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Preface

This volume contains the proceedings of the **2nd Forum on Economic and Business 2026**, organized by the School of Economics and Business of the University of Thessaly. The Forum was held at the Gaiopolis Campus on May 24, 2026.

Following the successful organization of the first Forum last year, the initiative continues this year with the 2nd Forum on Economic and Business 2026, further strengthening its role as a dynamic platform for academic dialogue and research dissemination. The Forum constitutes an important initiative aiming to strengthen research collaboration, interdisciplinary dialogue, and academic interaction among doctoral candidates, researchers, and members of the academic community. Through this joint effort, the School seeks to establish a dynamic annual scientific event that promotes the dissemination of current research and supports the development of young researchers.

The title of this year's Forum, **"Research in the Spotlight"**, highlights the central role of doctoral research in addressing contemporary challenges in economics, business, accounting, finance, digital transformation, sustainability, governance, and public policy. The Forum provides an important platform for PhD candidates, scholars, researchers, and professionals to exchange ideas, present their latest research findings, and engage in meaningful academic dialogue across these fields.

This volume comprises abstracts that provide valuable insights into a wide range of topics related to business, economics, accounting, finance, technology, sustainability, public administration, and organizational studies. We sincerely appreciate the efforts of all authors for their valuable contributions, as well as the organizing and scientific committees for their dedication and support in ensuring the quality and success of the event.

We hope that this volume will serve as a useful resource for scholars, researchers, and practitioners, fostering academic dialogue, encouraging future collaborations, and contributing to the advancement of knowledge in the broader fields of economics and business.

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Session I

Finance, Markets and Risk Management

Essays on Puzzling Behavioral Mechanisms at Disconcerting Times of Unstable Market Conditions: Comprehensive Reviews through Bibliometric and Content Analysis

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ABSTRACT

Financial crises resemble a stark example of failing to maintain an ethical framework of conduct either in businesses or in a political and societal level. Trust is an important component of reliance in financial markets; when ethics are bypassed in favor of "unmitigated self-seeking" behavior, market integrity is compromised, leading to crises like the 2008 collapse. Academic research has repeatedly raised a full-scale concern over how navigation during an ongoing financial and/or economic crisis can in fact be problematic when there is no moral compass. This bibliometric study attempts to highlight recent research on the role of ethics in times of turbulent economic circumstances. It essentially maps the academic literature on behavioral mechanisms that evolve under significant and troublesome economic circumstances in the investment arena. Academic scholars have supported a rising interest and publication thrust on behavioral biases but have limited focus on the mental inclinations and heuristics that form investment decision-making, the underlying dynamics through which opinion impacts on market unpredictability, and the ramifications for speculation procedures. The study analyzes 461 research papers as derived by the Scopus database and utilizes performance testing approaches that identify impactful journals, prolific countries and affiliations that have had a profound contribution to the development of the studied sub-field. It originally recognizes publication trends, revealing fluctuations in the citations per article. Bibliographic and thematic mapping also yield important perceptiveness on the intellectual and conceptual structure of the sub-field. The research guidance provided by this review will hopefully provide a roadmap for future research prospects.

Keywords: Financial Ethics, Financial Crises, Citations, Bibliometric analysis, Content analysis

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Fiscal Foresight and its Role in Enhancing Fiscal Policymaking: A Scoping Review

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ABSTRACT

This study examines the role of Fiscal Foresight (FF) in enhancing fiscal policymaking under conditions of increasing uncertainty and complexity. In a rapidly evolving global environment characterized by geopolitical instability, demographic change, and technological disruption, traditional forecasting approaches often prove insufficient to capture long-term structural transformations and systemic risks (Hajkowicz et al., 2012). Within this context, Fiscal Foresight emerges as a complementary framework that integrates forward-looking perspectives into public financial management. Despite growing interest from international organizations and policymakers, its practical integration into fiscal governance remains limited and uneven (OECD, 2019).

Using a scoping review methodology, this study systematically analyzes 187 academic publications covering the period 1970–2024. The review provides a structured mapping of the literature across key thematic areas, methodological approaches, and theoretical foundations, offering a comprehensive overview of the evolution and current state of research in the field.

The findings reveal three major gaps. First, the literature remains theoretically fragmented, with limited integration between macroeconomic modeling approaches and broader strategic foresight frameworks. Second, empirical research is predominantly concentrated in OECD countries, restricting the global applicability of findings and overlooking the specific challenges faced by developing and emerging economies. Third, foresight practices remain

weakly embedded in fiscal policymaking processes, reflecting the persistence of short-term decision-making frameworks, institutional rigidities, and limited alignment with long-term strategic planning (Rohrbeck et al., 2015).

Overall, the study contributes to the literature by offering a comprehensive synthesis of Fiscal Foresight research and by highlighting the need for stronger theoretical integration, broader empirical coverage, and the systematic institutional embedding of foresight practices in fiscal governance systems. These findings provide a foundation for future research and policy development aimed at strengthening anticipatory capacity and enhancing the resilience of public financial management.

Keywords: Fiscal Foresight, Fiscal Policy, Strategic Foresight, Public Finance

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Operational Efficiency Gains, ESG Trade-offs and Post-Acquisition Performance in Asia-Pacific

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ABSTRACT

This study examines how operational relatedness, acquirer ESG orientation and cross-border characteristics shape post-acquisition performance in the highly dynamic Asia-Pacific region. Analyzing a robust sample of 995 acquiring firms based in Asia-Pacific between 2010 and 2022, we employ interaction regressions using matched samples to mitigate selection concerns and examine post-acquisition performance effects. Our findings reveal that operational relatedness has a differentiated impact: it is positively associated with post-acquisition ROA and negatively associated with sales growth. The positive effect is significantly weaker in cross-border deals. Moreover, we document that higher acquirer ESG performance is negatively related to post-acquisition performance, suggesting that ESG-oriented acquirers may face constraints during post-merger integration. Consistent with a signaling perspective, ESG-oriented acquirers are more likely to employ cash-only payment methods. The outcomes of our study provide evidence on the trade-offs between efficiency, growth and governance orientation in M&A outcomes. We also provide clear managerial implications for effective deal structuring, highlighting the role of ESG criteria in complex international acquisitions.

Keywords: Mergers and Acquisitions (M&As), Operational Efficiency, Post-Acquisition Performance, Environmental, Social and Governance (ESG), Asia-Pacific

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Stress Tests in Banks: A Bibliometric Review

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ABSTRACT

Since the global financial crisis of 2007–2008, stress tests have become a central pillar of banking supervision and macroprudential oversight. Initially, stress tests were introduced as a crisis response tool, but they have evolved into a systematic approach for evaluating the resilience of financial institutions under adverse macroeconomic scenarios. In both the European Union and the United States, supervisory authorities have established periodic stress testing exercises to assess capital adequacy and reinforce market discipline through the public disclosure of results. Consequently, these supervisory exercises play a vital role in strengthening financial stability and enhancing the transparency of the banking sector.

Although the literature on stress testing has grown significantly over the past decade, it has developed in fragmented streams. Academic research on market reactions and disclosure effects, supervisory scrutiny and risk-taking behavior, macroprudential design, climate stress testing as a long-horizon extension of macroprudential analysis, and more

recently machine learning applications, has evolved largely in parallel rather than within an integrated conceptual framework. As a result, the literature lacks a unified synthesis showing how stress testing has transformed from a crisis-response mechanism into a multidimensional supervisory tool. Existing studies examine market reactions to stress test disclosures and highlight their informational and certification role (Ponte Marques et al., 2022; Goldstein and Sapra, 2014; Şahin et al., 2020; Flannery et al., 2017).

This study differs from earlier similar contributions in three important respects. First, prior research of Sorge (2004) and Foglia (2008) mainly focused on stress-testing methodologies and supervisory approaches at a time when stress testing was still developing as a prudential tool. Second, Kapinos et al. (2018) review the evolution of bank stress testing, but they do not provide a systematic bibliometric and cluster-based synthesis of how literature has expanded after the post-crisis establishment of stress testing. Third, unlike earlier research, our study combines bibliometric mapping with content-based interpretation of 692 peer-reviewed articles published between 1999 and 2024. This allows us to identify not only the major literature streams, but also the unresolved practical and methodological gaps related to disclosure effects, supervisory discipline, macroprudential design, climate stress testing, machine learning, and emerging risks.

This study is guided by one research question and a set of literature-based hypotheses. The main research question is: Q1. What are the major intellectual streams and thematic clusters in the literature on stress testing in banks? In addition, the study examines the following hypotheses: H1. Stress tests produce valuable information about banks. H2. There is consistent evidence that stress tests improve bank stability. H3. The effectiveness of stress testing is conditional on institutional and regulatory environments. H4. Existing climate stress tests adequately capture transition risk and physical risk. H5. Emerging risks -particularly geopolitical risks – remain insufficiently incorporated into stress-testing models. These hypotheses are assessed through a combination of bibliometric evidence and content-based interpretation of several literature streams.

More specifically, the study examines three types of gaps in literature. First, it investigates fragmentation gaps, that is, whether disclosure effects of stress tests, supervisory scrutiny, macroprudential design, climate stress testing, and machine-learning applications have been developed as separate research streams rather than as integrated research areas. Second, it considers development gaps, namely whether central themes in stress testing remain conceptually underdeveloped despite their prominence in literature. Third, it examines emerging-theme gaps, referring to topics that have recently entered the literature but are not directly connected to the broader stress test concept. These gaps are mapped in the methodological section through co-citation, bibliographic coupling, keyword co-occurrence, thematic mapping, and trend-topic analysis.

Keywords: Stress Tests, Bibliometric Analysis, Banking Supervision, Financial Stability

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Herd Behavior across Global Stock Exchanges: A Meta-Analysis

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ABSTRACT

This meta-analysis provides systematic evidence that herding is a pervasive phenomenon in global stock exchanges, drawing on 44 empirical studies and 119 effect size estimates spanning 2008–2025. The pooled CSAD estimate (0.627, $p < 0.001$) confirms that investors often disregard private signals in favor of market trends, challenging the assumptions of market efficiency.

Herding is significantly stronger in developing markets, reflecting greater information asymmetries, lower investor sophistication, and weaker institutional frameworks. Additionally, herding intensifies during the 2020s, likely driven by global crises, heightened market volatility, and the growing role of digital trading platforms. In contrast, methodological factors, such as sample size, study period, or journal quality, exert limited influence, highlighting the robustness of the behavioral effect across diverse research designs. In addition, evidence of substantial publication bias favoring larger positive effects is detected; however, PET-adjusted estimates confirm the existence of a genuine underlying herding effect.

The findings contribute to the behavioral finance literature by reinforcing the importance of psychological biases and market sentiment in shaping collective investor behavior. From a practical perspective, they indicate that herding amplifies volatility and induces deviations from fundamentals, with direct implications for portfolio allocation, risk management, and systemic stability. Investors may respond with diversification and, where appropriate, contrarian strategies, while regulators, particularly in emerging markets, could enhance transparency, strengthen investor education, and improve oversight of speculative trading. Financial institutions may also benefit from integrating behavioral indicators into asset allocation and risk assessment frameworks.

Future research should advance this field by employing high-frequency and cross-asset analyses, exploring the role of technological innovation and digital trading platforms, extending the analysis to other financial markets, and integrating behavioral indicators into macro-financial monitoring frameworks. Such work would allow for a more precise understanding of herding dynamics and their implications for financial theory, market practice, and systemic risk management.

Keywords: herding, global stock exchanges, meta-analysis, mixed-effects model, publication bias

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Risk Management of Banks in Greece as a Tool for their Development

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ABSTRACT

This study examines the dynamic financial connectedness and risk spillovers between the Greek banking system and corporate bond markets, proxied by European and U.S. corporate bond exchange-traded funds (ETFs), with a particular focus on risk management and supervisory implications. Using daily equity return data for the four systemic Greek banks and major corporate bond ETFs over the period 2014–2025, the analysis captures multiple stress episodes, including the Greek fiscal crisis, the COVID-19 pandemic, and the post-crisis normalization phase.

From a risk management perspective, the findings suggest that Greek banks remain the primary transmitters of risk within the domestic financial system, while their exposure to private corporate debt through bond markets appears limited. Short-term corporate bond ETFs, in particular, exhibit the weakest spillovers from the banking system, indicating a degree of segmentation between bank balance sheets and corporate bond markets. This pattern is consistent with standard risk-based capital considerations, whereby banks avoid significant holdings of riskier private debt instruments in order to minimize capital requirements.

The supervisory and policy implications of these results are significant. Although cross-asset contagion between banks and corporate bond markets is contained, the high degree of interconnectedness among banks underscores the importance of continuous supervisory monitoring, especially during periods of macroeconomic uncertainty and unconventional monetary policy. The evidence supports the need for prudential frameworks that combine market-

based indicators of connectedness with traditional balance-sheet supervision, enabling regulators to better identify systemic vulnerabilities and emerging channels of risk transmission.

Overall, the study contributes to the literature on financial interconnectedness by providing a country-specific analysis within a bank-based financial system and offers practical insights for regulators, supervisors, and risk managers concerned with financial stability in evolving market environments.

Keywords: Systemic risk; Banking supervision; Corporate bond ETFs; Risk management

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Uncovering Fiscal Risk Patterns: Illicit Tobacco Trade and Tax Revenue Loss through Risk-Based Country Clustering.

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ABSTRACT

The present study aims to investigate the determinants and spatial patterns of fiscal risk associated with tax revenue losses from illicit tobacco consumption across the 27 European Union Member States during the period 2017–2022. Addressing a significant gap in the literature, the analysis adopts a multidimensional approach that integrates economic, demographic, social, political, behavioral, and health-related factors to capture the complex structure of fiscal vulnerability.

The empirical framework is based on a balanced panel dataset of 162 observations derived from official European and international sources. Methodologically, the study employs Principal Component Analysis (PCA) to reduce dimensionality and identify latent structures underlying fiscal risk, followed by hierarchical clustering techniques to classify countries into homogeneous groups according to their risk profiles. In addition, Geographic Information Systems (GIS) are utilized to visualize spatial heterogeneity and reveal geographical patterns of tax revenue loss across the European space.

The results reveal that fiscal risk from illicit tobacco consumption is inherently multidimensional and cannot be explained by isolated factors. Seven principal components explain over 82% of total variance, capturing key dimensions such as institutional and economic stability, international trade dynamics, socio-economic inequality and tax burdens, health and well-being, demographic aging, taxation policy, and labor market conditions linked to shadow consumption. The findings indicate that institutional quality and governance effectiveness are strongly associated with lower exposure to illicit markets, while socio-economic inequalities, unemployment, and high tax burdens increase incentives for participation in the shadow economy. Furthermore, spatial analysis identifies distinct clusters of countries, ranging from low-risk, institutionally strong economies to high-risk groups characterized by informal economic activity, labor market instability, and structural vulnerabilities.

The contribution of the study lies in providing an integrated empirical framework for understanding fiscal risk as a systemic and spatially differentiated phenomenon. The findings have significant policy implications, highlighting the need for targeted and context-specific interventions rather than uniform taxation policies. By linking fiscal risk to institutional capacity, socio-economic conditions, and demographic dynamics, the study offers a robust analytical basis for designing more effective tax enforcement strategies, improving revenue protection, and strengthening fiscal resilience within the European Union.

Keywords: Fiscal risk, Excise fraud, Illicit tobacco, Tax revenue loss, Risk-based clustering

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Session II

AI, Big Data & Ψηφιακές Τεχνολογίες

Artificial Intelligence in Tax Administration: A Structured Literature Review Framed by the OECD Taxonomy

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ABSTRACT

This study aims to systematically examine how Artificial Intelligence (AI) is reshaping Tax Administration through the analytical lens of the OECD functional taxonomy. Recognizing that recent scholarship on AI in taxation remains fragmented across methods, jurisdictions, and application areas, the paper seeks to consolidate current knowledge on the use of AI in five major Tax Administration domains: tax collection, tax assessment, tax services, tax compliance and enforcement, and tax disputes. More specifically, the research intends to identify the recent applications of AI in these domains, assess the effectiveness and reliability of AI-based systems, examine the principal challenges associated with their deployment, and highlight research gaps and future directions. By adopting the OECD taxonomy rather than a technology-centered approach, the study positions Tax Administration functions at the center of the analysis, thereby offering a structured understanding of how digital transformation is altering administrative processes, institutional expectations, and taxpayer interaction.

The paper employs a systematic literature review based on the PRISMA framework and the review covers publications from 2020 to April 2025 and draws on four major academic databases: ScienceDirect, Emerald, IEEE Xplore, and ACM. Search strings were constructed around Artificial Intelligence and its major technological families, Machine Learning (ML), Neural Networks (NN), Natural Language Processing (NLP), and Large Language Models (LLMs) combined with key Tax Administration functions such as tax collection, tax assessment, tax services, tax compliance, tax disputes, and tax audit. The initial search yielded 819 records. After duplicate removal, 557 studies remained; subsequent screening by title, abstract, and keywords reduced the set to 77 studies for eligibility assessment. Following full evaluation against criteria of thematic relevance, methodological credibility, clarity, and internal coherence, 49 studies were selected for final analysis. These studies were then mapped onto the OECD taxonomy in order to synthesize evidence not merely by technology type, but by tax administration domain and functional significance.

The findings show that AI applications are now present across all OECD Tax Administration domains, although their distribution is uneven. The strongest and most mature evidence appears in tax compliance and enforcement, where machine learning, anomaly detection, neural networks, and graph-based models are used for audit case selection, fraud detection, prediction of tax evasion, and identification of suspicious taxpayer networks. These systems frequently outperform traditional heuristic or manual approaches, especially in structured, data-rich environments. Tax collection also shows significant progress, particularly in predictive analytics for revenue forecasting and taxpayer default detection, with some studies reporting very high predictive accuracy. In tax assessment, AI contributes to workflow automation, document analysis, and the processing of unstructured tax information, though the review stresses that these applications still require human oversight, particularly in discretionary or legally sensitive determinations. In tax services, NLP-based chatbots and AI-driven support systems improve responsiveness and service accessibility, but their effectiveness depends heavily on the quality, curation, and updating of underlying legal and administrative knowledge bases. Tax disputes remain the least developed domain, yet the reviewed studies indicate growing promise for AI-assisted evidence management and retrieval of semantically similar tax rulings. Across all domains, however, recurring challenges are identified: weak data governance, cybersecurity risks, limited explainability, fairness concerns, model drift, insufficient institutional capacity, and underdeveloped legal safeguards for taxpayer rights. The review emphasizes that technical performance alone is not sufficient; reliability in real-world

tax administration depends on transparent, contestable, auditable, and legally compliant systems supported by human oversight and organizational readiness.

The value of this study lies in its provision of a structured and policy-relevant synthesis of a rapidly evolving field. By organizing the literature around the OECD taxonomy, the paper moves beyond fragmented, technology-specific accounts and instead offers an integrated perspective on where AI is contributing most significantly to Tax Administration and where important weaknesses remain. It demonstrates that AI can improve efficiency, accuracy, and administrative targeting, but also makes clear that such benefits are conditional upon governance quality, explainability, legal accountability, fairness controls, and institutional capacity. In this respect, the review makes both theoretical and practical contributions: it clarifies the current state of academic knowledge, identifies underexplored areas such as tax services and tax disputes, and outlines the core pillars necessary for responsible largescale deployment: data governance, transparency, curated knowledge systems, human-in-the-loop fairness safeguards, and organizational capability. The study therefore provides a useful foundation for researchers, policymakers, and tax authorities seeking to evaluate not only what AI can do in Tax Administration, but under what conditions it can be deployed in a manner consistent with public trust, due process, and administrative legitimacy.

Keywords: tax administration, tax compliance, tax services, artificial intelligence, machine learning, large language models

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The Usage and Analysis of Big Data in Internal Auditing: A Study Using the Technology Acceptance Model

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ABSTRACT

This thesis examines the integration of big data analytics into internal auditing and evaluates how such technologies influence audit effectiveness in modern organizations. The exponential increase in data volume and complexity over recent years has created substantial challenges for organizations, particularly in relation to data management, control, and analysis. Traditional auditing methods, which were designed for smaller and more structured datasets, are increasingly unable to meet these demands. As a result, many organizations are adopting advanced data analytics tools to strengthen the efficiency, accuracy, and overall quality of internal audit functions.

Although big data analytics offers considerable potential to transform auditing practices, its successful adoption depends not only on technological capability but also on the willingness of auditors to use these tools and the readiness of the organization to support them. To investigate these factors, this study employs an extended version of the Technology Acceptance Model 3 (TAM3), originally developed by Davis, Bagozzi, and Warshaw (1989) and later refined by Venkatesh and Bala (2008). TAM3 provides a comprehensive framework for understanding how individuals evaluate and adopt new technologies, focusing on constructs such as perceived usefulness, perceived ease of use, social influence, trust, and external facilitating conditions.

To adapt the model to the internal auditing context, this research incorporates three additional variables: perceived risk, organizational support, and perceived impact on audit effectiveness. These elements capture concerns that are particularly relevant to auditors, who must consider issues such as data security, professional responsibility, and the extent to which new technologies genuinely enhance audit outcomes.

The extended model is used to explore how technological, individual, and organizational factors shape auditors' intentions and behaviors regarding the use of big data analytics. Specifically, the study investigates how perceptions of risk, the availability of organizational resources and support, and beliefs about the value of analytics for improving audit effectiveness influence adoption decisions. By examining these relationships, the research provides a deeper understanding of the conditions that encourage or hinder the integration of data-driven tools into internal audit processes.

This thesis contributes to the existing body of knowledge by combining technology acceptance theory with audit-specific considerations, offering a more holistic perspective on digital transformation within internal auditing. The findings highlight that successful adoption requires more than simply acquiring advanced analytical tools; it also

depends on building user confidence, providing adequate training, and fostering an organizational culture that supports innovation and continuous learning. In addition, the study offers practical insights for organizations seeking to enhance audit performance through data-driven approaches, including recommendations related to capacity building, resource allocation, and strategic alignment.

Ultimately, this research aims to support organizations in leveraging big data analytics to strengthen internal audit practices, improve risk assessment, and enhance overall governance and decision-making.

Keywords: Technology Acceptance Model, TAM3, big data, big data analytics, internal auditing

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Artificial Intelligence in Public Administration: The Example of Health Services

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ABSTRACT

THE ISSUE OF LIABILITY

The liability issues arising from the use of Artificial Intelligence (AI) systems constitute one of the most complex legal and ethical problems of our time, as the "autonomy" of these systems makes it difficult to apply the classical law of civil and criminal liability and creates a liability vacuum. AI systems make decisions that are not directly predicted by the programmers and often, especially in neural networks, operate in a way that is not fully understood even by their creators. This raises questions about whether the system manufacturer is at fault due to a flaw in the code, whether the user is at fault due to incorrect use or lack of supervision, or whether the system itself has learned to read unpredictable behavior based on the data that has been input.

Basic levels of responsibility:

Responsibility is divided into three stages. 1) **Development (Developers/Providers):** With the new European directive (2024/2853) (European Parliament, & Council of the European Union, 2024b) on defective products, AI software is considered a "product". During the development stage, manufacturers are therefore responsible for the safety of the product, for the training data that may contain bias or for the adequate documentation of risks. Especially for the latter, if an error in the code or training data causes an accident (e.g. an autonomous vehicle does not recognize a pedestrian), the manufacturer is strictly liable (without considering whether there was intent). 2) **Deployment:** Businesses that adopt AI systems are responsible for how they integrate them into their processes and for their ongoing oversight. 3) **Operation:** When a system acts independently, the issue of strict liability arises, which is attributed to the "operator" of the system. This means that the owner or administrator, or the user may be liable for the damage caused by the AI system regardless of whether there was any culpable conduct, precisely because it benefits from the use of the technology and derived a benefit from its use (Stylianidis, 2025).

PRACTICAL ISSUES OF LIABILITY:

- **Proof of causation:** It is very difficult for someone who has suffered damage from the use of an AI system to prove exactly why the specific AI system made the specific decision that led to the damage caused. This creates the problem of the "presumption of fault", where the injured party finds it difficult to prove fault due to technical complexity (Kanellos, 2021).

- **Transparency and explainability:** The ability of the system to explain its decision is crucial for attributing liability.

The application of civil and criminal liability presents challenges due to the nature of AI systems. Traditionally, law is based on human fault. When the decision is made by an algorithm, the issue of attributing liability becomes complex.

1. Civil Liability (Compensation)

Civil liability concerns the obligation to compensate for damage (material or moral) caused to a third party (Kanellos, 2021).

Intra-contractual liability: If an AI system caused damage within the framework of a contract (e.g., a wrong MRI diagnosis by software in a hospital), the liability is allocated based on the terms of the contract and the obligations of the provider.

Extra-contractual Liability (Torture): In this case the issue is more complex. If AI causes damage, then the injured party must prove the fault and because in this case proving what went wrong in the "black box" of the algorithm (black box) is complex, the new rules (AI Liability Directive) introduce the facilitation of access to evidence by companies.

2. Criminal Liability (Penalties): Criminal Law is based on the principle of subjective fault (intention or negligence) by a natural person as an AI system does not have legal personality, cannot be "aware" of the wrongful nature of an act and suffer the consequences. The responsibility therefore lies with the people behind the AI system and in particular:

a) The programmers/manufacturers: If damage occurred due to fault in the design of the system or violation of security rules.

b) Users/entrepreneurs: If they used the system in a way that endangers human life or safety, such as when there is a violation or neglect of compliance with supervision protocols.

Summarizing the above, we understand that Regulation (EU) 2024/1689 (European Parliament, & Council of the European Union, 2024a) does not explicitly define the issue of liability nor does it provide for an individual right to compensation for damage caused by AI applications. However, it diverges from the principle of product safety as it introduces requirements that aim to reduce the risk to security and fundamental rights by focusing on the prevention and anticipation of risks and giving an incentive to providers to design safe AI systems in order to avoid excessive fines in case of violation of the Regulation.

In any case, however, since there is no explicit provision in the Regulation defining the issue of liability of machines and AI systems, the answer to the crucial question of "who is to blame" when no one knows why the AI made the mistake is complex and could be divided as follows (Panagopoulou, 2025):

A) The manufacturer is liable even if the defect arose after purchase, due to a software update or due to the system's ability to "learn" and change behavior. This strengthens the manufacturer's responsibility in the design of the AI system, as well as its ability to anticipate any design failures that could lead to damage.

B) The responsibility lies with the user of the AI system, i.e. the doctor who applies the technology, because during use, he must check whether the system and its use are fully adapted to the actual circumstances, while also calculating the possibility that the algorithm is biased by the data given to it.

C) Responsibility is shared between the manufacturer or developer and the user, and each is responsible for their respective share.

D) The technology itself is responsible for the system's errors. In the EU, the issue of attributing responsibility to machines presupposes that they are legal subjects and have legal personality. This issue has been rejected for the time being because in 2020 the European Parliament adopted three resolutions on the ethical and legal aspects of artificial intelligence. In particular, the European Parliament adopted: 1. Resolution 2020/2012 (INL) concerning the ethical aspects of AI, Robotics and related technologies, 2. Resolution 2020/2014 (INL) on civil liability for AI and 3. Resolution 2020/2015 (INL) on intellectual property rights in the development of AI technologies. All three resolutions are negative in granting legal personality to AI systems (Panagopoulou, 2025).

However, the rapid development of technology and the need to regulate the liability gap do not exclude the discussion in the future of attributing digital personality to artificial intelligence applications and systems.

The trend in legislation in 2026 is to impose strict logging of every AI action, so that the course of the decision can be reconstructed and responsibility can be attributed.

In this context and with the rationale of filling the liability gap left by Regulation (EU) 2024/1689 (European Parliament, & Council of the European Union, 2024a) which sets out the rules on prevention, Directive (EU) 2024/2853 (European Parliament, & Council of the European Union, 2024b) on Product Liability (PLD) modernises rules that have been in force since 1985 and sets out what happens when prevention fails. Its main objective is to adapt the law to the digital age and is extremely important because in its key points it stipulates that:

1. Software is a "Product": Software (and therefore AI systems) is now officially considered a "product".
2. Strict Liability: The principle is maintained that the manufacturer is liable regardless of fault (intention or negligence)
3. What is considered a "Defect" in AI: A product is considered defective when it does not provide the safety that an average user is entitled to expect.
4. Facilitating the Burden of Proof: Directive introduces mechanisms such as ordering the company to provide the court with all relevant documents or data to assist the injured party. Furthermore, if the plaintiff faces excessive difficulties due to technical complexity (e.g. a deep learning algorithm or a complex innovative medical device), the court may, taking into account complexity factors, presume that the product was defective, unless the manufacturer proves otherwise.

Keywords: Responsibility, Burden of Proof, Strict liability, Criminal liability, AI Act Regulation

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Construction, Economic and Technical Features' Estimation with Machine Learning Models. Findings from Greece

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ABSTRACT

Due to the inherent variety and intricate nature of construction endeavors and infrastructure, forecasting and regulating critical metrics - including construction costs, construction duration, energy consumption, and emissions - remains a complex task. To navigate these hurdles, recent developments have pivoted toward machine learning (ML), offering a robust framework for building predictive models that deliver precise and dependable estimates.

The main goals of this doctoral dissertation are:

- a) Developing predictive models, employing machine learning, for the economic and construction parameters of construction projects and infrastructure.
- b) Assessing the performance of these models.
- c) Conducting a comparative analysis of their results, with emphasis on their reliability.

Although initial efforts to apply artificial intelligence (AI) in construction and infrastructure date back to the 1980s, the volume of published research remains modest relative to the breadth of the field. Nevertheless, the past ten years have witnessed a notable rise in research activity. Aretoulis (2019) employed neural networks to create predictive models for highway construction costs in Greece. Similarly, Antoniou et al. (2023) utilized multiple linear regression to estimate both construction expenses and the material quantities embedded in Athens metro stations. In a related study, Zhang et al. (2021) applied the random forest method to forecast energy consumption in Wastewater Treatment Plants (WWTPs) in China.

This dissertation focuses on three key predictive parameters selected for developing machine learning models: construction costs, energy consumption, and greenhouse gas emissions. The research process began

with a literature review and the creation of a taxonomy related to construction cost estimation, alongside an evaluation of existing review studies. This step also involved documenting the available machine learning methods, the types of construction projects they have been applied to, and the frequency with which each method is used. Following this, machine learning models were developed using four selected methods: neural networks, regression analysis, random forest, and XGBoost.

The case studies selected for this dissertation focus on estimating construction costs for WWTPs and bridge projects in Greece, as these areas presented identifiable gaps in the existing literature while also ensuring data availability. Furthermore, predictive models were developed to estimate both energy consumption and greenhouse gas emissions from WWTPs, representing additional infrastructure domains where literature gaps were similarly observed.

A total of 219 relevant journal and conference articles were identified through the literature review. The findings indicate that machine learning applied to construction cost prediction is most frequently used in building projects (54.50%), followed by roadworks (14.59%), bridges (5.58%), tunnels (4.72%), and WWTP or sewage systems (5.58%). Among the machine learning techniques, neural networks are the most commonly employed (34.72%), followed by regression methods (16.23%) and case-based reasoning (7.55%). Hybrid models account for 27.17% of the cases.

For predicting the energy consumption of WWTPs in Greece and the associated greenhouse gas emissions released into the atmosphere, data from 31 WWTPs were utilized, resulting in a database comprising 8 variables (1 dependent, 7 independent). Similarly, for the prediction of WWTP construction costs, data from 31 different WWTPs were employed, forming a database with 9 variables (1 dependent, 8 independent). For the estimation of bridge construction costs, data from 39 bridges were used, forming a database with 10 variables (9 independent and 1 dependent). For all case studies (both WWTPs and bridges), Artificial Neural Networks (ANN) were developed using the FANN Tool software. Additionally, further models were created using Python, including ANN, Ridge Regression, Random Forest, and XGBoost. The performance metrics applied across all models were MSE, R^2 , and MAPE. Among the models developed, Ridge Regression proved to be the most efficient due to the large number of quantitative variables involved, followed by Random Forest, XGBoost, and ANN. ANNs did not demonstrate strong performance, primarily due to the limited size of the dataset. Moreover, overfitting was observed in some models, also attributable to the small number of data points.

The developed models can contribute to the design and decision-making phase for project implementation. The accuracy of the models can be improved by expanding the databases through data obtained from company and organizational records.

Keywords: machine learning, predictive models, infrastructure, constructions

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Blockchain Taxonomies: A Systematic Literature Review

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ABSTRACT

The blockchain technology domain has been growing significantly the past years with a continuous flow of innovative ideas and new business models. The introduction of this technology in application domains and governance structures that have remained unaltered for decades or even centuries has short term implications we are just beginning to understand as well as mid to long term effects which are still hard to predict.

In order to map the application domains of blockchain technology and identify the areas researchers are primarily focused, a systematic literature review of publications regarding blockchain taxonomies has been performed. In total 122 articles were reviewed to create a hierarchical map of blockchain taxonomies. During the initial analysis, it was determined that the blockchain taxonomies can be grouped in two broad categories: taxonomies that focus on the blockchain technology itself and taxonomies that look into applications of blockchain. Using this categorization as the first level of the hierarchy, the taxonomies were further split in two groups: those that were focusing on a specific pillars of the blockchain - decentralization, immutability and trust - and those that span horizontally across all three pillars.

Keywords: Blockchain, Implications, Taxonomy

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Project Risk Management with Use of Artificial Intelligence.

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ABSTRACT

Research on recent academic articles (in the period 2015–2026) about the perceived benefits by the use of artificial intelligence (AI) in the field of public procurement, shows lack of unified and applicable methodology that can support decision making and offer valuable insight for public authorities to implement such technologies, and digital technologies in general (big data analytics, blockchain, and smart contracts).

The purpose of this study is to analyze the public procurement domain especially since 2016, because of a major legal leverage in EU's public procurement process, and investigate the opportunities for enhanced efficiency and accountability from a public procurement perspective, while raising new challenges related to privacy, regulatory alignment, and institutional capacity. Public authorities lack cutting-edge digital tactics and adaptable risk management frameworks to manage uncertainty and guarantee projects success. The objective is clearly the strategic relevance of digital transformation and sustainability for modern procurement systems.

A bibliometric analysis was conducted related to the research field, based on 162 articles indexed in the Scopus database, mainly written the last two years that shows a greater interest in the domain. This analysis has enabled a comprehensive mapping of the current state of research, highlighting key theoretical and methodological directions adopted by the academic community. Also, information is gathered from scholarly publications, and other reliable sources, especially European studies but seeing the constant global interest, studies from Asia, Africa, and Latin America are also included, while fostering interdisciplinary convergence across economics, public administration, law, data science, and engineering.

Therefore, the theoretical research framework focuses on methodology for identifying risks, reducing them, and completing projects successfully, and also foresees an analysis of procurement cases across the world, mostly in Europe, to supplement the analysis of indicators related to public procurement practices along the procurement cycle.

In addition, this analysis forms part of a broader literature review aligned with PRISMA guidelines, examining recent scholarly contributions published, with emphasis on digital transformation, sustainability, fairness, stakeholder engagement, and strategic procurement frameworks in diverse context so as to evaluate the influence of digital tools

in public procurement that can lead to enhanced performance and the efficacy of risk management developed into a conceptual framework.

Also, this research explores procedures (focusing on efficiency, transparency, and regulatory compliance) considered of a high risk to the functioning of the procurement system as it is, and examines AI tools to effectively recognize, manage, forecast and eliminate risks in the unpredictable environment of public contracts/ procurement.

According to the co-occurrence keyword network that revolves around five main themes relating to public procurement, including budget control, costs, forecasting, corruption(cartel) and machine learning. Strong interdependence is lacking as well as insufficient research collaboration between developed and developing countries institutions suggesting that authors' cooperation network is fragmented, showing limited collaboration among public procurement researchers.

Results indicate that public procurement should generate more value and evolve globally from a transactional administrative function into a strategic instrument for governance, sustainable development, transparency, and economic innovation in an AI-enabled future.

Public procurement should function not only as a financial management tool, but also as a multidimensional governance mechanism promoting transparency, green transition, social justice, and technological innovation.

Consequently, several directions for future research suggest how public authorities will be able to proactively manage risks, optimize resource allocation, and preserve project timetables in spite of unforeseen problems. The goal is to coordinate rigorous process steps that can eliminate and manage risks and create improvement roadmaps and contract lifecycle management solution in an AI-enabled future.

As a result, this study contributes to the literature by illustrating the unique conditions for digital innovation in the public sector worldwide, and generate more value to practice by highlighting key shifts that increase public authorities' digital innovation capability.

Keywords: Public Procurement, Corruption, Digital Technology, Artificial Intelligence (AI), Risk Management

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Artificial Intelligence for Financial Statements: A Systematic Review of Artificial Intelligence Applications in Accounting and Financial Reporting

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ABSTRACT

Artificial Intelligence (AI) is increasingly transforming accounting and finance by reshaping the way financial information is generated, processed, analyzed, and communicated. Recent advances in machine learning, deep learning, natural language processing, robotic process automation, and large language models have enabled organizations to automate routine accounting procedures, process large volumes of structured and unstructured financial data, and support more advanced financial analysis, forecasting, fraud detection, and decision-making. Prior studies suggest that AI can improve operational efficiency, forecasting accuracy, anomaly detection, analytical insight, and the overall quality of financial information across accounting and financial environments (Appelbaum et al., 2017; Gepp et al., 2018; Theodorakopoulos et al., 2024). At the same time, the growing adoption of AI raises important concerns regarding explainability, data governance, ethical accountability, regulatory compliance, professional judgment, and the evolving role of accounting professionals (Richins et al., 2017; Peng et al., 2023; Li et al., 2025). Although the literature on AI in accounting and finance has expanded rapidly in recent years, it remains fragmented across multiple domains, including auditing, forecasting, fraud detection, financial analytics, sustainability reporting, and corporate disclosure (Andriopoulos et al., 2019; Dong et al., 2024; Valentinetti & Rea, 2025). In particular, relatively limited attention has been devoted to the direct role of AI in financial reporting systems and financial statements, despite their central importance for transparency, corporate governance, investor communication, and stakeholder decision-making.

Against this background, the present study provides a systematic literature review of AI applications in accounting and finance, with particular emphasis on financial reporting, financial statements, and financial information systems. Using the PRISMA 2020 framework, and complementing the review process with text-mining techniques, the study analyzes 114 peer-reviewed academic publications published between 2018 and 2025 in order to map the evolution of the field, identify the dominant AI technologies and application domains, and examine the main technical, organizational, ethical, and regulatory challenges associated with AI adoption. The review focuses on major domains such as auditing and assurance, financial forecasting and decision support, fraud detection and risk management, stock market analytics, sustainability and ESG reporting, and AI-enabled financial reporting. The findings indicate that AI technologies significantly enhance analytical capabilities, improve operational efficiency, and support more data-driven financial decision-making. The literature also shows a clear shift from traditional structured-data analysis toward more complex environments that integrate textual disclosures, annual reports, ESG narratives, corporate communications, and other forms of unstructured financial information. However, AI adoption remains uneven across domains. While forecasting, fraud detection, auditing analytics, and financial market prediction appear relatively mature, AI-enabled financial reporting, disclosure automation, and the automated interpretation or generation of financial statements remain comparatively underexplored.

The study contributes to the literature in several ways. First, it provides a structured synthesis of a fragmented and rapidly expanding research field by organizing prior studies according to AI technologies, accounting and finance application domains, data types, methodological approaches, and reported impacts. Second, it introduces the Artificial Intelligence for Financial Systems (AI4FS) conceptual framework, which links AI technologies, accounting processes, financial information systems, governance mechanisms, and financial outcomes. Third, it extends the emerging literature on AI in accounting by explicitly highlighting the underdeveloped role of AI in financial reporting and

financial statements, while outlining a future research agenda focused on explainable AI, multimodal financial systems, AI-assisted disclosure generation, governance and accountability frameworks, benchmarking, professional skills, and real-world implementation. The present contribution to the Doctoral Conference of the University of Thessaly aims to highlight, in a structured and documented manner, the main findings, conceptual contribution, and future research directions of the present systematic literature review on Artificial Intelligence applications in accounting and financial reporting. Overall, the study offers useful implications for researchers, practitioners, educators, regulators, and policymakers seeking to promote transparent, responsible, and effective AI adoption in accounting, finance, and financial reporting

Keywords: Artificial Intelligence, Automated financial reporting, Machine Learning, Large Language Models, Accounting, Finance.

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***Design of an Experimental Study to Investigate the Impact of an Educational Role-Playing Game (RPG) on Accounting Education**

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ABSTRACT

The proposed study is grounded in the observation that accounting education is currently at a critical juncture of digital transformation. Automation, Artificial Intelligence, and other related technologies are reshaping the execution of accounting processes, thereby increasing the requirements for graduates' digital readiness. Within this context, the present paper examines the integration of an educational Role-Playing Game (RPG) into the teaching of the course "Financial Accounting I", investigating whether active, experiential learning through mission-based activities can enhance students' performance and attitudes compared to a traditional lecture-style approach.

This rationale is supported by recent evidence indicating that digital tools and serious games enhance interaction, motivation, and practical understanding, aligning learning experiences more closely with real-world professional practices. The study focuses on four main dimensions: (a) assessing the impact of the game on students' applied accounting competence, (b) measuring their readiness for digital transformation, (c) examining the level of students' cognitive engagement in the learning process, and (d) investigating their learning motivation and self-efficacy.

The primary research question concerns whether participation in the educational game leads to superior learning outcomes compared to conventional teaching methods. Additionally, the study explores whether the game-based experience strengthens students' attitudes, knowledge, and confidence regarding the use of digital technologies in the accounting profession. This research theme is aligned with the overarching framework of the doctoral dissertation entitled "Teaching Methodologies and Information Technologies in Accounting Education: Preparing Professionals for Digital Transformation."

The study design is based on the principles of experimental research, involving the manipulation of the independent variable (teaching method: educational RPG versus traditional instruction) and the measurement of its effects on multiple dependent variables. A comparison between an experimental group and a control group is planned, using pre-test and post-test measurements conducted in a real university teaching environment.

The present contribution to the Doctoral Conference of the University of Thessaly aims to highlight, in a structured and documented manner, the research framework, theoretical foundations, and experimental design of the study, prior to the completion of the systematic literature review and the implementation of the experimental phase. As part of the presentation, a brief demonstration of a prototype version of the educational role-playing game is also planned. This demonstration does not aim to evaluate learning outcomes, but rather to illustrate the pedagogical rationale, the structure of the missions, and the way accounting concepts are embedded within an experiential digital learning environment. Through this demo, the presentation seeks to clarify how the educational RPG functions as a research and instructional tool within the proposed experimental design.

In this way, the study invites critical discussion and constructive feedback on the research design, contributing to the refinement and maturation of the overall research process. Overall, the proposed research aspires to contribute both to the theoretical discourse on contemporary teaching methodologies in accounting education and to the development of evidence-based pedagogical practices that respond to the demands of the digital era and modern professional reality.

Keywords: Educational Role-Playing Game (RPG), Gamification, Accounting Education, Digital Transformation, Experiential Learning

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Session III

ESG, Sustainability & Corporate Governance

ESG Performance and Green Bond Yields: New Evidence on the Moderating Effect of External Sustainability Assurance

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ABSTRACT

The rapid expansion of the global green bond market has strengthened the role of Environmental, Social and Governance (ESG) performance in corporate financing. As investors increasingly seek instruments that are both environmentally credible and financially sound, understanding how ESG quality influences the pricing of green bond yields has become essential. International initiatives such as the Climate Bonds Initiative (CBI) and emerging Green Bond Regulations in the EU and other jurisdictions aim to enhance transparency, standardization, and environmental integrity. Yet despite these regulatory advancements, the credibility of ESG information remains uneven, creating uncertainty about whether strong sustainability performance actually translates into lower financing costs.

Theory suggests that firms with superior ESG profiles should exhibit lower default risk, enhanced operational resilience, and reduced information asymmetry—factors that may justify lower required yields. Empirical evidence partially supports this view: studies document that stronger ESG performance is linked to reduced credit risk and lower probability of default (Li, Zhou & Xiong, 2020) and that green bond pricing is influenced by credit ratings, liquidity, maturity, and disclosure quality (Cicchello et al., 2022; Lebel, Jarjir & Sassi, 2022; Makpotche, Bouslah & M'Zali, 2024). Further, time-varying analyses show that the relationship between green bond pricing and environmental variables evolves over time, underscoring the importance of dynamic risk channels (Hammoudeh, Ajmi & Mokni, 2020).

One reason for these mixed findings is the credibility gap surrounding sustainability disclosures. Concerns about selective reporting and greenwashing reduce investor confidence and weaken the market's ability to price ESG performance effectively. External sustainability assurance has emerged as a potential solution. Similar to financial audits, third-party reviews can certify environmental claims, reduce information asymmetry, and help investors distinguish genuinely green issuers from opportunistic ones. Recent evidence shows that external reviews and “shades of green” assessments materially shape investor perceptions and pricing outcomes (Dorfleitner, Utz & Zhang, 2022; Ghitti et al., 2023). Yet, evidence on whether assurance strengthens the pricing benefit of ESG performance, particularly for corporate green bonds remains limited.

Keywords: Green bonds, ESG performance, Green bond yields, Sustainability assurance

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Assessing ESG Practices' Influence on Production Efficiency: A Nonparametric Approach

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ABSTRACT

This study explores the dynamic effects of Environmental, Social, and Governance (ESG) practices on firms' production efficiency using a nonparametric framework of frontier analysis (Daraio et al., 2018, 2020). By focusing on the direct impact of ESG practices on operational efficiency, the research addresses the 'missing links' in the existing literature (Lioui & Sharma, 2012) and investigates how these practices contribute to indirect value creation, as highlighted by Broadstock et al. (2019).

Our analysis, based on a dataset of 17,319 firm observations from 2015 to 2022, reveals a significant, positive, and nonlinear relationship between ESG factors and production efficiency. These findings align with the arguments of Edmans (2023a, b), suggesting that firms emphasizing ESG considerations can achieve higher financial returns, especially when these factors are not yet priced into the market. The study particularly highlights the role of social ESG factors, such as employee satisfaction, in boosting labor productivity. Satisfied employees are more motivated, engaged, and loyal, leading to better performance and efficiency, which ultimately enhances financial returns, as suggested by prior research (Edmans, 2011; Boustanifar & Kang, 2022).

Traditional performance metrics based on accounting measures have limitations in capturing the true impact of ESG practices on firm performance. As Fisher and McGowan (1983) argue, these metrics can be inconsistent across firms and industries, often failing to reflect the economic rates of return that align with long-term industry equilibrium. In contrast, economic rates of return provide a more accurate and comprehensive measure of performance by considering the broader economic context in which firms operate.

This study contributes to the literature by shifting the focus from the traditional accounting-based performance evaluation to operational performance, specifically through the lens of production efficiency. Utilizing advanced nonparametric efficiency measurement techniques (Daraio et al., 2018, 2020), we model the direct effects of ESG practices on production efficiency. Our second-stage nonparametric regression analysis using a location-scale model (Bădin et al., 2012, 2019) further validates the robustness of our findings, supporting the hypothesis that ESG practices contribute to firms' inefficiency distributions and enhance indirect value creation (Lioui & Sharma, 2012).

The study also delves into the relationship between productivity and profitability. Productivity, as a long-term performance metric, reflects the efficiency of a firm's operations without being influenced by short-term fluctuations in input prices. The well-documented link between profit and efficiency (Tsionas & Tzeremes, 2022) highlights the critical role of efficiency in driving long-term profitability, where efficiency—measured as the ratio of output to input—directly influences profitability by adjusting for unit prices and costs (Bernolak, 1997).

The nonlinear relationship between ESG practices and production efficiency presents crucial considerations for policymakers. Effective policy design requires understanding this complexity, recognizing that a one-size-fits-all approach may not suffice. Tailored interventions and further research into the drivers of this nonlinearity are necessary to inform targeted policy measures.

From a policy perspective, our findings advocate for encouraging firms to adopt ESG practices as a strategy to enhance both operational and financial performance. Regulatory measures and incentives, such as mandatory ESG reporting standards, can improve transparency and help investors make informed decisions. Corporate governance policies prioritizing employee satisfaction can also lead to a more motivated workforce, improving operational efficiency and financial outcomes.

In conclusion, this study offers valuable insights into the direct effects of ESG practices on operational performance, suggesting that integrating these practices not only improves efficiency but also fosters sustainable financial success.

Keywords: ESG, Efficiency, Operational Performance.

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Do Sin Firms Engage in Impression Management through ESG Communication? Evidence from X

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ABSTRACT

Managers often employ ESG communications on social media platforms to shape stakeholder perceptions (Araujo & Kollat, 2018), manage corporate reputation (Pu et al., 2024), and signal the firm's commitment to sustainability (Balasubramanian et al., 2020). While the use of ESG posts as a strategic tool in the investment process has been substantially discussed in the literature (Zhang et al., 2023), no prior research has examined its effectiveness for firms operating in controversial industries. Thus, our goal is to explore how less reputable firms, commonly referred to as sin firms, use ESG communications on digital platforms.

We focus on the tobacco, gambling, alcohol, and firearms industries, which paradoxically employ the rhetoric of sustainability and responsibility in their corporate communications, even though their core products are widely perceived as harmful and ethically questionable (Zerbib, 2022). The negative stakeholder perceptions and public disapproval regarding sin firms' operations are often accompanied by increased scrutiny that induces financial risk (Hong & Kacperczyk, 2009). For these reasons, sin firm managers may be motivated to use impression management to alleviate pressure and mislead investors about the firm's actual ESG performance (Berkin et al., 2025), particularly as ESG assurance of ESG information stands at a crossroads (Gipper et al., 2024). Social media, as a direct means of communication, can be a powerful tool for engagement with stakeholders (De Luca et al., 2022), enabling firms to promote ESG information.

Against this background, we examine how ESG posts on social media may serve as a channel for impression management. We focus on 190 publicly traded sin firms managing at least one active X account between 2008 and 2024 to analyze the readability of their tweets. In particular, we compare 137,000 ESG and non-ESG posts to identify possible comprehension differences between the two groups. We further assess the influence of ESG tweets' readability on stakeholder engagement, and investigate the relationship between tweet readability and financial performance. Our results, supported by regression and machine learning models, indicate that sin firms' managers post symbolic ESG tweets to alleviate the firms' stigma. In comparison with ESG tweets, posts unrelated to ESG topics are, on average, more readable as measured by Dale-Chall readability formula. Of the ESG tweets, those with higher readability, more "at" mentions, and longer textual content are positively associated with user engagement. On the other hand, more readable ESG content on social media does not seem to produce financial benefits for sin firms.

Those results are consistent with organizational stigma literature that emphasizes the impact of stigmatization on controversial firms. That is the stakeholder criticism, reputational penalties, and financial risk they bear, irrespective of firm-specific characteristics, as their operations deviate from accepted organizational practices (Devers et al., 2009). Given this negative impact, managers strive to leverage the rising demand for ESG communications, and the expansive reach of social media to numerous stakeholders as a defensive mechanism against stigmatization penalties. Rather than risk making false claims that can be quickly discovered and punished (Yannopoulou et al., 2024), they leverage

the lack of regulatory readability standards to engage in “cheap talk” that is difficult to scrutinize. We note, however, that this practice fails to materialize into financial gains.

Our study makes several contributions to the impression management, social media, and readability literature. We extend existing impression management research by demonstrating the use of ESG communication on social media as a strategic tool to alleviate sin firms’ organizational stigma, and enhance their public image. We also enrich social media and readability literature by examining the impact of ESG posts’ clarity on stakeholder engagement. In contrast to prior studies that have explored the role of social media posts’ readability across industries (e.g., Davis et al., 2019), our study provides new perspectives by focusing on controversial industries. In addition, we examine further drivers of stakeholder engagement, specific to the X digital platform. Finally, we shed light on the impact of ESG communication on financial outcomes, showing that the readability of ESG tweets is not associated with the financial performance of sin firms.

Keywords: Organizational Stigmatization, ESG, Sin Firms, Impression Management, Readability, Social media, Twitter

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The Effects of Greenwashing on Financial Performance: Global evidence

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ABSTRACT

Over the past decades, corporate social responsibility (CSR) has attracted significant attention from scholars, policymakers, practitioners and society, promoting firms to increasingly communicate their environmental and social initiatives to stakeholders (Wu et al., 2020). In this vein, executives face mounting pressure to demonstrate socially responsible behavior while doing business (Christensen et al., 2021). However, under these conditions, firms may present misleading portrayals of their CSR or referred as environmental, social, and governance (ESG) activities (Gillan et al., 2021; Baker et al., 2024). This practice is commonly referred to as “greenwashing” and occurs when firms misrepresent themselves in sustainability or ESG disclosures as more environmentally and socially responsible than their actions warrant (Kim and Lyon, 2015; Kassinis et al., 2022).

Despite the growing literature in greenwashing, its financial consequences remain underexplored (Taddeo et al., 2026), and evidence regarding its effect on corporate financial performance (CFP) remains inconclusive (Testa et al., 2018). While some studies report a positive association (Li et al., 2023), others find negative or mixed effects (Walker and Wan, 2012; Testa et al., 2018; Lee and Raschke, 2023; Birindelli et al., 2025; Gallas et al., 2025; Xu et al., 2025).

Against this background, we utilize prior theoretical underpinnings employed in this field, namely, legitimacy and signaling theory to elucidate how greenwashing affects firms’ performance. We employ a sample of 77,319 firm-year observations from 76 countries over the period 2002–2024. We demonstrate a negative association between greenwashing and CFP using both accounting- and market-based measures. Through channel analysis, we identify that this relationship is mediated via higher tax fraud and increased human rights controversies. Finally, we find that boards in which women represent more than 25% of directors moderate the relationship between greenwashing and financial performance. Our findings prove to be robust to several model specifications, endogeneity checks and alternative sample specifications.

We contribute to the existing literature on several fronts. First, we extend research on greenwashing by providing evidence from a global firm-level dataset. Second, we advance the measurement of greenwashing by introducing a set of novel proxies to capture this phenomenon. Finally, and more broadly, we contribute to the critical mass theory by showing that a critical mass of women directors moderates the adverse consequences of greenwashing. Overall, our evidence supports policies aimed at enhancing board gender diversity.

Keywords: corporate social responsibility, legitimacy theory, signaling theory

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Do Firms' Circular Economy Initiatives Matter for Default Risk? Evidence from Europe

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ABSTRACT

This study is motivated by the growing recognition that the determinants of corporate default risk extend beyond traditional financial indicators to include broader dimensions of corporate sustainability. While earlier research explains default risk mainly through firm-specific financial characteristics such as leverage, profitability, and asset volatility (Altman, 1968; Merton, 1974), more recent studies highlight the potential importance of non-financial information, particularly ESG-related factors (Atif and Ali, 2021; Li et al., 2022; Yadav and Asongu, 2025). In this evolving context, the present study investigates whether firms' engagement in circular economy (CE) initiatives represents a meaningful and operational determinant of default risk.

This motivation is reinforced by the increasing prominence of the CE in both corporate strategies and regulatory frameworks, especially within the European Union where sustainability transition policies are strongly emphasized

(Esposito et al., 2023). The CE introduces a fundamental shift from linear production systems toward models that prioritize resource efficiency, waste minimization, and environmental regeneration (Geissdoerfer et al., 2017). According to the Ellen MacArthur Foundation (2019), this approach is based on principles such as eliminating waste, extending the lifecycle of materials, and restoring natural systems. At the firm level, these principles translate into tangible actions, including eco-design, energy optimization, sustainable sourcing, and recycling systems (Al-Najjar et al., 2025). Nevertheless, despite its growing relevance, empirical research on the CE remains limited, largely due to measurement challenges and the absence of standardized indicators (de Jesus and Mendonça, 2018; Barros et al., 2021).

Against this background, the study is structured around four core objectives. First, it examines whether the adoption of CE practices is associated with a reduced probability of financial distress. Second, it evaluates whether such practices are linked to improvements in firms' overall sustainability performance. Third, it explores the mechanism through which circular engagement may influence default risk, with particular emphasis on the mediating role of sustainability-related outcomes. Fourth, it assesses the robustness of the observed relationships using alternative empirical approaches designed to mitigate potential biases. Through this framework, the study aims to provide a deeper understanding of how operational sustainability initiatives translate into financial implications.

The main research question addresses whether firms that are more actively engaged in CE initiatives exhibit lower levels of default risk. In addition, the study considers whether improvements in ESG performance serve as an intermediate channel linking circular practices to financial stability. This line of inquiry contributes to the broader effort to refine the measurement of corporate sustainability by focusing on concrete, practice-based indicators rather than aggregate ESG scores (Bucaro et al., 2019; Tsang et al., 2023; Xue et al., 2024).

Methodologically, the study adopts a quantitative research design based on panel data from 1,668 publicly listed firms in the European Union over the period 2014–2023. The empirical analysis involves estimating regression models that relate a Circular Economy Index (CEI) to various measures of default risk, while controlling for firm-level characteristics. To enhance the credibility of the findings, additional techniques such as propensity score matching and generalized method of moments (GMM) estimation are employed to address endogeneity concerns. Furthermore, a mediation analysis is conducted using a two-step regression approach in order to examine whether ESG performance functions as a transmission mechanism.

The contribution of this study to the Doctoral Conference lies in presenting a coherent and well-founded research framework, including its theoretical motivation and empirical strategy. Particular attention is given to the justification for focusing on CE initiatives as a distinct and measurable aspect of corporate sustainability, as well as to the methodological choices underlying the analysis. The presentation aims to provide a clear overview of the research design prior to the completion of the empirical investigation.

In this context, the study seeks to encourage constructive feedback and academic discussion that can support the further development of the research. Overall, the proposed work aims to advance the literature on sustainability and financial risk by offering new evidence on the relationship between CE practices and default risk, while also contributing to policy discussions on promoting sustainable and financially robust firms within the European economy.

Keywords: Social and Environmental Accounting; Sustainability; Default Risk; Altman Z-score; Ohlson O-score

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Corporate Governance and Earnings Management in Family Firms: The Role of Ethical Leadership

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ABSTRACT

This study examines the relationship between corporate governance mechanisms and financial performance in family firms, with a particular focus on earnings management practices and their implications for the reliability of financial statements. In response to recent calls for further research on ethical leadership (Almasarwah et al., 2025; Sanchez-Famoso et al., 2023), this study investigates the role of ethical leadership in mitigating earnings management and enhancing firm performance within the context of family businesses.

Theoretically, the study integrates agency theory and behavioral ethics to argue that leadership plays a critical role in promoting transparency and reducing opportunistic financial reporting practices. Furthermore, the analysis draws on upper echelons theory and the social capital perspective of familiness (Hambrick & Mason, 1984; Pearson et al., 2008) to explain how the emotional attachment of family owners to their firms, along with their desire to preserve family reputation and legacy, fosters ethical conduct and responsible decision-making. This, in turn, contributes to the development of trust-based relationships, improved organizational alignment, and enhanced financial performance.

Methodologically, this study adopts a qualitative approach, employing in-depth interviews with family firm owners and executives. This approach allows for a comprehensive exploration of how ethical leadership is perceived and enacted in real-world settings, offering rich insights into its influence on financial reporting quality and firm growth.

Prior research has primarily relied on survey-based methods; thus, this study contributes by providing deeper, experience-based evidence derived from direct interactions with key decision-makers (Kraus et al., 2023; Babalola et al., 2022).

Preliminary findings suggest that perceived ethical leadership constitutes a key determinant of both firm growth and earnings quality, reinforcing the importance of ethical values in shaping sustainable business practices within family firms. Overall, this study contributes to the literature by offering qualitative insights into the role of ethical leadership in enhancing financial transparency and performance in family-controlled enterprises.

Keywords: Ethical leadership, earnings management, firm performance, family firms, corporate governance

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The Impact of ESG Strategies on Consumer Behavior in The Greek Hotel Industry.

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ABSTRACT

Global concern regarding the multidimensional and often irreversible impacts of uncontrolled economic development on the natural environment, institutionally consolidated by the Stockholm Conference of 1972, constituted the starting point for the contemporary emergence of the ESG (Environmental, Social, Governance) framework as a fundamental pillar for the implementation of the Sustainable Development Goals of Agenda 2030. The environmental pillar is being radically reshaped through the integration of cutting-edge technologies such as Artificial Intelligence (AI) and the Internet of Things (IoT), which facilitate the adoption of circular operational models, the optimization of energy consumption, and the substantial reduction of the ecological footprint, recognizing that the long-term preservation of natural capital constitutes the primary source of competitive advantage.

At the same time, the social dimension focuses on workforce well-being and safety, education and training, equality, inclusion, and the strengthening of local social cohesion, elements that function as a guarantee of tourism product quality. The governance pillar operates as the cohesive mechanism ensuring ethical leadership, digital security, and the prevention of misleading marketing practices (greenwashing). Within this context, the traditional approach of shareholder primacy is gradually replaced by the principle of Double Materiality. This principle requires simultaneous consideration of external environmental risks affecting the firm and the impacts of the organization itself on the social and natural ecosystem, thereby safeguarding both fundamental sustainability and corporate viability.

However, the effectiveness of these strategies faces significant challenges due to the phenomenon of ESG rating divergence. This issue arises from substantial variation in scope, measurement methodologies, and weighting of individual indicators among rating agencies, differences related to firm size and industry sector, the ideological beliefs of evaluators—such as cultural and value-based characteristics—as well as differences in national institutional frameworks. This informational asymmetry highlights the urgent need for standardized reporting and disclosure frameworks, as it undermines the credibility and comparability of ESG assessments.

Importance in contemporary business practice is attributed to the structural transformation of consumer behavior beyond traditional criteria such as location and price, especially among younger generations (Millennials and Generation Z), who demonstrate heightened environmental awareness and a strong preference for ethically responsible services, transforming value-based beliefs into a decisive demand driver. In the hotel industry, the transition from traditional and often fragmented Corporate Social Responsibility (CSR) practices toward a holistic and rigorously structured model of sustainable governance has become a strategic imperative. This trend is reinforced by the rapid tightening of the regulatory environment, as the Corporate Sustainability Reporting Directive (CSRD), the EU Taxonomy, and national legislation impose higher levels of transparency and accountability on hospitality businesses.

In Greece, where the hotel sector constitutes a significant contributor to the national economy, sustainability is transforming from an optional ethical commitment into a fundamental condition for international competitiveness. The vulnerability of the Mediterranean ecosystem necessitates immediate energy resilience measures and rational management of land use, waste, and water resources. Within the framework of the National Climate Law (Law 4936/2022), Greek hotel units are required to overcome past operational rigidities by investing in green infrastructure upgrades, certification of sustainable practices, and transparent disclosure of performance outcomes. The sector's ability to integrate ESG criteria while securing its social license to operate will constitute the decisive catalyst for the

resilience of Greek hospitality within a global environment characterized by climatic, economic, social, and geopolitical vulnerability.

Based on the above, the purpose of this doctoral dissertation is to examine the dynamic relationship between Environmental, Social, and Governance (ESG) strategies and consumer behavior in the hotel industry, with emphasis on the Greek hotel market. The study aims to investigate whether the integration of ESG standards in the hospitality sector alters and influences tourists' decisions when selecting hotel accommodation. The research questions focus on the statistical validation of the impact of ESG ratings on the hospitality experience and the investigation of the transition from the traditional selection model (based on price and location) toward a multidimensional value-based choice model, even when consumers are required to pay a higher price. Within the framework of the INTOCUS 2026 International Conference at Harokopio University of Athens, the results of a pilot research study conducted across city hotels and resorts regarding the evaluation of food waste management practices were presented. The research focused on mapping the operational stages contributing to waste and analyzing institutional mitigation strategies, identifying buffet operations and meal preparation stages as the most critical points of waste generation. Substantial differentiations were observed depending on the type of accommodation, as waste in resorts is directly related to the high volume of mass catering and "all-inclusive" models, whereas in city hotels, the issue is primarily localized in forecasting discrepancies during breakfast service.

Regarding the implementation of formal monitoring procedures, the research demonstrated that the use of specialized measurement metrics and Key Performance Indicators (KPIs) leads to a measurable reduction in waste, allowing for more precise inventory control and rational management of raw materials. These practices are now systematically integrated into the corporate ESG strategy, as the proper disposal of unconsumed food and the adoption of sustainability policies directly impact corporate reputation. Research participants acknowledged that customer perception is significantly shaped by the image of resource management, a fact that renders the publicizing of environmental actions necessary for maintaining a strong brand name.

Despite the stated intention to strengthen these policies, the full scaling up of measures encountered significant organizational, financial, and operational barriers. The high cost of investment in measurement technologies, the lack of specialized staff training, and stringent hygiene regulations constitute a complex environment of challenges. Concurrently, pressures from investors and regulatory bodies intensify the need for stricter compliance, establishing food waste management not only as an environmental imperative but also as a central pillar of modern hotel governance. (blank line 10 Points)

Keywords: ESG, Hotel Industry, Greece, ESG Behavioral Model, Double Materiality

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Corporate Governance, Marketing and the Customer

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ABSTRACT

Corporate governance is a key issue and a fundamental requirement for modern businesses. Its importance has come to the fore in recent decades following well-known corporate scandals, such as the Enron scandal, and major financial crises, with the collapse of Lehman Brothers in 2008 serving as a turning point (Brédart, 2014). In fact, particular emphasis has been placed on this recently as more and more companies adopt ESG practices in their strategic management, prioritizing environmental and social issues, as well as corporate governance matters. Companies that implement ESG practices demonstrate improved overall performance, stability, and resilience (Sharma, Anand & Rawat, 2025).

In recent decades, marketing has had a significant impact on the business environment, the strategic decisions made within it, the development of products and services, the allocation of resources, and the organizational structure companies adopt. In fact, according to Drucker (2001), companies' primary focus should be on marketing, arguing that both acquiring and retaining customers is the main mission of every business (Drucker, 2001). According to Kotler and Keller (2016), marketing is no longer simply a means of promoting products but a key strategic tool that significantly influences decision-making, fosters strong long-term relationships with consumers, and creates a competitive advantage (Kotler & Keller, 2016).

Corporate governance and marketing share an important common denominator: the customer, who influences both value creation and the strategic direction of businesses. Although the two fields of corporate governance and marketing appear seemingly unrelated, in reality they exhibit significant interactions and function complementarily. According to Lazarides et al. (2013), they are interrelated, and their commonalities include the use of the same fundamental mechanisms, a focus on process, an interest in performance or value, the shared need for internal control mechanisms and protocols, the importance of information, common choices, guidance from corporate culture, and the importance of activism (Lazarides et al., 2013).

The study of these two disciplines—corporate governance and marketing—is of great research interest. These are two fields that have been extensively studied individually but not in combination, thus creating a significant gap in the research landscape. More specifically, there is a gap regarding the customer-centric approach, as it is not sufficiently integrated into the framework of corporate governance, while stakeholder theory does not always place the necessary emphasis on the customer as a strategic factor, resulting in a failure to achieve a balance among the interests of all stakeholders (Freeman, 1984). Thus, the customer's role is downgraded to that of just another stakeholder rather than a primary objective in corporate goal-setting.

Businesses must adapt immediately to new developments in order to remain viable in a rapidly changing business environment (Petrov et al., 2002). In this context, it is necessary to highlight the importance and role of the customer as a critical link between corporate governance and marketing, by examining their contribution to shaping strategic decisions and improving the effectiveness of corporate governance mechanisms.

Keywords: corporate governance, marketing, costumer, stakeholder, ESG

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Session IV

Δημόσια Διοίκηση, Smart Cities & Πολιτική

Metaverse-Enabled Citizen Participation in Smart Cities Governance: A TAM3 Quantitative Study

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ABSTRACT

The integration of metaverse technologies within Smart Cities (SCs) is reshaping the landscape of urban governance and citizen engagement. Grounded in Giffinger et al.'s (2007) six-dimensional SC model, spanning Smart Economy, Smart People, Smart Governance, Smart Mobility, Smart Environment, and Smart Living, this doctoral dissertation investigates how immersive digital environments, and specifically the *CitiVerse* (a city-scale ecosystem of interoperable virtual worlds mirroring physical urban spaces), can meaningfully deepen participatory governance and civic engagement among young citizens (Chatzopoulou et al., 2025). Drawing on landmark real-world deployments, including Metaverse Seoul's avatar-based service infrastructure, Dubai's Metaverse Strategy targeting 40,000 virtual-economy jobs by 2030, Virtual Helsinki's Digital Twin climate simulations, and Tampere's CitiVerse co-design platform (Maier & Weinberger, 2024), the study maps the metaverse's transformative potential across all six SC dimensions and situates these developments within a structured theoretical and empirical framework.

The research addresses two central questions: how young citizens can effectively adopt metaverse technologies to enhance participatory governance in SCs (RQ1), and what an educational framework should encompass to prepare both young citizens and public administration officials for meaningful metaverse-enabled civic engagement (RQ2). To this end, the study develops a Conceptual Model extending TAM3 (Venkatesh & Bala, 2008) into the domain of SC governance, integrating technology acceptance mechanisms with participatory governance theory and youth engagement dynamics across four analytical domains: Metaverse Technology, Participatory Governance, Youth Participation, and Smart Cities.

Methodologically, the study employs a mono-method deductive quantitative design grounded in a post-positivist paradigm. A structured cross-sectional survey administered online between November 2025 and March 2026 across fourteen countries yielded a final sample of $N = 502$ (65.3% aged 16–34; 58% female), recruited through educational institutions, public administration networks, and youth organizations. The instrument operationalizes 15 TAM3-derived constructs, including Perceived Usefulness, Perceived Ease of Use, Metaverse Self-Efficacy, Civic Relevance, and Behavioral Intention, across 54 Likert-type items, complemented by governance-context blocks on participatory practices and adoption barriers. Sequential analysis in SPSS v26, encompassing descriptive statistics, Pearson correlation, Exploratory Factor Analysis, and multiple regression, revealed strong intercorrelations across 16 of 18 constructs (Cronbach's $\alpha > .80$ throughout). Regression modeling demonstrates that Perceived Ease of Use is explained at 69% ($R^2 = .69$), Perceived Usefulness at 67% ($R^2 = .67$), and Behavioral Intention at up to 72% ($R^2 = .72$) when experiential, institutional, and contextual factors are jointly considered. These findings confirm that adoption readiness for metaverse-enabled governance is not driven by technological novelty alone, but by the convergence of usability, civic meaning, social influence, and institutional trust, offering empirically grounded guidance for policymakers, educators, and urban planners committed to inclusive and future-ready SC governance.

Keywords: Smart City, Metaverse, CitiVerse, TAM3, Participatory Governance, Behavioral Intention

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Why Do Seem Municipalities in Balkan not to Adopt PB? The Case of Ioannina

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ABSTRACT

Participatory Budgeting (PB) initiatives have been established throughout the Balkans. Their implementation has as a common goal to increase citizens' participation in local governance. However, there are also differences in the implementation frameworks and the challenges they face. Several differences can be identified between the EU and Western Balkan countries. These include the number and frequency of their applications in Municipalities, the institutionalization, the existence of timetables, the commitment of funds, the active participation of citizens in person, the use of digital tools and the dependence on internationally funded programs.

The models of PB implementation in the Balkans are mainly aligned either with the “Porto Alegre adapted for Europe”, where citizens propose and vote on projects (Croatia, Romania, Serbia, Bulgaria, Greece), or the “Proximity Participation”, which focuses on small-scale local investments (Bosnia and Herzegovina, Slovenia). Thus, in theory at least, the role of citizens in decision-making can be either decisive, with responsibility for the final decision, or purely advisory. In most cases, the typical stages include the submission of proposals, technical evaluation, public consultation or voting, and project implementation and monitoring.

The institutionalization of the PB procedures varies significantly by country. This article, following a systematic bibliographic review on the subject in the Balkans, records similarities and differences in terms of institutionalization as well as the problems encountered during the implementation of the PB procedures. Then, using in-depth interviews

with local government officials and municipal employees in the Greek municipality of Ioannina, it identifies the problems that arose from the effort to implement the PB in this Municipality, many of which appear to be common to the Balkan countries regardless of whether they are EU member states or candidates for accession.

Significant obstacles hinder the effectiveness of the PB. Low participation and weak interest by citizens are attributable to historical distancing, lack of trust in local authorities and the perception that their contribution is insignificant in most cases. Insufficient funding leads to small-scale projects. The lack of institutionalization makes PB vulnerable to changes in municipal leadership. Limited administrative capacities and dependence on external donors raise concerns about long-term sustainability in several cases. Finally, the digital divide and challenges in approach to diverse demographic groups are obstacles to inclusive participation. These challenges highlight the need for comprehensive reforms, including increased budgetary allocations, stronger legal frameworks, and enhanced political commitment.

Keywords: Participatory budgeting, Balkans, Ioannina, citizen participation

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Media and Internet Censorship in EU Candidate Countries: Comparative Findings Using QCA and Regression Analysis

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ABSTRACT

EU accession conditions include compliance with the Copenhagen criteria, among which are the establishment and consolidation of stable institutions guaranteeing liberal democratic functioning and the functioning market economy. An important qualitative dimension of liberal democracy is media freedom, understood as the absence of government intervention in the form of censorship. The relationship between media and democracy is reciprocal: free media strengthen accountability, transparency, and political pluralism, while simultaneously serving as an indicator of democratic quality.

In contemporary political systems, however, democratic freedom is not confined to traditional media. Internet freedom has emerged as an equally critical dimension of democratic governance. The absence of state-imposed online

ensorship and digital restrictions enables the free circulation of information, facilitates civic mobilization, and enhances participatory engagement. Thus, both media and internet freedom constitute central components of liberal democratic consolidation and institutional credibility, particularly in countries undergoing EU accession processes.

In the present paper we tried to identify the combinations of conditions that lead to high levels of media and internet freedom in countries whose accession requires compliance with the Copenhagen Criteria. The analysis covers nine EU candidate countries over the period 1993–2023. We comparatively examine levels of media and internet censorship using V-Dem’s Media and Internet indices.

Following a descriptive comparative analysis, we employ both regression analysis and Qualitative Comparative Analysis (QCA) to explore causal relationships and identify sufficient configurations associated with high levels of media and internet freedom. By combining symmetric and configurational approaches, the study captures both net effects and complex causal pathways. This study enriches the literature by illustrating the combined impact of economic conditions on information freedom in candidate countries.

Keywords: Qualitative Comparative Analysis (QCA), regression analysis, Media Censorship, Internet Censorship, Copenhagen criteria

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Exploring the Future of the Governmental Innovation Labs as Learning Communities towards more Systemic-Level Integration into the Innovation System of Public Administration

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ABSTRACT

This study aims to understand how Governmental Innovation Labs, conceptually known as open innovation spaces, can legitimize their existence in the future by progressing from “isolated islands of experimentation” towards becoming learning communities. This paper examines the public value that can be created by investing in practices and interactions that can support this transformation. The topic gains relevance as well to the local government, where innovation labs contribute to public value by integrating processes of co-creation between smart cities and smart community stakeholders and transforming them into learning, empowering with knowledge outside-in and inside-out approaches to innovation, inclusion, and resilience solutions. The analysis draws on the case of the Greek Governmental Innovation Lab and from its experience working with public officials from the local government. A theoretical review of the Governmental Lab’s literature was conducted to clarify the transformation of Labs in recent years, followed by data analysis, from data collected through a mixed-method study of “participant observation” from 6 workshops and a structured questionnaire which was sent to the participants.

The study was based on the Value Creation Framework and identified key characteristics that contribute to the transformation of Governmental Innovation labs in the future, as learning communities which can co-exist with smart communities. These characteristics, if supported in a systemic way, can contribute to shaping labs in the future that are more cohesive, capable of developing shared capacities, sustaining long-term collaboration, engaging in meaningful dialogue with public authorities, and advancing locally driven innovation. By exploring the mechanisms that support the establishment of a learning community framework, the research advances the practical application of community governance in open innovation labs.

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The Greenwashing Phenomenon in Accounting- How Greenwashing Affects Stock Value and the Key Impacts:

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ABSTRACT

This research examines the impact of greenwashing on stock prices and overall firm value, focusing on companies listed in major stock markets across America, Europe, and Asia. Greenwashing refers to the practice where firms present themselves as environmentally responsible without implementing substantial sustainable actions. The study explores whether such practices influence investor perceptions and market behavior.

A key objective is to analyze both the short-term and long-term effects of greenwashing. In the short term, companies may benefit from increased investor interest and positive stock performance due to perceived alignment with ESG (Environmental, Social, Governance) criteria. However, in the long term, the exposure of misleading claims may lead to reputational damage, loss of investor trust, and potential regulatory penalties, ultimately affecting firm value negatively.

The research is grounded in a systematic literature review of approximately 130 academic publications sourced from Scopus, ensuring a strong theoretical and empirical foundation. Key themes emerging from the literature include stock price performance, market value, investor confidence, and corporate reputation.

The study aims to contribute to both academic and practical discussions by clarifying the financial consequences of greenwashing. It highlights the importance of transparency and credible ESG reporting for maintaining sustainable growth and market trust. Additionally, it provides insights for investors, regulators, and policymakers regarding the risks associated with misleading sustainability claims.

Overall, the research seeks to determine whether greenwashing can be considered a viable short-term strategy or a practice that undermines long-term corporate sustainability and financial performance.

A systematic literature search was conducted using the Scopus database, employing the keyword “*greenwashing*.” This initial search yielded approximately 130 peer-reviewed articles with an average impact factor of 3, ensuring an adequate level of academic quality and relevance. Subsequently, a screening process was applied to identify studies

in which greenwashing was explicitly incorporated as a variable within a regression framework. This criterion allowed for the selection of empirically grounded studies suitable for quantitative analysis.

The final sample of articles was examined with respect to a set of key firm-level variables commonly used in financial and ESG-related research. Specifically, the analysis focused on **liquidity, leverage, efficiency, profitability, and ESG performance**, as these dimensions are frequently associated with both corporate sustainability behavior and market valuation.

Second, the **measurement of ESG performance** was documented. In most cases, ESG is operationalized through composite indices obtained from established rating agencies or constructed from firm-level disclosures, combining environmental, social, and governance indicators into a unified score.

Third, the analysis examined how **greenwashing is quantified when treated as a dependent variable**. The literature commonly defines greenwashing as the discrepancy between symbolic sustainability disclosures and actual environmental performance, often captured through indices, scoring models, or textual analysis techniques applied to corporate reports.

Finally, the relationship between **greenwashing and stock price performance** was analyzed. When stock price is treated as the dependent variable, the coefficient associated with greenwashing reflects its impact on market valuation. Empirical evidence suggests that greenwashing may generate **short-term positive effects** due to signaling mechanisms, but tends to have **negative long-term consequences**, as markets adjust to the revelation of misleading environmental claims.

Overall, this approach provides a structured framework for evaluating the interaction between greenwashing practices, ESG performance, and financial outcomes within the existing empirical literature.

Data Collection and Analytical Tools for Greenwashing measurement

The primary data source for determining **ESG Disclosure** consists of Corporate Sustainability Reports and Integrated Annual Reports. The qualitative data is processed via **Qualitative Content Analysis** using **NVivo** software, facilitating the systematic coding of narratives into quantifiable disclosure scores.

For **ESG Performance**, data is retrieved from the **Refinitiv Eikon** database. Specifically, "Raw Scores" and "Pillar Scores" are utilized to ensure an objective assessment of the firm's substantive impact, independent of corporate self-representation. **Econometric Specification and Determinants**

The objective of this research is to evaluate the probability/level of Greenwashing as a function of key financial performance indicators. The proposed regression model is specified as follows:

The independent variables include:

Capital Structure & Liquidity: Equity Ratio (EQ) and Current Ratio (CR) to assess financial stability and solvency.

Profitability & Efficiency: Profit Margin (PM), Return on Equity (ROE), and EBITDA (expressed in logarithmic form to ensure normality) as proxies for financial robustness.

Market Valuation: The Market Price (P) of the share is included while controlling for potential **endogeneity**; as Greenwashing may simultaneously influence and be influenced by market perceptions, necessitating robust estimation techniques.

keywords: Greenwashing, Stock Value, Corporate Sustainability, Financial Performance

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The Impact of Board Characteristics on Tax Avoidance: Do Industry Regulations Matter?

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ABSTRACT

This paper examines the effect of board characteristics on tax avoidance and the moderating role of industry regulation on this effect. Using a comprehensive panel of 84,153 firm-year observations from 39 countries during the period of 2000–2023, we illustrate that larger boards, higher female representation, significant foreign ownership, and the presence of independent directors are generally associated with higher effective tax rates, suggesting lower levels of tax avoidance. This study further demonstrates that the effects of board gender diversity and board independence are more pronounced in regulated industries, where stringent governance and ethical standards prevail, emphasizing the importance of regulatory oversight in mitigating aggressive tax planning. These findings are crucial for policymakers, regulators, and corporate governance practitioners aiming to align corporate practices with ethical standards and reduce the risks associated with tax avoidance.

Keywords: tax avoidance; board characteristics; industry regulation

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The Methodology for Documenting Inter-Group Transactions and the Problems of Compliance with the Equitable Distances Principle in Practice: The Greek Reality

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ABSTRACT

This research attempts to describe the methodology for documenting intra-group transactions, in accordance with existing guidelines, and to diagnose whether pricing practices in the context of intra-group transactions adhere to the arm's length principle, as would be the case in cases of pricing between independent enterprises.

The main research question is whether there are systematic differences in the financial behavior of associated enterprises in Greece compared to independent enterprises that indicate possible price manipulation practices and, by extension, erosion of their tax base.

It will be investigated whether the distance and differentiation observed from the research is a product of the type of business and the heterogeneity observed within them or a consequence of macroeconomic variables that affect the two groups of businesses equally or differently (dependent / independent)

COMPLETED RESEARCH WORK

The review of existing knowledge in the selected subject of study was completed by listing the basic concepts, the analysis of the guidelines was carried out and the methodology for documenting intragroup transactions was described, as well as the international standards for accounting and financial representation of these.

Also, case studies of non-compliance or non-compliance with the arm's length principle were analyzed.

WORKS IN PROGRESS

The research part is based on a sample that includes 2,054 companies based in Greece, based on data derived from published financial statements and relating to the period 2014 – 2023. Of the total number of companies, 788 are classified as Independent, while 1,266 as Associated according to transfer pricing rules.

For the above sample, 32 ratios were calculated, grouped into four basic categories: profitability, liquidity, debt, and capital and activity structure. Their selection aims to provide an overall picture of the operational efficiency, financial stability, and management capacity of the companies under study during the period 2014–2023.

The analysis of the temporal evolution of financial indicators that follows is carried out through a multi-level methodological approach, which reflects the gradual transition from descriptive to more complex analytical techniques. In a first stage, analysis of variance (ANOVA) is applied, aiming to investigate differences in the averages of the indicators between years (2014-2023) and types of enterprises (independent/affiliated).

As a follow-up to ANOVA, the transition to a Linear Mixed Models (LMM) was selected, which will be able to take into account:

- The intra-business correlation of observations between years,
- The existence of heterogeneity between businesses,
- Sectoral influences that are not reflected in the financial data of the sample,

and by extension, more valid, secure and compatible conclusions with the panel structure will emerge.

Currently, the research is in the phase of analyzing the data that has resulted from the application of the research model.

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Bridging the Gap Between Public Expectations and Institutional Competences: Accessibility and Trust in Greek Prosecutorial Authorities

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ABSTRACT

The present research originates from the observation of a gap between the legally defined competences of the Greek prosecutorial authorities (position in the legal framework) and citizens' expectations (position in public perception) regarding their role and function in practice (Reinhardt, 1995; Kraska & Brent, 2011). The study seeks to explore the relationship between this gap and the degree of accessibility of Greek prosecutorial authorities, their public image, and the level of public trust placed in them (ENCJ, 2019; OECD, 2021).

Accessibility constitutes a fundamental dimension of the quality of judicial services (CCJE, 2004; CEPEJ, 2014). It is not confined to the mere physical access of citizens to judicial institutions or to the availability of judicial services. Rather, it refers to the ability of individuals to effectively claim and exercise their rights through lawful procedures. Accessibility encompasses the provision of legal aid, affordable judicial costs and fees, comprehensible legal language, access to legal and case-law databases, as well as the availability of clear and reliable information concerning procedures, costs, rights, and available legal remedies (CCJE, 2004; CEPEJ, 2014).

As institutions operating on behalf of society and entrusted with the protection of legality and citizens' rights, prosecutorial authorities are expected to demonstrate transparency, openness, and ease of access for the public

(European Commission, 2024). Nevertheless, insufficient public information regarding the role and operation of prosecutorial authorities contributes to the formation of a vague and often distorted understanding of their competences (Reinhardt, 1995). This lack of information concerns both practical matters —such as procedures, required documents, deadlines, and costs— and the very nature and limits of prosecutorial authority.

Citizens frequently approach prosecutorial offices with unrealistic expectations, perceiving the prosecutor as a “last resort” institution capable of immediately resolving any social or personal problem (Kraska & Brent, 2011). However, many of the requests submitted fall outside the jurisdiction of prosecutorial authorities, resulting in disappointment and distrust towards the justice system. This discrepancy between institutional competences and public perception appears to be reinforced by the limited communication strategies adopted by prosecutorial authorities themselves.

In contrast to the extroversion of mass media, social media platforms, and other actors within the field of justice, such as lawyers, prosecutorial authorities are traditionally encouraged to exercise restraint and communicate primarily through their judicial work (Areios Pagos, 2022). Consequently, public perception of justice is often shaped not by institutional communication but by external and frequently fragmented or sensationalized sources of information (ENCJ, 2019). This reality highlights the necessity of improving public information regarding the role, limits, and functions of prosecutorial authorities.

For this reason, the study proposes the adoption of policies aimed at enhancing transparency and institutional extroversion, including the establishment of press offices, the development of official social media presence, and the organization of “open days” for the public (CEPEJ, 2014). Such initiatives may contribute to strengthening communication between prosecutorial institutions and citizens, while simultaneously improving public understanding of prosecutorial competences and procedures.

Particular emphasis is placed on the use of Information and Communication Technologies (ICTs) as a means of improving accessibility and public engagement (European Commission, 2024). The study does not advocate for the mechanization of judicial activity or the replacement of human judgment through technology. Instead, it promotes the use of digital tools for the dissemination of information and the enhancement of citizens’ experience within the justice system. More specifically, the study proposes the creation of multilingual websites providing clear procedural guidance, templates for legal documents, information concerning deadlines and costs, and tools for electronic communication and simulation. Furthermore, it suggests the incorporation of QR codes into prosecutorial documents, enabling citizens to access information related to their rights and obligations instantly and efficiently.

In addition, the existence of ramps for persons with disabilities, reception staff, multilingual manuals, support offices, interpretation services, and appropriate signage are considered essential elements of a modern, citizen-friendly judicial environment (CEPEJ, 2014). Such measures may substantially improve both physical and communicative accessibility, especially for vulnerable social groups.

Methodologically, the research adopts a mixed-methods approach combining qualitative and quantitative tools (CEPEJ, 2010). The study includes the recording and categorization of citizens’ requests submitted to prosecutorial authorities, the design and implementation of an accessibility assessment model —covering physical, communicative, and digital accessibility— and the conduct of semi-structured interviews with Greek and Estonian prosecutors. Estonia has been selected as a comparative case study due to the advanced level of digitalization and institutional openness characterizing its judicial system (European Commission, 2024). Through comparative analysis, the research aims to identify best practices that may be adapted to the Greek judicial context.

Overall, the study argues that strengthening the accessibility and extroversion of prosecutorial authorities may substantially contribute to improving the quality of justice and reinforcing institutional legitimacy (OECD, 2021; ENCJ, 2019). Enhancing the relationship between citizens and prosecutorial institutions, providing clear and reliable information, and utilizing digital technologies can improve accountability, reduce unnecessary physical presence within prosecutorial offices, and ultimately foster public trust in justice, which constitutes a fundamental prerequisite for democratic legitimacy and the effective functioning of the rule of law.

Keywords: Prosecutorial Authorities, Access to Justice, Public Perception, Judicial Transparency, Public Trust

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Session V

Education, HRM & Organizational Behavior

Training Support for the Enhancement of Required Skills in the Accounting Profession

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ABSTRACT

One of the most significant challenges for the operation and sustainability of modern businesses is their ability to adapt to continuous and substantial technological developments, particularly digital transformation, as these changes profoundly affect the way organizations are structured, operated, and make decisions. In addition, the broader economic and institutional environment in which businesses operate has significantly reshaped their operational framework. Within this dynamic context, the accountant, as a professional, is called upon to contribute meaningfully to ensuring business sustainability and improving organizational effectiveness. Consequently, the role of the accountant is no longer confined to the execution of routine and standardized accounting procedures; rather, it is evolving into a more advisory role, providing multidimensional information for business decision-making at both operational and strategic levels. In order to respond effectively to this new environment, professional accountants are required to possess a set of generic skills, including communication skills, interpersonal and collaborative abilities, adaptability, and more.

Furthermore, in light of these developments, a critical research issue emerges concerning the extent to which education particularly accounting education provided by higher education institutions can effectively support the development of the skills required in the modern accounting profession. The main research question of this doctoral dissertation focuses on investigating how higher education can substantially contribute to the development of these skills.

More specifically, the research is structured around two primary research questions:

- (a) What skills are required of accounting professionals in the contemporary business environment? and
- (b) What academic competencies should be incorporated into accounting curricula in higher education institutions so that graduates can successfully meet the demands of the accounting profession?

For the initial exploration of these research questions, a systematic literature review was conducted through the comprehensive study of relevant academic articles. Through thematic and comparative analysis of the literature, the primary research objective was to identify the most important skills required in the accounting profession, prevailing research trends, and existing research gaps.

The literature review revealed that the skills required by accounting professionals in the modern business environment constitute a multidimensional set that goes beyond the traditional technical role of the profession. Technical skills and specialized knowledge remain a fundamental pillar of professional competence, including core and advanced accounting knowledge, as well as the ability to understand and solve legal and statistical problems. However, although necessary, these skills are no longer considered sufficient to meet contemporary professional requirements.

In addition, particular emphasis is placed on digital and data analytics skills, which are highlighted as a critical determinant of accountants' professional readiness. The ability to effectively utilize integrated information systems, specialized accounting software, and modern tools for data analysis and interpretation constitutes a key factor in upgrading the accountant's role, due to their direct involvement in evidence-based decision-making and contribution to the strategic planning of the organization.

The main findings of the literature review also highlight the importance of interpersonal and social skills, such as effective communication, teamwork in multidisciplinary environments, and the development of trust-based relationships both within and outside the organization. These skills complement cognitive and intellectual abilities, including critical thinking, analytical capability, and the management of complex and demanding problems. The combination of these skills enables accountants to respond effectively to situations of uncertainty and increased complexity. Finally, the importance of professional skills is emphasized, including leadership, negotiation, adaptability, time management, and a commitment to lifelong learning. These skills are directly linked to the sustainable career development of accountants and their ability to respond to continuously evolving working conditions.

In direct relation to these requirements, a framework is formed in which the provision of high-quality accounting education presupposes the integration of a coherent set of academic competencies into university curricula. Students should acquire a strong theoretical foundation in core accounting subjects, along with well-developed analytical skills, which form the basis of accounting science. At the same time, the development of advanced digital skills such as effective use of spreadsheet software and familiarity with Enterprise Resource Planning (ERP) systems is considered essential to prepare graduates for real-world business environments. Equally important is the systematic cultivation of soft skills, such as communication, teamwork, critical thinking, and effective time management, which, in combination with technical knowledge, significantly enhance graduates' professional integration and career progression. To this end, curricula should incorporate active and experiential learning practices, such as group projects, case studies, and the analysis of real business data, thereby strengthening the connection between theory and professional practice and fostering the development of applied skills.

However, despite the clear recognition of the importance of these skills and the need to align accounting education with modern professional requirements, a significant research gap remains regarding the mechanisms through which these skills are developed, integrated, and assessed within the educational context. In particular, the way in which critical factors such as students' learning characteristics, teaching approaches, assessment practices, and forms of supervision interact dynamically and collectively in shaping learning outcomes, skill development, and the formation

of professional and ethical attitudes remains insufficiently understood. At the same time, methodological limitations characterizing a considerable number of existing studies restrict the ability to draw valid and generalizable conclusions, highlighting the need for further investigation through more rigorous and multidimensional research designs. Exploring this issue is essential for a deeper understanding of the interrelationships among these factors. Therefore, within this framework, the present research aims to enhance understanding of the relationship between educational practices and accountants' professional readiness, as well as the development of the required skills, while also contributing to the design of more effective educational interventions and bridging the gap between academic education and the demands of the modern labor market.

Keywords: Accounting education, Digital transformation, Development of professional skills, Learning environments, Knowledge gap

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Methodological Determination of the Effectiveness of Business Models in Promoting the Strategy of Greek Businesses

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ABSTRACT

This doctoral research focuses on addressing the theoretical and conceptual delineation of **Business Model Dynamics (BMD)**. Our findings highlighted a significant research gap regarding Business Model Dynamics, which led to the development of a novel analytical framework, the **BMD–NEM model (Business Model Dynamics – Ntanovasilis Explanatory Methodology)**, through which the exploration, evaluation, and measurement of business model dynamics are systematically achieved. At the same time, the proposed model provides the capability to capture the transformation of a conventional **Business Model (BM)** into a **Business Model Innovation (BMI)**. Beyond its intrinsic scientific contribution, this advancement enables the extraction of broader insights into how innovations shape and drive the evolution of business models.

The proposed methodological approach is grounded in a **customer-centric perspective**, according to which the primary function of a successful business model is the creation of customers. This function constitutes both a key performance indicator and a strategic mechanism guiding business model evolution (Drucker, 1954; Osterwalder & Pigneur, 2010; Teece, 2010). The ability to generate customers is considered so critical that it is often treated as an **intangible asset** and a source of sustained competitive advantage (Barney, 1991; Teece, 2018). Within this framework, successful and dynamic business models do not merely react to existing market demand; rather, they actively stimulate demand and continuously create new customers.

This perspective is founded on two core propositions. First, a business model evolves continuously over time, adapting to different stages of firm development and facing distinct challenges at each stage (Johnson et al., 2008; Christensen et al., 2016; Rong et al., 2018). Second, a detailed understanding of these developmental stages, combined with the ability to identify the corresponding dynamics of the business model at each stage, generates different configurations of interdependencies among its structural components. These interdependencies must be explicitly considered when

assessing business model performance and effectiveness (Teece et al., 1997; Johnson et al., 2008; Abdelkafi & Täuscher, 2016; Teece, 2018; Christensen et al., 2016).

Within this context, and in order to investigate the proposed methodological approach, the research led to the formulation of the **BMD–NEM model**, which measures business model dynamics longitudinally. The model enables the determination of whether a firm should adapt, modify, or radically transform its business model. The development of the NEM model is based on the logic of **distance indices**, which, in their general form, are mathematical constructs that allow for the comparison of elements in order to determine convergence or divergence. The full specification of the model includes three distinct **Dynamic Distance Indices (DDIs)**, the analysis of which allows for a robust assessment of whether a business model is effective, exhibits dynamic properties, and requires adjustment, partial reconfiguration, or complete transformation.

In addition, the model incorporates the construction of an **Ideal Business Model**, which conceptually and mathematically represents the optimal evolutionary trajectory of a business model. This ideal model serves as a benchmark against which the actual business model of a firm is compared at any given point in time. Through this comparison, the overall distance, as well as the distances of individual components, is determined, enabling the evaluation of both the effectiveness and the dynamic capacity of the firm's business model.

For the application of the distance indices within the NEM framework, three key concepts must be defined: **leads**, **potential customers (Potentials, P)**, and **active customers (Actives, A)**. These variables are systematically compared throughout the temporal evolution of the business model. To estimate the number of potential and active customers, a dedicated computational mechanism, the **NEM Algorithm**, has been developed. This algorithm is based on a system of three differential equations, the solution of which provides time-dependent estimations of potentials (P) and actives (A).

At the current stage, our research focuses on parameterizing the NEM model, and thus, a quantitative research phase is being conducted through a structured questionnaire distributed to more than 900 Greek B2B firms, targeting over 3,000 respondents from their sales departments. The objective of this empirical analysis is to derive reliable conclusions about the parameterization of key elements of the NEM algorithm, including penetration, conversion, and **retention rates**. Based on preliminary findings, simulation models of the NEM framework are already being conducted in order to assess its functionality and effectiveness.

The research is expected to be completed with the development of **case studies** of selected Greek B2B firms. Using real data from these selected firms, the NEM model will be fully applied and evaluated in terms of its operational validity and explanatory power.

Keywords: Business Models; Business Model Dynamics; BMD–NEM Model

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Implementing Agile Methodologies in K-12 Education : A Grounded Theory Study on Teacher Experiences and Pedagogical Transformations

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ABSTRACT

The research titled "Implementing Agile Methodologies in K-12 Education: A Grounded Theory Study on Teacher Experiences and Pedagogical Transformations," explores the integration of Agile frameworks -specifically Scrum- within the Greek K-12 educational system. Utilizing Constructivist Grounded Theory (CGT), the study analyzes 20 instructional scenarios implemented by veteran educators (all with over 20 years of experience) across diverse fields such as STEM, Humanities, and Special Education. The primary objective is to investigate how Agile, a framework born in software development and business management, functions as a pedagogical catalyst. The research aims to move beyond traditional Project-Based Learning (PBL) by introducing iterative growth through "Sprints," thereby shifting the educational focus from mere content coverage to mastering the learning process itself.

The study employs the Constructivist Grounded Theory (CGT) framework as articulated by Charmaz. This approach was chosen to capture the "lived experiences" of teachers as they navigate the transition from traditional instructors to Agile facilitators.

The data analysis involved a constant comparative method across three stages of coding:

- *Initial (Open) Coding*: Identified 58 unique nodes, focusing on actions and psychological shifts (e.g., "Negotiating time," "De-stigmatizing failure").
- *Axial Coding*: Reassembled codes into higher-order categories, linking systemic barriers to strategic adaptations.
- *Selective Coding*: Identified the core theoretical category: "*The Adaptive Educational Scaffolding Model*".

The central finding of the research is that Agile is not a rigid method but a "plastic" tool that requires translation by the teacher to fit the educational context. The study identifies three critical dimensions of this transformation:

A. Systemic Friction vs. Strategic Adaptation

A significant 90% of participants cited "time inelasticity" (the rigid 45-minute lesson structure) as a primary barrier. In response, 85% of teachers employed "Agile Tailoring" or "Scaling," where they intentionally sacrificed content breadth to preserve the depth of the Agile process.

B. The Teacher's Professional Metamorphosis

Perhaps the most profound result is the shift in professional identity. 95% of the educators transitioned from being traditional "knowledge transmitters" to "facilitators" or "Scrum Masters". This transition involves "letting go of control" and decentralizing authority to empower student teams.

C. Agile as an Emotional Safety Net

The research provides empirical evidence that Agile's structure acts as an "Emotional Safety Net," particularly for lower-performing students.

- *Visual Transparency*: 75% of reports highlighted that Scrum Boards and Sprint visualizations acted as "cognitive anchors," reducing anxiety and cognitive load.
- *Reduced Fear of Failure*: 60% of scenarios noted a decrease in "grade anxiety," as the iterative nature of Scrum de-stigmatizes errors and fosters resilience.

The study's core category, "Adaptive Educational Scaffolding," aligns with international findings but adds unique context-specific insights.

- *Content Agnostic Logic*: While previous studies focused on STEM, this data proves Agile's efficacy in the Humanities (e.g., literature and language arts), reducing cognitive load through "Sprint logic".
- *The "Greek Hybrid Model"*: Unlike literature that suggests Agile fails if not implemented fully, this study introduces a hybrid model where teachers successfully trade off duration for process depth.
- *Democratization of Roles*: By alternating roles such as Scrum Masters and Product Owners, students who typically remain passive showed significantly enhanced self-efficacy.

The "Adaptive Educational Scaffolding" model offers a sustainable path for 21st-century schooling. To sustain these benefits, the paper proposes:

- *Policy Reform*: Integrating Agile within "Flexible Zones" or "Skill Labs" to overcome time inelasticity.
- *Facilitative Training*: Professional development should focus on the "facilitator mindset" rather than just technical Scrum mechanics.
- *Assessment Shifts*: Moving from summative to formative, process-based evaluation is crucial.

Keywords: Agile Methodologies, K-12 Education, Adaptive Scaffolding, Grounded Theory

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Technostress Management and Workplace Resilience Enhancement: The Strategic Role of Human Resource Management in the Digitally Transforming Public Sector.

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ABSTRACT

Digital transformation is radically reshaping public administration, creating new technological demands that challenge the well-being and adaptability of employees. This study focuses on how Human Resource Management Practices (HRPs) can mitigate technostress and enhance the work resilience of public sector employees as a result of the increasing use of digital technologies, remote work, and the constant need to adapt to new systems and processes, with particular reference to the Greek context, where bureaucratic rigidity, limited resources, and accelerating digitalization create compounding pressures (Kim et al., 2024). Based on the Job Demands-Resources (JD-R) model (Bakker & Demerouti, 2007), this study examines the moderating and mediating role of HRPs in the relationship between digitally induced demands and work outcomes.

Despite the increasing literature on resilience and digital transformation in the public sector, the existing sources leaves three important questions unanswered. First, resilience is primarily approached as an individual psychological trait, with limited exploration of the organizational and systemic conditions that can strategically foster it, particularly in public sector contexts where the focus is on work-related stress and burnout (Georgescu et al., 2024; Nielsen et al., 2024). Second, digital transformation is treated in most studies as a technical process, overlooking its nature as a socio-organizational change that reshapes work demands and available resources (Bakker & Demerouti, 2017). Third, HRPs despite their potential to serve as a critical source of psychological and professional support remain understudied in public organizations, where bureaucratic structures and limited administrative flexibility often constrain their strategic utilization.

These gaps are the main motivation for this study, which seeks to bridge theory and practice by synthesizing findings on how HRPs can enhance resilience in public organizations undergoing digital transformation, with a focus on the post-recession or crisis context (Kim et al., 2024). The study is based on the Job Demands-Resources model (Bakker & Demerouti, 2007), which argues that job demands (e.g., technostress, workload, digital complexity) and job resources (e.g., HR support, autonomy, training) interact to produce job outcomes. HRPs are conceptualized as organizational resources that can mitigate the negative effects of digitally induced demands. Moreover, the study

integrates two complementary theoretical frameworks: the Conservation of Resources (COR) Theory (Hobfoll, 1989) and the Ability-Motivation-Opportunity (AMO) framework (Appelbaum et al., 2000). Thus, together these frameworks connect what types of resources are critical, how they are operationalized in the workplace (JD-R), and why their presence or absence has decisive effects.

The research questions were formulated using the PICO framework (referring to public sector employees, HR practices, low implementation of HRPs, resilience, technostress, well-being, performance): 1. How does digital transformation affect job demands and resources in the public sector, and what are the key challenges for employees in post-recession contexts? 2. What HRPs are adopted to manage organizational change, and to what extent are they considered effective? and 3. What is the relationship between HRPs and work resilience, and what is their moderating and/or mediating role in the demands-resources relationship according to the JD-R model?

The empirical phase adopts a quantitative, confirmatory approach using a structured questionnaire, targeting n >400 valid responses from employees of Greek public organizations under digital transformation. The selection of organizations is based on suitability criteria such as recent adoption of digital technologies, high institutional rigidity and increased demands on citizen services- for example, services provided by the Independent Authority for Public Revenue (IAPR), local government agencies, public hospitals and public enterprises.

The measurement tools include weighted scales such as: Employee Resilience Scale (Naswall et al., 2019), ICT Resources & Stressors Scale, Technostress Creators, High-Performance HRM Scale / HR Bundles, and Individual Work Performance Questionnaire / UWES. The statistical analysis will be conducted through Structural Equation Modeling (SEM) with bootstrapping (5.000 resamples) to test nine research hypotheses (H1-H9), covering direct, mediating, and moderated relationships between digital transformation, HRPs, technostress, resilience, and performance.

The originality of this study lies in the first comprehensive, quadruple integration of the concepts of resilience, HRPs, digital transformation, and the JD-R model within the context of public sector, which is a context that remains largely unexplored in the international literature. Furthermore, digital transformation is addressed in its twofold dimension: as a simultaneous source of job demands and job resources. Finally, HRPs are examined both individually and as HR bundles that act in combination, an approach that extends the existing JD-R with a new mediating mechanism, as there is a scarcity of research on organizational interventions aimed at shaping a balanced demands-resources framework (Bakker & Demerouti, 2018).

The study advances literature in three ways: 1. theoretically, by integrating fields that remain fragmented, 2. empirically, by generating primary data from the public sector; and 3. practically, by proposing the theoretical-empirical HRP-Driven Resilience Enhancement Model as a tool for designing targeted HR policies for digitally transforming public organizations.

Keywords: hr practices, employee resilience, digital transformation, job demands-resources theory, organizational change management

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The Impact of Religiosity and Workplace Spirituality on Intrapreneurship within SMEs: A Literature Review

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ABSTRACT

In today's globalized economy, it is imperative for enterprises to effectively manage continuous economic and administrative shifts in their organizational and operational structures, often triggered by unpredictable exogenous sociopolitical factors. The prudent management of change and the prompt adaptation of human resources are largely attributed to the organizational culture and behaviors developed within firms. Given these conditions, management science has, in recent decades, explored variables that significantly influence employees' patterns of thought and action. Consequently, these variables contribute to a re-evaluation of organizational value systems, enabling employees to effectively assimilate diverse changes within the complex business environment (Maisaroh et al., 2023). Within this context, the variables under investigation do not pertain to quantitatively measurable economic indicators but rather to intangible and spiritual factors, such as religion and spirituality, among others.

The determinants of long-term economic growth have long been a focal point of macroeconomic analysis, yet the role of cultural and non-secular factors remains relatively under-researched. Various studies demonstrate that religion constitutes a vital factor in the transformation of societies into postmodern and post-industrial ones (Gotsis & Kortezi, 2009). Under this premise, religion functions as a social constant that regulates the quality of social and labor relations (Norris & Inglehart, 2004) and plays a fundamental role in shaping economic systems (Anderson, 1998; Audretsch et

al., 2007). Specifically, the institutional role of religion has been shown to positively influence global economic growth indicators (Barro & McCleary, 2003; McCleary & Barro, 2006) and foster social well-being (Lefkes, 2006). In their seminal analysis, Barro and McCleary (2003) further clarify this dynamic, suggesting that growth is not merely a product of affiliation but is driven by the underlying incentive structures of faith. Their findings indicate that economic growth correlates positively with the intensity of religious beliefs—most notably the conviction in afterlife rewards or punishments—whereas it exhibits a negative correlation with the frequency of church attendance (Barro & McCleary, 2003). Consequently, growth dynamics appear to be contingent upon the extent of religious beliefs (*believing*) relative to participation in organized religious activities (*belonging*), a relationship that may further benefit entrepreneurial pursuits and economic progress (Audretsch et al., 2007; Galbraith & Galbraith, 2007).

Beyond the influence of religion as a dogmatic system and religiosity as the praxis of faith, significant scholarly attention has been directed toward the role of spirituality in cultivating a fertile economic and organizational environment. This shift is increasingly reflected in the fields of human resource management and organizational behavior, where spirituality is recognized for its potential to stimulate entrepreneurship and, more specifically, intrapreneurship (Briskin & Peppers, 2000; Mitroff & Denton, 1999; Noble et al., 2007). In alignment with this perspective, empirical evidence suggests that spirituality, often mediated through spiritual leadership, serves as a critical determinant of workplace behavior and the establishment of an intrapreneurial climate. Recent research further indicates that spiritual capital correlates significantly with entrepreneurial innovation and organizational performance, demonstrating incremental validity over traditional capital dimensions (Neubert et al., 2017). This developmental process is facilitated by the internalization of social, ethical, and spiritual values among employees, which in turn shapes the necessary cognitive and attitudinal frameworks for critical reflection in strategic decision-making (Maisaroh & Darmawan, 2023).

Workplace spirituality, however, is not necessarily synonymous with religious beliefs; rather, it constitutes a structural framework of organizational principles, values, and practices that redefine corporate culture, imbue work with deeper meaning, and facilitate employee self-actualization. This dimension of organizational behavior strengthens workplace solidarity, thereby fostering a conducive environment for both entrepreneurial and intrapreneurial activity. A pivotal variable in this process is spiritual leadership, which remains distinct from other leadership paradigms due to its comprehensive impact on organizations, employees, and consumers alike. The significance of spiritual leadership derives from its capacity to instill ethical and spiritual values into rational decision-making frameworks and broader corporate strategies. This includes the cultivation of personal vision, the advancement of career progression, and the attainment of moral satisfaction through the fulfillment of spiritual needs (Fry, 2003; Yang et al., 2019). Consequently, by addressing these fundamental human dimensions, spiritual leadership serves as a critical catalyst for sustainable intrapreneurial engagement within the modern enterprise.

Despite the growing international research interest in the mediating role of religion and spirituality in promoting intrapreneurship (Balog et al., 2014), a significant literature gap persists within the Greek business landscape. Specifically, domestic scholarship lacks sufficient empirical evidence investigating the degree to which these variables influence intrapreneurial behavior within Greek Small and Medium-sized Enterprises (SMEs). The present study addresses this deficiency by synthesizing management theory with empirical findings to provide actionable insights for organizational administration. The primary objective of this research is to investigate religiosity and workplace spirituality as critical managerial variables that shape employee attitudes toward intrapreneurship in the Greek context. By conducting a comprehensive review of peer-reviewed research and seminal theoretical frameworks published over the last two decades, the study proposes a theoretical Human Resource Management (HRM) model. This model aims to develop practical strategies for cultivating organizational culture, fostering innovation, and enhancing sustainable entrepreneurship under conditions of economic instability (Smallbone et al., 2012).

Keywords: *Religiosity, Workplace Spirituality, Intrapreneurship, Greek SMEs*

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Ethical Leadership, Organizational Culture and Change Management in Greek Public and Private Hospitals

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ABSTRACT

The rapid unexpected developments that have occurred in the last decade (economic crisis, health crisis, war crisis, environmental crisis) have led organizations to make immediate changes in order to continue to be sustainable. In other words, a basic prerequisite for the effectiveness of an organization is its immediate adaptation to the changes imposed by the environment in which it operates. This need led the scientific community to formulate a management model which is widely known as Change Management.

A necessary ingredient in the successful implementation of an organizational change strategy is the development of an organizational culture that will reinforce the need for immediate changes.

The purpose of this PhD proposal is to investigate the relationships that exist between ethical leadership, variables (factors) of change management and organizational culture, employees of public and private hospital units.

After extensive research in the domestic and international literature on the above concepts, it was found that there is a research gap regarding the correlation between the above variables both in the general field of Business / Organization Administration and in particular in the field of Health Unit Management.

In addition, there is no specific research that studies the type of organizational culture adopted in a Greek public or private hospital.

- What is the type of current organizational culture prevailing in public and private hospital units?
- Is there a difference between the current and the desired organizational culture in both public and private hospital units?
- Is there a correlation between ethical leadership and types of organizational culture (current and desirable)?
- There is a correlation between ethical leadership and change management variables
- Does organizational culture play a regulatory role in the relationship between ethical leadership and change management variables?

These are some of the questions that this PhD thesis intends to answer through an in-depth empirical research on employees of public and private hospitals throughout Greece.

The PhD Candidate aspires to create a new theoretical and practical model that will combine the concepts of ethical leadership, organizational culture and change management with the aim of successfully implementing organizational change both at the level of organizations in the field of Health Unit Management. For the evaluation of Ethical leadership at work questionnaire (ELW) (Kalshoven et al., 2011) as well as for the measurement of Ethical Leadership the questionnaire (Ethical Leadership Scale) is used (Brown et al., 2005). For the evaluation of Organizational Culture, the questionnaire is used, an organizational culture measurement tool (Organizational Culture Assessment Instrument - OCAI) (Cameron & Quinn, 2006), and McKenzie's Culture Questionnaire (McKenzie, 1995). For the evaluation of Change Management, questionnaires are used for the parameters of: a) Readiness for Organizational Change Scale (Holt et al., 2007) b) Changes on Employee Commitment Scale (Fedor et al., 2006), c) Resistance to Change Scale (Oreg et al., 2006), 2003) and d) Implementing Strategic Changes Scale (Miller, 1997). The Theory of Change and Effective Use Scale (Zand and Sorensen, 1975) is used to evaluate it. The Questionnaire consists of 126 questions to which the sample will be asked to answer either with short answer questions, multiple answer questions, or questions based on their degree of agreement on a Likert scale (e.g. 5-point Likert scale, 1: "I strongly disagree" to 5: "I strongly agree"). In addition, the survey questions are based on the five factors (variables) which are the following:

- **Ethical leadership:** Some of its variables are fairness, power sharing, role clarification, people orientation, integrity, ethical guidance, and concern for sustainability (Kalshoven et al., 2011).
- **Change Management:** Includes variables such as readiness for change, resistance to change, integration of change, and commitment to change.
- **Organizational Culture:** Includes all the information employees receive about their work (such as labor policy and labor benefits) and some of the variables are Hierarchical culture, Market oriented culture, Participatory culture and Adaptive culture (Cameron & Quinn, 2006).
- **Degree of success in change:** Includes the characteristics that the success of organizational change must possess such as favorable and unfavorable forces for change (Zand & Sorensen, 1975)

In this study, the credibility of the model of ethical leadership, organizational culture and change management will be presented, through empirical research that will be carried out on a sample of approximately 300 employees of public and private hospital units.

Keywords : Ethical Leadership, Organizational Culture, Change Management, Public and Private Hospitals

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Development of a Data-Driven Methodology for Adaptive Governance in Business and Politics

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ABSTRACT

Decision-makers operate today under a structural imbalance: an expanding set of opportunities combined with strictly finite resources, including time, capital, and strategic focus. Concurrently, the digital era generates continuous, large-scale data streams, shifting the core institutional constraint from information access to signal extraction. Under these conditions, effective resource allocation requires frameworks that move beyond static planning processes and support continuous adaptation to evolving stakeholder priorities.

To address this challenge, this study operationalizes Adaptive Governance through a quantitative, data-driven methodology. Integrating Stakeholder Theory, Zone Theory, and Machine Learning, the model develops a feedback-based system that extends Adaptive Governance from its environmental origins into the continuous adjustment of rules, norms, and resource deployment in both political and business contexts. In this way, it provides a data-driven mechanism through which institutions can continuously update decision rules and resource allocation in response to observed stakeholder dynamics.

At the core of the framework is the transformation of Maslow's Hierarchy of Needs into a macro-level zoning mechanism. The model processes over 100,000 records from leading Greek news platforms (October 2025–present) and applies Natural Language Processing to classify societal discourse into five need-based zones: Physiological, Safety, Social, Esteem, and Self-Actualization. Within this structure, aggregated media output functions as a high-frequency indicator of shifting priorities and perceived gaps across different levels of need.

This media-based mapping is combined with high-frequency polling data reflecting changes in institutional trust. The joint analysis identifies a consistent pattern in the temporal response of stakeholders to different types of interventions, described in the study as the Temporal Metabolism of socio-economic systems. The findings indicate that responses vary in timing: events associated with safety-related needs tend to produce rapid shifts in sentiment, often within 24 to 48 hours, whereas interventions related to fundamental economic conditions exhibit delayed effects, requiring significantly longer periods to be reflected in polling data.

Consequently, by linking need-based segmentation with response timing, the proposed methodology provides a structured basis for prioritizing strategic initiatives under uncertainty, enabling decision-makers to align resource allocation more effectively with stakeholder needs. This temporal framework also extends to corporate strategy: by mapping product utilities to their corresponding need-based categories, firms can better anticipate the pace of consumer response and adjust their marketing spend strategies accordingly.

Overall, the model offers a practical framework for improving the timing and effectiveness of decisions in both business and political environments, supporting an adaptive approach to the economic challenge of resource governance.

Keywords: Adaptive Governance, Stakeholder Engagement, Dynamic Zoning, Maslow Hierarchy, Decision-Making

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Session VI

Tourism, Hospitality & Cultural Development

Analyzing the Team Effectiveness Questionnaire Tool (TEQ) in the Greek Hotel

Industry

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ABSTRACT

The contemporary hospitality industry operates within an increasingly complex and competitive environment. This makes the question, at both research and practical levels, of how managerial practices should be aligned with organizational outcomes more relevant than ever. While there have been many studies on leadership styles, organizational culture, communication satisfaction, group dynamics, and team effectiveness as separate entities, the field is still very scattered (Elkhwesky et al., 2022; Shin & Perdue, 2022). Most previous empirical research has focused on studying these variables separately or only in partial combinations (Himmetoglu & Ayhan, 2025; Wang, 2022), leaving a significant gap in research on how they interact simultaneously within a coherent theoretical and structural framework (González-Torres et al., 2025).

The present doctoral thesis addresses this gap by developing and empirically testing an integrated structural model that connects leadership styles — as operationalized through the Full Range Leadership Model (Bass & Avolio, 1995) — with organizational culture, communication satisfaction, group dynamics, and team effectiveness among employees in four- and five-star hotels in Greece. This study has collected data from hotel employees via a multi-instrument questionnaire tool and several statistical methods (such as Confirmatory Factor Analysis, Correlation coefficients, Multiple Regression Method and Structural Equation Modelling) have applied to test the proposed mode.

The academic contribution is to theorize the integration of theoretical perspectives that have rarely been combined within a single hospitality-specific framework. The practical contribution, on the other hand, equips hotel managers with a scientifically-grounded diagnostic tool to evaluate, align, and enhance the organizational factors that promote teams' high performance. Given the labor-intensive nature of the hospitality sector and the documented high level of staff turnover, such a model stands out as a very useful tool for practitioners seeking to strengthen internal cohesiveness and make workers more effective (Shabankareh et al., 2025; Ntalakos, Belias, & Tsigilis, 2024).

A central instrument in this research is the Team Effectiveness Questionnaire (TEQ), originally developed by London Leadership Academy in collaboration with the National Health System (NHS), to measure team effectiveness through a process-oriented lens. The foundational premise of the TEQ is that an effective teaming process directly contributes to the overall effectiveness of the team, and that this process is measured through the mastery of eight dimensions (West & Lyubovnikova, 2013; NHS Leadership Academy, 2013):

- **Purpose and goals:** It refers to aspects such as clarity, shared understanding, and commitment to common goals that guide and help in taking coordinated actions.
- **Roles:** It includes clarity, definition, assignment, and acceptance of duties and expectations among team members.
- **Team processes:** It refers to the behavioral, communicative, and coordinative methods that teams use to change inputs into outputs.
- **Team relations:** It includes the following aspects – interpersonal connections, trust, psychological security, mutual respect, and social unity that define how members interact with one another.
- **Intergroup relations:** It analyzes the ways different groups within the organizational communicate, cooperate, and work together with one another as well as with other teams, departments, and organizational units.
- **Problem solving:** It refers to the teams' capabilities to identify challenges, analyze caused, generate solutions, and implement changes.
- **Passion and commitment:** It can be understood as a team's feelings of enthusiasm, dedication, motivation, readiness, and extra effort to achieve team's goals.
- **Skills and learning:** It refers to both team's current competencies and also to how teams develop their abilities over time.

In this presentation, the validity of the Team Effectiveness Questionnaire (TEQ) and the relationships between its sub-dimensions will be presented through empirical research conducted on a sample of several employees working in four and five star hotels.

Keywords: Team effectiveness, TEQ tool, Hotel Industry,

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Cultural Development and Creative Industries in Historical Urban Regeneration: The Contribution of Media to the Management of Cultural Heritage and Collective Memory

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ABSTRACT

This doctoral research explores the relationship between cultural development, creative industries, and the regeneration of historic urban environments, focusing on the role of media and emerging technologies in managing cultural heritage and collective memory. In contemporary urban policy, cultural heritage is increasingly understood not only as an asset requiring preservation, but also as a strategic resource that can stimulate sustainable development, civic participation, and local innovation. Historic cities, in particular, face the challenge of protecting their identity while responding to economic, demographic, and technological change.

The study examines how creative media, including virtual reality (VR), augmented reality (AR), digital archives, immersive exhibitions, and participatory storytelling platforms, can contribute to the preservation, reinterpretation, and communication of heritage assets. These tools are expected to strengthen citizens' emotional connection with the historical identity of their cities, while creating new forms of cultural participation and public engagement. In parallel, the research investigates how qualitative and quantitative data generated through such media can support evidence-based cultural policy, strategic planning, and sustainable governance.

Methodologically, the dissertation adopts a mixed-methods comparative case study approach, focusing on Greek historic cities. Primary and secondary data will be collected through interviews with local authorities, cultural organizations, and creative industry professionals, participant observation in cultural initiatives, content analysis of digital platforms and programs, and data analytics techniques for measuring participation patterns and social impact.

The originality of the research lies in combining cultural governance, creative industries, digital innovation, and data-driven management into a unified framework for urban cultural regeneration. The expected outcomes include practical policy recommendations and a strategic model for municipalities and cultural institutions seeking to integrate heritage management with innovation and citizen participation. Ultimately, the dissertation aims to demonstrate how creative media can function as catalysts for social cohesion, participatory governance, and the revitalization of collective memory in historic cities.

Keywords: cultural development, creative industries, cultural heritage, urban regeneration, collective memory

Keywords: cultural development, creative industries, cultural heritage, urban regeneration, collective memory

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Digital Marketing Strategies for Enhancing the Market Reach of Greek Agricultural Households

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ABSTRACT

This research is based on the examination of digital practices that are incorporated into the strategies of Greek agricultural households with the aim of promoting their products and, by extension, achieving their expansion as small agricultural enterprises with competitive value. In this context, this study explores the role of digital marketing strategies as a tool for the commercialization of agricultural products produced by Greek agricultural households.

The rationale of this study lies in the fact that the existing business models of the agricultural economy still remain anchored in traditional practices and therefore need a digital upgrade in order for the distribution channels of agricultural products to be able to meet the demands of the modern global market. For this reason, this study focuses on two aspects. On the one hand, in investigating the digital strategies that have been implemented from time to time to promote the products of agricultural households and on the other hand, in examining the impact of these strategies on market expansion both domestically and internationally. The main research question concerns whether the adoption of digital marketing strategies can significantly enhance the market reach and financial viability of Greek agricultural households.

To achieve this purpose, the method of literature review is utilized. Literature review is a particularly popular method, as it allows the collection of data from a multitude of scientific sources, which enhances the reliability of the research. However, in order for this literature review to be reliable and documented, the search is carried out exclusively in scientific databases, such as Scopus and Google Scholar, while certain criteria are set, which include the inclusion of articles that have been published in the last 20 years, the inclusion of studies that come only from international scientific journals and the exclusion of studies that constitute academic papers. These criteria are applied and implemented to enhance the credibility of this research.

This presentation at the Doctoral Conference of the University of Thessaly aims to highlight the theoretical framework and research gaps regarding the promotion of the products of Greek agricultural households, in order to lay the theoretical foundations for the subsequent conduct of empirical research within the framework of the PhD. The presentation seeks to clarify which digital strategies have been implemented within the Greek agricultural sector for the promotion of its products as well as their impact, while it aims to propose future directions for the utilization of digital media with the aim of expanding the Greek agricultural market.

In this way, the study invites a constructive discussion not only among academics but also among those directly involved in the agricultural sector and product production, contributing more generally to the development of research. In general, this research sets the theoretical background in order to develop a research process, which will examine the strategies used by Greek agricultural households to promote their products as a whole. Consequently, it aspires to contribute to the accurate depiction of the modern reality of the market as well as to propose strategies that will expand the reach of the Greek agricultural market through the possibilities of the digital age.

Keywords: Digital Marketing, Agri-food Markets, Agriculture, e-Marketing, Livelihood

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Reproductive Tourism in Greece: An Overview

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ABSTRACT

Medical tourism refers to any “foreign travel for the purpose of seeking medical treatment” (Balaban & Marano, 2010). Reproductive tourism is a type of medical tourism, in which “both men and women travel abroad, or to another region within the same country, seeking state-of-the-art infertility treatment such as in-vitro fertilization (IVF) and chromosome testing” (CCRM Fertility, 2024).

In previous eras, travelling from one location to another to access reproductive services was impossible. Hence, having access to reproductive services in other countries became possible only after the global interconnection of the last decades. Pennings (2002) notes that in the early 1990s, German border guards conducted gynecological examinations on women re-entering the country after visiting the Netherlands. Later, the case of Sharon Saarinen gained prominence when she traveled from the United States to Beirut to receive cytoplasmic transfer treatment, which was not permitted in her home jurisdiction (Spar, 2005). Gradually, the right to access such services abroad became more widely accepted, particularly because the European Union allows travel between member states for medical reasons (Pennings, 2002).

At the international level, reproductive tourism is growing rapidly, influenced by rising infertility rates, the trend toward delayed parenthood, and shifting social perceptions regarding technologically assisted reproduction. In Greece, reproductive tourism is based on two key laws regulating medically assisted reproduction, Act 3089/2002, Act 3305/2005 and Act 4958/2022, which define the conditions for applying reproductive medical techniques, protect donor anonymity, and establish the framework for surrogacy. Greece offers competitively priced services combined with high quality, while the brand image of the domestic reproductive tourism market is strongly supported by the country’s cultural and medical heritage. However, weaknesses remain, such as the lack of recent official data, limited state inspections, and emerging competition from neighboring countries. For this reason, it is necessary to develop a national plan for the promotion of reproductive tourism, built upon three central pillars: the official documentation of the market landscape and its dynamic changes through systematic research; the strengthening of the country’s brand image; and the further improvement of the legislative framework, particularly in light of technological developments, such as artificial intelligence, which are expected to redefine reproductive medicine. It is essential for Greece to follow these directions, in order to diversify its tourism product, enhance market resilience, and improve the profitability of businesses in the sector.

Reproductive tourism is driven by two major incentives mentioned by Martin (2009). The first major incentive he identifies is access to services at a lower cost than in one’s country of residence. The second incentive Martin (2009) mentions is access to services that are forbidden or restricted in the home country. In general, Martin (2011) supports that reproductive tourism is a direct result of the globalization era.

Based on the increasing demand for reproductive tourism, a significant opportunity arises for Greece. At present, there does not appear to be a specific profile of countries that can develop reproductive tourism more easily than others. Reproductive tourism is highly developed both in economically advanced countries, such as the United States and the United Kingdom, and in developing economies, such as Turkey and India, as well as in European Union

countries that are not among its most developed economies, such as the Czech Republic (Grand View Research, 2024). Therefore, it does not seem to be a market with specific geographical or economic characteristics that would make the entry of new players difficult.

Greece has a flexible legislative framework that allows the development of reproductive tourism. It is also a country that offers more affordable yet equally high-quality services, while at the same time being an overall attractive destination worth visiting. In reproductive tourism, visits may be more frequent and of longer duration compared to other forms of medical tourism. For this factors Greece's overall attractiveness as a destination function even more positively in this specific context.

Greece could be considered a special point of interest regarding reproductive tourism and medical tourism in general for two main reasons. First, due to the significant contribution of ancient Greeks to medical science, which could lead to a positive brand image for the country as a destination (Yapijakis, 2009). Second, due to the fact that the "Sea and Sun Model" is considered highly vulnerable, making it essential to seek other alternatives in order to reduce the vulnerability of Greece to future crises (Pissarides Committee, 2020).

Greece has not yet fully capitalized on the opportunities offered by reproductive tourism. To increase the size and quality of reproductive tourism in Greece, is required to develop a strategic national plan, which involves both government initiative and cooperation from healthcare professionals and businesses operating in the reproductive tourism sector. In this way, Greece will be able to maximize its potential in the field of reproductive tourism, contributing both to the provision of high-quality services for visitors and to the growth of the sector's revenue.

Keywords: Greece, IVF, medical tourism, reproductive tourism

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Technology Acceptance of Metaverse Tourism Services: Findings from Greece

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ABSTRACT

Objective - The digital revolution and the rise of the metaverse are transforming tourism, creating new value opportunities for businesses and travelers. This study examines the adoption of the metaverse in the Greek tourism industry, using the Technology Acceptance Model (TAM).

Methodology/Technique – Data was collected through a questionnaire distributed to Greek tourism businesses, investigating perceived usefulness, ease of use, social influence, business satisfaction, and concerns about cost and personal data protection. Quantitative analysis shows that, despite financial and organizational constraints, the adoption of the metaverse is considered inevitable.

Finding – This study enriches the TAM literature from a new technological context and, in practice, provides guidelines for the strategic digital transformation of tourism in Greece. The novelty of this study lies in applying the TAM model to examine the adoption of the metaverse in the tourism sector, an area that has not been widely examined.

Novelty – It also adds new factors, such as business satisfaction, expected performance, and behavioral intention, to provide a more complete understanding of metaverse adoption in tourism (Anthopoulos et al., 2025).

Keywords: Metaverse, Tourism Industry, TAM, Technology Adoption, Virtual Tourism

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Study of Travelers' Purchasing Behavior through Channel Manager Data Analysis

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ABSTRACT

This doctoral research constitutes an industrial research study and focuses on analyzing travelers' purchasing behavior through the utilization of large-scale data derived from a channel manager system. Its primary objective is to understand travelers' decision-making patterns within the contemporary digital environment, as well as to develop an analytical model that supports strategic decision-making in the hospitality sector (Xiang, Magnini & Fesenmaier, 2015; Buhalis & Law, 2008).

The theoretical framework of the research is grounded in fundamental concepts such as digital marketing, digital customer behavior, the digital traveler journey, database marketing, and business intelligence. Existing literature emphasizes that the digitalization of tourism has significantly transformed how travelers search, evaluate, and book services, making data-driven approaches essential for competitive advantage (Lemon & Verhoef, 2016). Moreover, the literature review highlights the importance of leveraging big data and data analytics to extract meaningful insights related to consumer behavior and support strategic decision-making (Davenport & Harris, 2007).

At the empirical level, the study is based on an extensive dataset comprising more than three million records from over 1,300 accommodation providers across Greece, covering a six-year period. The use of large-scale datasets in tourism research enables a more accurate and granular understanding of consumer behavior patterns (Mariani, Baggio, Fuchs & Höepken, 2018). Data processing is conducted using business intelligence tools, complemented extensively by Artificial Intelligence techniques, enabling real-time analysis and the development of key performance indicators (KPIs) (Chen, Chiang & Storey, 2012). Through data mining processes, behavioral patterns and key factors influencing accommodation choice are identified, in line with previous studies highlighting the predictive power of big data analytics in tourism demand and consumer insights.

Furthermore, changes in traveler behavior can be evaluated in relation to global events and external factors, allowing hospitality professionals to make informed decisions regarding market focus and targeting strategies based on data-driven insights. This aligns with research indicating that external shocks, such as economic crises or pandemics, significantly influence travel behavior and demand patterns (Gössling, Scott & Hall, 2020).

The data analysis is structured around key indicators such as booking window, average length of stay, average amount per reservation, and average cancellations per reservation—metrics widely used in hospitality revenue management and performance evaluation (Ivanov & Zhechev, 2012; Noone, McGuire & Rohlfs, 2011). These indicators are critical for assessing the effectiveness of distribution channels and optimizing pricing and sales strategies.

A pilot implementation has already been conducted in selected accommodation properties, aiming to validate the findings (KPIs) and optimize the proposed model. Pilot studies are considered essential for testing the robustness and applicability of analytical models in real-world environments (Yin, 2014). Particular emphasis is also placed on emerging trends, such as the “travel revenge” phenomenon following the COVID-19 pandemic, which has significantly influenced travel demand and consumer behavior (UNWTO, 2022).

Overall, the research aspires to contribute both to the theoretical understanding of the factors driving changes in digital purchasing behavior and to the practical application of data analytics tools for enhancing the commercial and distribution strategies of tourism businesses, reinforcing the growing importance of data-driven decision-making in the digital tourism ecosystem (Sigala, 2018).

Keywords: Digital Marketing, Digital Customer Behavior, Digital Traveler Journey , DataBase Marketing, Data-Driven Marketing, Big data marketing, Big Data Analysis, Business Intelligence, Technology and Sustainability

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Online Reputation and Crisis Communication Management for Greek Hotels: A Comparison of TripAdvisor, Expedia, and Booking

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ABSTRACT

In the digital environment, the distinction between a real crisis and a "paracrisis" becomes pivotal, as public challenges on social media essentially constitute a form of risk management in plain sight, requiring specialized reflexes from organizations (Coombs & Institute for Public Relations, 2014). A few years later, he analyzes the significance of a crisis and its understanding across three key phases: Pre-Crisis: This phase is a vital element of crisis management, as it involves prevention and preparation, risk reduction, best practices regarding staff training on crisis management issues, and spokesperson training. Crisis Response: This second phase includes initial guidelines related to a rapid, accurate, and consistent response. Public safety preparation is the number one priority here—focusing on human safety and, consequently, the impacts on reputation and finances—followed by strategic reputation repair, where different strategies are employed depending on the organization's level of responsibility. Post-Crisis: This final phase rests on two main pillars: continuous communication to provide updates on recovery, as well as learning and evaluation, where all information regarding the event is collected to ensure future prevention (Coombs, 2025). Based on the aforementioned points, it is understood that everything occurring within an organization has implications for its reputation. Corporate reputation is the perceived ability of a company to meet the expectations of all stakeholders (Fombrun, 1996). Furthermore, according to Hamidi et al. (2023), corporate reputation constitutes a holistic appraisal of an organization's historical trajectory and future potential. This assessment determines the degree of attraction the business exerts on all stakeholders, while simultaneously serving as a benchmark for its position within the competitive environment.

According to Coombs (2014), a theory is introduced regarding social media, customer management, and their impact on reputation and crisis issues. This theory distinguishes functional failures in customer service from instances of emotional venting and structural ethical challenges, indicating that each category requires a radically different communication management approach. According to global theory, there are many "hidden" comments that imply much more than what customers explicitly state in their written word. Customer reviews are distinguished into, Explicit: where clear terms such as "ecological" or "sustainable" are used, indicating a conscious perception of the hotel's green identity and Implicit: in which guests refer to specific practices—such as the use of local products or resource conservation—without, however, explicitly linking them to a broader sustainable management strategy. The study's finding focuses on the "Say-Do Gap." Although 83% of travelers recognize the importance of sustainability, explicit communication of it by hotels often encounters deep subconscious skepticism (Brazytè et al., 2017). The way a review is phrased plays a decisive role in shaping consumer behavior, Specific reviews focus on factual data and technical parameters of the product arising during use, maintaining a more objective stance. General reviews are characterized by more abstract language, emphasizing how the user felt overall without expanding into details (Kakaria et al., 2023).

The above is confirmed by the study "Food Waste Reduction Practices as a Component of ESG Policy and Reputation Management in the Greek Hotel Sector" (Xynogala et al., 2026), where qualitative research findings highlighted the significance managers place on hotel reputation and how it is affected by changes resulting from modifications in group and organizational policies. Over 80% of customers think "green" and desire sustainable practices; therefore,

such changes can influence them. At the same time, it is observed that due to a lack of culture, changes at this level do not have a strong impact at this point in time, though they will in the future. Furthermore, a mere visual economy in food management is not enough to make a difference; it must be effectively communicated to customers. Since customers observe "what a hotel does," they may perceive food waste not just as an environmental issue, but as poor management of hotel resources. Finally, waste leads to the erosion of the Brand Name and the hotel's reputation, as it is perceived as a lack of professionalism and respect (Xynogala et al., 2026).

Keywords: Communication, Crisis, Management, Reputation, Hotels

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