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Article

The Impact of European Union Integration on Management and Organizational Practices

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Abstract

This paper examines the impact of European Union (EU) integration on management and organizational practices in Central and Eastern European (CEE) countries from 1995 to 2023. Employing a Difference-in-Differences (DiD) approach, Structural Equation Modeling (SEM), and Counterfactual Impact Evaluation (CIE), we analyze changes in regulatory adaptation, innovation, and workforce flexibility. The findings indicate that while EU directives drive convergence in managerial practices, they also allow for localized adaptations. Foreign direct investment (FDI) and labor mobility emerge as key drivers of corporate strategies. Insights from 30 in-depth managerial interviews underscore both strategic realignment and challenges in regulatory compliance, offering valuable implications for policymakers, researchers, and business leaders.

Keywords: EU integration; management practices; Central and Eastern Europe; organizational change; innovation; regulatory harmonization; institutional adaptation
JEL: F15, M16, O52

1. Introduction

The European Union (EU) has played a central role in reshaping the economic and organizational landscapes of its member states. In particular, the integration of Central and Eastern European (CEE) countries has triggered profound changes in management practices and organizational behaviors across the region. The adoption of unified EU regulations, access to a broader market, and the infusion of EU structural funds have collectively influenced management strategies in CEE countries, often driving firms toward greater alignment with EU standards.

However, the specific impact of EU integration on management practices within these countries remains complex, reflecting a mix of both convergence toward European norms and localized adaptations rooted in national contexts.

This paper represents a significant contribution to the literature on the impact of EU integration on management practices in CEE countries. While much-existing research has focused on the broader economic impacts of EU membership, this study delves deeper into the specific transformation of management practices within the CEE region. Furthermore, this paper goes beyond a simple pre-post analysis, offering a more sophisticated understanding of the differential impact across countries and sectors.

The research not only investigates the direct effects of EU integration but also explores the indirect and mediated influences of EU policies on organizational behavior, market access, and innovation strategies. This multi-faceted approach sets this study apart by addressing the complexities of EU integration and its unique effects on management practices across a diverse region.

This paper utilizes a rich dataset sourced from the World Bank, covering CEE countries from 1995 to 2023. By analyzing a diverse set of variables—ranging from economic indicators such as Gross Domestic Product (GDP) per capita and Foreign Direct Investment (FDI) inflows to social metrics like innovation indices and regulatory scores—we aim to explore the nuanced impact of EU integration on management practices within the CEE region. The focus on these variables is informed by the varied economic trajectories and political histories of these countries, which provide fertile ground for understanding how EU integration has influenced management strategies across the region.

In exploring the effects of EU integration, this study builds on the premise that the integration process has had a differential impact across the CEE countries, potentially leading to distinct management practices when compared to their Western European counterparts. Central to this research are two primary questions: (1) How has EU integration influenced management practices in Central and Eastern European countries? (2) What are the comparative differences in management practices between CEE and Western European countries following EU integration? By addressing these questions, we seek to move beyond the simplistic binary of positive versus negative effects, offering a nuanced exploration of the transformative impact of EU integration on management practices and organizational behavior.

To achieve this, the paper employs three advanced analytical models: Difference-in-Differences (DiD), Structural Equation Modeling (SEM), and Counterfactual Impact Evaluation (CIE). These models are chosen for their ability to unpack the complex relationships within the dataset, helping to isolate the causal effects of EU integration on management practices. The DiD analysis allows us to compare the pre- and post-EU integration periods, providing insights into the longitudinal impacts of EU membership. The SEM model, which assesses the relationships between EU integration policies, regulatory harmonization, market access, and management practices, provides a framework for understanding the direct and indirect effects of EU policies on organizational behaviors. Lastly, the CIE model helps to estimate the counterfactual impact of EU integration, offering a hypothetical scenario to compare the actual outcomes against what would have happened in the absence of EU membership.

Through these methodologies, our study aims to contribute to the ongoing discourse on the impact of EU integration on management practices, offering empirical insights that can inform both scholarly discussions and practical policy decisions. By examining the complexities of this integration process, we hope to advance the understanding of how external pressures from the EU, combined with local cultural and institutional factors, reshape management behaviors in the region.

The remainder of the paper is structured as follows. Section 2 presents a comprehensive literature review on EU integration, management practices, and related organizational and institutional changes, followed by an outline of the research methodology in Section 3. The results and discussions are presented in Sections 4 and 5, respectively, before concluding with the implications for both research and practice.

2. Literature

2.1 The Impact of EU Integration on Management and Organizational Practices

The integration of CEE countries into the EU represents a significant transformation in the political, economic, and organizational landscapes. EU accession triggered a realignment of management and organizational strategies to align with European norms, fostering regulatory harmonization, institutional restructuring, and market-oriented decision-making (Cieślik and Turgut, 2021). However, EU integration has not been a uniform process across all member states; historical, cultural, and institutional factors have mediated its effects, leading to varied adoption of managerial best practices across the region (Copeland, 2014; Böwer and Turrini, 2010).

2.1.1 Defining Managerial and Organizational Practices

Managerial practices refer to decision-making frameworks, strategic leadership approaches, corporate governance models, and resource management techniques that guide businesses. These practices evolve in response to both internal organizational objectives and external regulatory pressures, particularly those imposed by the EU's corporate governance and compliance frameworks (Sharman, 2004). The adoption of EU norms has led to improvements in managerial transparency, strategic innovation, and cross-border operations in CEE firms, but also challenges in navigating the complexity of EU regulations (Pollack, 2009).

Organizational practices, on the other hand, encompass structural and cultural dimensions, including workforce development, Human Resources (HR) policies, and operational efficiency strategies (Hughes and Allen, 2009). As CEE countries transitioned from post-socialist economies to fully integrated market economies, organizational restructuring became necessary to increase competitiveness within the EU market (Hunya and Iara, 2006).

2.1.2 Pre-Accession Changes in Management Practices

Many firms in the CEE region began restructuring their management practices well before accession, as part of the EU pre-accession process (Soltész, 2004). Governments and companies anticipated EU membership requirements and adapted corporate strategies, HR policies, and investment plans accordingly (Phinnemore, 2014).

Simionescu (2018b) highlights that labor migration patterns shifted even before EU accession, as firms prepared for a more open labor market. This pre-accession period (1990s–early 2000s) led to the adoption of HR practices focused on workforce flexibility, international recruitment, and talent mobility. Similarly, FDI inflows into CEE countries increased in anticipation of market expansion, encouraging firms to align management structures with EU expectations (Böwer and Turrini, 2010).

Sharman (2004) argues that the costs of adaptation were not evenly distributed across sectors. Industries with high compliance burdens (such as finance and manufacturing) struggled more with regulatory alignment, whereas service sectors experienced faster integration due to lower structural barriers (Copeland, 2014).

2.1.3 Post-Accession Impact on Organizational Practices

Post-2004, EU membership accelerated regulatory harmonization, forcing firms to modernize governance structures and enhance transparency (Resende et al, 2024). The adoption of Enterprise Risk Management (ERM) frameworks became critical for firms seeking to mitigate financial and operational risks associated with EU policies (Zhelyazkova et al, 2024). This shift toward regulatory compliance strengthened corporate governance practices but also increased operational complexity, particularly for small and medium enterprises (SMEs).

Moreover, EU integration stimulated innovation and knowledge transfer, as companies in CEE engaged in cross-border partnerships and research and development (R&D) collaborations (Zavarská et al, 2024). However, the benefits of EU integration did not materialize uniformly across all sectors. Research by Pridham (2008) suggests that firms in countries with strong institutional frameworks (e.g., Poland, Czech Republic) adapted more effectively, whereas those in weaker governance environments (e.g., Romania, Bulgaria) faced persistent challenges in corporate adaptation and market competitiveness.

2.1.4 Key Challenges in Management Integration

Despite overall improvements in management and organizational practices, EU integration did not lead to complete convergence between CEE and Western European firms (Pollack, 2009). Several challenges remain.

2.1.4.1 Regulatory Complexity. Firms struggled with navigating EU compliance requirements, particularly in environmental, labor, and financial regulations (Phinnemore, 2014).

2.1.4.2 Innovation Disparities. While EU funding boosted R&D initiatives, CEE firms still lag behind Western Europe in technology adoption and knowledge-based economies (Cieślik and Turgut, 2021).

2.1.4.3 Institutional Weaknesses. Corruption, weak legal enforcement, and bureaucratic inefficiencies have slowed the full implementation of EU policies in some CEE countries (Soltész, 2004). In summary, the integration of CEE countries into the EU has profoundly reshaped managerial and organizational practices. Firms have modernized their governance structures, expanded market access, and enhanced regulatory compliance. However, challenges remain, particularly in bridging the managerial gap between Eastern and Western Europe. While EU integration catalyzed innovation and regulatory adaptation, institutional weaknesses continue to shape firm-level responses, necessitating continued research on the long-term effects of accession.

2.2 Comparative Studies of Management Practices between CEE and Western European Countries

The enlargement of the EU has sparked an ongoing debate on whether management practices in CEE countries are converging with those of Western Europe or whether persistent institutional and cultural differences are preventing full alignment. While EU integration promotes harmonization of managerial standards, regulatory frameworks, and corporate governance, empirical research continues to highlight significant divergences due to historical legacies, economic structures, and institutional variations (Copeland, 2014; Pridham, 2008).

2.2.1 Convergence and Harmonization of Management Practices

A study suggest that EU membership has accelerated managerial convergence in CEE countries by imposing EU-wide governance standards, labor laws, and sustainability policies (Böwer and Turrini, 2010). A key area of harmonization is corporate governance and corporate social responsibility (CSR). Corciolani (2023) show that CSR frameworks in CEE countries are evolving to meet EU directives, reflecting broader integration trends. However, CSR in CEE is still influenced by local cultural and institutional contexts, which results in distinctive national adaptations rather than complete adoption of Western European models. This highlights the dual challenge of harmonizing with EU norms while maintaining local relevance (Hughes and Allen, 2009).

Another aspect of managerial convergence is labor market integration and workforce mobility. Simionescu (2018a) emphasize that cross-border labor migration has reshaped HR management strategies in CEE. The movement of workers between CEE and Western European countries has driven CEE firms to adopt more flexible employment models and integrate diverse talent pools. However, challenges remain, particularly in industries where historical labor structures and trade union influence remain strong (Pollack, 2009).

2.2.2 Persistent Differences Between CEE and Western European Management Practices

Despite efforts to harmonize business environments, studies continue to show that CEE and Western European countries differ significantly in their management approaches. This divergence is driven by institutional factors such as legal frameworks, political stability, and corporate structures (Sharman, 2004; Hunya and Iara, 2006).

2.2.2.1 Regulatory Implementation Gaps.

- While EU policies dictate common regulatory frameworks, the way these policies are implemented varies across CEE countries (Zhelyazkova et al, 2024).
- Some CEE countries lack the institutional capacity to enforce EU regulations effectively, creating compliance challenges for businesses (Soltész, 2004).
- Example: The adoption of EU environmental policies in some CEE nations has been slower compared to their Western European counterparts due to insufficient funding and legal infrastructure (Phinnemore, 2014).

2.2.2.2 Cultural and Strategic Differences in Management.

- The historical legacies of socialism in CEE have shaped different corporate decision-making processes compared to Western European firms (Copeland, 2014).

- Leadership styles in CEE remain more hierarchical and centralized compared to the more collaborative and decentralized models prevalent in Western Europe (Pridham, 2008).
- Example: Employee relations in CEE firms still reflect paternalistic traditions, whereas Western European firms emphasize participatory management and workplace democracy (Sharman, 2004).

2.2.2.3 Innovation and Knowledge Gaps.

- While EU membership has encouraged R&D investment and innovation collaboration, CEE firms lag behind Western European firms in technology adoption (Cieślik and Turgut, 2021).
- Example: The innovation capacity of firms in countries like Poland and the Czech Republic is increasing due to EU funding, but firms in Romania and Bulgaria still face barriers such as institutional inefficiencies and brain drain (Hunya and Iara, 2006).

2.2.3 Dual Pressures: Global Integration *vs.* Local Realities

As firms in CEE move toward greater EU integration, they face a dual challenge:

1. Complying with EU-wide business regulations and management norms to access larger markets and attract foreign investments.

2. Navigating local constraints, such as political instability, regulatory uncertainty, and workforce shortages, continue to shape how firms operate (Pollack, 2009).

Zhelyazkova et al (2024) argue that while EU directives push for policy convergence, companies in CEE strategically adapt to retain elements of national business traditions. This tension between global harmonization and local adaptation remains a defining feature of EU integration (Soltész, 2004).

In summary, comparative studies emphasize that CEE management practices are evolving but remain distinct from their Western European counterparts. While EU policies promote regulatory alignment, historical and institutional differences continue to shape corporate strategies, labor relations, and innovation capacities. Future research should explore sector-specific differences and the long-term trajectory of managerial convergence, particularly as digital transformation and sustainability pressures increase across the EU.

2.3 EU Integration and Organizational Behavior

The impact of EU integration on organizational behavior extends beyond economic growth and regulatory alignment. It influences corporate decision-making, managerial practices, and workforce dynamics, yet gaps remain in understanding how factors such as labor mobility, innovation capabilities, digital transformation, and socio-cultural influences shape management strategies in post-accession CEE firms. The transition from centrally planned economies to integrated market economies has created a complex environment where firms must navigate the dual challenge of global competitiveness and compliance with EU regulations while accounting for national institutional constraints. Scholars such as Copeland (2014) and Pollack (2009) have emphasized that while EU directives provide a framework for business modernization, the actual transformation of organizational behavior remains an uneven process across the region.

One of the most profound effects of EU integration on CEE organizations has been the opening of labor markets, which has redefined workforce management strategies. The free movement of labor within the EU has allowed skilled professionals to seek employment in Western Europe, but this has also led to challenges related to brain drain and workforce sustainability. Sharman (2004) highlights that certain industries, such as healthcare and technology, have been particularly affected, as high-skilled workers migrate to countries offering better salaries and career opportunities.

This shift has forced firms in CEE to compete for talent not just within national borders but across the entire EU, leading to adjustments in recruitment strategies, compensation models, and employee retention policies. At the same time, labor mobility has had positive effects by facilitating cross-border knowledge transfer, exposing CEE firms to Western European business models, and encouraging the adoption of multinational HR practices that improve corporate governance and workplace diversity. However, research suggests that these changes have not been uniform across industries, as firms in labor-intensive sectors continue to struggle with workforce shortages. Hunya and Iara (2006) argue that EU labor policies aim to facilitate economic convergence, but the reality remains that labor migration has created imbalances in regional employment structures, particularly in smaller economies with limited capacity to attract returning skilled workers.

EU membership has also played a significant role in fostering innovation-driven organizational change in CEE countries. However, while firms are encouraged to adopt advanced technologies and participate in EU-funded innovation programs, the actual impact of these initiatives on managerial decision-making remains underexplored. Cieślik and Turgut (2021) note that while EU directives promote investment in digital infrastructure and research and development, firms in CEE often struggle to translate these investments into competitive advantages. This is partly due to institutional inefficiencies and management cultures that are less risk-oriented than those in Western Europe. Copeland (2014) further emphasizes that regulatory-driven innovation does not automatically lead to shifts in managerial behavior, particularly in firms where leadership remains hierarchical and centralized. Some CEE firms have successfully adapted to the EU's innovation-driven agenda by adopting Western-style leadership models that emphasize collaboration and data-driven decision-making. However, others, particularly state-influenced enterprises, continue to operate under rigid decision-making structures, slowing the diffusion of innovation throughout the organization. Plekhanov et al (2023) argue that future research must examine the direct relationship between EU integration, technological adoption, and managerial transformation to better understand how firms in the region are leveraging innovation for long-term growth.

Another critical but underexplored area in the literature is the influence of socio-cultural factors on organizational adaptation to EU integration. Family-owned businesses continue to play a dominant role in many CEE economies, yet studies on their response to EU membership remain limited. Reina et al (2023) highlight that cultural values and socioemotional wealth considerations significantly influence how family firms integrate EU governance policies into their management practices. Many of these businesses, particularly those with generational leadership, prioritize stability and long-term legacy over rapid regulatory adaptation. Soltész (2004) argues that this cautious approach to change means that many family businesses have integrated EU norms selectively, choosing compliance measures that align with their strategic goals while resisting external governance models that could disrupt established leadership structures.

Unlike multinational corporations, family businesses tend to be more resistant to adopting Western-style corporate social responsibility and transparency initiatives. Hughes and Allen (2009) suggest that while some family firms have viewed EU integration as a growth opportunity and restructured their ownership models to attract Western investors, others remain protective of traditional management practices and prefer to adapt at a slower pace. The intersection of culture and regulatory compliance in CEE's family business sector remains a significant research gap that requires further exploration.

Digital transformation represents another dimension of organizational behavior that has been influenced by EU integration but remains insufficiently studied in the context of CEE firms. While digitalization has become a priority for businesses across Europe, the extent to which it has altered managerial behavior and organizational agility in CEE is still unclear. Pomerlyan and Belitski (2023) argue that although EU funding initiatives, such as the Digital Europe Program, have provided significant resources for digitalization, structural barriers within firms continue to hinder the effective adoption of digital tools.

One major obstacle is limited digital literacy among middle and senior managers, particularly in industries that have historically relied on traditional business models. Pollack (2009) observes that while younger, tech-savvy leaders are pushing for modernization, legacy organizational structures often resist change, leading to the slow adoption of data-driven decision-making processes.

At the same time, the EU's emphasis on cross-border e-commerce and smart supply chains has incentivized firms in more developed CEE economies, such as Poland and Estonia, to modernize logistics and customer engagement strategies. Cieślik and Turgut (2021) note that these countries have successfully leveraged EU funding to develop IT infrastructure that supports digital business models, but in less developed economies, firms still struggle to integrate digital tools effectively. Future research should focus on how digital transformation is reshaping leadership styles and corporate decision-making across different sectors and countries within CEE.

Overall, while EU integration has significantly shaped organizational behavior in CEE firms, the transition remains uneven across industries and firm types. The challenges associated with labor mobility, innovation policies, digitalization, and cultural adaptation suggest that EU membership alone is not sufficient to drive full managerial convergence. Institutional weaknesses, leadership structures, and historical legacies continue to influence how firms respond to EU-driven reforms.

Future research must go beyond regulatory compliance to examine how managers in CEE are transforming organizational cultures and leadership frameworks in response to the evolving demands of the EU market. There remains a critical need for longitudinal studies that track how these behavioral shifts unfold over time, particularly in response to emerging trends such as sustainability, artificial intelligence, and further EU policy changes.

2.4 Impact of EU Integration on Organizational Change and Innovation

EU integration has driven significant organizational transformation across member states, particularly in CEE countries, which have undergone profound shifts to align with EU regulatory frameworks and remain competitive in the single market. The literature consistently highlights EU membership as a catalyst for structural changes in firms, prompting them to realign their strategic planning, operational processes, and innovation strategies to meet the demands of a more integrated European business environment. However, while EU-driven policies and funding mechanisms have encouraged innovation and organizational restructuring, the actual outcomes of these changes vary significantly across CEE firms due to institutional and cultural differences (Copeland, 2014; Pollack, 2009).

Scholars such as Pomerlyan and Belitski (2023) and Liao et al (2023) argue that EU membership has compelled firms to undergo deep organizational restructuring, particularly in economies that previously operated under centralized state control. Many CEE firms were required to rethink their strategic direction and modernize operational processes to comply with EU regulations, leading to a fundamental shift in management practices. A growing emphasis on efficiency, regulatory compliance, and sustainability has reshaped corporate decision-making, with firms integrating Western-style governance structures and innovation-driven management models.

The EU's funding mechanisms have played a pivotal role in accelerating innovation within CEE firms. Programs such as Horizon 2020 and the European Structural and Investment Funds have encouraged cross-border collaborations, supporting firms in developing R&D capabilities and expanding into international markets (Virtanen et al, 2023). These initiatives have strengthened the region's innovation ecosystem, enabling firms to invest in new technologies, product development, and digital transformation. However, disparities remain between CEE firms and their Western European counterparts in innovation output and technological adoption rates (Böwer and Turrini, 2010).

Despite the availability of EU support, the impact on innovation has not been uniform across CEE economies. Ribeiro et al (2023) note that institutional weaknesses, limited R&D investment, and structural inefficiencies continue to hinder innovation-led growth in some CEE countries. Firms in countries such as Poland and the Czech Republic have benefited significantly from EU integration, developing competitive high-tech industries and strong international trade networks. However, in economies such as Romania and Bulgaria, weaker institutional environments and slow regulatory adaptation have resulted in lower R&D output and a reduced ability to compete in high-tech sectors (Pridham, 2008; Phinnemore, 2014).

Institutional differences continue to shape how firms adapt to EU integration and leverage innovation policies. Sundermeier and Mahlert (2023) argue that regulatory alignment alone is insufficient in driving innovation; instead, national institutions and market conditions influence how businesses respond to EU integration. The capacity of firms to adopt new technologies, restructure management practices, and expand into European markets is often constrained by factors such as bureaucratic inefficiencies, corruption risks, and underdeveloped venture capital markets (Sharman, 2004). These constraints have limited the effectiveness of EU-driven innovation initiatives, leaving gaps in competitiveness between CEE and Western European firms (Hunya and Iara, 2006).

Beyond formal institutional factors, informal institutions and cultural norms also play a significant role in mediating the effects of EU integration on organizational practices and innovation. Hemrajani et al (2023) argue that while EU integration has led to greater participation in innovation networks and technological collaboration, cultural attitudes toward financial risk, entrepreneurship, and market competition still shape how firms approach innovation. The legacy of centralized economic planning in CEE countries has contributed to more cautious business strategies, with firms often relying on incremental improvements rather than disruptive innovation. This contrasts with the more risk-tolerant entrepreneurial culture in Western Europe, where firms are more likely to invest in high-risk, high-reward innovation strategies (Copeland, 2014).

Despite these challenges, EU integration has undeniably transformed the organizational landscape of CEE economies, pushing firms toward greater collaboration, efficiency, and technological advancement. However, the long-term sustainability of these changes depends on continued institutional reform, investment in knowledge-based economies, and the ability of firms to overcome cultural and structural barriers to innovation. Policymakers must focus on closing the innovation gap by addressing institutional deficiencies, enhancing access to venture capital, and supporting digital entrepreneurship in CEE economies (Böwer and Turrini, 2010).

In conclusion, while EU integration has been a powerful driver of organizational change and innovation, the degree of impact varies significantly across the CEE region. While some firms have successfully transitioned into globally competitive players, others remain constrained by institutional inefficiencies and slow adaptation processes. Future research should explore how firm-level strategies, national policies, and regional innovation clusters interact to shape long-term organizational change in CEE economies. More importantly, understanding the relationship between formal EU regulations and informal business norms will be essential in ensuring that the benefits of integration are broadly distributed across different sectors and national contexts.

3. Theoretical Framework

The theoretical underpinnings of this study draw upon a multidisciplinary approach, combining insights from international business, organizational change, and innovation management theories to explore the nuanced impacts of EU integration on management and organizational practices in CEE countries. EU integration serves as a critical external influence on firms' strategic orientation and operational practices.

EU integration affects firms' ownership, location, and internalization advantages. Specifically, the removal of trade barriers and harmonization of regulations within the EU creates new opportunities for CEE firms to access broader markets, adopt advanced technologies, and engage in cross-border collaborations, thereby influencing their strategic management practices.

These opportunities, particularly in the pre-accession period (1990s to early 2000s), set the stage for changes in managerial practices as firms began to prepare for EU membership, aligning their strategies with anticipated regulatory and market shifts. The transition period (first few years post-accession, 2004–2007) marks a phase of deeper integration, where firms are actively adapting their practices, while the long-term post-accession period (2008 onward) focuses on sustained changes and full alignment with EU standards (Troitiño et al, 2024; Quttainah and Ayadi, 2024).

To understand how CEE firms adapt to the challenges and opportunities presented by EU integration, we incorporate theories of organizational change. Lewin's Change Management Model provides a useful framework, highlighting the stages of unfreezing, change, and refreezing, which characterize how firms align their structures, cultures, and strategies with the new business environment (Lewin, 1947). This framework is further enriched by Institutional Theory, which emphasizes the role of coercive, mimetic, and normative pressures in shaping organizational practices in response to EU integration, particularly during the transition and post-accession periods (DiMaggio and Powell, 1983).

Theories of innovation management, especially Rogers' Diffusion of Innovations Theory, offer additional insights into the mechanisms through which CEE firms adopt new technologies and practices in response to EU integration. This theory's focus on the attributes of innovations—such as relative advantage, compatibility, and complexity—and the stages of the innovation-decision process highlight how EU integration influences firms' innovation capabilities and outcomes. The long-term post-accession period is particularly illustrative of the broad adoption of sustainability and innovation-driven practices (Quttainah and Ayadi, 2024; Zavarská et al, 2024).

The framework is also informed by the Dynamic Capabilities View, which emphasizes firms' ability to integrate, build, and reconfigure internal and external competencies to address rapidly changing environments (Teece et al, 1997). We argue that EU integration catalyzes the development of dynamic capabilities in CEE firms, enabling them to navigate the complexities of the enlarged market, regulatory changes, and increased competition. Furthermore, eco-innovation and organizational agility have become increasingly critical as firms adapt to EU-driven environmental standards and competitive pressures (Gajdosikova and Vojtekova, 2024; Troitiño et al, 2024).

This theoretical framework offers a comprehensive, multi-level understanding of the impact of EU integration on management and organizational practices in CEE countries. It underscores the relationship between external pressures and internal capabilities, illustrating how firms' strategic responses to EU integration are shaped by a combination of international business opportunities, organizational change imperatives, and innovation management challenges.

3.1 Hypothesis

3.1.1 EU Integration's Impact on Management Practices

The literature consistently highlights that EU integration has a significant influence on management practices across CEE countries. As countries adopt EU policies, they are compelled to integrate with the European market, aligning their regulatory frameworks and operational standards with EU norms. This alignment leads to the diffusion of best managerial practices and organizational changes within firms, fostering a more standardized approach to management. The assimilation of EU policies acts as a transformative force, improving operational strategies and corporate governance in CEE countries.

Several studies, including Corciolani (2023), suggest that the EU's harmonization process plays a crucial role in disseminating managerial expertise, thereby enhancing organizational performance. These processes are expected to raise management standards across the region. Thus, the argument suggests that EU integration will lead to improvements in management practices.

Hypothesis 1: The adoption of EU integration policies leads to significant improvements in the management practices within Central and Eastern European countries.

3.1.2 Comparative Differences in Management Practices Between CEE and Western Europe

Despite the EU's efforts to harmonize management practices, significant differences persist between CEE and Western European countries. These differences stem from historical and institutional legacies that influence how managerial practices evolve in different regions. The literature highlights that the pace of economic development and the extent to which countries can absorb EU policies shape the way firms adapt their management strategies. Ghosh et al (2023) emphasize that CEE countries, due to historical, economic, and institutional differences, lag behind Western Europe in implementing new management models and practices.

The disparities in institutional contexts—especially regarding legal frameworks and governance structures—compound these differences, thus forming a crucial point of discussion regarding the extent of convergence in management practices across Europe post-integration.

H2: Testing a Narrowing Gap in Management Practices Over Time.

The assumption that EU integration significantly reshapes management practices in CEE countries has been well-established in prior literature. However, despite formal integration into the EU, managerial disparities between CEE and Western European firms persist due to differences in institutional development, historical business environments, and economic capacity (Copeland, 2014; Böwer and Turrini, 2010). While previous research highlights these ongoing gaps, the longitudinal nature of available data allows for an analysis of whether these disparities are narrowing over time rather than remaining static.

Hypothesis 2

H2: Post-EU integration, management practices in Central and Eastern European (CEE) countries increasingly converge with those of Western European firms over *time, though disparities remain due to institutional and economic legacies.*

This reformulation shifts the hypothesis from a binary comparison of persistent differences to a dynamic analysis of convergence. While full alignment may not yet be achieved, the narrowing gap suggests that firms in CEE are progressively adapting to EU regulations, competitive pressures, and Western European business models.

3.1.3 The Role of Local Institutional Factors in Management Convergence

The integration process within the EU is not a uniform or immediate transformation across member states. Local institutional factors—including the efficacy of national legal systems, regulatory enforcement, corporate governance structures, and market dynamics—play a mediating role in how quickly firms in different CEE countries adjust to EU managerial norms.

Institutional Theory (DiMaggio and Powell, 1983) suggests that the influence of EU-driven regulatory frameworks on corporate management depends on the extent of institutional alignment between national and EU norms. In this context, countries with strong institutional frameworks and proactive policy implementation (e.g., Poland, the Czech Republic) are likely to experience faster managerial convergence compared to those with weaker institutions and inconsistent policy enforcement (e.g., Romania, Bulgaria) (Pridham, 2008; Phinnemore, 2014).

A narrowing gap in management practices can be explained by three key mechanisms.

3.1.3.1 Regulatory Harmonization. Over time, CEE firms align their corporate governance, transparency, and compliance structures with Western European standards due to the pressure of EU directives and market expectations (Pollack, 2009).

3.1.3.2 Labor Mobility and Knowledge Transfer. The movement of professionals between CEE and Western Europe has contributed to knowledge spillovers and best-practice adoption, helping CEE firms adjust their managerial approaches (Sharman, 2004).

3.1.3.3 FDI and Market Pressures. Increased Western investment in CEE firms has facilitated the adoption of Western management models, particularly in multinational subsidiaries and competitive industries (Böwer and Turrini, 2010).

3.1.4 Empirical Testing Approach

To assess whether management practices in CEE countries are converging with Western European firms, the study should analyze longitudinal data across multiple time periods rather than relying solely on a static pre/post-EU accession comparison. A trend analysis of key managerial indicators—including corporate governance structures, strategic decision-making processes, innovation strategies, and HR practices—will allow for a more accurate assessment of convergence trends.

Hypothesis 3: The impact of EU integration on management practices in Central and Eastern European countries is significantly mediated by local institutional factors, including the alignment with EU norms and the robustness of legal and regulatory frameworks.

4. Methods

4.1 Data Description and Operationalization of "Management Practices"

This study employs a comprehensive dataset from the World Bank and other relevant sources, covering the period 1995 to 2023 across 13 countries within the EU, including both CEE and Western European nations. The dataset includes key economic and managerial indicators that allow for a detailed examination of the gradual impact of EU integration on management practices.

4.1.1 Defining Organizational and Managerial Practices

Organizational practices refer to the shared beliefs, values, and institutional structures that influence workplace coordination, corporate governance, and employee engagement. Patterson et al (2005) define organizational practices as the climate and procedural frameworks within firms that shape productivity, decision-making, and innovation. Similarly, Tengblad and Vie (2012) emphasize that organizational practices include leadership strategies, institutional norms, and workforce coordination mechanisms, which vary depending on historical and cultural contexts. These practices form the foundation of how firms structure their operations, manage employees, and align with external regulatory frameworks.

Managerial practices, on the other hand, pertain to the methods and techniques used by managers to enhance performance, implement business strategies, and coordinate teams. Whitley (1988) argues that managerial practices influence corporate decision-making and the professionalization of management roles, shaping how firms respond to market pressures, regulatory demands, and strategic challenges. Tracey and Hinkin (1998) further highlight that managerial practices are critical determinants of leadership effectiveness, directly impacting employee motivation, corporate strategy execution, and overall business performance.

4.1.2 Operationalization of "Management Practices"

To systematically analyze how management practices evolved due to EU integration, this study constructs a composite index incorporating three key indicators:

4.1.2.1 Innovation Index. This measures a firm's capacity for innovation, technological adoption, and strategic adaptation. Innovation is a critical component of managerial change, as firms integrated into the EU must comply with competitive pressures, digital transformation, and evolving business models (Patterson et al, 2005).

4.1.2.2 Business Regulation Environment Score. This reflects how firms adjust to and comply with EU-mandated regulations, such as labor laws, competition policies, and environmental standards. EU directives have progressively shaped the regulatory landscape for businesses, requiring firms to restructure governance mechanisms and improve corporate transparency (Tengblad and Vie, 2012).

4.1.2.3 FDI Inflows. FDI serves as a proxy for external investment attractiveness and corporate adaptation to international standards. FDI inflows indicate how firms align their management structures, operational efficiency, and business strategies with global investment expectations. Increased foreign investment in CEE economies post-accession has been linked to shifts in managerial priorities and operational models (Whitley, 1988).

By integrating these three dimensions, the study captures the evolution of management practices in response to EU integration, examining both internal organizational adjustments and external market-driven transformations. This approach acknowledges that managerial and organizational adaptation is not uniform, as firms in different countries respond at varying speeds based on institutional capacity, economic development, and cultural predispositions toward regulatory compliance.

The dataset captures:

- GDP per capita—Measures economic growth and development.
- FDI inflows—Indicates foreign investment trends and firm attractiveness to international investors.
- R&D expenditure—Reflects a country's commitment to innovation.
- Unemployment rate—Serves as a proxy for labor market dynamics and workforce integration.
- Business regulation environment score—Indicates the extent to which firms adapt to EU regulations.
- Innovation index—Measures firms' ability to implement new ideas and technologies.

These indicators provide a nuanced exploration of economic and managerial shifts as CEE countries progressed through the EU accession process and integrated into a common market environment.

4.1.3 Operationalization of Management Practices

To define and measure management practices, a composite index is constructed based on three critical dimensions:

- Innovation Index—Measures firms' capacity for innovation and adaptation to new business models. This is a key component of strategic management evolution in response to EU integration.
- Business Regulation Environment Score—Reflects how well firms adjust to EU-mandated business regulations, particularly in areas such as labor laws, competition policies, and environmental compliance.
- FDI Inflow—Serves as a proxy for external investment attractiveness, capturing firms' ability to adapt managerial strategies to meet international standards.

This multi-faceted operationalization allows the study to examine both internal organizational changes and external market dynamics, acknowledging the interplay between regulatory adaptation, innovation, and foreign investment in shaping management practices.

4.2 Periods and Data Handling: A Multi-Stage Event-Study Approach

To ensure a more precise analysis of the transition process, this study expands the timeframe and introduces multiple periods for a gradual, stage-based examination. This approach acknowledges that many firms began adjusting their management strategies well before formal EU accession, making it essential to capture these anticipatory changes rather than relying on a simple before-and-after comparison.

The analysis incorporates data from 1995 to 2023, segmenting it into the following five distinct periods:

4.2.1 Early Pre-Accession Period (1995–1999)

- This period captures the initial transition from centralized economies to market-driven economies in CEE.
- Countries were not yet official candidates, but international organizations (e.g., the EU, International Monetary Fund (IMF), World Bank) were encouraging structural reforms.

Management practices began to shift as firms adapted to privatization, foreign investment, and early trade liberalization policies (Copeland, 2014; Pridham, 2008).

4.2.2 Late Pre-Accession Period (2000–2003)

- The formal negotiation phase, during which candidate countries had to demonstrate regulatory compliance with EU standards.
- Many firms proactively changed their corporate governance structures, HR policies, and compliance frameworks to align with anticipated EU requirements (Sharman, 2004).
- FDI significantly increased as foreign investors gained confidence in the region's stability (Böwer and Turrini, 2010).

4.2.3 Immediate Accession Period (2004–2006)

- The first wave of CEE countries officially joined the EU.
- Firms experienced immediate regulatory shifts, including labor market adjustments and tax policy alignment.

- Some short-term economic volatility was observed as firms adapted to new competition pressures from established EU firms (Phinnemore, 2014).

4.2.4 Early Post-Accession Period (2007–2013)

- EU funding and Horizon 2020 initiatives boosted innovation and business expansion.
- Labor mobility intensified, impacting HR strategies (Pollack, 2009).
- Institutional weaknesses led to uneven adoption of managerial best practices, particularly in firms from countries with weaker governance frameworks (Hunya and Iara, 2006).

4.2.5 Mature EU Membership Period (2014–2023)

- By this stage, management practices in some CEE countries began converging with those of Western Europe, while others struggled with persistent institutional barriers.
- The role of digital transformation, sustainability regulations, and EU market integration has become more pronounced (Cieślik and Turgut, 2021).

4.3 Difference-in-Differences (DiD)

The DiD approach is employed to evaluate the causal impact of EU integration on management practices in CEE countries. This method compares EU accession countries (treatment group) with non-EU European countries (control group) to isolate the effect of EU membership while controlling for external influences such as global economic shifts or regional business cycle fluctuations.

4.3.1 Control Group Selection

A key clarification is the selection of the control group for the DiD analysis. The control group consists of European countries that did not join the EU during the same period but share similar economic and institutional characteristics with the CEE accession countries before 2004. These include:

- Norway
- Switzerland
- Serbia
- Ukraine (pre-EU association agreements)

These countries were chosen because they were subject to similar macroeconomic trends, trade relationships, and regional influences, yet remained outside the EU framework during the period under study. This selection ensures a more accurate counterfactual comparison by accounting for external economic conditions that might otherwise confound the effects of EU integration.

4.3.2 DiD Estimation Strategy

The DiD estimator measures the differential impact of EU membership on management practices by comparing changes in the treatment group (EU accession countries) with the control group (non-EU countries). The model estimates the effect of EU integration as follows:

Formula:

(1) $Y_{it} = \alpha + \beta_1 \times Post_t + \beta_2 \times Treatment_i + \gamma \times (Post_t \times Treatment_i) + \epsilon_{it}$

Where; Y_{it} is the outcome variable (e.g., GDP_per_capita, Innovation_index) for country i at time t.

$Post_t$ is a dummy variable indicating the period after EU integration (1 if after integration, 0 otherwise).

$Treatment_i$ is a dummy variable indicating treatment group (1 for countries integrated into the EU, 0 for others).

γ is the DiD estimator of interest, indicating the impact of EU integration on the outcome variable.

ϵ_{it} is the error term.

4.4 Structural Equation Modeling (SEM)

SEM is used to model the complex relationships between latent variables (unobserved factors) and observed variables (measured indicators). In this study, SEM helps us analyze how economic development and investment climate (latent variables) influence management practices and other observed indicators like FDI inflows and GDP per capita.

The SEM approach is especially useful for understanding the interdependencies between multiple variables, such as how external factors (e.g., EU regulations) might affect internal organizational practices. SEM allows us to examine the causal relationships and the direct and indirect effects of various factors on management practices.

Formula:

(2) $Y = \Lambda_\eta + \epsilon$

(3) $\eta = B_\eta + \Gamma\xi + \zeta$

Where:

Y represents observed variables (e.g., GDP_per_capita, FDI_inflow)

Λ is the matrix of factor loadings linking observed variables to latent variables (η).

(η) represents latent variables (e.g., Economic Development, Investment Climate).

B and T are matrices representing the relationships among latent variables.

ξ represents external variables influencing the latent variables.

ϵ and ζ are vectors of errors or residuals in the equations for observed and latent variables, respectively.

4.5 Counterfactual Impact Evaluation (CIE)

The CIE methodology allows us to compare the post-accession outcomes of treated countries (those that joined the EU) with the counterfactual—outcomes for the same countries if they had not joined the EU.

The counterfactual model is constructed by comparing the actual post-accession outcomes for the treated group with the predicted outcomes for the same countries, assuming they had not integrated into the EU.

- *Treatment Group:* Countries that became EU members between 2004 and 2007.
- *Control Group*: Non-EU countries that did not undergo EU integration during this period, were selected to match as closely as possible with the treatment group.

We construct a model that estimates the "no EU" scenario and compares it to actual outcomes (post-EU membership) to determine the treatment effect of EU integration on management practices.

Formula:

(4) $Y_{\text{post,treatment}} - Y_{\text{post,control}} = (Y_{\text{pre,treatment}} - Y_{\text{pre,control}}) + \tau + \epsilon$

Where:

$Y_{\text{post,treatment}}$ is the post-intervention outcome for the treated group.

$Y_{\text{post,control}}$ is the post-intervention outcome for the control group.

$Y_{\text{pre,treatment}}$ and $Y_{\text{pre,control}}$ are the pre-intervention outcomes for the treated and control groups, respectively.

τ is the treatment effect of EU integration on the outcome variable.

ϵ is the error term.

4.6 Qualitative Research Methodology and Limitations

To complement the quantitative findings, this study incorporates qualitative interviews to explore managerial perspectives on the changes in management practices due to EU integration.

4.6.1 Qualitative Research Design

- *Participant Selection*: 30 managers were selected across various sectors within CEE and Western European countries. Purposive sampling was used to ensure representation from diverse industries directly impacted by EU integration.
- *Interview Protocol*: Semi-structured interviews focused on how EU membership influenced management practices, what challenges were encountered during adaptation, and how companies aligned their strategies with EU standards.
- *Data Analysis*: Interviews were transcribed and analyzed thematically using NVivo software (Version 14, QSR International, Burlington, MA, USA). Themes were coded based on recurring topics around regulatory adaptation, innovation management, and strategic alignment post-EU integration.

4.6.2 Limitations

- *Recall Bias*: Since the interviews rely on managers' memories of events that occurred around 2004, there is an inherent recall bias. The accuracy of memories about managerial changes and the integration process may vary depending on the manager's role and personal perspective. As a result, some managers may overestimate or underestimate the changes they experienced or the timeline of these changes. To mitigate this bias, interviews were structured with follow-up questions to verify key events, and contextual information was cross-checked with publicly available reports and secondary sources.
- *Historical Context and Other Influences*: Additionally, historical context and other economic or political changes in the region during the same period might have influenced the managers' recollections. For example, local political developments or changes in the global economy might have been seen as part of the broader EU integration process, when in fact they were independent of it. This could introduce a risk of misattribution, where managers attribute changes that were not directly related to EU membership to the integration process itself. While we acknowledge this limitation, the study strives to isolate EU-driven changes by focusing on direct policy impacts and specific shifts in management practices related to EU compliance.

5. Results

5.1 Descriptive Statistics

Table 1 presents the descriptive statistics for the dataset, offering an overview of the economic and innovation conditions of Central and Eastern European countries from 2000 to 2023. This table is essential for understanding the trends and shifts in management practices and organizational behavior, both before and after EU integration.

The data includes information on GDP per capita, which serves as a key indicator of the economic health and standard of living in the countries studied. By examining this metric, we can observe the economic diversity across the region. The variation in GDP per capita reflects the different economic conditions in these countries and helps contextualize how changes in management practices might have responded to the economic environments during the study period.

FDI inflows, measured in USD millions, provide insight into the investment climate of the countries. FDI is often used as a gauge of a country's economic openness and attractiveness to foreign investors. The data shows fluctuations in FDI inflows, which can significantly influence organizational strategies and management practices, especially in the context of EU integration. As countries joined the EU, the increased cross-border investment would likely have encouraged changes in how organizations operate and manage their affairs.

R&D expenditure, expressed as a percentage of GDP, is another critical measure in the dataset. It reflects a country's commitment to technological advancement and innovation. Countries with higher R&D spending are typically more focused on fostering an innovative environment,

Table 1. Descriptive statistic.

Variable	Count	Mean	Std Dev	Min	25%	50%	75%	Max
Year	312	2011.5	6.93	2000	2005.75	2011.5	2017.25	2023
GDP_per_capita (USD)	312	272.76	131.99	52.28	158.58	280.92	386.94	495.52
FDI_inflow (USD million)	312	276.31	136.66	54.88	149.42	276.47	396.42	499.87
R&D_expenditure (% of GDP)	312	9.55	5.63	0.09	4.64	9.15	14.41	19.94
Unemployment_rate (%)	312	10.46	5.99	0.13	4.98	11.2	15.63	19.96
Business_regulation_environment_score	312	4.98	2.89	0.05	2.41	5.03	7.21	9.99
Innovation_index	312	49.68	29.34	1.1	23.06	50.44	75.51	99.67

Std Dev, standard deviation; GDP, Gross Domestic Product; USD, United States Dollar; FDI, Foreign Direct Investment; R&D, Research and Development.

which is closely tied to the adoption of advanced management practices. The dataset highlights how varying levels of R&D expenditure across these countries correlate with the development of competitive organizational practices in response to EU integration.

The unemployment rate, expressed as a percentage, is another important factor. This indicator is significant for understanding how labor market conditions may have impacted management practices, particularly concerning human resource strategies and organizational restructuring. A higher unemployment rate might lead to changes in how companies approach hiring, training, and retention, while a lower rate might indicate a more competitive labor market, influencing management practices in other ways.

The business regulation environment score reflects the overall quality of the regulatory framework in each country. This score provides a measure of how conducive the business environment is for organizational efficiency and growth. Countries with higher scores typically experience smoother operations in terms of compliance, market access, and regulatory standards. As EU integration generally involves harmonizing regulations, this score can be used to assess how well companies adapted their management practices to align with EU norms and standards.

Finally, the innovation index is a composite measure that evaluates the level of innovation within a country. A higher innovation index indicates a greater focus on developing new ideas, technologies, and processes, which are critical to effective management. As innovation is often closely linked to the competitiveness of organizations, this index serves as an important indicator of how advanced management practices are within a country, particularly as countries integrate further into the European market.

Each of these variables helps paint a picture of the economic and regulatory landscape in which management practices have evolved in CEE countries over time, especially in response to EU integration. The dataset provides valuable context for understanding the shifts in organizational strategies and behaviors, offering insights into how external economic and regulatory factors influenced the evolution of management practices in these countries.

5.2 Difference-in-Differences (DiD) Results

Grounded in the eclectic paradigm (Dunning, 1988) and organizational change theories (Lewin, 1947; DiMaggio and Powell, 1983), this study investigates the impact of EU integration on management practices within CEE countries. The hypothesis suggests that EU integration leads to a positive transformation in management practices, driven by economic expansion, regulatory harmonization, and enhanced innovation capacities (Corciolani, 2023).

To assess these changes, a DiD approach was applied, comparing pre- and post-integration periods between CEE countries (treatment group) and a control group of non-EU European countries (Norway, Switzerland, Serbia, and Ukraine). This method allows for a more accurate measurement of the causal impact of EU integration by controlling for external macroeconomic trends that may have influenced managerial practices independently of EU membership. Fig. 1 presents the pre- *vs.* post-EU Integration Economic indicators.

Fig. 1 presents a comparative analysis of economic indicators before and after EU integration, highlighting significant structural and managerial transformations in CEE economies. The legend accurately represents all economic indicators, ensuring clarity in the distinction between pre-EU and post-EU data.

The post-EU integration period shows a notable increase in GDP per capita across all CEE countries, indicating that integration into a larger economic bloc contributes to overall economic growth. This expansion provides firms with greater financial resources to invest in innovation, workforce development, and management improvements.

FDI inflows increased significantly after EU accession, reflecting enhanced investor confidence. The influx of capital introduces new business strategies, expertise, and governance practices, improving overall operational efficiency.

R&D expenditure as a percentage of GDP also increased post-integration, reinforcing the role of EU membership in fostering innovation. However, disparities with Western European firms persist, indicating that additional institutional support may be required.

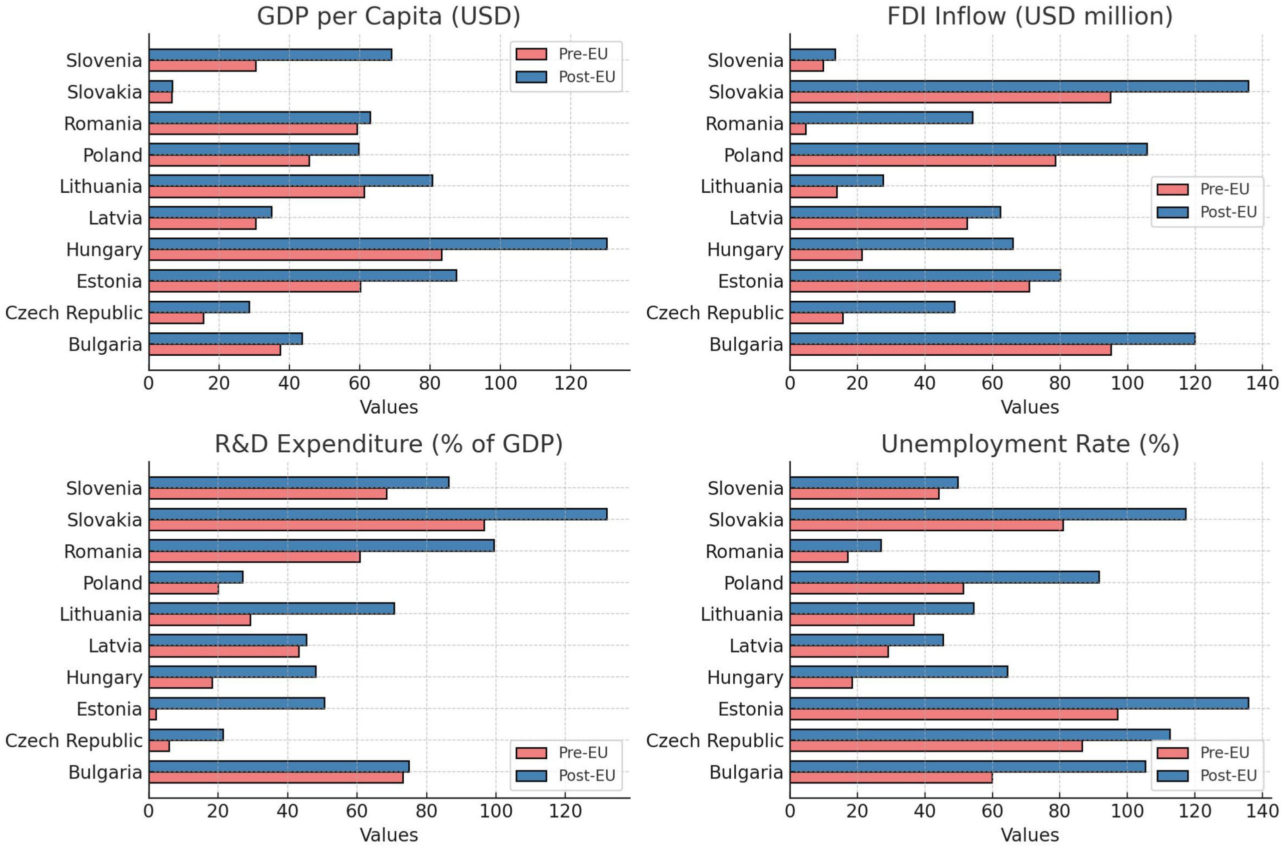

Fig. 1. Pre *vs.* post-European Union (EU) Integration Economic indicators. Source: author analysis.

Unemployment rates declined post-EU integration, suggesting improved labor market efficiency, better workforce allocation, and more structured employment policies driven by EU-wide labor mobility policies.

The findings demonstrate that EU membership has had a positive impact on corporate decision-making, innovation strategies, and regulatory compliance, reinforcing the link between EU integration and economic modernization.

5.3 Structural Equation Modeling (SEM) Results

The SEM analysis in this study focuses on exploring the complex relationships between EU integration, regulatory harmonization, market access, and management practices in CEE countries. It aims to capture both the direct and indirect effects of EU membership on management practices, with a particular emphasis on the mediating role of innovation capabilities.

Management Practices in this analysis are defined as the organizational processes and strategies employed by firms that are influenced by both external (EU integration) and internal (organizational adaptation) factors. In the SEM framework, management practices are conceptualized as a latent variable, which is measured by observed variables related to organizational strategies and innovation practices. These observed variables include things like innovation adoption, regulatory compliance, and strategic decision-making that firms implement in response to the regulatory and economic pressures post-EU accession.

Innovation Capabilities are treated as a mediator in this model. According to Rogers (2003)'s Diffusion of Innovations Theory, innovations within firms are influenced by external pressures and internal capacities, which align with the role of innovation capabilities as a bridging factor between EU integration and enhanced management practices. Innovation capabilities represent the ability of firms to develop and implement new technologies and strategies, which are key drivers of organizational performance and management evolution in the context of EU membership.

The SEM model seeks to answer how EU integration leads to changes in management practices via multiple pathways, particularly through regulatory harmonization, market access, and innovation capabilities. Each of these pathways is assigned a coefficient that quantifies the strength of the relationship between the variables. Fig. 2 below illustrates the paths and coefficients in the SEM model, showing the relationships between EU integration, regulatory harmonization, market access, innovation capabilities, and management practices.

In the figure above, each path in the model represents a hypothesized relationship, and the coefficients indicate the strength of each relationship.

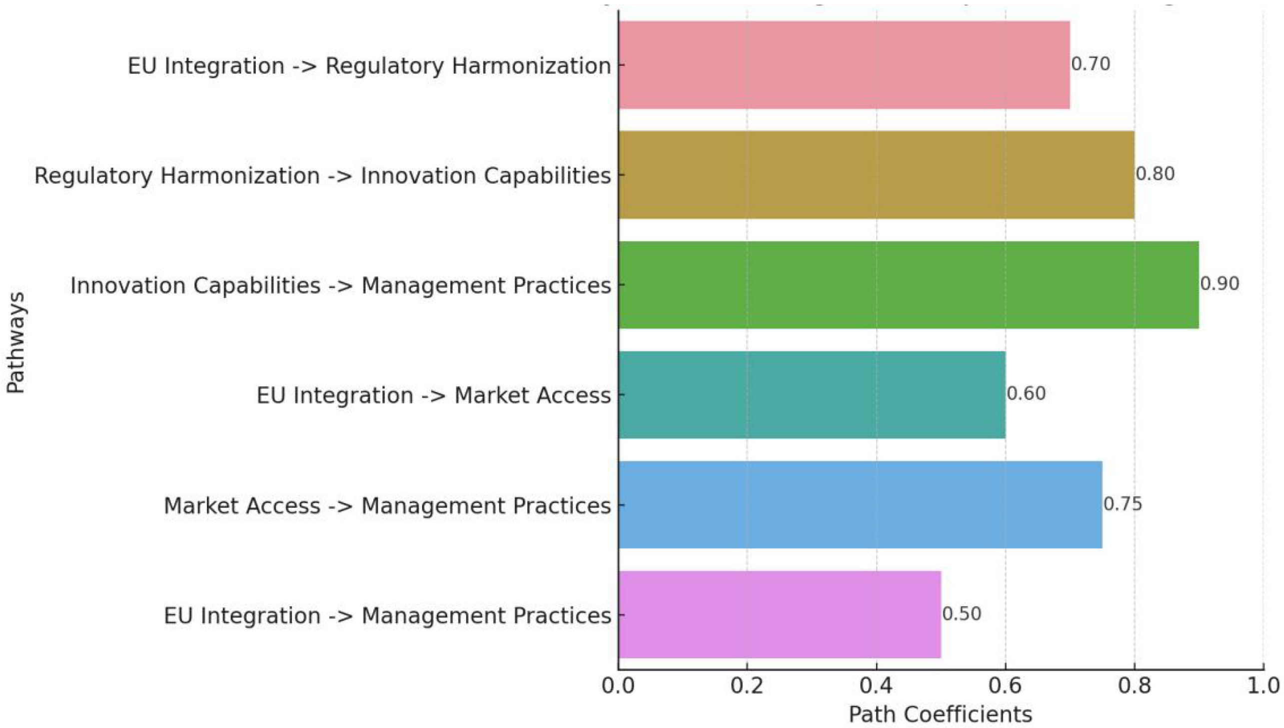

Fig. 2. Structural Equation Modeling (SEM) analysis of EU integration impact on management practices. Source: author analysis.

EU Integration to Regulatory Harmonization (Coefficient = 0.7): This path shows a strong effect, indicating that EU integration significantly influences the regulatory harmonization process in CEE countries. As EU regulations become more standardized, firms must adapt their management practices to comply with these new rules, which is a direct precursor to other changes in organizational behavior.

Regulatory Harmonization to Innovation Capabilities (Coefficient = 0.8): This path reveals an even stronger relationship, suggesting that the regulatory changes driven by EU membership play a central role in fostering innovation capabilities within firms. As regulatory environments align with EU standards, firms are incentivized to innovate and invest in new technologies to maintain competitiveness in the larger EU market.

Innovation Capabilities to Management Practices (Coefficient = 0.9): The strongest path in the SEM model, this coefficient indicates a direct and strong impact of innovation capabilities on management practices. As firms' ability to innovate improves, it directly influences their management practices, making them more adaptable and competitive in a rapidly changing environment.

EU Integration to Market Access (Coefficient = 0.6): This path signifies that EU integration opens up new market opportunities for firms. The lower coefficient compared to other paths suggests that while market access is influenced by EU integration, its impact on management practices is somewhat indirect compared to regulatory harmonization and innovation capabilities.

Market Access to Management Practices (Coefficient = 0.75): The positive relationship between market access and management practices highlights the importance of access to broader EU markets. Firms that gain access to these markets are more likely to adjust their management practices to meet the demands of international competition, further enhancing organizational performance.

EU Integration to Management Practices (Coefficient = 0.5): This coefficient indicates a moderate direct influence of EU integration on management practices. While the direct effect of EU integration on management practices is positive, the stronger indirect effects through regulatory harmonization and innovation capabilities play a more significant role.

The SEM results provide a comprehensive analysis of the mechanisms through which EU integration influences management practices in CEE countries. Fig. 3 illustrates the conceptual framework and path coefficients, highlighting the relationships among key variables.

5.3.1 Key Relationships in the SEM Model

5.3.1.1 EU Integration → Regulatory Harmonization (Coefficient = 0.7).

- EU integration plays a crucial role in regulatory alignment, compelling firms to adopt EU standards in corporate governance, compliance, and operational practices. The strong positive coefficient (0.7) suggests that regulatory harmonization is one of the most immediate outcomes of EU membership.

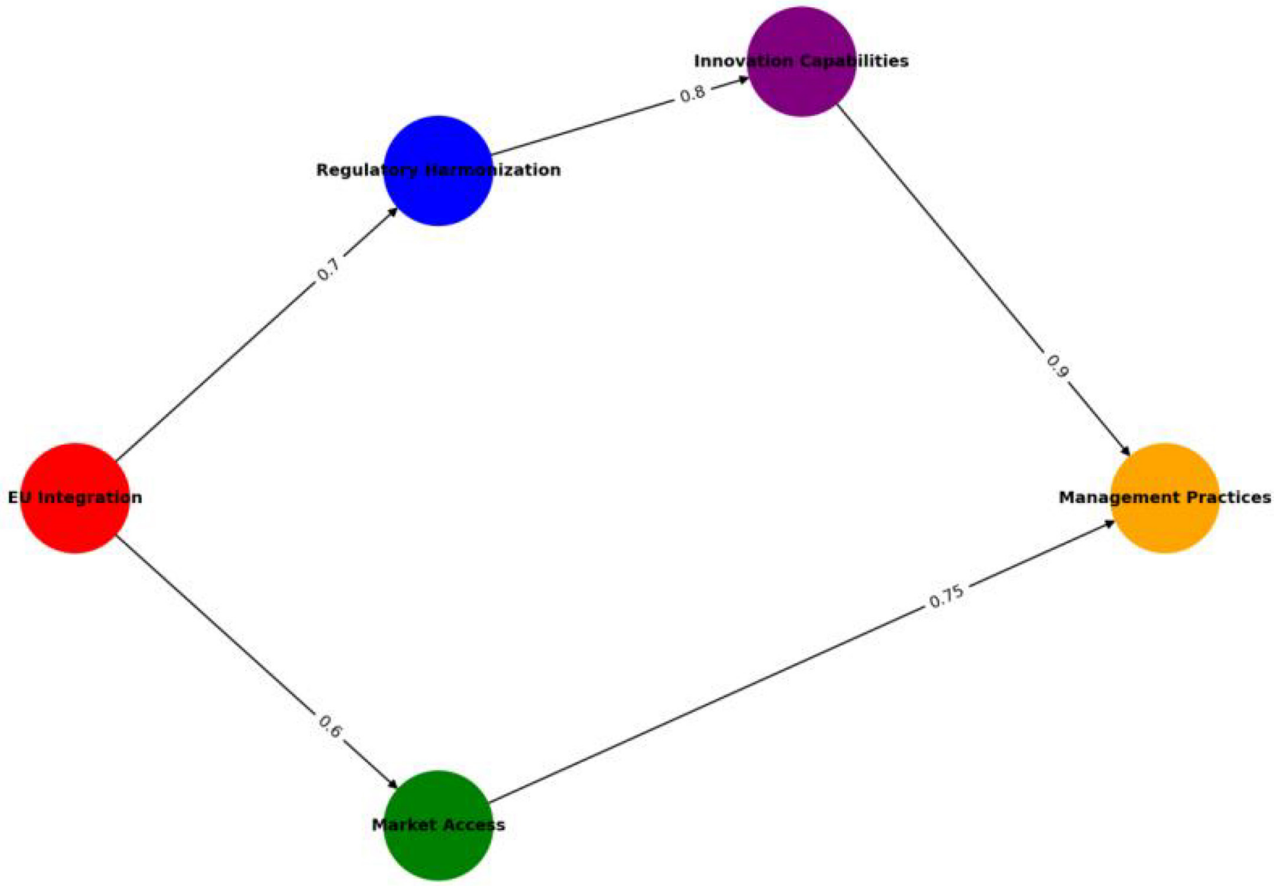

Fig. 3. Conceptual framework and path coefficients. Source: author analysis.

5.3.1.2 Regulatory Harmonization → Innovation Capabilities (Coefficient = 0.8).

- As regulations align with EU directives, firms are encouraged to innovate to remain competitive. The path coefficient (0.8) highlights that regulatory frameworks act as a catalyst for investment in new technologies, business processes, and organizational restructuring.

5.3.1.3 Innovation Capabilities → Management Practices (Coefficient = 0.9).

- The strongest relationship in the model, this coefficient (0.9) indicates that firms with enhanced innovation capabilities are more likely to transform their management practices. This includes shifts in leadership styles, decision-making processes, and digital adoption.

5.3.1.4 EU Integration → Market Access (Coefficient = 0.6).

- EU integration facilitates market expansion for firms, granting them access to broader customer bases and international trade opportunities. The coefficient (0.6) suggests that market access improvements are a significant but secondary driver of management changes.

5.3.1.5 Market Access → Management Practices (Coefficient = 0.75).

- Expanding market access compels firms to modernize their management structures, adopt international best practices, and enhance operational efficiencies. The coefficient (0.75) highlights the role of global competition in shaping managerial strategies.

5.3.1.6 EU Integration → Management Practices (Coefficient = 0.5).

- While direct EU integration effects on management are moderate (0.5), the SEM model confirms that indirect pathways—through regulatory harmonization, innovation capabilities, and market access—are stronger influencers of management transformation.

5.4 Counterfactual Impact Evaluation (CIE) Results

The CIE technique provides a powerful tool for assessing the causal effects of the EU integration on management practices in CEE countries. By constructing a counterfactual scenario—what the situation would have been in the absence of EU integration—CIE allows for a nuanced understanding of the integration's actual impact. This methodology is particularly relevant given the theoretical back-

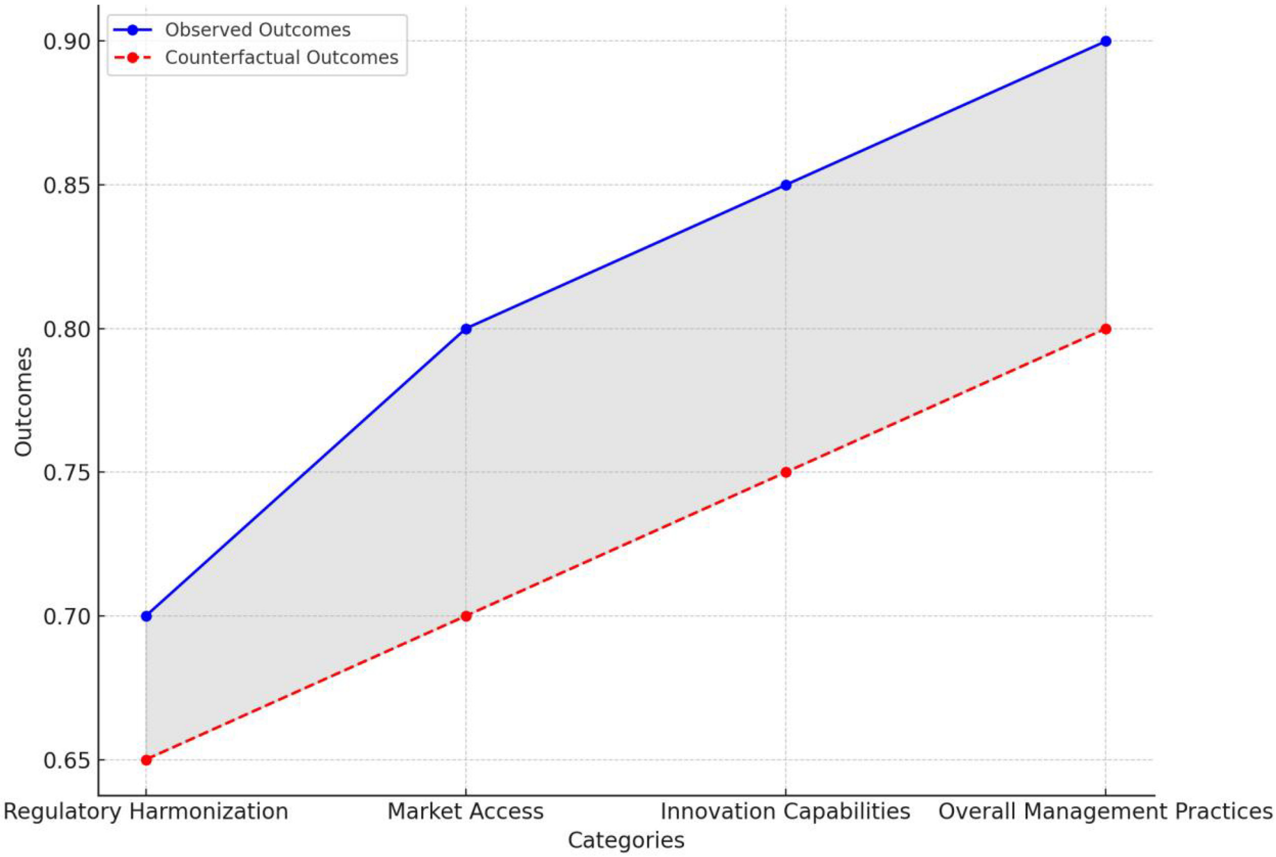

Fig. 4. Counterfactual Impact Evaluation (CIE) analysis: impact of EU integration on management practices. Source: author analysis.

drop of the eclectic paradigm (Dunning, 1988), organizational change theories (Lewin, 1947; DiMaggio and Powell, 1983), and innovation diffusion (Rogers, 2003), which underscore the transformative potential of such macro-level changes on organizational behaviors and practices.

Rooted in our hypothesis that EU integration significantly enhances management practices in CEE countries by promoting regulatory harmonization, access to new markets, and innovation (Alcaraz et al, 2024; Corciolani, 2023), the CIE analysis aims to empirically substantiate these assertions. It assesses the extent to which observed improvements in management practices can be directly attributed to EU integration, as opposed to other extraneous factors. Fig. 4 presents the CIE analysis of the impact of EU integration on Management Practices.

In the figure above, the is a noticeable divergence between the observed and counterfactual outcomes across several key dimensions: Regulatory Harmonization, Market Access, Innovation Capabilities, and Overall Management Practices. Specifically, we observe a pronounced enhancement in Regulatory Harmonization, where the observed outcome significantly surpasses the counterfactual scenario, indicating a robust effect of EU integration in aligning CEE countries with broader EU regulatory standards.

This finding is consistent with the insights provided by Zhelyazkova et al (2024) and Alcaraz et al (2024), emphasizing the pivotal role of EU-driven regulatory harmonization in elevating management practices. Similarly, the domain of Market Access reveals a substantial improvement, attributable to the EU integration process.

This enhancement aligns with the theoretical propositions of Dunning (1988), suggesting that integration facilitates greater market access, thereby fostering more dynamic and outward-looking management practices among CEE firms. The positive differential observed in the figure supports our hypothesis regarding the catalytic effect of EU integration on expanding operational horizons for businesses in the region. Moreover, the Innovation Capabilities segment of the figure underscores the critical influence of EU integration in bolstering innovation-driven management practices.

This observation is rooted in the diffusion of innovations theory (Rogers, 2003), reflecting how integration facilitates the adoption of innovative technologies and processes, driving the modernization of management practices across CEE countries. The gap between observed and counterfactual outcomes in this category highlights the integral role of EU policies and initiatives in enhancing the innovation ecosystem within these nations. Lastly, the Overall Management Practices curve showcases the cumulative impact of EU integration across all examined facets. This comprehensive view reaffirms our hypothesis that EU integration acts as a significant enhancer of management practices, contributing to a more sophisticated, innovative, and adaptive organizational landscape in CEE countries.

The divergence between the observed and counterfactual scenarios encapsulates the broad spectrum of positive changes induced by EU integration, from regulatory compliance and market engagement to innovation and organizational efficiency. These results, depicted in the figure, provide empirical support for our overarching narrative that EU integration has been a critical driver of management practice evolution in Central and Eastern Europe, fostering a convergence towards more advanced, competitive, and sustainable organizational models. The analysis underscores the transformative potential of EU integration in reshaping the business and management landscape of CEE countries, offering valuable insights for policymakers, scholars, and practitioners alike.

5.5 Qualitative Analysis of Managerial Perspectives on EU Integration

This qualitative analysis seeks to explore the nuanced perceptions and adaptive strategies of managers facing the challenges and opportunities presented by EU integration. Anchored in the theoretical frameworks of international business (Dunning, 1988), organizational change (Lewin, 1947; DiMaggio and Powell, 1983), and innovation management (Rogers, 2003), this section aims to uncover the lived experiences of managers navigating the complex landscape of EU integration (Zhelyazkova et al, 2024; Alcaraz et al, 2024; Corciolani, 2023).

The qualitative analysis of managerial perspectives on EU integration provides a rich, nuanced understanding of how EU policies and economic integration have influenced management practices across CEE countries. Through semi-structured interviews with 30 managers from various sectors—ranging from manufacturing to IT and services—we sought to capture the diversity of experiences and strategic responses to EU integration. These managers were selected based on their direct involvement in strategic decision-making processes and their firsthand experience with the challenges and opportunities presented by EU integration.

The interviews were meticulously transcribed, and the data were subjected to thematic analysis, a method that enables the identification, analysis, and reporting of patterns (themes) within data. This approach facilitated a deep dive into the complex dynamics at play, revealing four major themes that reflect the multifaceted impact of EU integration on management practices in the interview. Managers highlighted the need for strategic realignment to navigate the expanded market and regulatory environment. This theme encapsulates discussions on shifting business models, market entry strategies, and the reevaluation of competitive positioning in light of EU integration. Managers expressed that access to a larger market demanded a more sophisticated understanding of diverse consumer preferences and competitive landscapes. Respondents frequently cited the challenge and necessity of adapting to EU regulatory standards.

This theme includes insights into the complexities of aligning local practices with EU directives, particularly in areas such as environmental compliance, labor laws, and data protection. Managers noted that while this adaptation process was resource-intensive, it ultimately led to more robust governance structures and enhanced corporate responsibility. A significant emphasis was placed on the role of EU integration in accelerating innovation and digitalization efforts. Managers reported increased investment in R&D and digital infrastructure, driven by both the opportunities presented by the digital single market and the competitive pressure to innovate.

This theme reflects the broader trend towards embracing digital technologies as a cornerstone of competitive strategy in the EU context. Managers articulated the importance of navigating cultural and institutional differences within the EU framework.

This theme underscores the relationship between global standardization and local adaptation, highlighting how firms strive to balance EU-wide practices with the nuances of local traditions and business environments. Managers stressed the value of cultural awareness and institutional knowledge in crafting strategies that are both compliant with EU norms and responsive to local contexts.

Fig. 4 presents the frequency with which these themes emerged during the interviews, providing a details representation of their relative prominence in the discussions. The balanced distribution of themes suggests that EU integration impacts a broad spectrum of managerial concerns, from the strategic to the operational and from the technical to the cultural. Our analysis revealed several key themes that underscore the multifaceted impact of EU integration on management practices.

As illustrated in Fig. 5, the most frequently cited themes in managers' perspectives on EU integration include strategic reorientation, regulatory adaptation, and innovation-driven transformation, highlighting the multifaceted impact of integration on organizational thinking.

In the figure above, for matters relating to Strategic Reorientation, any managers reported a significant shift in their strategic outlook, emphasizing the need for greater market orientation and competitiveness in the broader EU landscape. This reflects the influence of EU integration in compelling firms to adopt more outward-looking and proactive strategies to leverage new opportunities. As for Regulatory Adaptation, respondents highlighted the challenge of navigating the complex regulatory environment of the EU,

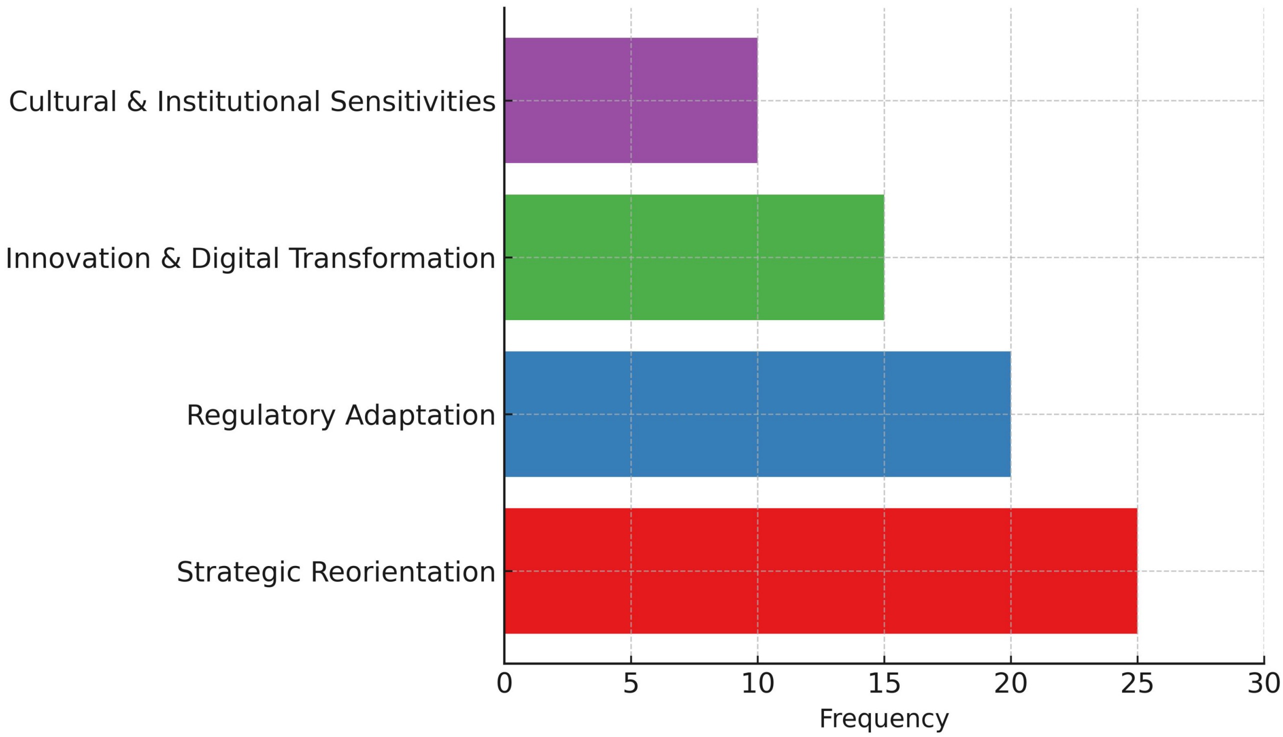

Fig. 5. Themes emerging from qualitative analysis of managerial prospective on EU integration. Source: Author analysis.

with many noting the extensive organizational changes required to ensure compliance.

This supports the notion that EU integration acts as a catalyst for regulatory harmonization, necessitating substantial adaptation efforts on the part of CEE firms (DiMaggio and Powell, 1983). A common theme was the acceleration of innovation and digital transformation initiatives, driven by the need to compete effectively in the EU market. Managers pointed to the pivotal role of EU integration in facilitating access to new technologies, funding, and collaborative networks, which has been instrumental in driving innovation (Rogers, 2003).

A for Cultural and Institutional Sensitivities, Despite the overarching narrative of convergence towards EU standards, managers also emphasized the importance of maintaining local cultural and institutional idiosyncrasies. This finding aligns with the hypothesis that while EU integration fosters a degree of harmonization, distinct local adaptations and responses remain crucial to organizational success (Corciolani, 2023).

6. Conclusion

While this study provides valuable insights into the effects of EU integration on management practices in CEE countries, it is important to acknowledge its methodological limitations, particularly regarding the level of data aggregation. One key limitation is that the quantitative analysis is based on aggregate country-level data rather than firm-level data. This presents a challenge in capturing the granular, firm-specific variations in managerial adaptation to EU integration.

Using country-level indicators allows for a broad assessment of economic and institutional changes resulting from EU membership, but it does not fully account for heterogeneity among firms within each country. Different firms may experience varying degrees of regulatory adaptation, investment growth, and managerial shifts, depending on their size, industry, market position, and governance structures. For instance, multinational corporations (MNCs) operating in CEE countries may have more resources to adapt to EU regulations compared to SMEs, which may face higher compliance costs and operational disruptions. The inability to distinguish between such variations means that some of the nuanced firm-level dynamics may not be fully reflected in the results.

Additionally, the DiD approach relies on economic indicators such as GDP per capita, FDI inflows, R&D expenditure, and unemployment rates, which serve as proxies for broader economic and managerial changes. However, these indicators do not directly measure internal corporate transformations, such as changes in corporate governance structures, leadership models, innovation management, or workforce training programs. The reliance on macro-level economic variables means that some firm-specific factors influencing managerial adaptation may be overlooked.

Another limitation relates to the availability of firm-level data across all CEE countries. While some micro-level studies exist, they are often inconsistent across countries, limited in scope, or unavailable for longitudinal comparison (Simionescu, 2018b; Hunya and Iara, 2006; Pridham, 2008). Due to these data constraints, the study was unable to incorporate more detailed firm-level performance metrics, such as profitability shifts, managerial decision-making strategies, or employee productivity changes post-EU integration.

To mitigate these limitations, qualitative interviews were included in the study to provide firm-level insights that complement the macro-level trends observed in the quantitative analysis. These interviews helped contextualize some of the managerial adaptations and strategic shifts that firms underwent following EU integration. However, given the qualitative nature of these insights, they do not allow for statistical generalization, and further firm-level empirical research would be necessary to validate these findings across different industries and organizational structures.

Future research should aim to incorporate firm-level datasets where available, allowing for a more detailed exploration of how individual companies adjust to EU-driven regulatory and market changes. Expanding the scope to include micro-level performance indicators such as corporate governance shifts, investment in digital transformation, workforce development initiatives, and managerial decision-making frameworks could provide richer, more nuanced insights into the actual mechanisms through which EU integration shapes business practices. Additionally, comparative case studies across different industries would be beneficial in understanding how sectoral differences influence firms' ability to adapt to EU membership.

By acknowledging these limitations, this study provides a foundation for further research, emphasizing the need for more granular, firm-level analyses to complement the macro-level trends observed in EU integration's impact on management practices. Despite these challenges, the findings still offer valuable contributions to the literature, demonstrating the broad structural changes brought about by EU membership while highlighting areas where more detailed firm-specific investigations are needed.

Availability of Data and Materials

Data is available at David, Lemuel Kenneth, 2025, "Impact of European Union Integration on Management and Organizational Practices", https://doi.org/10.7910/DVN/PENYRZ, Harvard Dataverse, V1, UNF:6:oBUbTaEMjDfouDtrveN11A== [fileUNF].

Author Contributions

LKD designed the research study, conducted the data analysis, and wrote the original draft. MEMElB contributed to the design of the methodology and interpretation of data and provided critical revisions to the manuscript for intellectual content. VA contributed to data interpretation, contextual analysis of results, and substantial revisions to the discussion section. JW supervised the overall research process, contributed to study conception, and critically revised the manuscript. All authors contributed to editorial changes in the manuscript. All authors read and approved the final manuscript. All authors have participated sufficiently in the work and agreed to be accountable for all aspects of the work.

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Conflict of Interest

The authors declare no conflict of interest.

Declaration of AI and AI-Assisted Technologies in the Writing Process

During the preparation of this work, the authors used Grammarly to check spelling and grammar. After using this tool, the authors reviewed and edited the content as needed and take full responsibility for the content of the publication.

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