk. In summary, this paper investigates the extent to which carbon dioxide (CO_2) emissions exhibit common global dynamics across countries and whether such synchronization varies across the distribution of emissions. While existing literature largely focuses on average relationships using mean-based panel models, this study adopts a quantile factor framework to uncover heterogeneous dependence across emission levels. By combining factor models with quantile regression, we allow latent global shocks to have differential effects across low-, median-, and high-emission states. Using a panel dataset of country-level CO_2 emissions, we estimate quantile-specific factor structures and compare them to traditional mean-based models. The analysis aims to determine whether global emission cycles are stronger during high-emission periods, providing new insights into systemic carbon risk and the design of climate policy. Results will contribute to the understanding of global environmental interdependence and the role of extreme emission behavior in shaping climate outcomes.

Keywords: common cycle, CO2 emissions, quantile factor models

THE QUALITY OF SAVING MOTIVATION MATTERS: AUTONOMOUS AND CONTROLLED REGULATION AS PREDICTORS OF YOUNG ADULTS' FINANCIAL BEHAVIOR

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Abstract
This study examines how the quality of saving motivation—rather than its mere presence—shapes financial behavior among young adults. While prior research on personal finance has predominantly focused on financial knowledge, self-control, and future orientation, less attention has been given to the underlying motivational processes that drive saving behavior. Drawing on Self-Determination Theory, this study distinguishes between autonomous forms of saving motivation (intrinsic motivation and identified regulation), controlled forms (external regulation), and amotivation, and investigates how these qualitatively different motivational profiles translate into financial behavior. The central premise is that not all savings are equally self-endorsed, and therefore not equally effective in producing consistent and responsible financial outcomes. Using survey data collected on the sample of 889 young adults, the study employs a structural equation modelling approach to examine the relationships between saving motivation, attitudes toward saving, financial self-efficacy, and financial behavior. Saving motivation is operationalized as a multidimensional construct capturing intrinsic, identified, external, and motivated regulation. Financial behavior is measured through indicators of saving, money management, and responsible financial decision-making. The proposed model tests both direct and indirect effects, with particular emphasis on the mediating roles of saving attitudes and financial self-efficacy. The results indicate that autonomous forms of saving motivation are positively associated with favorable attitudes toward saving and higher financial self-efficacy, which in turn predict more responsible financial behavior. In contrast, controlled motivation shows weaker and less consistent relationships, while amotivation is negatively associated with both mediators and financial outcomes. Importantly, the findings suggest that positive attitudes toward saving alone are insufficient to drive behavior unless supported by self-endorsed motivation and a sense of financial capability. These results contribute to literature by extending the application of Self-Determination Theory to the domain of consumer finance and by demonstrating that the quality of motivation represents a key, yet underexplored, mechanism underlying financial behavior among young adults. The study offers important implications for financial education and behavioral interventions, suggesting that programs should move beyond knowledge transmission and instead focus on fostering internalized, autonomous motivation for saving and strengthening individuals' perceived ability to manage their finances.

Keywords: saving motivation, autonomous motivation, financial behavior, self-determination theory, young adults

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ECONOMIC VULNERABILITY AND THE CALCULUS OF VOTING: EVIDENCE FROM CROATIA

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Abstract
This paper develops an agnostic index of economic vulnerability at the individual level and applies it to the analysis of non-market decision-making. Specifically, it examines the relationship between economic vulnerability and electoral abstention in Croatia over the period 1990–2020. While prior research has established the importance of education and income for voter turnout, there have been no systematic attempts to provide a parsimonious measure of electoral abstention—namely, a composite index capable of capturing the set of statistically significant determinants of the decision to abstain from voting. Drawing on harmonized individual-level election survey data spanning 1990–2020, the paper constructs an index of economic vulnerability composed of the following indicators: income level, highest educational attainment, occupation, and union membership. Six panel logistic regression models are estimated. The empirical strategy follows a nested modeling approach, progressing from a baseline specification (Model 1: gender and religiosity) to progressively richer models that sequentially incorporate occupational, educational, and institutional variables. Crucially, the final specification (Model 6) replaces these individual-level indicators with the composite index of economic vulnerability. In doing so, it offers a parsimonious representation of the underlying determinants of electoral abstention, reducing the dimensionality of the model and rendering it, in terms of the number of explanatory variables, closer to the initial baseline specification. The results indicate that the agnostic index of economic vulnerability is statistically significant and negatively associated with the likelihood of electoral participation (i.e., positively associated with abstention). The “agnostic” nature of the index refers to the use of a priori equal weights assigned to its constituent components (e.g., occupational categories such as unemployed, retired, self-employed, private-sector employees, and public-sector employees are equally weighted). The index-based approach demonstrates that participatory inequality constitutes a robust and statistically significant determinant of voting behavior. Individuals exhibiting higher levels of economic vulnerability—characterized by lower income, lower educational attainment, weaker labor market attachment, and the absence of union membership—are significantly more likely to abstain from parliamentary elections in Croatia during the observed period. These findings are corroborated by specifications in which the underlying indicators enter the models separately. In particular, public-sector employees and retirees are less likely to abstain, while higher levels of educational attainment (both secondary and tertiary) are associated with a lower probability of abstention. Consistent with existing literature, individuals in the lower segments of the income distribution are more likely to abstain. Both current and former union members are less likely to abstain from elections. Furthermore, the analysis indicates that men are, on average, less likely to abstain from voting. Religious affiliation also emerges as a consistent predictor: individuals identifying as atheists, Orthodox Christians, or members of other religious groups display higher propensities toward abstention. Overall, the

findings point to the presence of substantial participatory inequality within Croatian society and underscore the need for further research into the mechanisms shaping electoral participation across different types of elections (parliamentary, presidential, European, and local). The broader academic and policy relevance of these results stems from the fact that nearly 50% of GDP is allocated through non-market (political) processes. The paper thus contributes to the literature by highlighting the central role of economic vulnerability in shaping voter behavior and electoral participation.

Keywords: electoral abstention, voter turnout, vulnerability, polls, index

CONSUMER RESOURCE SCARCITY IN MARKETING: AN ADO FRAMEWORK AND QUALITAITVE INSIGHTS

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Abstract
The study explores consumer resource scarcity as a multi-dimensional and endogenous phenomenon influencing decision-making. This addresses a significant marketing literature which focuses on firm-induced scarcity signals such as limited time and limited quantity cues. This study seeks to (1) see the progress of resource scarcity over past three decades, (2) develop a conceptual framework with Antecedents-Decisions-Outcomes (ADO) methodology and (3) understand the subjective experiences of consumers regarding resource limitations in their everyday life. A two-stage mixed method design is used to achieve the objectives. Study 1 undertakes a systematic literature review of 62 journal articles chosen through a stringent multi-stage filtering process from the Web of Science (WOS) and SCOPUS databases and results in developing the conceptual framework. Study 2 enhances these findings through incorporating qualitative insights from 27 in-depth interviews with consumers representing various demographic backgrounds. The study finds that consumer resource scarcity transcends conventional aspects of time, money, cognitive and physical effort incorporating emotional scarcity as a significant and previously unexamined resource. The ADO framework identifies factors that affect decision-making such as financial, time, effort-related constraints, along with contextual scarcity cues. These factors work through mediators like tunneling and heuristic processing. These mechanisms result in behavioral outcomes such as impulsive purchases or decision avoidance, and evaluative outcomes including satisfaction, regret or cognitive dissonance. The qualitative findings unfold that consumers actively manage their constrained resources by streamlining choices, diminishing consumption or formulating decision-making criteria to establish control. The research redefines scarcity as both structural limitation and a subjective experience, highlighting that consumers are not merely passive recipients of scarcity but active participants of self-regulation. Theoretical contribution integrates literature into a unified framework and positions emotional scarcity as an independent dimension affecting consumer behavior. From managerial point of view, the results show marketers reduce exploitive scarcity cues and come up with ethical strategies to develop trust and long-term relations with their consumers.

Keywords: consumer behavior, resource scarcity, emotional scarcity, systematic literature review, ADO

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GEOPOLITICAL RISK AND BANK LOAN PRICING IN THE EURO AREA

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Abstract
Geopolitical risk has become an increasingly important source of macro-financial uncertainty, yet relatively little is known about how it affects the terms at which banks supply credit. While a growing literature studies the impact of geopolitical shocks on investment, trade and aggregate credit, evidence on the pricing of bank loans remains limited, particularly for the euro area. This paper examines whether banks exposed to geopolitically affected countries adjust the pricing and contractual terms of newly originated loans following a large geopolitical shock. It focuses on the outbreak of the Russia–Ukraine war in February 2022 and studies whether euro area banks with greater pre-war exposure to countries experiencing stronger increases in geopolitical risk tightened lending conditions more strongly after the onset of the war. A central contribution of the paper is the construction of a new country-level geopolitical risk measure using the Global Database of Events, Language, and Tone (GDELT). Unlike standard measures based mainly on a relatively narrow set of English-language newspapers, the GDELT-based index draws on multilingual news coverage from a broad set of international and local media sources. This allows the construction of comparable geopolitical risk indicators for a large number of countries and provides broader geographic and linguistic coverage than existing benchmark indices. The resulting measure is validated against the index of Caldara and Iacoviello (2022) and displays close co-movement around major geopolitical events, particularly for Russia, Ukraine and Poland, while the inclusion of local and non-English-language news may improve its ability to capture country-specific geopolitical risk perceptions. To map geopolitical risk into bank-level exposure, the paper combines country-level changes in geopolitical risk around the onset of the war with the geographic composition of banks' lending portfolios before the shock. Specifically, bank exposure is measured as a portfolio-weighted average of country-specific geopolitical risk changes, where the weights are based on each bank's pre-war lending shares across debtor countries in 2021. Because this exposure measure is predetermined, it is not affected by banks' post-war portfolio adjustments and is therefore suitable for identification in a difference-in-differences setting. The empirical analysis uses confidential loan-level data from the ECB's AnaCredit credit registry on newly originated loans to non-financial corporations. The baseline specification relates loan pricing to the interaction between a post-war indicator and bank-level geopolitical risk exposure, while controlling for a rich set of loan-, firm- and bank-level characteristics. The preferred specification includes firm-quarter, bank-firm and bank-country-quarter fixed effects. Identification therefore comes from within-firm, within-quarter variation across lenders, while persistent lending relationships and common shocks in banks' home countries are absorbed by the fixed-effect structure. The results indicate that banks with greater geopolitical risk exposure increased lending rates more strongly after

the outbreak of the war. In the preferred specification, a one-standard-deviation increase in exposure is associated with an increase in interest rates of around 2.9 basis points. Although economically modest, this effect is statistically robust across specifications and suggests that banks incorporated geopolitical risk into the pricing of new credit. The paper also shows that more exposed banks shortened loan maturities, consistent with a tightening of lending conditions along the horizon of credit. By contrast, there is no robust evidence of systematic changes in loan size or collateralization. In addition, the repricing effect does not differ significantly between domestic and cross-border lending. Heterogeneity analysis further suggests that the pricing response is attenuated for banks with larger liquid asset buffers, pointing to a buffering role of on-balance-sheet liquidity. Overall, the paper shows that geopolitical shocks are transmitted to bank lending in the euro area not only through quantities, but also through the price and maturity of newly originated loans. More broadly, it contributes to the literature by providing new evidence on the pricing channel of geopolitical risk in bank lending and by introducing a scalable and publicly reproducible measure of country-level geopolitical risk with broad international coverage.

Keywords: geopolitical risk, bank lending, loan pricing, euro area, GDELT

COMPARATIVE ANALYSIS OF COST STRUCTURE AND FINANCIAL MANAGEMENT IN TWO SPECIALIZED HOSPITALS IN CROATIA

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Abstract
Today's healthcare systems have extremely high costs and finding a balanced approach between costs and quality healthcare services is a great challenge. Specialized hospitals often provide highly specialized treatment and care services, but on the other hand face financial difficulties. This paper analyzes costs using the example of two specialized hospitals in Croatia. Specialized hospitals are one of the simplest types of healthcare institutions. This work compares the financial performance of a larger and a smaller specialized hospital which are engaged in the same activity, within the same specialty, provides insight into the cost structure and operational efficiency of the institution. The research question that this paper seeks to answer is: What conclusions can be identified from comparing the financial performance of two hospitals of the same specialty? This paper consists of an analysis of secondary publicly available data from financial and audit reports of two specialized hospitals in Croatia (balance sheet, income statement) but also based on internal data from the Croatian Health Insurance Fund. The data refers to years 2023 and 2024. Certain financial indicators were analyzed to draw a conclusion about the financial performance of the two institutions. This method performed a quantitative analysis of expenditures, revenues and financial performance without directly collecting data from the institutions. The analysis of the financial performance of two Croatian specialized hospitals showed that smaller hospitals, although achieving lower revenues, are significantly more successful and have higher profitability per bed, per employee and per invoice in comparison to larger hospitals. The largest expense category is personnel (staff) costs, while expenses for the materials, energy, and administrative services in larger hospitals reduce profit margin. Larger hospitals also have many invoices, much more complex cost structure and are therefore less operationally efficient. The results show that smaller hospitals can be much more successful, while larger hospitals require cost and process optimization to improve performance. These findings highlight the importance of operational efficiency and resource management with the aim of financial sustainability. Adjustments to strategy in human resource management, material usage and administrative processes should help larger hospitals improve their financial performance. The financial performance of specialized hospitals varies depending on their size and operational structure. Smaller hospitals, despite having lower revenues, have greater operational efficiency and better resource management. In contrast, larger hospitals achieve higher revenues but have a lower profit margin due to higher costs, as well as more complex structure. While larger specialized hospitals need to handle higher patient volumes and more complex services, their financial sustainability requires careful attention to cost control, process optimization and strategic resource allocation. Overall, this analysis results

that smaller specialized hospitals are financially more efficient, while larger ones must focus on financial and operational management and improvements to achieve profitability.

Keywords: healthcare, cost-effective, specialized hospitals, hospital profitability

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THE EFFECTS OF EXPORT ENTRY ON WAGE INEQUALITY IN SLOVENIAN FIRMS

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Abstract
Wage inequality is shaped by several factors, including technological change, workforce composition, and internationalization. Among these, exporting has attracted particular attention because greater access to foreign markets can raise productivity and firm profitability, thereby affecting wage structures. This paper examines the effects of export participation on within- and between-firm wage inequality, how these effects evolve over time, and whether they vary by export destination. In particular, it analyzes the short- and long-run distributional consequences of export entry and distinguishes between firms exporting to high-income and developing countries. The literature suggests that the relationship between export entry and wage inequality is dynamic. In the short run, export entry may increase wage inequality as firms restructure and upgrade. Over time, these effects may weaken as firms accumulate experience, productivity gains diffuse, and wage-setting stabilizes. Export destinations are also likely to matter. Exporting to high-income destinations is more likely to increase wage inequality than exporting to lower-income markets, as richer destinations tend to demand higher-quality products and, consequently, more skill-intensive production. Motivated by these arguments, the paper tests two hypotheses. The first is that export entry increases both within-firm and between-firm wage inequality in the short run, with the effect of weakening over time. The second is that exporting to high-income destinations is associated with higher wage inequality, both within and between firms, than exporting to developing countries. The analysis uses linked employer-employee panel data from the Statistical Office of the Republic of Slovenia, covering the universe of Slovenian manufacturing firms over the period 2008–2022. The empirical strategy combines the synthetic control method (SCM) with a difference-in-differences (DID) estimator. First, SCM is used to construct synthetic controls that resemble treated firms in both observable characteristics and pre-treatment outcome trajectories, thereby strengthening the plausibility of the parallel-trends assumption. Second, dynamic treatment effects are estimated using an event-study DID estimator that is robust to heterogeneous treatment effects and staggered treatment timing. The results indicate that within-firm wage inequality declines in both the short and long run following export entry, although the effect is statistically significant only in the long run. This finding is contrary to the first hypothesis, which predicted that export entry would increase within-firm wage inequality. Further analysis suggests that export entry is associated with a broader occupational structure and a modest increase in within-occupation wage dispersion. The overall decline in within-firm inequality may therefore reflect reduced between-occupation wage differences, as firms add occupations concentrated around the middle

of the wage distribution. The analysis of between-firm wage inequality, in contrast, supports the first hypothesis, as export entry increases between-firm wage inequality in the short run, although this effect becomes statistically insignificant over time. The results for the second hypothesis show that exporting to high-income destinations is associated with higher between-firm wage premium, but not with significantly higher within-firm wage inequality, providing partial support for the second hypothesis. Overall, the findings suggest that export participation does not uniformly increase wage inequality and may even reduce within-firm wage inequality. However, between-firm wage inequality increases as workers in new exporting firms experience faster wage growth than observationally similar workers in non-exporting firms. More generally, the effects of exporting on wage inequality are heterogeneous over time and depend on both the dimension of inequality considered and the export destination, highlighting the need to take multiple factors into account when examining this relationship.

Keywords: export, wage inequality, export entry, export destinations, export dynamics

ASSESSMENT OF THE BANKRUPTCY RISK OF CONSTRUCTION COMPANIES IN CROATIA USING THE ALTMAN Z-SCORE MODEL

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Abstract
The aim of this paper is to assess the risk of bankruptcy of construction companies in the Republic of Croatia by applying synthetic financial indicators in the period from 2020 to 2024. Developments in the construction sector may represent a strong market signal, both in the context of economic recovery and as an indicator of future negative trends. The importance of the construction sector within the overall economic structure of the Republic of Croatia over the past 25 years can be divided into three periods: the period of strong expansion from 2000 until the outbreak of the global financial crisis in 2008, the period of recession that lasted until 2014, and the period of stabilization and renewed construction growth that continues to the present day, with the coronavirus pandemic only temporarily slowing it down. Given the importance of construction within the overall economic structure, particularly in terms of its share in gross domestic product and employment, this sector represents a significant area of interest for economic policymakers, investors, and financial institutions. This paper examines the probability of bankruptcy among construction companies in Croatia on the basis of annual data covering working capital, retained earnings, EBIT, equity, assets, and liabilities of companies that were active in the period from 2020 to 2024. The financial statement items were collected through the online service of the Financial Agency. These items from the financial statements, namely from the income statement and balance sheet, are integral components of the Altman Z-score, which represents a weighted sum of selected individual financial ratios and is one of the most commonly used tools in bankruptcy prediction research. In addition to assessing the probability of bankruptcy, this model is also used in the financial industry for credit risk assessment, sectoral analyses, and procedures for monitoring corporate performance during periods of risk exposure. This tool has been in use since 1968, when its author, Edward I. Altman, conducted the first multivariate study of the relationship between financial ratios and the probability of corporate bankruptcy. Compared with the original model, several variants have been developed due to limitations in its application, and the third version enabled its use for companies that are not publicly listed and do not belong to the manufacturing sector. In comparison with previous versions, this model contains one fewer variable due to observed deviations depending on industry, which has enabled its broader application in assessing corporate financial stability and identifying early warning signals. The overall sample is divided into companies that experienced bankruptcy and financially stable companies in Croatia, with an additional presentation of the financial stability of market leaders. The empirical analysis further examines the effectiveness of applying the Altman Z-score in predicting bankruptcy under conditions of market instability to which the sector was exposed, such as the coronavirus pandemic, inflation, and changes in energy prices, as well as under favorable market conditions

associated with economic growth and infrastructure investment. Preliminary results, based on the application of the latest, third version of the Altman Z-score, indicate a stable financial position of large construction companies in the sample, suggesting that exogenous shocks did not significantly affect their operations. The empirical analysis will further examine the applicability of the Altman Z-score in bankruptcy assessment in the construction sector. This research contributes to the existing literature by providing new insights into the financial position of construction companies under the analyzed market conditions, while the preliminarily established financial stability may be linked to the implementation of major infrastructure projects in Croatia, the investment cycle financed by European Union funds and the National Recovery and Resilience Plan, engagement in the reconstruction and rehabilitation of earthquake-affected areas, growing demand in the residential construction segment, and projects in the tourism sector. The application of the Altman Z-score contributes to a better understanding of the financial position of construction companies in the context of identifying early warning signals of financial deterioration and supporting better decision-making by economic policymakers, investors, and financial institutions.

Keywords: financial stability, construction companies, Altman's Z-score, early warning signals

THE RELATIONSHIP BETWEEN MACROECONOMIC INDICATORS AND CROBEX10 INDEX MOVEMENTS

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Abstract
The aim of this paper is to determine the relationship between macroeconomic indicators and the movement of a selected stock index on the stock market in the Republic of Croatia during the period from Croatia's accession to the European Union to its entry into the Schengen Area and the euro area. The relationship between the stock market and macroeconomic indicators represents an important area of interest for both economic policymakers and investors, given that macroeconomic developments affect stock prices. The paper examines which selected macroeconomic indicators have a positive, and which have a negative, impact on the movement of the CROBEX10 stock index on the Zagreb Stock Exchange, based on monthly data covering the Zagreb Stock Exchange stock index (CROBEX10), unemployment, inflation, money supply (M1), the exchange rate, the industrial production index, and consumer confidence for the period from January 2013 to December 2023. Leading global stock markets have reached record index levels over the past decade as a result of economic growth, technological development, greater accessibility of investment opportunities to investors, and rising levels of financial literacy. The main factors shaping stock markets during this period were macroeconomic conditions and the growth of the technology sector. The observed period was also marked by the monetary policy measures of the European Central Bank and the Federal Reserve System, particularly in the area of interest rates and quantitative easing policies, aimed at stimulating economic growth and achieving the target inflation rate. In addition to monetary factors, geopolitical conflicts, the crisis caused by the coronavirus pandemic, inflation, changes in energy prices, and the energy transition also had a significant impact. In this context, the Croatian stock market was not immune to changes in its environment. During the observed period, Croatia experienced a delayed recovery from the 2008 financial crisis, accompanied by a further weakening of the stock market, which even after fifteen years failed to return to the levels recorded before the financial crisis. Given the development potential of the Croatian stock market in the context of future economic growth, the strengthening of the country's investment credit rating, the acquisition of emerging market status, the process of accession to the Organization for Economic Co-operation and Development (OECD), the growth of the financial assets of households and firms, and the investment capacity of pension funds, the subject of this paper is the analysis of selected macroeconomic indicators that affect the movement of the CROBEX10 stock index on the Zagreb Stock Exchange. In order to determine the relationship between macroeconomic indicators and the stock market, as well as their impact on it, the study applies the vector autoregressive model (VAR) and the vector error correction model (VECM) in order to take into account, the long-run relationship among the selected indicators. The applied methodology represents a standard approach to analyzing the interactions among macroeconomic indicators. The Johansen cointegration approach was used to analyze the long-run relationship. Furthermore, in order to examine the dynamics of adjustment and short-run interaction, an innovation analysis was conducted, including variance decomposition and impulse response function analysis. The results of the empirical analysis for both specified models showed that the variables were stationary in first differences, while the models satisfied the diagnostic tests performed, confirming their stability and adequacy. This

research contributes to the literature by providing new empirical evidence on the specific impact of domestic macroeconomic indicators on the movement of the CROBEX10 stock index on the Croatian stock market over the period from 2013 to 2023. During this period, the Republic of Croatia underwent the process of European integration, a prolonged recovery from the financial crisis, the coronavirus pandemic, inflationary pressures, and changes in energy prices. In addition, by applying the VAR and VECM models together with innovation analysis, the research has enabled a deeper understanding of the short-run and long-run dynamics of the observed variables in the selected models. In this way, it contributes to a better understanding of market developments and to more informed decision-making, both by economic policymakers and by investors in the stock market.

Keywords: CROBEX10, macroeconomic indicators, VAR/VECM model, innovation analysis, stock market

CORPORATE CLIMATE TRANSITION PLANNING IN CAPITAL-INTENSIVE FIRMS: A LITERATURE-BASED INTEGRATIVE FRAMEWORK

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Abstract
Corporate climate transition planning unfolds within a dynamic external environment shaped by regulatory uncertainty, market pressures, and evolving social expectations. While recent research synthesizes barriers, opportunities, and best practices in corporate climate transition, comparatively little attention has been paid to how these dimensions interact in capital-intensive firms characterized by technological lock-in, legacy assets, and long investment cycles. This gap matters because transition decisions in such settings are highly path-dependent: investment cycles extend over decades, asset specificity limits optionality, and the costs of premature asset retirement or retrofitting can be substantial. As a result, the credibility and feasibility of transition plans depend not only on ambition but also on how firms govern trade-offs between near-term financial performance, risk exposure, and long-term decarbonization trajectories. This paper develops an integrated framework grounded in the literature that conceptualizes corporate climate transition planning as the interaction of three core dimensions. First, external barriers including regulatory fragmentation, carbon-price volatility, technology-policy uncertainty, and shifting stakeholder demands. Second, internal constraints encompass capital intensity, legacy assets, stranded-asset risk, organizational inertia, and capability gaps. Third, strategic opportunities such as technological innovation, operational efficiency improvements, sustainable finance instruments, low-carbon product and service development, and resilience-building. The framework further highlights the mediating role of governance and management mechanisms, including board oversight, target-setting and incentive structures, scenario analysis, internal carbon pricing, and the integration of climate objectives into corporate strategy and capital allocation processes, in shaping transition choices and outcomes. The research objectives of this paper are threefold: to map and synthesize the existing literature on corporate climate transition in capital-intensive industries, to identify the key interdependencies among barriers, constraints, opportunities, and governance mechanisms, and to develop a structured conceptual framework that can serve as a basis for subsequent empirical investigation. The paper follows a systematic literature review methodology, drawing on peer-reviewed research, regulatory documents, and industry reports to construct and validate the proposed framework. By clarifying these interdependencies and their boundary conditions, the framework contributes a more nuanced understanding of transition plan quality and supports more consistent cross-firm and cross-sector analysis. The conclusions highlight that effective climate transition in capital-intensive firms requires the simultaneous alignment of external enabling conditions, internal organizational readiness, and robust governance structures, and that the absence of any one of these dimensions significantly undermines transition credibility and feasibility under net-zero commitments.

Keywords: climate transition planning, capital-intensive firms, net-zero commitments, corporate governance, sustainable finance

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OVEREDUCATION AND WAGE PENALTIES: EVIDENCE FROM KOSOVO

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Abstract
Overeducation is a persistent problem in countries with weakly developed labor markets. Evidence on the consequences of overeducation in these countries is scarce and mostly correlational. This paper examines the labor market consequences of overeducation in Kosovo, a country characterized by weak school-to-work linkages, a relatively low employment rate, and a labor demand structure that has not kept pace with the expansion of higher education. Using data from twelve waves of the Kosovo Labor Force Survey covering the period 2012–2023, we study the relationship between overeducation and hourly wages. Overeducation is measured through a normative approach that maps workers' educational attainment to occupational skill requirements using ISCO-08 and ISCED classifications. The analysis focuses on workers observed at time t and links their overeducation status to labor market outcome measured at t+1, which helps reduce concerns related to simultaneity and reverse causality. Because workers are not randomly allocated into matched and mismatched jobs, the study applies propensity score matching methods to improve comparability between overeducated and adequately matched workers. Kernel matching is used as the baseline strategy, while nearest-neighbor matching and alternative specifications are employed as robustness checks. Balance diagnostics indicate that the matching procedure substantially reduces pre-treatment differences across observable characteristics. The results show that overeducated workers in Kosovo face a substantial wage penalty compared with adequately matched workers. We estimate that overeducation reduces hourly wages by approximately 10–12 percent, depending on the estimation method. This wage penalty is economically meaningful and statistically robust across specifications. The heterogeneity analysis further shows that the wage penalty is more pronounced for women and larger in urban areas. These findings suggest that overeducation is associated with persistent wage disadvantages and that its effects are not evenly distributed across worker groups. The paper contributes to literature in several ways. First, it provides evidence on the wage effects of overeducation in Kosovo, where rigorous empirical evidence on educational mismatch remains limited. Second, it adds to the literature on low- and middle-income or weak labor market contexts, where evidence on overeducation remains much more limited than in high-income countries. Third, it contributes methodologically by explicitly addressing selection into overeducation through propensity score matching in a context where much of the existing evidence remains correlational. Overall, the findings suggest that overeducation is a serious problem in the Kosovo labor market, associated with lower wage trajectories for affected workers. From a policy perspective, the results underline the need to complement investments in education with policies that improve the alignment between skill supply and labor market demand.

Keywords: overeducation, wages, wage penalty, skill mismatch, propensity score matching

TECHNOLOGICAL INNOVATIONS OF VIDEO GAME DEVELOPERS: CONTEXT OF VALUE CO-CREATION

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Abstract
The video game industry is developing dynamically and constitutes an important sector of the economy, society, and culture, yet it requires continuous investment in technological innovation. For video game developers (VGD), technological innovation is multidimensional and ecosystemic. Because a wide range of technological innovations is based on co-creation, joint modifications, improvements, or the development of new values by game developers and external entities, including video game developers, game distributors, publishers, hardware and software manufacturers, non-governmental organizations (NGOs), policymakers, universities, research institutions, public institutions, and individuals such as gamers, testers, and modders, among others. Although scientific literature, industry reports, and media widely discuss the creation of technological innovations by VGDs and topics related to technology transfer, there is a lack of understanding of the scope, level, and impact of co-creation relationships with this broad group of entities on technological innovation, including in the context of game developers. Therefore, the aim was to fill the identified research gap and investigate one of the mechanisms that stimulates technological innovation among video game developers, namely their co-creation relationships utilized within the video game industry ecosystem. This study follows a classical quantitative approach with explanatory, cross-sectional, and subjective design, using a 7-point Likert scale. The dependent variable was the declared level of technological innovation. The independent variables included the declared level of cooperation between VGD and EVGIE. The moderating variable was enterprise size, divided into four clusters: Cluster 1 – self-employment, Cluster 2 – micro (up to 9 employees), Cluster 3 – small (10-49 employees), and Cluster 4 – medium and large (50 to over 249 employees). Data analysis was conducted using regression. Importantly, empirical material for the purposes of this article was collected as part of the broader EU-funded GameHearts project. Therefore, all methodological descriptions, including those related to variables (their operationalization and validation), sampling, key informants, data collection and processing, as well as a full survey questionnaire, can be found in an open repository ZENODO (10.5281/zenodo.17320538) in the document entitled *D3.3 Report & Recommendations for VGD*. In general, data were collected between July and August 2024 using the CAWI method from 1,270 game developers headquartered in 29 European countries. The results indicate strong differentiation in the mechanisms shaping innovation across enterprise sizes. As it turns out, in the case of cluster 1, the model has a very high quality of fit, with a 86% correct positive classification rate and an AUC (Area Under the Curve) of 0.91. Furthermore, two significant stimulating factors were

identified for this group: collaboration with investors, research institutions, and consulting firms. For microenterprises (cluster 2), the analysis revealed lower model quality, approaching an acceptable level, as reflected by an AUC of 0.67 and 78% of correct positive classifications. At the same time, relatively weak effects of collaboration with universities, research, and consulting institutions dominate in this group. For companies in cluster 3, the model achieves a similar level of quality to that in cluster 2, with an AUC of 0.68 and 71% of correct positive classifications. However, in this cluster, the predictor structure is more diverse, pointing to relationships with research institutions, modders, independent reviewers, and incubators and accelerators as those that foster the co-creation of technological innovations. Finally, companies in cluster 4 demonstrate high classification accuracy (88%) and strong discriminant power (AUC = 0.76), indicating that the model is a good fit. It can also be concluded that co-creative relationships with public administration, independent reviewers, and investors dominate, stimulating VGD technological innovation. Given the above, this study firstly contributes to the literature on open innovation, ecosystems, and value co-creation by demonstrating that the use of co-creation-focused relationships within industry ecosystems significantly fosters the development and implementation of technological innovations, at least in the context of the European video game industry. Secondly, it demonstrates that the impact of collaboration with various stakeholders on VDG's innovation performance depends on company size. Among self-employed individuals, the strongest co-creation relationships are observed with investors, research institutions, and consulting firms. Similarly, in medium- and large-sized companies, VGD technological innovation is stimulated through co-creation relationships with public administration, independent reviewers, and investors. However, in micro and small enterprises, the quality of co-creation relationships is significantly lower.

Keywords: video game developers, technological innovations, co-creation relationships, European video game industry ecosystem

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CONDITIONS FOR EFFECTIVE CLIMATE TRANSITION: EXPLAINING DIFFERENCES IN DECARBONIZATION ACROSS EU MEMBER STATES

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Abstract
Achieving climate neutrality requires not only the expansion of sustainability-oriented financial and policy initiatives but also the presence of economic and institutional conditions that allow these efforts to translate into measurable environmental outcomes. Although ESG-related policy frameworks and sustainable financial instruments have gained increasing importance within the European Union, differences in decarbonization performance across countries suggest that sustainability-oriented efforts do not necessarily lead to similar emission reduction trajectories. Understanding the conditions under which sustainability-oriented policies are associated with tangible environmental improvements is therefore of key relevance for both policymakers and financial markets, as well as for strengthening the resilience of economies to climate-related risks. In previous research, we showed that green financial activity and economic adjustment conditions exhibit substantial heterogeneity across EU member states, implying that similar levels of green financial development may lead to different economic adjustment patterns depending on underlying structural characteristics. The results indicated that expanding green financial capacity alone does not guarantee similar economic outcomes, as the effectiveness of adjustment processes depends on differences in economic structure, institutional quality and development levels. This suggests that the effectiveness of sustainability-oriented initiatives depends not only on the availability of financial resources but also on the structural readiness of economies to support long-term climate-resilient transition pathways. This study examines how sustainability-oriented structural capacity relates to decarbonization across EU-25 member states over the period 2014–2020, with particular attention to the conditions under which sustainability-oriented efforts are associated with measurable reductions in CO_2 emissions. Structural capacity is captured through a composite indicator that integrates economic, institutional, and innovation-related characteristics of national economies, reflecting conditions that support climate-resilient adjustment. The empirical analysis applies a macro-level panel framework to estimate the long-run relationship between structural capacity and the dynamics of CO_2 emissions, allowing for the identification of country-specific differences. The methodological approach focuses on the role of structural heterogeneity and provides a framework for assessing the conditions under which sustainability-oriented policies translate into effective emission reduction outcomes. The results indicate substantial cross-country differences in the relationship between sustainability-oriented structural capacity and decarbonization performance. The findings show that similar levels of sustainability orientation may be associated with systematically different emission reduction trajectories across EU member states, reflecting differences in structural conditions. Differences in structural characteristics influence the extent to which sustainability-oriented efforts translate into measurable reductions in CO_2 emissions. The results further indicate that variation in sustainability-oriented structural capacity is associated with persistent differences in decarbonization performance, suggesting that the transition process does not follow a uniform path across the European Union. The empirical patterns identify multiple

decarbonization pathways reflecting different structural conditions and varying speeds of adjustment in emission reduction performance. By examining the relationship between sustainability-oriented structural capacity and decarbonization performance, the study contributes to a better understanding of heterogeneous transition pathways across EU member states. The findings have policy relevance by highlighting that effective emission reduction trajectories require not only financial and regulatory initiatives but also appropriate institutional and economic conditions that support the development of climate-resilient economic structures and more efficient allocation of sustainability-related resources.

Keywords: climate transition, decarbonization, green finance, European Union

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LONGEVITY LEADERSHIP: A BIOLOGICALLY GROUNDED FRAMEWORK FOR SUSTAINABLE HUMAN PERFORMANCE IN COMPLEX ORGANIZATIONAL ENVIRONMENTS

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Abstract
Contemporary organizations operate under conditions of accelerating complexity, structural uncertainty, and relentless performance pressure. Leaders are expected to remain decisive, empathetic, strategically oriented, and emotionally stable — simultaneously and sustainably. Yet prevailing leadership models continue to draw on an industrial-era logic that equates prolonged effort with productive output, treating human energy as an inexhaustible resource rather than a biological system requiring active management. This paper synthesizes evidence from neuroscience, chronobiology, organizational psychology, and high-performance research to present a conceptual framework termed Longevity Leadership — a model of sustainable leadership grounded in the biological and psychological realities of human performance. The central argument is that energy, not time, constitutes the critical limiting resource in modern knowledge work. Cognitive clarity, emotional regulation, and strategic decision-making are not static capacities that can be demanded on command; they are dynamic outputs of a living system governed by rhythm, recovery, and renewal. Drawing on established findings in sleep science, stress physiology, and behavioral neuroscience, the paper demonstrates that chronic overactivation of the sympathetic nervous system — a near-universal condition among high-responsibility professionals — measurably degrades prefrontal cortical function, impairing precisely the capacities most central to effective leadership: complex judgment, empathic attunement, and long-horizon thinking. The framework identifies four interdependent dimensions of human energy — physical, mental, emotional, and purpose-driven — and argues that sustainable leadership performance requires the deliberate cultivation of all four. Particular attention is given to the role of ultradian and circadian rhythms in structuring cognitive peak performance, the neurobiological mechanisms underlying regeneration during sleep and rest, and the organizational consequences of cultures that systematically suppress recovery. The paper further examines self-leadership as the foundational discipline of outward-facing leadership, contending that a leader's internal state — their nervous system regulation, attentional architecture, and habitual behavioral patterns — functions as an invisible but pervasive organizational signal. Teams do not merely respond to what leaders say; they entrain to what leaders embody. The implications are both individual and systemic: organizations that structurally ignore biological rhythms produce not only exhausted individuals but diminished collective intelligence. Conversely, organizations that embed regenerative principles into their leadership culture demonstrate greater adaptive capacity, reduced turnover, and higher decision quality over time. The Longevity Leader is defined not by endurance under pressure, but by the capacity to remain effective, clear, and humane across extended time horizons — leading from

strength rather than depletion. This paper contributes a research-informed, practice-oriented conceptual model intended to reframe health, recovery, and self-regulation as core leadership competencies rather than peripheral lifestyle considerations.

Keywords: longevity leadership, sustainable performance, energy management, self-leadership, organizational health

ANALYSIS OF COSTS DUE TO INFLAMMATORY RHEUMATIC DISEASES IN SLOVENIA BETWEEN 2008-2023

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Abstract
Inflammatory rheumatic diseases (IRDs) are the source of considerable economic burden to the patient and society. Cost-of-illness studies capturing both direct and indirect costs of illnesses in Slovenia are rare and a comprehensive estimation of key cost elements and their structure in patients with IRDs in Slovenia was not available prior to this study. The objective of this study was to observe the long-term dynamics of direct medical costs and indirect costs due to sickness absenteeism for the three common IRDs by also looking into their structure by types of costs and selected subpopulations. Multiple anonymized datasets from the databases of the National Institute of Public Health of Slovenia were used for the estimation of the total direct medical costs and sickness absenteeism costs between 2008-2023. Costs were estimated for patients with IRDs comprising rheumatoid arthritis, psoriatic arthritis and axial spondyloarthritis. Direct medical costs were estimated using the third-party payer perspective capturing publicly funded expenditures for prescription medicines, acute hospitalizations, outpatient care services and rehabilitations in natural health resorts. The medical expenditures for each unit of observation were estimated using the formal pricing framework of the Health Insurance Institute of Slovenia. Sickness absenteeism costs were estimated from the societal perspective using the human capital method, where the costs of lost working days were estimated by using the average annual daily labor cost per employee reported by the Statistical office of the Republic of Slovenia. Description and comparison of cost categories were presented by frequencies and proportions. The long-term dynamic of cost categories was analyzed by exponential trend analysis separately for the whole time series, the time period prior to COVID-19 pandemic (2008-2019) and during the pandemic (2020-2023). Our results show that the category with the

highest magnitude were prescription medicines amounting to 74.5% of total estimated costs and were increasing by an average of 6.8% annually during 2008-2023. The category with the second highest share was sickness absenteeism, totaling 14.4% of the total costs and increased by 47.3% annually on average in 2020 compared to 2019. The expenditure for hospitalizations decreased by 6.7% and for rehabilitations increased by 2.6% annually on average. The total outpatient care expenditures increased by 277.3% annually on average in year 2020 compared to year 2019, however, they were on average decreasing prior to and during COVID-19 pandemic. The structure of costs for medicines by 10-year age categories showed that in year 2023 the highest expenditures had been incurred between 60-69 years of age for men, women, inactive patients or retirees. On the other hand, the highest expenditure for working patients was between 50-59 years of age. The average expenditure per defined daily dose (DDD) of a medicine decreased considerably only after 79 years of age. The highest total nominal costs without medicines were observed between 50-59 years of age for all selected subpopulations except for inactive patients or retirees. However, the highest nominal direct medical expenditures without medicines were observed between 60-69 years of age for all selected subpopulations except for working patients. This study found that expenditures for medicines were the cost category with the highest magnitude and were on average increasing regardless of the COVID-19 pandemic. More detailed analysis of the patterns and the dynamics of expenditures for medicines in Slovenian patients with IRDs is warranted. Sickness absenteeism was found to be the second most-relevant cost category and is recommended to be compared to the magnitude of other types of productivity losses (including presenteeism) that could not be captured by administrative data in this study. The expenditures for hospitalizations and outpatient care may have been offset by the increasing expenditures for medicines; however, the potential causal relationships should be studied in future by applying a (quasi-)experimental design.

Keywords: cost of illness, expenditures, direct and indirect costs, covid-19, inflammatory rheumatic diseases

SHARING INSTEAD OF OWNING? A CZECH PERSPECTIVE

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Abstract
The sharing economy has experienced rapid growth over the past decade, primarily driven by digitalization and the expansion of platform-based business models. In academic literature, it is often associated with sustainable development, given its potential to improve resource efficiency by utilizing underused assets. However, recent studies increasingly highlight its ambivalent nature, pointing to positive and negative economic, social and environmental impacts. Despite its growing importance, research in the Czech context remains limited, with existing studies mainly focusing on participation rates and basic motivational factors. There is still a lack of understanding of the determinants of consumer behavior and their interrelationships, particularly in relation to sustainable development. This study aims to identify and explain the key drivers of consumer behavior in the sharing economy in the Czech Republic. Primary data are collected through a questionnaire survey conducted on a representative sample of the Czech population. The research combines cluster analysis (k-means) to identify distinct consumer segments and structural equation modelling (PLS-SEM) to examine the relationships between latent constructs, such as attitudes, perceived behavioral control, social norms and behavioral intentions. Preliminary findings suggest that participation in the sharing economy is influenced by a combination of economic, social and environmental factors, with financial considerations being the most significant. However, non-economic factors, such as opportunities for social interaction, perceived enjoyment and environmental awareness, also play a significant role in shaping behavioral intentions. The segmentation analysis is expected to identify clearly differentiated user groups, including active users, occasional participants and non-users, who vary in their motivational profiles and socio-demographic characteristics. This study contributes to existing literature by providing a thorough empirical evaluation of consumer behavior in the sharing economy in the Czech Republic, paying specific attention to its relationship with sustainable development. The results provide actionable insights to help platform operators tailor more effective communication strategies and inform policymakers on how to foster growth in the sharing economy and address potential barriers to participation.

Keywords: motivational drivers, sustainable consumption, trust, digital platforms, theory of planned behavior

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THE INVISIBLE HAND OF AI: HOW GENERATIVE AI DICTATES THE FUTURE OF PRODUCT VISIBILITY

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Abstract
The role of Generative AI systems (Gen AI) has increasingly grown in the past few years in shaping marketing level visibility structures. They are fundamentally altering how products and services are being perceived and valued these days. Current market literature insufficiently supports this rise of Gen AI shopping assistants, advanced conversational recommendations and AI-generated product summaries. However, market research does support and confirm the role of Gen AI in transforming marketing actions and content creation. This shift seems novel and is crucial in structuring and redefining how market categories are being structured and contested in digital spaces. Current marketing literature examines market shaping by focusing on how firms have intentionally started influencing institutional norms, representations and supply driven features. The academic literature highlights how digital platforms are constraining and equipping marketing agencies. Despite these studies, a critical gap remains – research has not yet fully theorized the role of Gen AI recommender systems as market level visibility systems that restructure category competition over a period of time. This study aims to bridge this gap by conceptualizing Gen AI as a performative, non-human marketing actor. Unlike the traditional formats, Gen AI has actively been seen to construct value and shape market legitimacy through continuous agenting and de-agenting. This is done when the Gen AI infrastructure starts dictating visibility of competitions while marginalizing others. This paper employs a systematic literature review of the existing marketing and information systems literature. Drawing from the market-shaping theory and actor-network theory we develop a conceptual framework that positions Gen AI recommender systems as future active non-human market shaping actors. With the growing intrusion of Gen AI in consumers' lives, this research is urgent because as markets transition towards sustainability, the opaque algorithms that govern these systems will increasingly be seen to control which offerings survive and what firms must adopt to maintain a competitive edge. From a management perspective, firms must start to align their communications through these non-human actors to stay visible and relevant to consumers. Policymakers meanwhile must scrutinize how these power dynamics from human to non-human actors ensure transparency, non-bias and competitive equality. This paper thus looks at how Gen AI recommender systems are becoming an invisible yet powerful tool in re-shaping brands competitive visibility in ways that marketing literature has not yet fully analyzed. These findings contribute a novel theoretical lens for understanding AI-driven market dynamics, with practical implications for firm strategy and regulatory policy.

Keywords: generative AI, market shaping, product visibility, AI recommender systems, marketing strategy

THE EDUCATIONAL EFFECTS OF COMPULSORY SCHOOLING REFORM: A REGRESSION DISCONTINUITY APPROACH FOR KOSOVO

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Abstract
Reforms to compulsory schooling have long been used as a policy tool to raise educational attainment, yet their effectiveness depends heavily on how they are designed and in what context they are introduced. Most studies focus on raising the minimum school-leaving age, while reforms that lower the age of entry into formal schooling have received far less empirical attention. In 2002, Kosovo restructured its compulsory education system from a 4+4 to a 5+4 structure, simultaneously extending compulsory schooling by one year and lowering the school entry age from seven to six. This paper analyses the educational consequences of this reform, which represents a relatively rare natural experiment in a post-conflict, resource-constrained setting where gender and rural-urban gaps in educational participation were historically pronounced. This study analyses the educational consequences of the 2002 reform using data from ten waves of the Kosovo Labor Force Survey covering the period 2012–2021. A Regression Discontinuity Design (RDD) is employed, exploiting the sharp variation in exposure to the reform generated by birth month relative to the September 1987 cut-off cohort. The primary outcome of interest is years of completed schooling, complemented by spillover outcomes including age at leaving full-time education, probability of completing only compulsory education, probability of attaining at least upper-secondary education, and probability of obtaining a university degree. The analysis uses both linear and quadratic polynomial trend specifications, with robustness checks across two-year and five-year bandwidth windows, as well as placebo and covariate balance tests to validate the identification strategy. The results show that the reform had a significant and robust positive effect on educational attainment. On average, individuals exposed to the reform completed approximately 0.84 additional years of education, an increase of around 7 percent, compared to the pre-reform cohort. The reform also reduced the probability of leaving school with only compulsory education by approximately 3.8 percentage points and increased the probability of completing at least upper-secondary education by 3.3 percentage points. These findings are consistent across bandwidth specifications and polynomial orders. Heterogeneity analysis reveals that the educational gains were not evenly distributed: the reform had a more pronounced effect on women, particularly those from rural areas, where rural women gained nearly 1.19 additional years of schooling. These findings suggest that lowering the school entry age, rather than simply raising the leaving age, can generate meaningful improvements in foundational educational trajectories, especially for historically disadvantaged groups. This study contributes to literature in several ways. First, it provides causal evidence on the educational effects of a compulsory schooling reform that combined an earlier entry age with an extended duration a relatively rare policy design in empirical literature. Second, it adds to the growing body of research on education reforms in post-conflict and resource-constrained settings, where evidence remains limited. Third, it contributes methodologically by applying an RDD framework with comprehensive robustness and falsification tests in a context where identification challenges are significant. The findings underscore the potential of early-entry

reforms to close educational gaps, but also highlight the importance of adequate preparation, teacher training, and material support for reform effectiveness. These insights are directly relevant to ongoing policy debates in Kosovo regarding further extensions of compulsory education.

Keywords: compulsory schooling, educational attainment, regression discontinuity design, school entry age, Kosovo

BEYOND TOURISM PRODUCTS: CULTURAL PILGRIMAGE TOURISM AS A PLACE-BASED STRATEGIC DEVELOPMENT INSTRUMENT IN PERIPHERAL AND RURAL REGIONS

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Abstract
Cultural pilgrimage routes have increasingly emerged across Europe and beyond as instruments supporting regional development, heritage revitalization, and the socio-economic activation of peripheral and rural regions. In practice, these routes function as territorially embedded structures that organize mobility, connect dispersed settlements, and facilitate locally grounded service provision. Rather than operating solely as tourism itineraries, they increasingly constitute spatial frameworks that mediate relationships between cultural heritage, landscape, and local actors. Despite their growing practical relevance, cultural pilgrimage tourism (CPT) remains conceptually underdeveloped and insufficiently integrated into regional development theory and tourism studies. Existing research has largely treated cultural tourism and pilgrimage tourism as separate domains, limiting analytical understanding of their intersection as a development-related phenomenon, particularly in structurally disadvantaged regions. This study positions CPT within the broader theoretical shift toward place-based, relational, and heritage-led development approaches, conceptualizing it as a spatially distributed and process-oriented framework that extends beyond sectoral understandings of tourism. This study addresses this gap by examining how CPT can be conceptualized as a place-based strategic development instrument in peripheral and rural contexts. It seeks to identify both the development contributions attributed to CPT and the enabling conditions under which cultural pilgrimage routes may evolve beyond tourism products into broader territorial development frameworks. The research is guided by three key questions: how CPT contributes to regional development, which conditions are critical for its effective functioning, and how it can be conceptualized as a strategic planning framework. Methodologically, the study employs a two-round international Delphi survey involving 32 experts from 18 countries with interdisciplinary expertise in tourism, regional development, and route management. The first round used open-ended questions to capture a wide range of expert perspectives on development contributions and enabling factors, which were subsequently analyzed through inductive thematic analysis. In the second round, the identified themes were evaluated using a Likert scale, enabling a systematic assessment of consensus based on predefined statistical criteria, including agreement levels, mean values, and standard deviations. The findings indicate strong expert consensus that CPT contributes to regional development primarily through small-scale, dispersed, and incremental economic effects. These include support for local producers, service providers, and small businesses, diversification of rural economies, and income generation for local communities. CPT is not perceived as a driver of large-scale economic growth or investment-led development; rather, it acts as a catalyst for endogenous, place-based economic processes. In the socio-cultural domain, CPT plays a significant role in strengthening local identity and cultural memory, revitalizing tangible and intangible cultural heritage, enhancing regional visibility, and fostering community cohesion and social capital. Environmental contributions are closely associated with low-impact mobility patterns, particularly walking-based pilgrimage

and slow tourism, as well as with the experiential connection between pilgrims and landscapes. At the same time, the results suggest that commonly expected outcomes such as infrastructure expansion, increased investment attractiveness, or job creation are not inherent effects of CPT. Instead, the realization of CPT-related benefits is contingent upon a set of enabling conditions, including the protection and accessibility of cultural heritage, the quality, safety, and continuity of routes, active community involvement, supportive governance and institutional coordination, and the presence of attractive natural landscapes. These factors constitute a minimum threshold for CPT to function effectively as a development instrument. By integrating development contributions with enabling conditions, the study proposes an analytical matrix that conceptualizes CPT as a conditional, relational, and context-dependent development framework. The results suggest that CPT operates through place-based mechanisms rooted in cultural meaning, spatial continuity, and local actor engagement, rather than through conventional growth-oriented tourism models. In this sense, CPT can be understood as a soft strategic planning instrument that supports incremental, socially embedded, and territorially grounded development processes. The study contributes to both tourism and regional development scholarship by providing an empirically grounded conceptualization of CPT as a distinct development-related phenomenon and offers practical implications for policymakers and regional planners by highlighting the importance of governance, community engagement, and heritage-based approaches in designing sustainable development strategies for peripheral and rural regions.

Keywords: cultural pilgrimage tourism, regional development, place-based development, peripheral and rural regions, cultural pilgrimage routes

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WHEN INTERFACES DECIDE: INVESTOR KNOWLEDGE AND DECISION-MAKING IN MOBILE FINANCIAL PLATFORMS

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Abstract

The rapid development of mobile financial platforms and fintech ecosystems has fundamentally transformed access to capital markets, contributing to the democratization of investing and enabling a broader range of individual investors to participate in financial decision-making processes. At the same time, the increasing reliance on mobile applications as primary investment interfaces raises critical questions about the role of investor knowledge, both perceived and actual in shaping investment behavior. Existing literature suggests that while objective financial knowledge may reduce dependence on simplified mobile interfaces, subjective knowledge and perceived competence can increase reliance on such platforms, potentially leading to biased decision-making. Against this backdrop, the aim of this study is to examine how investor knowledge and its perception influence decision-making processes within mobile financial platforms, with particular emphasis on the discrepancies between investor self-assessment and the perceptions of financial industry representatives. The study is based on a mixed-method research design combining quantitative survey data and qualitative interviews conducted among individual investors and brokerage professionals in Poland. The empirical findings reveal several critical patterns. First, the results confirm a significant gap between perceived and actual financial knowledge, with nearly three-quarters of investors assessing their knowledge as moderate, while industry representatives evaluate it more critically. Second, the study identifies a clear divergence between investor expectations and the financial industry's perception of those expectations, particularly in areas related to costs, platform functionality, and educational support. Third, mobile applications are increasingly becoming central to investment activity, with over 30% of investors using them daily, driven primarily by accessibility, convenience, and ease of use. However, consistent with prior research, simplified and intuitive interfaces may reduce cognitive effort and encourage more intuitive rather than analytical decision-making, reinforcing behavioral biases. Additionally, the findings highlight that social influence and peer behavior play a significant role in platform adoption, while market volatility and macroeconomic events intensify user engagement with mobile platforms. Importantly, despite growing technological sophistication, investors continue to perceive financial knowledge as a key prerequisite for market participation, indicating that technology does not fully substitute for competence but rather reshapes how it is expressed and utilized. The study also demonstrates that mobile platforms function not only as transactional tools but as "choice architectures" that actively shape investor behavior through design, accessibility, and embedded features. In conclusion, the results suggest that the expansion of mobile fintech platforms, while increasing market accessibility, simultaneously amplifies the importance of understanding the interplay between knowledge, perception, and technological interfaces. The identified misalignment between investors and financial institutions indicates the need for more user-centered platform design, enhanced transparency, and integrated educational solutions within mobile environments. From a theoretical perspective, the study contributes to the growing body of research on digital finance by linking investor cognition with platform-driven decision environments. From a practical standpoint, it provides actionable insights for financial institutions seeking to better align their technological development with actual investor needs and behaviors in increasingly digitalized financial markets.

Keywords: mobile financial platforms, investor perception, knowledge gaps, fintech, decision-making

Acknowledgement: This research was conducted in cooperation with Accenture Poland as part of a broader study on individual investors in Poland. The study draws on insights from the report “Individual Investor in Poland: Self-Portrait vs. Industry Perspective”, developed jointly by Accenture and academic partners, which examines the evolving role of technology, mobile platforms and investor behavior in the financial market. The authors would like to acknowledge Accenture Poland for providing access to empirical data, industry insights and analytical support that significantly contributed to the development of this research.

UNDERSTANDING THE NEXUS BETWEEN SUSTAINABILITY REPORTING AND CORPORATE GOVERNANCE: A SYSTEMATIC BIBLIOMETRIC REVIEW

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Abstract
The growing urgency of addressing climate change, environmental degradation, and societal challenges has positioned sustainability reporting as a core component of contemporary corporate practice. Over the last decade, the integration of environmental, social, and governance (ESG) principles into corporate strategies has evolved from voluntary initiatives to structured processes influenced by regulatory frameworks, stakeholder pressures, and the increasing need for transparency and accountability. Corporate governance mechanisms have emerged as a critical factor in ensuring the credibility, consistency, and effectiveness of sustainability reporting, highlighting the interdependence between reporting quality and governance structures. This study presents a comprehensive bibliometric analysis of global research on sustainability reporting and corporate governance, based on 285 peer-reviewed publications indexed in the Web of Science between 2011 and 2025. Using VOSviewer and Biblioshiny, the paper maps the intellectual structure of the field, identifies emerging research fronts, and analyzes thematic clusters that reveal the dominant research topics, theoretical foundations, and methodological approaches shaping this domain. The cluster-based content analysis uncovers three primary thematic streams in this study. The blue cluster, centered on sustainability reporting, ESG reporting, sustainability disclosure, and assurance, highlights the development of reporting standards and the role of assurance in enhancing credibility. Research in this cluster underscores the importance of integrating ESG indicators into corporate transparency practices, reducing information asymmetry, and strengthening stakeholder trust. Studies show that sustainability reporting can positively influence corporate reputation, align economic, social, and environmental outcomes, and improve the quality of financial reporting. The green cluster focuses on corporate governance mechanisms that promote responsible business behavior, including board characteristics, audit committees, board diversity, and governance expertise. Research indicates that well-structured, independent, and financially skilled governance bodies serve as critical drivers of credible and high-quality sustainability reporting. Evidence from multiple countries highlights the positive effects of board independence, audit committee expertise, and board diversity on reporting quality and organizational performance. Furthermore, emerging research also emphasizes the role of CSR and sustainability committees, which reinforce accountability and institutionalize sustainability practices within firms. The red cluster addresses ethical dimensions of sustainability reporting, drawing on institutional and legitimacy theory. Studies within this cluster examine the credibility, motivations, and potential risks associated with corporate disclosures, including greenwashing and SDG alignment. Research highlights the importance of strong regulatory frameworks, such as the EU Corporate Sustainability Reporting Directive (CSRD), in promoting compliance, third-party verification, and alignment of sustainability strategies with long-term value creation. Empirical evidence shows that mandatory and structured reporting regulations enhance ESG performance and mitigate the risks of superficial disclosures. This cluster illustrates the growing institutionalization of sustainability reporting as both a legitimacy

mechanism and a driver of substantive corporate change, emphasizing the critical role of regulatory governance in fostering credible, ethical, and data-driven sustainability practices. The results of the study indicate a marked growth in academic interest in sustainability reporting and corporate governance, especially after 2020, with notable contributions from European and Asian countries. By linking the blue, green, and red clusters, the paper highlights how reporting practices, governance mechanisms, and regulatory frameworks collectively define the intellectual and practical landscape of sustainability reporting research. Based on these insights, the study suggests the need for stronger integration of assurance practices and standardized ESG disclosure frameworks, enhanced board-level expertise and oversight in sustainability matters, and more robust regulatory mechanisms to mitigate greenwashing and improve reporting credibility. These recommendations reflect the combined influence of reporting development, governance quality, and institutional pressures identified across the three clusters.

Keywords: sustainability reporting, corporate governance, ESG, bibliometric analysis

SUSTAINABILITY SENTIMENT ACROSS CONTEXTS: CONCEPTUAL BOUNDARIES, MEASUREMENT APPROACHES, AND ESG FRAMING

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Abstract

The *sustainability sentiment* concept is generally used to describe favorable or unfavorable orientations toward individual or organizational sustainability-related practices in diverse contexts. The growing body of literature, unsurprisingly, does not suggest a single, standardized definition or its measurement. They vary depending on whether sustainability is framed broadly or explicitly through ESG and depending on whether the researched population is the general public/consumers or investors. This reveals important distinctions, which we frame as our research questions: (1) what is measured as *sustainability sentiment*, (2) how the measurements differ across contexts, (3) and respondent groups. The first difference comes from whether sustainability is conceptualized within ESG framing, or not. Studies using ESG framework observe the construct more organization- and finance-oriented. For example, Oh et al. (2024) developed the Perceived ESG Scale (P-ESG) as a three-dimensional, 26-item measure of public perceptions of organizations' environmental, social, and governance performance. This approach translates ESG into a survey instrument for consumers'/public evaluation rather than relying on market data or expert ratings. Studies not framed around ESG conceptualize sustainability sentiment more broadly, often as a multidimensional orientation encompassing environmental concern, social responsibility, long-term development, and ethical valuation. For instance, Haan et al. (2018) developed the Five Factor Sustainability Scale (FFSS), a 31-item questionnaire to identify sustainability segments in a nationally representative sample. Similarly, Foroudi et al. (2023) conceptualize and validate a scale for consumer perceptions of the Sustainable Development Goals, showing that sustainability can be framed through socially embedded constructs. A second distinction stems from the respondent perspective. When oriented to consumers, sustainability sentiment is commonly operationalized as perceptions of organizational responsibility, trustworthiness, or contribution to society. In investor-focused research, however, the construct becomes more closely tied to sustainable investment attitudes, sustainability preferences, and finance-related competence. For example, Yucel et al. (2023) measure sustainable investment attitudes through items on prior sustainable investing, intention to invest, sustainable finance literacy, and perceived environmental impact of sustainable financial instruments. Those studies show that in investor contexts, sustainability sentiment is not purely attitudinal construct; rather, it is intertwined with literacy, preferences, and decision-making capacity (Filippini et al., 2024; Yucel et al., 2023). The third variance comes from the

methodological approach: sources of data (respondents, text analysis, data analysis) and data collecting/analyzing strategies. The paper consequently discusses whether should sustainability sentiment be treated as a single universal construct, and how to associate different perspectives in a nation-wide context. It argues that it should be aligned with the respondents' profiles and their awareness and/or knowledge about sustainability**.** For consumers' or general public samples, simple language aimed to capture their attitudes, intentions and behaviors of environmental, social, and ethical issues are likely to offer stronger construct validity. For investor samples, by contrast, ESG measures that explicitly incorporate preferences, literacy, and product-related judgments should reveal more specific sentiment. Therefore, more comprehensive understanding of sustainability sentiment should conceptualize it as an umbrella of related but context-dependent constructs and align measurement choices with respondent knowledge, domain, and purpose of inquiry.

Keywords: sustainability sentiment; ESG; sustainability measurement; public/consumers' perceptions; construct validity

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HOW IS PROFESSIONAL NETWORKING DONE? A STUDY OF WOMEN'S NETWORKING PRACTICES

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Abstract
This paper examines how networking is enacted in practice among women in professional contexts, with the aim of identifying whether distinct, measurable patterns of networking behavior can be empirically observed. While existing research has established that networks are central to career advancement and that women's access to influential ties is often constrained, we still know relatively little about what networking actually looks like in practice. In particular, there is limited understanding of whether women's networking practices cohere into identifiable styles, or whether they are more fluid, situational, and difficult to categorize.
The study draws on Acker's theory of gendered organizations, which conceptualizes workplaces as structured by implicit norms, symbols, and practices that privilege masculine-coded behaviors. From this perspective, networking is not a neutral activity but a site where gendered expectations around visibility, self-presentation, and interaction are reproduced and negotiated. Rather than assuming that women either adopt or resist dominant norms, this paper investigates how networking practices are performed, and whether these performances take on recurring and classifiable forms. Methodologically, the study will adopt a qualitative, multi-method design combining semi-structured interviews, shadowing, and participant diaries. This triangulated approach enables the capture of both articulated strategies and situated practices, as well as the embodied and emotional dimensions of networking. Interviews will focus on participants' intentions, strategies, and reflections on networking, while shadowing and diaries will provide insight into actual behaviors, interaction styles, and the effort involved in maintaining professional ties. The aim is to generate rich, practice-based data that can be systematically compared across participants. The analysis will proceed through an iterative coding process aimed at identifying recurring patterns in how networking is enacted in practice. Drawing on the empirical material, the study will develop a set of analytical dimensions capturing key aspects of networking, including participants' orientations (e.g., instrumental or relational), reported practices (e.g., initiation, follow-up, frequency of contact), interactional styles (e.g., direct or indirect, self-promotional or low-visibility), network composition (e.g., types of ties pursued), and embodied experiences (e.g., comfort, strain, perceived authenticity). Rather than treating these as fixed variables, the analysis examines how these elements come together in practice across cases. This allows for the identification of recurring configurations of networking, and for assessing whether these configurations cohere into distinct styles or are better understood as fluid and context dependent. In doing so, the paper contributes to ongoing debates on gender and inequality in organizations by shifting the focus from outcomes of networking to the practices through which networks are built and maintained. It offers a micro-level account of how gendered organizational norms may shape not only access to networks but also the ways in which networking is performed. More broadly, the study seeks to advance a methodological approach to studying networking that makes visible its everyday enactment and opens up the possibility of systematically comparing different ways of "doing" social networking.

Keywords: networking practices, networking styles, women's networks, gender, Acker

LEARNING WITHOUT BORDERS: INTERCULTURAL GROWTH AND AI-AUGMENTED COLLABORATION IN A VIRTUAL INTERNATIONAL HACKATHON

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Abstract
Higher education institutions are increasingly challenged to prepare students for complex, globally distributed, and digitally mediated work environments. In response, universities have adopted experiential and internationally oriented learning formats that emphasize collaboration, problem solving, and reflection beyond traditional classroom boundaries. Virtual International Hackathons (VIHs) are increasingly used in higher education to foster global collaboration and experiential learning, yet little is known about how students experience accelerated intercultural teamwork in digitally mediated, AI-supported environments. This study explores how participation in a two-week Virtual International Hackathon shapes students' perceived development of strategic, intercultural, and digital competencies. Based on Experiential Learning Theory and drawing on 70 reflective narratives, we employ reflexive thematic analysis to identify patterns in students' learning trajectories, team dynamics, and engagement with digital tools, including AI-supported platforms. Focus in on students from different national contexts, Croatia na Slovenia, and their experience and evaluation of participation in the same Virtual International Hackathon held on 4 global Universities during October-November 2025. The findings from this exploratory qualitative study reveal four interrelated themes: (1) accelerated experiential learning under time pressure, (2) evolving intercultural confidence and communication strategies, (3) adaptive problem solving amid participation asymmetries and uncertainty, and (4) the emergence of AI as both a cognitive support and a coordination tool. Students reported significant growth in strategic thinking, cross-cultural awareness, and digital fluency, while also highlighting challenges related to uneven participation, time-zone coordination, and ambiguity in project structure. By integrating experiential learning theory with perspectives on intercultural competence and digitally mediated collaboration, the study advances understanding of how short-term, intensive virtual formats can catalyze deep learning. The paper contributes to management and international education research by conceptualizing the Virtual International Hackathon as an "accelerated global learning laboratory" and offers practical implications for designing AI-augmented international team experiences in higher education. Also, the study helps to identify the optimal marketing communication strategy for higher education institutions regarding how to include and motivate students for active participation in international team experiences.

Keywords: reflexive thematic analysis, experiential learning theory, intercultural competence, AI supported platforms, marketing communication strategy

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IDEA SELECTION IN NEW PRODUCT DEVELOPMENT: DOES FINANCIAL FOCUS KILL INNOVATION?

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Abstract
The implementation of new product ideas is a key driver of competitiveness and business growth. While prior research has extensively examined how to foster creativity and generate new ideas, less attention has been given to decisions about which ideas to pursue—commonly referred to as stop/go decisions. This is very surprising given evidence that companies often find stop/go decisions much more challenging than idea generation itself. New product development processes typically involve a series of stop/go decisions across multiple stages. After an idea is generated and initially assessed, a business case is commonly built at a very early phase, when only preliminary product specifications are available and financial forecasts are highly incomplete and unreliable. At this "build the business case" stage, members of the R&D project team usually provide an evaluation of project feasibility, market potential, and financial outcomes, based on which a senior manager, who acts as the gatekeeper, makes the final stop/go decision that determines whether the product idea receives the budget necessary for full development. According to a longstanding view, this process design, which is common in established companies, can induce the R&D project team to over-rely on highly incomplete and unreliable financial metrics in their initial idea evaluation, which ultimately undermines innovation. Various case studies support this view and have fueled broad calls to exclude financial metrics from stop/go decisions. In this paper we analyze the theoretical argument underlying this view and test its validity with two experiments. Our findings indicate that better remedies for the expected overuse of financial metrics exist than withholding them altogether. Consistent with our theory, evidence from our two experiments shows that holding evaluators accountable for their assessment increases their reliance on financial information—but only in social contexts where they expect financial information to facilitate the justification of their decisions.

Keywords: innovation, idea selection, financial metrics

REGIONAL DISPARITIES IN THE GREEN TRANSITION: WHO AND WHY WILL BE LEFT BEHIND?

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Abstract

The analysis presented in the paper explores sub-national or regional differences in transitional paths toward green economy. The research is based on application of a combined methodological approach integrating Principal Component Analysis (PCA) and cluster analysis with the aim to classify regions in the Republic of Serbia based on regional-specific environmental, social and economic indicators reflecting sustainable development paths, including analysis of barriers to the green transition. Starting from the assumption that regional vulnerability is a multidimensional phenomenon encompassing economic, social, energy, and environmental dimensions, PCA is employed to reduce a large set of indicators into a smaller number of latent dimensions reflecting the key patterns of exposure, sensitivity, and adaptive capacity of regions. Based on the resulting component scores, cluster analysis goes beyond identified differences among regions and enables the grouping of different geographical areas into homogeneous regional types with similar green transition vulnerability profiles. The combination of methods (PCA and cluster analysis) contributes to the identification of spatial inequalities in the green transition process and provides an analytical basis for designing differentiated policies aimed at a just and efficient regional transformation towards a green and sustainable future. Based on the level of development, sectoral structure, demographic sustainability, and adaptive capacity for the green transition, the regions in the Republic of Serbia are grouped into four clusters characterized by different green transition potentials, ranging from the first cluster, referred to as urban frontrunner, to the so-called peripheral mono-structured rural regions at the end of the classification. A particular issue concerns the distribution of units across the identified clusters, with the last cluster being by far the largest, accounting for 16 of the 25 districts in Serbia. From a policy perspective, particular emphasis should be placed on vulnerable regions that lag behind, which continue to face numerous barriers including those in development of sound and effective green transition pathways. The study emphasizes that the extent to which harmful emissions can be reduced will depend critically on the capacity of these under-studied and often neglected regions. It is particularly important in the context of the broader transition pathways of both regional and national economies - and ultimately in the context of the overall triple-bottom line success of a socially, economically, and environmentally sustainable global green transition.

Keywords: green transition, regions, PCA, cluster analysis, disparities, adaptive capacity

ARE WOMEN LEADING SUSTAINABILITY? – EVIDENCE FROM HUNGARIAN SMES

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Abstract
The integration of sustainability into business operation has become a key factor in strategic thinking in recent years, particularly in the case of micro, small, and medium-sized enterprises (SMEs), where managerial decisions directly shape organizational practices. Examining the role of gender in this context is of particular importance, as different managerial attitudes can significantly influence the selection and implementation of sustainability initiatives. This research focused on this area, with the aim of exploring the impact of female leaders' management practices on sustainability management in Hungarian SMEs. The research is based on a survey conducted in 2022, in which 808 Hungarian SME executives participated, as well as a survey from 2025 that focused specifically on Hungarian ESG experts (26 individuals), most of whom are part of corporate management. The analyses were mainly based on Chi^2 tests, nonparametric tests and descriptive statistics. The results show that female executives are more open to (broad) sustainability efforts than male executives, take them into account more strongly when evaluating the company's success, and feel greater sustainability pressure from society and employees. Their opinions are more divided regarding when they consider their companies to be successful. Their companies are more likely to lack a dedicated sustainability-focused position, and the area is generally handled by the company owner or senior management. They view the importance of the three ESG pillars in a more balanced way than male leaders. Regarding the Sustainable Development Goals (SDGs), SDG 17 – partnerships for the goals – appears more frequently in the companies of female leaders, meaning they are more open to expanding and developing partnerships in the context of sustainability. Furthermore, efforts related to SDG 5 – gender equality – are more likely to appear with greater intensity in their companies. Companies led by female leaders evaluated significantly higher the relevance of the following SDGs: no poverty (SDG 1); good health and well-being (SDG 3); gender equality (SDG 5); decent work and economic growth (SDG 8); and reduced inequalities (SDG 10). Male leaders gave significantly higher average scores for the relevance of clean water and sanitation (SDG6); affordable and clean energy (SDG7); and responsible consumption and production (SDG12) SDGs. Sustainability actions related to nearly all SDGs are more prevalent in women-led companies, with the exception of the SDGs of affordable and clean energy (SDG7); industry, innovation, and infrastructure (SDG9); sustainable cities and communities (SDG11); climate action (SDG13); and life on land (SDG15). The analysis of ESG experts' views also reveals that women perceive a much stronger, direct, positive, and significant link between companies' sustainable and financial performance, and are more likely to interpret sustainability across all three pillars. As for the pressure exerted by stakeholders regarding sustainability, a higher proportion of female ESG experts perceive social pressure, though this is not evident from the employee perspective. Male ESG experts place a much greater emphasis on economic sustainability. Overall, female leaders are more likely to integrate sustainability considerations into their assessment of corporate success and are more frequently motivated by social goals, which suggests a stronger presence of a normative and stakeholder-oriented approach to corporate operations. The integration of sustainability is

achieved more implicitly, through leadership attitudes and values, rather than through formalized organizational structures. Therefore, the integration of sustainability into a company is both a structural and an attitudinal issue. Managerial competencies, development activities, and external pressures collectively shape the extent to which sustainability becomes an integral part of corporate operations and performance evaluation, while gender differences primarily manifest at the level of interpretive frameworks and priorities.

Keywords: sustainability; micro-, small- and medium-sized companies (SME); women leader; sustainable development goal (SDG); stakeholder

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BIBLIOMETRIC SYNTHESIS IN MANAGEMENT SCIENCES: A RESEARCH METHOD FOR THEORY DEVELOPMENT

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Abstract
The volume of scholarly production within management sciences is expanding at an unprecedented rate, challenging the efficacy of traditional narrative reviews. While standalone bibliometric analyses efficiently process massive datasets, they are frequently criticized for their theoretical superficiality and quantitative reductionism. Conversely, traditional Systematic Literature Reviews (SLRs) provide necessary analytical depth but are increasingly susceptible to subjective selection bias and limited scope. The primary purpose of this paper is to conceptualize bibliometric synthesis as a distinct research method that purposefully integrates the algorithmic science mapping of bibliometric data with the critical, thematic interpretation of SLR content. Grounded in the philosophy of science, specifically ontology, epistemology, and axiology, this study demonstrates how merging these techniques creates a robust mechanism to advance theory development and address methodological opacity in management research. This conceptual paper explores the mechanics of conducting a bibliometric synthesis. Rather than classifying it through traditional “mixed methods” frameworks, this study positions the synthesis as a rigorous research method utilizing principles of praxeology (perceived as general theory of efficient action, encompassing all forms of purposeful human activity) and deductive and reductive reasoning. The method employs bibliometric data, such as co-citation networks and bibliographic coupling, to objectively define boundaries, map intellectual structures, and identify impactful thematic clusters. Subsequently, it applies strict content synthesis techniques to critically penetrate these algorithmically generated clusters. Epistemologically, this method is contextualized within the “miner-prospector” continuum proposed by Dermot Breslin and Caroline Gatrell, illustrating how researchers can systematically transition from consolidating historical knowledge (mining) to generating entirely novel, interdisciplinary theories (prospecting). The integration of data mapping and content synthesis fundamentally transforms the literature review from a static, descriptive categorization exercise into a dynamic engine for theory building. The proposed framework demonstrates that this method successfully mitigates the risk of quantitative reductionism inherent in standalone bibliometric studies. By grounding the process in deep thematic analysis, the method draws out the actual theoretical debates, contexts, and contradictions hidden within the mapped data. This approach also helps researchers spot isolated literature silos and conceptual blind spots, paving the way for alternative models based on clear empirical evidence. While bibliometric mapping and systematic reviews are common practice on their own, explicitly combining them into a unified synthesis to build theory is still rare. In the end, this paper offers a practical blueprint for tackling today’s massive volume of literature, bringing together the scale of data mapping and the depth of qualitative analysis to help scholars develop more meaningful theories in management sciences.

Keywords: bibliometric synthesis, systematic literature review, research method, science mapping, theory development

HOUSEHOLD PORTFOLIO REALLOCATION: EVIDENCE FROM CROATIAN GOVERNMENT RETAIL SECURITIES MARKET

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Abstract
This paper analyzes the reallocation of household financial portfolios in Croatia following the introduction of retail government securities between 2023 and 2025. The study focuses on how relative returns, institutional innovations, and monetary policy transmission mechanisms have influenced the shift from traditional bank deposits toward government-issued retail instruments. Using monthly aggregate data from the Croatian National Bank and the Croatian Bureau of Statistics, the analysis employs ordinary least squares regressions with Newey–West standard errors to examine the relationship between the retail bond–deposit yield spread, issuance dynamics, and household financial behavior. The findings provide strong evidence of a substitution effect between bank deposits and retail government securities. A widening of the yield spread in favor of government securities is associated with increased retail issuance and a decline in household deposits of comparable maturity. This indicates that households actively reallocate existing savings rather than generating new investment funds, highlighting the sensitivity of portfolio decisions to relative returns. The effect is particularly pronounced for short- to medium-term deposits, suggesting that maturity structure plays an important role in household decision-making. In addition to return differentials, the paper identifies institutional accessibility as a key driver of portfolio reallocation. The introduction of the E-Riznica electronic platform in 2024 significantly increased retail participation in government securities by lowering transaction costs and simplifying access for individual investors. The results show a measurable increase in the share of retail holdings of public debt following the platform's launch, underscoring the importance of financial infrastructure in shaping market outcomes. The study also explores the transmission of monetary policy, finding incomplete pass-through from the European Central Bank's deposit facility rate to domestic bank deposit rates. Household behavior appears to respond more strongly to interest rates offered by local banks than to changes in ECB policy rates. This suggests that domestic banking conditions act as the primary channel through which monetary policy affects household savings decisions. While the analysis is constrained by a relatively short time series and the use of aggregate data, the results offer valuable insights into the evolving structure of household portfolios in Croatia. The findings highlight the combined importance of yield incentives and institutional design in promoting financial market participation and suggest that policies aimed at improving access and transparency can significantly broaden the investor base for government securities. Future

research should build on these results using micro-level data to better understand heterogeneity across households and the long-term sustainability of these trends.

Keywords: retail government securities, household portfolio reallocation, yield spread, monetary policy transmission

EXPLORING STUDENT RESPONSES TO AGENTIC AI IN PROCESS AUTOMATION: A COPING PERSPECTIVE

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Abstract
Artificial intelligence (AI) is increasingly reshaping organizational practices and redefining the skills required in management education. As AI technologies evolve, a new paradigm known as agentic AI is emerging. Unlike traditional or generative AI, agentic AI focuses on autonomous system design, workflow orchestration, and process automation, enabling AI systems to make and execute decisions with limited human intervention. This shift requires students not only to use AI tools, but to understand and manage automated organizational processes. However, existing research on AI in higher education has predominantly examined discrete applications or tools, with limited attention to how students engage with agentic AI systems. Moreover, the lack of studies, particularly those drawing on the coping model of user adaptation (CMUA) restricts our understanding of how students respond and adapt to these emerging technologies. This gap is critical as agentic AI introduces new cognitive and behavioral challenges associated with autonomy and process complexity. To address this gap, a workflow automation assignment was introduced in a graduate-level management course requiring students to design, configure, and operate autonomous AI agents. The assignment exposed students to the complexities of process automation, including task decomposition, decision logic, and system coordination. A qualitative research method was employed, using semi-structured interviews conducted before and after the assignment to capture students' perceptions, engagement, adoption behaviors, and coping strategies. The findings reveal that students exhibited diverse coping behaviors consistent with the CMUA framework, including both problem-focused and emotion-focused responses. Over time, most students demonstrated increased confidence, enhanced problem-solving capabilities and a deeper understanding of organizational process automation. Interaction with agentic AI systems enabled students to observe the consequences of automated decisions, iteratively refine workflows and develop adaptive strategies to manage system's behavior. Importantly, the experiential nature of the assignment facilitated a shift from passive tool usage to active process thinking. This study contributes to the management education literature by providing empirical evidence on student learning, adoption and coping behaviors in the context of agentic AI. It extends the application of coping theory to a novel technological setting and highlights the pedagogical value of hands-on AI assignments. By emphasizing students' transition from traditional and prompt-based AI tools to autonomous systems, the findings underscore the importance of designing experiential learning environments that foster adaptability, engagement, and practical competencies in process automation and organizational decision-making.

Keywords: agentic AI, process automation, coping theory, management education, experiential learning

ADVANCES IN CREDIT RISK ANALYSIS: THE HIDDEN POTENTIAL OF MACHINE LEARNING

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Abstract
Machine learning (ML) methods and algorithms, which allow systems to learn and improve with experience, are increasingly being considered and adopted by financial institutions in order to stay competitive. Banks, in particular, face the challenge of meeting growing customer expectations by using advanced tools like artificial intelligence (AI) pilots or AI-driven intelligent document processing. While machine learning and artificial intelligence are shaping a next-generation banking experience, traditional financial activities and services are expected to continue alongside these innovations. This paper concentrates on credit analysis, a fundamental banking process that remains underexplored within the artificial intelligence field. There is a lack of rigorous evidence on whether and how machine learning has impacted credit risk evaluation and its potential contribution to financial inclusion. To address this gap, we explore innovative machine-learning-based methods for bank credit analysis. The theoretical section begins with classifying credit risk analysis methods and prediction techniques, then in more detail presents innovative approach in credit risk analysis in banking which includes artificial intelligence and related tools usage and brings an evaluation of the benefits and drawbacks of machine learning. Furthermore, in the empirical research part we test a model using publicly available German Credit Data by using machine learning technique, in order to detect pros and cons of such a tool of artificial intelligence application in credit risk assessment. The results show that the machine learning approach can quickly process large volumes of credit-related data. Moreover, the hierarchical tree structure clearly indicates which variables have the greatest impact on the credit risk analysis decision. Thus, we contribute by validating a decision tree as a useful machine learning tool for banks in situations where transparency is preferred over predictive power. Additionally, recent research findings indicating the potential of applying artificial intelligence in credit analysis in the context of contributing to increasing the financial inclusion of specific social groups confirm that this area is worth of research. However, we also highlighted the risks involved in the application of artificial intelligence and machine learning, given their rapid development and relatively recent emergence, and called for caution, especially when education and supervision are still in progress. The limitations of the study include the narrowly focused data set used in the empirical analysis, but as such it can be seen as a quality starting point for further research in this direction.

Keywords: credit risk analysis, machine learning, bank, financial inclusion

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MOTIVATIONAL FACTORS OF SECOND-HAND CLOTHING PURCHASES AMONG HUNGARIAN GEN-Z CONSUMERS

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Abstract
The fashion industry is currently recognized as one of the most polluting and resource-intensive sectors globally. The production of new clothing involves substantial energy use, massive water consumption and wastewater generation, hazardous chemical pollution, and the generation of immense textile waste, which often ends up in landfills. As a result of these growing environmental concerns, consumers are increasingly interested in more sustainable alternatives for acquiring clothing. One of the most prominent and rapidly growing alternatives is the purchase of second-hand clothing, a practice that has moved from a niche market to a mainstream trend, becoming especially relevant among younger generations like Generation Z. With the increase in demand and relevance, it’s important to understand the underlying consumer motivations, both for businesses in the second-hand clothing market and for policymakers aiming to promote sustainable consumption practices. It is especially relevant in the context of Central and Eastern Europe, where research into second-hand clothing purchases is limited. This research aims to create a comprehensive PLS-SEM (partial least squares - structural equation modeling) model able to investigate the most important motivations among Gen-Z consumers. To do so, the authors built a model on the foundations of Ajzen’s Theory of Planned Behavior, focusing on attitudes, subjective norms, and perceived behavioral control, and Guiot & Roux’s Second-hand Shoppers’ Motivational Scale, which focuses on economic, hedonic, and critical/environmental motivations. This core model was extended after a pilot study, based on other factors found in international literature, explaining purchase intentions with 11 different factors overall. The study builds on a sample of 521 Gen-Z consumers, with data collected through an online questionnaire. The results of the structural equation modeling show economic motivations, subjective norms, attitudes, and perceived behavioral control as the most prominent factors. These findings suggest that while sustainability is a key part of the conversation, the perceived value and social influence remain the primary drivers for Gen-Z in Hungary.

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

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TARGET2 AND THE SLOWDOWN OF THE EURO AREA INTERBANK MARKET

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Abstract
This paper examines the relationship between TARGET2 imbalances and the slowdown of the euro area overnight interbank market. The starting point of the analysis is the institutional transformation of the operational environment of monetary policy after the dual liquidity crisis. With the transition from conditions of structural liquidity shortage to conditions of structural excess liquidity, the balance sheet of the Eurosystem became a more important instrument of monetary policy implementation. At the same time, the overnight interbank market, which in the pre-crisis period represented the main market-based medium of liquidity redistribution, lost much of its previous role. In parallel with that development, TARGET2 imbalances became a persistent feature of the Eurosystem. Hence, the paper examines whether these two developments should be interpreted jointly rather than separately. More specifically, the paper is centered on the hypothesis that the growth of TARGET2 imbalances was associated with the decline in the volume of overnight interbank transactions in the euro area. In substantive terms, this is a substitution hypothesis. Once private market-based redistribution of central bank liquidity became impaired, public settlement through TARGET2 increasingly assumed part of the role previously performed by the overnight interbank market. As such, TARGET2 imbalances should not be understood merely as a technical settlement outcome or as an accounting residue of Eurosystem operations. Rather, they reflect a significant change in the structure of monetary transmission under conditions of abundant reserves and fragmented financial markets. Methodologically, the paper relies on empirical analysis of the co-movement between TARGET2 dynamics and overnight interbank market activity over a sample that spans both the pre-crisis regime of structural liquidity shortage and the post-crisis regime of structural excess liquidity. This longer horizon is important because it makes it possible to observe monetary intermediation across two different operational environments of the Eurosystem. The results support the view that the persistence of TARGET2 imbalances cannot be explained solely by reference to the balance-sheet consequences of unconventional monetary policy. Although excess reserves and asset purchases remain relevant, they are not sufficient for understanding why TARGET2 imbalances became so persistent in the euro area: the weakening of private interbank market functioning must also be taken into account. The paper therefore concludes that the rise of TARGET2 imbalances and the slowdown of the overnight interbank market should be interpreted as interconnected expressions of a broader transformation in the monetary architecture of the euro area.

Keywords: TARGET2, interbank market, monetary policy, Eurosystem, EONIA

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