

DOI: 10.5281/zenodo.19981744

FROM RENT-SEEKING TO VALUE CREATION: TRANSPARENCY AND DIGITALIZATION AS STRUCTURAL MODERATORS OF POLITICAL EMBEDDEDNESS OUTCOMES

Sherif Aly Khamis Kaamoosh¹, Hanan Mohamed Ismail Youssef², Laila Aladwey^{3*} and
Ahmed Mohamed Shawki Tawfik⁴

¹Department of Accounting, College of Business, Imam Mohammad Ibn Saud Islamic University (IMSIU),
Riyadh 11432, Saudi Arabia, Email: Sakaamoosh@imamu.edu.sa

²Department of Accounting, College of Business, Imam Mohammad Ibn Saud Islamic University (IMSIU),
Riyadh 11432, Saudi Arabia, Email: hmyoussef@imamu.edu.sa

³Department of Accounting, College of Business, Imam Mohammad Ibn Saud Islamic University (IMSIU),
Riyadh 11432, Saudi Arabia, Email: laladawi@imamu.edu.sa

⁴Department of Accounting, Faculty of Business, Alexandria University, Egypt. Email:
ahmed.shawki@alexu.edu.eg

Received: 15/03/2026
Accepted: 18/04/2026

Corresponding Author: Laila Aladwey
(laladawi@imamu.edu.sa)

ABSTRACT

This paper develops an integrated conceptual framework to explain the relationship between political connections and firm value in light of increasing transparency and digitalization. While prior literature has extensively examined political connections, findings remain highly inconsistent, with some studies documenting value-enhancing effects and others suggesting value-destroying consequences. This paper argues that such inconsistencies stem from the omission of key contextual moderators, particularly transparency and digitalization. By synthesizing multiple theoretical perspectives—including agency theory, resource dependence theory, signalling theory, and institutional theory—this study proposes a conditional framework in which the impact of political connections on firm value is shaped by the institutional environment. Furthermore, the paper provides a practical roadmap for empirical operationalization, introducing a multi-dimensional political connection index and a three-way interaction model. The study contributes to the literature by offering a nuanced explanation of conflicting findings and by integrating contemporary developments in corporate transparency and digital transformation.

KEYWORDS: Political Connections, Firm Value, Corporate Transparency, Digitization, Sustainability.

1. INTRODUCTION

Contemporary accounting research has shifted toward analysing non-financial determinants of firm value, with political connections (PCs) emerging as a primary factor. These connections are no longer viewed merely as an overlap between power and capital but have evolved into a strategic mechanism to mitigate environmental uncertainty and secure preferential advantages (Chen et al., 2025; Zhou et al., 2021). A firm is considered politically connected when key shareholder or decision-makers (e.g., CEO, board members) hold political positions, maintain ties with prominent politicians, or when the state holds significant ownership (Biguri and Stahl, 2025; Awasthi et al., 2024; Tarmizi and Brahmana, 2023; Nasih et al., 2020).

While one stream of literature views PCs as intangible assets that enhance value (Maaloul et al., 2018; Alam et al., 2024), another identifies them as an agency burden that erodes transparency and distorts efficiency (Shahzad et al., 2021; Liu et al., 2024). These conflicting findings suggest the presence of under-theorized moderating variables, particularly in the digital era.

In the context of the digital transformation and increasing emphasis on transparency governance, questions have emerged regarding the role of digitization and institutional transparency in reshaping this relationship. Accordingly, this study moves beyond the traditional binary debate—whether political connections are beneficial or harmful—by proposing a conditional perspective. Specifically, it argues that the impact of political connections on firm value depends on the interaction between institutional transparency and the level of digitization.

The research problem lies in the limited theoretical frameworks explaining how digital transformation and transparency may act as constraints on the negative practices of political connections or as enablers of their benefits. This study therefore addresses the central question: How does the interaction between transparency and digitization shape the impact of political connections on firm value?

The following sub-questions are derived:

- RQ1:** What theoretical factors explain variation in the impact of political connections on firm value across business environments?
- RQ2:** How does transparency act as a monitoring mechanism moderating the economic returns of political connections?
- RQ3:** What is the role of digitization in reducing information asymmetry arising from political embeddedness within firms?
- RQ4:** Is there a synergistic effect between

transparency and digitization that transforms political connections into value creation?

- RQ5:** How can an integrated forward-looking framework combining political connections, digital transformation, and transparency enhance firm value in light of relevant theories?

2. LITERATURE REVIEW: A CRITICAL SYNTHESIS

2.1. *Political Connections: Conceptual Complexity and Outcomes (A Critical Perspective)*

Political connections are among the most complex constructs in accounting research due to their embeddedness within legal and regulatory contexts. A critical review of recent literature suggests that they constitute a hybrid strategic resource: on the one hand, they reduce risk and create competitive advantages by facilitating access to finance, supplies, and regulatory leniency (Qian and Chen, 2021); on the other hand, they function as an indirect resource that enhances profitability through their influence on other firm resources (Awasthi et al., 2024).

Academic disagreement is particularly evident in defining political connections. Definitions range from a narrow view—limited to direct political positions of board members or state ownership—to a broader perspective that includes family ties, party affiliation, and electoral contributions (Biguri and Stahl, 2025; Awasthi et al., 2024; Tarmizi Brahmana, 2023; Nasih et al., 2020). Structurally, these connections can be classified into four categories: managerial, large shareholder ownership, state ownership, and transactional ties (Ganguly et al., 2023), allowing for more precise analysis of their distinct effects on firm value.

2.1.1 *Outcomes of Political Connections: Evidence from Prior Studies*

The accounting literature identifies two contrasting trajectories reflecting the dual nature of political connections. The positive perspective views them as strategic resources that enhance firm value through tangible and intangible benefits and competitive advantages (Yang et al., 2024; Arantes et al., 2024; Tarmizi and Brahmana, 2023).

These benefits include:

- **Informational advantages:** PCs facilitate early access to regulatory intelligence, allowing firms to preempt policy shifts with proactive strategic responses (Awasthi et al., 2024; Ganguly et al., 2023).

- **Preferential financing:** Connected firms secure credit on more favorable terms and face fewer capital constraints (Arifin et al., 2020; Khelil, 2025), alongside priority access to government subsidies and trade missions (Tarmizi and Brahmana, 2023).
- **Crisis resilience:** political connections act as a “safety valve” (Alam et al., 2024), enabling firms to sustain higher profitability and sales (by 8–10%) during crises through state support and access to scarce resources (Chen et al., 2025; Ganguly et al., 2023; Xie et al., 2025).
- **Regulatory leniency:** connections may shield firms from penalties and reduce compliance burdens (Wang et al., 2023; Dewi and Pramanaswari, 2024; Dai and Wang, 2024).
- **Market stability:** they can reduce stock liquidity risk, enhancing investor confidence through perceived political backing (Wang et al., 2025).

Conversely, another stream views political connections as a concealed liability that erodes firm and societal value.

Despite short-term benefits, they generate structural inefficiencies, including:

- **Reduced transparency and reporting quality:** higher likelihood of earnings management and concealment of opportunistic behavior, exacerbating agency problems and information asymmetry (Baig et al., 2024; Wellalage et al., 2022).
- **Rent-Seeking and Corruption:** These ties can catalyze rent extraction through disguised political donations or systemic corruption (Wellalage et al., 2022).
- **Reputational and crash risk:** firms remain vulnerable to political turnover, potentially leading to abrupt value loss (Dai and Wang, 2024).
- **Weak governance:** politically motivated appointments undermine board oversight and increase risky decision-making (Ferreira et al., 2024).
- **Resource misallocation and reduced innovation:** resources may be diverted to less efficient firms, while innovation subsidies are captured without real output (Chkir and Toukabri, 2022; Dai and Wang, 2024; Zhao et al., 2024).
- **Environmental implications:** political influence may weaken environmental compliance, hindering green transformation (Tarmizi and Brahmana, 2023; Wang et al., 2023).

Empirical findings remain mixed across several

dimensions. For instance, studies report conflicting evidence regarding tax avoidance: political connections may either facilitate tax reduction or enhance compliance (Dewi and Pramanaswari, 2024). Similarly, their impact on investment efficiency and cash holdings is debated (Nasih et al., 2020; Ajmi and Azouzi, 2023; Tan and Wong, 2024; Tran et al. (2024), often depending on governance conditions (Pan and Tian, 2020). Evidence on financial reporting quality is also divided between a **monitoring view** and an **opportunistic view** (Awasthi et al., 2024; Baig et al., 2024; Ganguly et al., 2023).

Overall, prior studies confirm that political connections can improve access to finance and enhance crisis resilience, but may also create preferential and potentially distortive advantages. Their effects on reporting quality, investment efficiency, and cash policies remain inconclusive and context-dependent (Ngo and Ha, 2024). These variations are influenced by moderating factors such as the type and strength of connections, economic liberalization, corruption levels, and governance mechanisms.

2.1.2. Theoretical Explanations of Divergent Outcomes

The impact of political connections can be understood through three perspectives:

(A) Value Enhancement Perspective:

Drawing on Resource Dependence and Social Capital theories, PCs are conceptualized as strategic assets that mitigate external uncertainties and lower transaction costs (Wang et al., 2021; Maaloul et al., 2018). Legitimacy and signaling theories further explain how such ties enhance firm reputation (Xu et al., 2022). Additionally, social exchange and stakeholder theories highlight reciprocal benefits between firms and stakeholders (Cucerzan, 2023; Dang et al., 2022; Zhou et al., 2021).

(B) Value Destruction Perspective:

Agency, Rent-Seeking, and Grabbing Hand theories collectively suggest that PCs exacerbate information asymmetry and facilitate managerial opportunism by distorting resource allocation and reinforcing political patronage (Shahzad et al., 2021; Mabizela, 2024; Ahmed and Mohamed, 2025).

(C) Contextual And Behavioral Perspective:

This perspective emphasizes that outcomes depend on institutional quality, governance strength, and market transparency. Upper echelons theory links effects to managerial traits (Dewi and Pramanaswari, 2024), while legitimacy theory underscores the role of

disclosure (Landis and Paglietti, 2025).

Accordingly, the effect of political connections reflects an interaction among three levels:

- **Macro-level:** institutional environment and corruption levels (Nguyen et al., 2025; Liu et al., 2018).
- **Firm-level:** governance quality and ownership structure (Elkholy et al., 2025; Baig et al., 2024; Ullah et al., 2021).
- **Connection-specific:** type, strength, and duration of ties (Díaz et al., 2022).

Thus, inconsistencies in prior findings stem not only from empirical differences but from overlapping theoretical perspectives lacking integration. This study argues that **transparency and digitization** act as structural mechanisms that mitigate agency problems and enhance resource-based benefits. Digital transformation reduces opportunities for political favoritism through automation, while transparency exposes rent-seeking and strengthens accountability.

The key issue, therefore, is not the existence of political connections per se, but the absence of governance mechanisms ensuring their alignment with firm and societal interests. The conflicting evidence highlights missing links in traditional frameworks, which this study identifies as transparency and digitization. The next section examines how these factors reshape the political connections–firm value relationship.

2.2. *The Philosophical and Accounting Foundations of Transparency*

Transparency transcends technical disclosure; it is a socio-informational contract rooted in Agency Theory to reduce the information gap between management and stakeholders. Within this paradigm, Integrated Reporting (IR) provides a holistic view of long-term value creation by linking financial and non-financial performance. In contemporary business environments characterized by geopolitical and digital complexity, transparency is no longer a regulatory luxury.

Its evolution has progressed through three main stages:

1. **Post-crisis stage (defensive disclosure):** Compliance-focused (e.g., SOX) to protect shareholders through mandatory disclosure (Healy and Palepu, 2001).
2. **Stakeholder stage (comprehensive transparency):** The focus shifted from shareholders to stakeholders, with transparency defined as the availability of clear financial and non-financial information to

enable accountability (Bushman et al., 2004).

3. **Perceived quality stage (behavioral perspective):** Transparency is viewed as a perceptual construct based on three pillars – **Disclosure, Clarity, and Accuracy (DCA)** (Demartini et al., 2025).

Transparency is thus broader than disclosure. While disclosure represents the technical act of releasing information, transparency reflects the **information environment** that ensures timely, accurate, and understandable information. It encompasses three dimensions: financial transparency (extent and timing of financial disclosures), governance and sustainability transparency (accountability toward stakeholders), and overall disclosure transparency (financial and non-financial information provided periodically or in real time) (Bushman et al., 2004).

At the international regulatory level, there have been several serious and ongoing efforts to enhance annual reporting by providing integrated information that encompasses governance and sustainability alongside financial data. The past decade has witnessed a revolution in the formulation of global transparency frameworks aimed at ensuring '**sustainable value creation**'. Key initiatives among these efforts include the issuance of GRI standards by Global Sustainability Standards Board (GSSB). However, Key milestones include the integration of Sustainability Accounting Standards Board (SASB) and International Integrated Reporting Council (IIRC) into the Value Reporting Foundation (2021), ultimately culminating in the establishment of the International Sustainability Standards Board (ISSB) under the IFRS Foundation. The issuance of IFRS S1 and S2 (2023) represents a pivotal mandate, integrating sustainability-related risks into the heart of corporate annual reports

2.3. *Transparency In Egypt: Increasing Regulatory Commitment*

Egypt has progressively aligned its regulatory framework with global transparency trends. This evolution began with the Egyptian Corporate Responsibility Index (2010) for EGX100 firms, followed by the 2019 Egyptian Exchange Guidelines which bridged local practices with GRI standards. These efforts culminated in the Financial Regulatory Authority (FRA) Decrees (107 & 108 of 2021), mandating ESG and climate-related disclosures for listed entities. However, a critical gap persists: while these mandates focus on sustainability checklists, they lack explicit requirements for disclosing political connections, representing a significant void in national transparency standards.

2.4. Digitalization: The Technological Driver of Value

Digitalization transcends basic data conversion; it represents the strategic integration of advanced technologies (AI, big data, and blockchain) into business models to enhance competitiveness (Zareie et al., 2024; Reis et al., 2018). This transformation operates across technological, organizational, and social dimensions, functioning as a "cleansing mechanism" that mitigates corruption through automated governance (Guo & Xu, 2021).

Digitalization is inherently multidimensional:

- **Technological dimension:** integration of AI, big data, cloud computing, and blockchain.
- **Organizational dimension:** transformation of business models, culture, and skills.
- **Social dimension:** changes in customer behavior and concerns related to privacy and ethics.

Digitalization generates several firm-level benefits, including enhanced competitiveness, diversified communication channels, revenue growth, and reduced transaction costs (Sui and Yao, 2023; Jin et al., 2024). It also strengthens governance, as it can act as a "cleansing mechanism" by reducing corruption and favoritism through automation. However, challenges persist, including high implementation costs, cybersecurity risks, and skill shortages (Guo and Xu, 2021; Chakrouni and Cherkaoui, 2023).

Digitalization in Egypt: Toward a "Digital Egypt" Vision:

Within the Egypt Vision 2030 framework, the state has established a robust digital ecosystem. Key institutional pillars include the National AI Council and the Supreme Cybersecurity Council, positioning Egypt as a "fifth-generation" digital regulator according to the ITU. This infrastructure enables firms to transition toward digital governance, reducing reliance on informal networks and enhancing transaction transparency and accountability. While challenges in human capital persist, Egypt's robust digital infrastructure now mandates transformation as a strategic necessity rather than an option. Beyond operational efficiency, digitalization functions as a governance tool with the potential to mitigate corruption and enhance transparency—factors that fundamentally reshape firm value, as detailed in the subsequent interactive analysis.

3. AN INTERACTIVE ANALYSIS OF TRANSPARENCY AND DIGITALIZATION AS STRUCTURAL MODERATORS OF THE POLITICAL CONNECTIONS-FIRM VALUE RELATIONSHIP

The critical review of prior studies and theoretical perspectives reveals that the relationship between political connections and firm value can be interpreted through two conflicting lenses. This study advances a theoretical reconciliation that addresses this conflict by incorporating transparency and digitalization. The positive effects of political connections (e.g., access to government contracts) may represent short-term gains; however, in the absence of transparency and digitalization, they may evolve into long-term reputational risks and agency costs. Accordingly, this study proposes a conceptual proposition: digital transformation and accounting transparency can shift political connections from a rent-seeking mechanism to a sustainable strategic resource by reducing corruption opportunities and information asymmetry.

The literature suggests that even theories supporting the value-enhancing role of political connections acknowledge associated costs. Their effectiveness therefore depends on mitigating such costs, particularly through transparency and disclosure of political ties and their societal role. Digitalization reinforces transparency by automating oversight, thereby constraining opportunistic behavior. By reducing information asymmetry, these forces shift PCs from a rent-seeking mechanism to a sustainable strategic resource.

Traditional accounting literature has largely adopted a linear perspective, focusing on the direct effect of political connections on financial performance (Qian and Chen, 2021). However, the contemporary environment—characterized by digital transformation and information proliferation—necessitates a holistic interactive perspective. In this context, transparency and digitalization function as organizational filters that reduce exploitative aspects of political connections while enhancing their strategic benefits.

3.1. The Moderating Role of Transparency and Digitalization: Evidence from Prior Studies

Although political connections can facilitate access to resources and financing under favorable terms (Khelil, 2025; Chkir and Toukabri, 2022), they may also exert negative long-term effects. In weak institutional environments, such connections can reduce investor and creditor confidence, impair market efficiency, and ultimately constrain firms' access to finance, adversely affecting firm value.

Transparency and digitalization act as dual signals of credibility and can mitigate these effects. While transparency alleviates financing constraints through sustainability disclosure (Zhang & Lucey, 2022), digitalization ensures the accuracy and

immutability of these reports (Hu, 2024; Ding et al., 2024; Fang et al., 2023; Sui and Yao, 2023) and by reducing human intervention, effectively limiting political influence through data analytics and AI-driven monitoring (Santiso, 2022; Merhi, 2022). Accordingly, these dual mechanisms are expected to mitigate the detrimental aspects of PCs while amplifying its value-enhancing potential.

From a transparency perspective, firms are expected to provide comprehensive financial and non-financial information reflecting economic, social, and environmental performance, consistent with stakeholder theory (Tarmizi and Brahmana, 2023). Prior studies confirm that sustainability disclosure enhances firm value by lowering financing costs and improving expectations of future performance (Kuzey and Uyar, 2017; Friske et al., 2023; Bachoo et al., 2013). Moreover, corporate social responsibility influences firm value primarily through disclosure as a mediating factor (Diez and Sotorrío, 2018). However, the relationship between transparency and political connections remains contingent on institutional strength and anti-corruption systems (Qian and Chen, 2021).

Adrian et al. (2022) examined the effect of voluntary disclosure of political activities on the cost of capital using the CPA-Zicklin index¹ and found that higher disclosure levels are associated with improved stock liquidity and lower capital costs. This suggests that transparency reduces uncertainty and information asymmetry related to political activities. Accordingly, developing a similar disclosure index in Egypt could enhance transparency regarding political connections. Empirical evidence also supports the mediating role of transparency. Empirical evidence confirms this synergy: sustainability disclosure enables firms to legitimize political ties, transforming them into a tool for reducing financial constraints rather than a source of market distortion (Faisal et al., 2023; Hassan et al., 2024).

Nevertheless, political connections may act as a double-edged sword in disclosure practices. Firms may exploit such ties to avoid regulatory penalties or reduce incentives for high-quality disclosure, while in other contexts they may face stronger monitoring pressures that encourage transparency (Qian and Chen, 2021). This highlights the need for mechanisms that incentivize higher disclosure, particularly regarding political activities.

Overall, transparency can reduce uncertainty

surrounding political connections and limit opportunistic behavior, consistent with agency and “grabbing hand” theories, while reinforcing positive effects through stakeholder, signaling, and legitimacy perspectives.

From a digitalization perspective, its moderating role operates through two channels. First, digital transformation enhances transparency and reporting quality by enabling automated, accurate, and accessible financial reporting (Fang et al., 2023; Sui and Yao, 2023; Hu, 2024; Ding et al., 2024). It also improves monitoring of managerial behavior and internal control effectiveness, reducing agency problems and information asymmetry (Li et al., 2024; Zhao et al., 2023). Second, digitalization limits the negative effects of political connections by reducing corruption and excessive reliance on political ties for resource allocation (Santiso, 2022; Merhi, 2022), which may otherwise harm long-term firm value (Wellalage et al., 2022). Additionally, during crises, digital transformation supports economic resilience and access to financing (Jin et al., 2024), thereby reducing dependence on preferential political advantages and improving resource allocation efficiency.

3.2. Theoretical Intersection: Reframing Traditional Theories Under Digitalization and Transparency

The impact of transparency and digitalization - and their interaction - on the political connections-firm value relationship can be interpreted through an integrated theoretical lens.

This study proposes a synthesized framework that aligns theories of political connections with those of the digital era:

- **Digital Agency Theory:** Transparency reduces information asymmetry, thereby lowering agency costs. Digitalization further acts as a “surveillance mechanism” that limits managers’ ability to pursue politically motivated personal interests and reduces information asymmetry (Li et al., 2024; Zhao et al., 2023). In this context, PCs shift from a source of agency costs to a source of coordination efficiency.
- **Multi-Signaling Theory:** The combination of digitalization (modernization signal) and transparency (responsibility signal) provides a synergetic multi-signal to the market. These

¹ The CPA-Zicklin Index of Corporate Political Disclosure and Accountability serves as a benchmark for measuring the level of political transparency and accountability among major U.S. corporations regarding their political activities. It assesses corporate commitment to disclosing both direct and indirect political spending, including contributions to candidates,

political parties, political action committees (PACs), and lobbying groups, as well as the internal policies governing such expenditures. By incentivizing extensive voluntary disclosure of political ties, the index reflects a firm's commitment to the principles of transparency and corporate democracy

signals indicate the presence of “governed political capital,” which enhances market confidence and firm value while simultaneously mitigating the negative implications of political embeddedness (Ding et al., 2024).

- **Legitimacy Theory:** Digitalization and transparency enable accessible reporting that strengthens corporate legitimacy, ensuring that PCs are perceived as aligned with societal welfare rather than corruption. (Landis and Paglietti, 2025).
- **Stakeholder Theory:** Firms aim to balance the interests of diverse stakeholders by addressing social objectives and sustainability requirements. Digitalization facilitates this process through efficient collection, analysis, and reporting of large-scale data, enhancing transparency society trust even in the presence of PCs (Cucerzan, 2023; Acheampong and Elshandidy, 2025).

In addition, the interpretations other theoretical perspectives on PCs—such as the “helping hand,” “grabbing hand,” rent-seeking, and political patronage theories—are also influenced by transparency and digitalization, which can mitigate negative effects and reinforce positive outcomes.

In summary, while prior evidence on the PC–firm value nexus remains mixed, this study posits that transparency and digitalization function as mutually reinforcing moderators. Digitalization provides the technological infrastructure for accurate, cost-efficient, and real-time reporting, thereby enhancing transparency; meanwhile, transparency itself incentivizes firms to adopt digital solutions to improve disclosure quality and minimize human intervention. Consequently, analyzing these factors jointly—rather than in isolation—offers a more robust framework for understanding how PCs can be transformed from a governance risk into a sustainable strategic asset, particularly within a long-term, sustainability-oriented digital market perspective.

4. RESEARCH GAP AND CONTRIBUTIONS:

Despite extensive research on political connections (PCs), several critical gaps remain unresolved. First, prior studies exhibit substantial inconsistency in findings, yet limited effort has been made to systematically explain these discrepancies. Most research adopts a linear perspective, examining the direct impact of PCs on firm value without adequately considering contextual moderators. Second, although transparency has been widely studied as a determinant

of firm value, its role as a moderating variable in the relationship between PCs and firm value remains largely overlooked, as it is typically treated as an independent factor rather than a mechanism shaping the effectiveness of PCs. Third, digitalization has emerged as a transformative force in modern economies; however, its implications for PCs remain underexplored, despite its role in enhancing information accessibility, strengthening monitoring, and reducing reliance on informal networks. Finally, the literature lacks an integrated theoretical framework that combines multiple perspectives, with most studies relying on a single theoretical lens, resulting in partial and sometimes conflicting explanations.

This study contributes to the accounting literature by addressing these gaps and examining the dynamics of PCs in the era of digitalization and transparency. **First**, it develops an integrated theoretical framework that combines insights from multiple theories to provide a more comprehensive understanding of the dual nature of PCs. **Second**, it offers a critical synthesis of prior literature by classifying existing studies into distinct perspectives and identifying sources of inconsistency, moving beyond descriptive reviews toward a structured interpretation of conflicting findings. **Third**, it introduces transparency and digitalization as key moderating variables shaping the relationship between PCs and firm value. Finally, the study develops a conceptual framework integrating these elements. The study contributes further by proposing a testable framework for future research and opening new avenues for scholarly inquiry. It provides empirical grounding through a real-world application and two hypothetical scenarios in the Egyptian context. In addition, it introduces a proposed index for measuring political connections, moving beyond fragmented measures, as well as a structured approach for operationalizing the framework’s variables, thereby facilitating future research.

The practical implications of this framework are that it equips investors and lenders with analytical tools to assess political risk under evolving digital environments. From a regulatory perspective, it provides a roadmap for standard setters and supervisory authorities to enhance digital disclosure systems in a way that promotes fair competition and capital market efficiency. It also presents a forward-looking perspective on the relationship between PCs and firm value in Egypt in light of increasing transparency and digitalization, linking this perspective to Egypt Vision 2030 and highlighting the role of firms in supporting its objectives.

To address the research problem, the remainder of the paper proceeds by examining political

connections from an accounting perspective in light of relevant theories and prior studies; analysing firm value alongside the evolution of transparency and digitalization concepts; exploring the relationship between political connections and firm value and its general determinants; assessing transparency and digitalization as key moderators of this relationship; developing a forward-looking perspective; and concluding with discussion, implications, and avenues for future research.

5. A FORWARD-LOOKING VISION OF THE IMPACT OF POLITICAL CONNECTIONS ON FIRM VALUE IN LIGHT OF TRANSPARENCY AND DIGITALIZATION

5.1. Strategic Alignment with Egypt's Vision 2030

Our proposed framework aligns with digital Egypt and Egypt Vision 2030, (Ministry of Planning and Economic Development, 2023). This vision aims to position Egypt by 2030 as a competitive and diversified economy based six core objectives, social justice, sustainable environment, knowledge-based economy, developing infrastructure, and enhancing governance, improving citizens' quality of life. From this perspective, the issue of PCs and the moderating role of transparency and digitalization represents a direct practical extension of this vision. Specifically, the digital transformation objective and sustainability dimensions (social, environmental, economic, and governance) are directly reflected in this framework. PCs, in turn, influence all these dimensions due to their dual impact on firm value, resource allocation efficiency, environmental compliance, and ultimately societal welfare.

Achieving social justice requires preventing preferential treatment of politically connected firms. Although such advantages may generate short-term value, they do not ensure long-term sustainability (Tarmizi and Brahmana, 2023; Dai and Wang, 2024). Moreover, politically driven resource allocation leads to inefficiencies that undermine long-term economic sustainability (Zhao et al., 2024). The value relevance of sustainability practices also depends on disclosure transparency, as stakeholders can only recognize such practices through sustainability reporting (Bachoo et al., 2013). Additionally, political connections may encourage environmental harm by shielding polluting firms from regulatory enforcement; however, transparency and digitalization can expose such practices and reduce them.

5.2. Illustrative Scenarios and Real-World Applications of the Interactive Framework

To bridge the gap between conceptual modeling and practical application, and to demonstrate the functional mechanics of the proposed framework, we present three illustrative scenarios that transition from theoretical expectations to real-world institutional reforms in Egypt. These cases highlight how digitalization and transparency act as a "Techno-Institutional Filter" to govern political embeddedness.

THE "NAFEZA" PLATFORM AND ACI SYSTEM (REAL-WORLD EVIDENCE):

The most compelling evidence of this framework in action is the digital transformation of Egypt's trade and customs through the "Nafeza" platform and the "Advanced Cargo Information (ACI)" system. Historically, politically connected firms in the import-export sector could leverage their ties to navigate bureaucratic hurdles or secure preferential treatment at ports. However, the current digital integration—where every shipment requires a pre-registered "ACID" number visible to the Ministry of Finance and the Central Bank—has effectively neutralized these advantages. The digital audit trail is unalterable and transparent, forcing connected firms to abandon "rent-seeking" (Grabbing Hand) in favour of operational efficiency and strategic compliance (Helping Hand) to maintain market access.

THE CONSTRUCTION AND INFRASTRUCTURE SECTOR (STRATEGIC SCENARIO):

In the Egyptian construction sector, firms often exhibit high political embeddedness through boards that include former public officials or state-linked entities. Traditionally, such connections might have facilitated preferential access to large-scale government infrastructure projects, often leading to information asymmetry and potential rent-seeking. However, under the current regulatory shift, the mandatory transition to the 'Government Electronic Procurement System' (Digitalization) creates an immutable and transparent digital audit trail for every stage of the bidding process. When this digital oversight is coupled with the **FRA requirements under Decrees 107 and 108 for ESG and corporate governance disclosure (Transparency)**, the firm's political ties are structurally 'filtered'. The system ensures that contract awards are based on technical and financial merit rather than political patronage. Consequently, political connections are forced to transform from a 'Grabbing Hand' into a 'Strategic Asset' that ensures the firm's alignment with national development standards and infrastructure quality.

THE PETROCHEMICALS AND FERTILIZERS SECTOR (OPERATIONAL SCENARIO):

A second illustrative case is found in the petrochemicals and fertilizers industry—a sector

where political connections are prevalent due to state ownership or strategic importance. Historically, these ties could be leveraged to secure favorable energy pricing or export licenses in a less-than-transparent manner. The national implementation of 'E-Invoicing' and the 'Advanced Cargo Information (ACI)' system, integrated with corporate ERP systems, represents a paradigm shift. This digital integration allows for real-time monitoring of resource flows and financial transactions by regulatory authorities. As these firms are now required to provide integrated reporting on their political and sustainability costs, any attempt to exploit political influence for private gain becomes highly visible and legally costly. In this context, digitalization and transparency act as a '**Techno-Institutional Filter**', compelling firms to leverage their political capital to secure legitimate green-energy incentives and support the export-led growth objectives of **Egypt Vision 2030**.

In both scenarios, the interaction between digitalization and transparency ensures that political connections no longer function as a source of market distortion. Instead, they are channeled toward sustainable value creation, providing a practical blueprint for how emerging markets can govern political embeddedness in the digital age.

5.3. Pillars For Enhancing Long-Term Sustainable Value

To ensure that PCs contribute to rather than detract from firm value, this study proposes a multi-dimensional approach centered on four strategic pillars:

Pillar 1: Integrated Disclosure & The "Political Transparency Index:

Beyond traditional ESG reporting, firms must adopt a "Total Transparency" approach. We propose the development of a National Political Transparency and Accountability Index (inspired by the CPA-Zicklin model). This index would mandate the disclosure of the nature, costs, and strategic benefits of political ties, ensuring that such connections align with the anti-corruption mandates of Egypt Vision 2030. In addition to the disclosure of sustainability dimensions (environmental, social, economic, and governance) to ensure optimal resource allocation and avoid distortions arising from politically driven credit allocation or preferential treatment. Finally, disclosure of digital transformation strategies and technological adoption within firms.

Pillar 2: Digital Governance & Real-Time Monitoring:

Digitalization should be treated as a Governance

Necessity. It is no longer optional but a necessity driven by global technological change, particularly artificial intelligence. By integrating corporate ERP systems with national digital platforms (like e-invoicing and ACI), firms create an "Immutable Audit Trail". This reduces human intervention. Moreover, it enhances transparency by enabling high-quality, low-cost reporting across financial, social, environmental, and political dimensions. It also supports innovation, market expansion, improved decision-making, operational efficiency, and competitive advantage.

Pillar 3: Adaptive Regulatory Frameworks:

Prior studies indicate that regulation reduces negative effects of political connections while enhancing their societal benefits (Nguyen et al., 2025; Cumming et al., 2024; Liu et al., 2018). Therefore, Regulators (FRA & EGX) should balance strict oversight with strategic incentives to avoid eliminating the potential benefits of PCs. Following international best practices, regulatory frameworks should not aim to eliminate PCs but to institutionalize them. This involves creating a "Safe Harbor" for firms that demonstrate high digital maturity and transparent political disclosure, rewarding them with preferential market access or inclusion in "Sustainability-Leader" indices.

Pillar 4: Strengthening the controlling and monitoring Environment:

This includes establishing anti-corruption and integrity institutions with strong enforcement capabilities. Leveraging AI and big data analytics within national anti-corruption institutions enables public oversight of resource allocation, effectively neutralizing "Rent-seeking" behavior before it distorts market competition.

Pillar 5: Incentivizing Transparency and Digital Transformation:

Firms should be encouraged to disclose their contributions to Egypt Vision 2030, including ESG performance, digital transformation initiatives, and political connections, through an index modeled after the CPA-Zicklin Index. This objective requires regulators to develop a standardized reporting framework covering these dimensions, while simultaneously establishing an incentive system for compliant firms. Moreover, regulators could link inclusion in the Egyptian Corporate Social Responsibility Index to mandatory sustainability and political disclosure requirements.

To sum up, the proposed framework asserts that maximizing firm value amid political connections (PCs) requires integrating transparency and digitalization into a sustainability-oriented model. This synergy effectively neutralizes **negative**

externalities while amplifying strategic advantages. Regarding negative implications, transparency—fortified by digitalization—reduces information asymmetry and agency costs (Agency Theory) and prevents opportunistic exploitation for private gain (Grabbing Hand Theory). By exposing hidden motives to stakeholders, these mechanisms discourage Rent-seeking and Patronage, increasing the "political cost" of corruption while leveraging digitalization to lower the technical costs of disclosure. **Conversely, for positive strategic factors,** digitalization acts as a vital resource for cost-effective capital access (Resource Dependence Theory), while transparency ensures government support is merit-

based rather than favor-driven. Within the frameworks of Social Capital and Helping Hand theories, transparency legitimizes political networks and encourages politicians to provide institutional aid instead of exploiting firm resources. Furthermore, digital maturity and transparent disclosure send positive signals to the market, bolstering corporate legitimacy (Signaling & Legitimacy Theories). Ultimately, under Stakeholder Theory, digitalization enables precise, low-cost integrated reporting, fostering trust and transforming PCs into a sustainable driver of firm value, as illustrated in Figure 1.

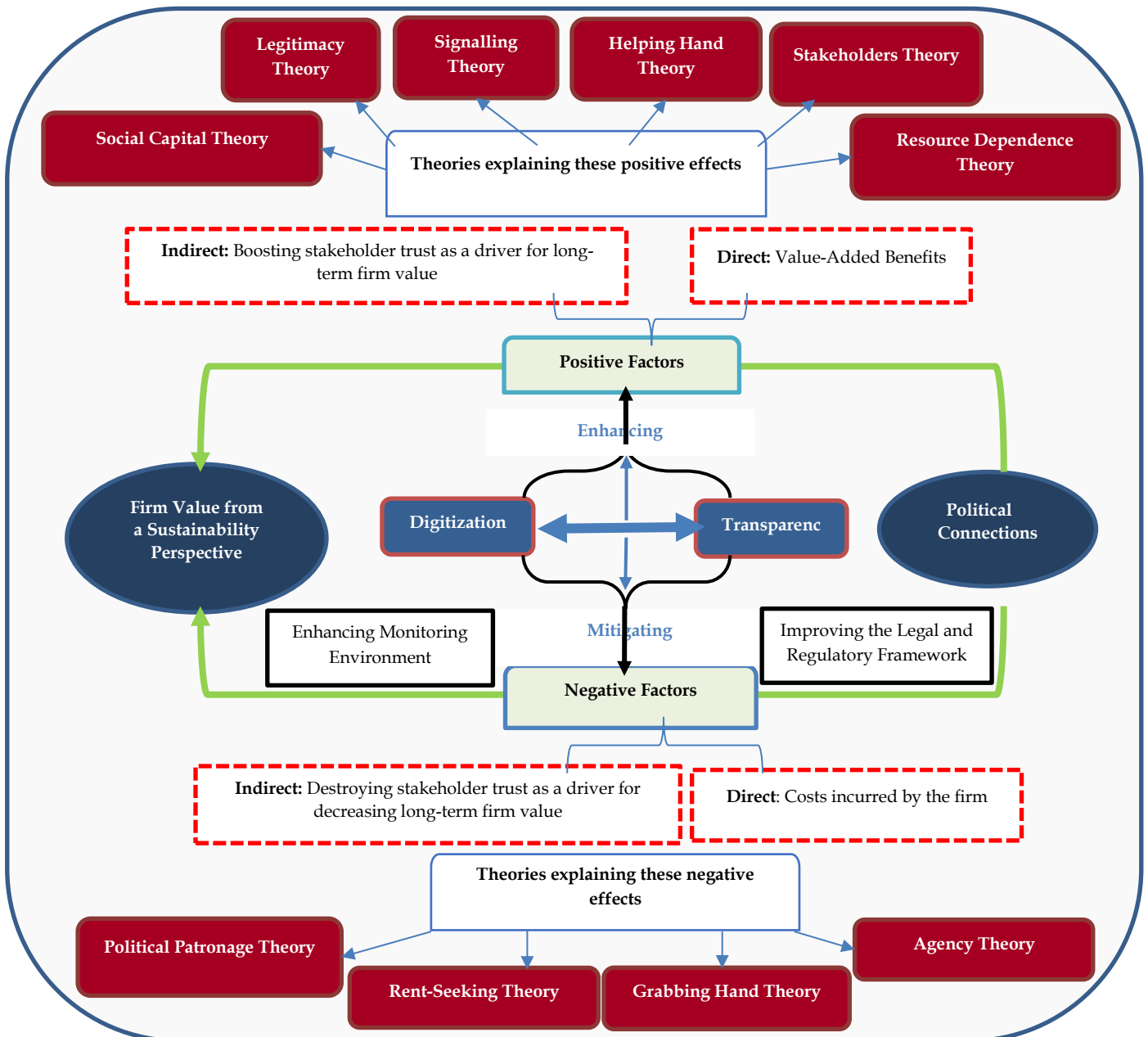


Figure 1: A Forward-Looking Framework of the Moderating Role of the Interaction Between Digitalization and Transparency on the Relationship Between Political Connections and Firm Value.

6. OPERATIONALIZATION OF THE THEORETICAL CONSTRUCTS

To facilitate the transition from the conceptual model to empirical testing, this section provides a structured framework for operationalizing the study's core constructs. Researchers increasingly prefer the use of a composite index to measure political connections rather than relying on individual or binary metrics. This approach, as

illustrated in the proposed **Multi-Dimensional Political Connection Index (MPCI)** in Table (1), accounts for both management-related and ownership-related ties. Future researchers can utilize the following metrics and proxies to investigate the interactive effects of political embeddedness, digitalization, and transparency on firm value across emerging markets, using the Egyptian institutional context as a primary illustrative baseline.

Table I: Proposed Operationalization of Variables.

Construct	Proposed Proxy/Measurement	Illustrative Examples (Context-Specific)
Political Embeddedness (PC)	<p>A Composite Political Connection Index (CPCI): A weighted index calculated as follows:</p> $CPCI_i = Board_Score + Ownership_Score$ $Board_Score = \sum_{j=1}^n (W_j \times P_j)$ <p>Where:</p> <ul style="list-style-type: none"> • (n): Number of politically connected board members. • (W): Weight based on the Organizational Position (e.g., 3 for Chairman, 2 for CEO, 1 for Non-executive Director). • (P): Weight based on Political Power (e.g., 3 for former Minister, 2 for former MP, 1 for state-linked entity representative). <p>2. Ownership Score:</p> <ul style="list-style-type: none"> • Government Ownership: Percentage of shares held by the state or sovereign wealth funds (e.g., The Sovereign Fund of Egypt). • Major Political Shareholder: A dummy/weighted variable if a major shareholder (holding >5%) has a known political background or serves in a political capacity. 	Former ministers or MPs on boards; Sovereign Wealth Fund (SWF) ownership; Example: The Sovereign Fund of Egypt.
Digitalization (DIG)	<p>Digital Integration & Compliance Score:</p> <p>Measuring the firm's adoption of national B2B/B2G digital platforms, mandatory E-Invoicing systems, and total IT capital expenditure.</p>	Example: Integration with Egypt's 'Nafeza', 'ACI', and National E-Invoicing systems.
Transparency (TRANS)	<p>Integrated Disclosure Index:</p> <p>Extent of compliance with ESG reporting standards, integrated reporting mandates, and disclosure of political contributions.</p>	Example: Compliance with Egyptian FRA Decrees 107 and 108 for ESG and sustainability disclosure
Techno-Institutional Filter (Interaction)	<p>Three-way Interaction Term (PC × DIG × TRANS):</p> <p>This represents the integrated impact of digitalization and transparency in filtering political influence</p>	Testing how the simultaneous presence of 'Nafeza' (Digital) and FRA Mandates (Transparency) alters the impact of political ties.
Firm Value (FV)	<p>Market & Accounting Metrics:</p> <p>Standard proxies for financial performance and market valuation.</p>	<ul style="list-style-type: none"> • Tobin's Q / stock return (Market value) • ROA/ROE (Accounting performance).

The Interaction Effect (The Techno-Institutional Filter): As shown in Table (1), the framework emphasizes the **interaction** between Digitalization and Transparency as a combined mechanism. In an empirical setting, this is operationalized through a three-way interaction term. The rationale is that Digitalization provides the 'Immutable Data' (the trail), while Transparency provides the 'Public Visibility' (the oversight). Together, they form a structural filter that ensures political connections function as a 'Helping Hand' by aligning firm activities with national strategic goals rather than personal rent-seeking.

7. CONCLUSION AND FUTURE RESEARCH AGENDA

Based on the critical synthesis of prior literature, this study concludes that political connections (PCs) function as a double-edged sword, exerting both positive and negative effects on firm value and societal welfare. The ultimate impact is contingent upon a multi-level set of determinants. **Micro-level** factors including governance strength, ownership structure (state vs. private, concentrated vs. dispersed, family, or institutional), financial health, and corporate culture regarding Corporate Social

Responsibility (CSR) and sustainability. **Macro-level** factors Including the macroeconomic environment, regulatory and legislative frameworks, market competition, social awareness, and the maturity of the disclosure, transparency, and digital infrastructure. In addition to **Connection-specific attributes**, whether the ties are direct or indirect, and whether they are established through management (managerial ties) or ownership (shareholder ties).

Furthermore, the study concludes that transparency and digitalization, along with their synergistic interaction, act as structural moderators that mitigate the opportunistic behaviors associated with PCs while amplifying their strategic benefits. Accordingly, this research recommends enhancing Egypt's regulatory and supervisory environment to govern these connections and developing incentive mechanisms that encourage firms to adopt transparency and digital transformation in alignment with Egypt Vision 2030.

Building on the integrated framework developed in this study, the following areas are proposed for future empirical and theoretical investigation, particularly within the context of Egypt Vision 2030:

- **ESG Disclosure and Firm Value:** Examining the impact of environmental, social, and governance (ESG) disclosures—specifically climate-related financial risks under **FRA**
- **Decrees 107 and 108**—on firm value.
- **Sustainability Indices:** Testing the role of disclosure requirements within the Egyptian Corporate Responsibility Index in advancing the strategic objectives of Egypt Vision 2030.
- **Moderating Effects in Emerging Markets:** Conducting empirical testing on the moderating role of transparency and digitalization in the relationship between PCs and firm value within the Egyptian business environment.
- **Reporting Frameworks:** Developing a proposed framework for enhancing corporate disclosure regarding firms' direct contributions to the pillars of Egypt Vision 2030.
- **Mitigating Agency Costs:** Investigating the impact of transparency and digitalization on the negative outcomes of PCs, such as earnings management and stock price crash risk.
- **Advanced Measurement of PCs:** Developing a robust, multi-dimensional Political Connection Index to replace the traditional binary (0/1) measure. This index should capture the strength, diversity, and organizational position of connected individuals to provide a more granular assessment of political embeddedness across different institutional contexts.

Acknowledgments: The authors would like to thank Imam Mohammad Ibn Saud Islamic University (IMSIU) for their support.

Authors' contributions:

CRedit: S.K: Writing – original draft, writing – review and editing, Visualization preparation, Conceptualization, Methodology, Verification, Funding acquisition. H.Y: Writing – original draft, writing – review and editing, Methodology. L.A: Writing – original draft, writing – review and editing, Methodology, Visualization preparation.

A.T: Writing – Original draft, writing –Review and editing; Conceptualization; Visualization preparation; Validation; Methodology. All authors have read and agreed to the published version of the manuscript.

Disclosure statement: No potential conflict of interest was reported by the authors.

Funding: This work was supported and funded by the Deanship of Scientific Research at Imam Mohammad Ibn Saud Islamic University (IMSIU) (grant number IMSIU-DDRSP2602).

REFERENCES

- Acheampong, A. and Elshandidy, T. (2025). "Does sustainability disclosure improve analysts' forecast accuracy? Evidence from European banks". *Financial Innovation*, 11, 25.
- Adrian, C., Garg, M., Pham, A. V., Phang, S. and Truong, C. (2022). "Policy and oversight of corporate political activities and the cost of equity capital". *Journal of Contemporary Accounting and Economics*, 18(2): 100472.
- Ahmed, F.E. and Mohamed, A.G. (2025). "Political patronage, and banks' profitability in Bahrain", *Journal of Financial Reporting and Accounting*, 23(3): 984-1000.

- Ajmi, K. and Azouzi, M.A. (2023). "Chief Executive Officer Political Connection and Firms' Investment Horizon: Evidence from Tunisian Firms". *Trends in Applied Sciences Research*, 18(1): 183-190.
- Alam, A. W., Xu, H., and Wu, H. (2024). "Energy security risk and firm valuation: Does political connectivity matter?". *Energy Research Letters*, 6: 124849.
- Arantes, V.A., Dicko, S. and Soares, R.O. (2024). Firms' political connections and performance in Brazil and Canada: an analysis of the effect of country institutional factors. *Journal of Management and Governance*, Vol. 28, 63-112.
- Arifin, T., Hasan, I. and Kabir, R. (2020). Transactional and relational approaches to political connections and the cost of debt. *Journal of Corporate Finance*, Vol. 65, 1-16.
- Awasthi, K., Yayavaram, S., George, R. and Sastry, T. (2024). Political connections and profit persistence in India. *Asia Pacific Journal of Management*. February, Online: <https://doi.org/10.1007/s10490-024-09945-5>
- Bachoo, K., Tan, R. and Wilson, M. (2013). Firm value and the quality of sustainability reporting in Australia. *CPA Australia*, Vol. 23 (1), 67-87.
- Baig, M.H., Jin, X. and Ali, R. (2024). Politically connected business and real earnings management: the moderating role of family control and audit quality. *Journal of Accounting in Emerging Economies*, Vol. 14 (5), 970-992.
- Biguri, K. and Stahl, J. R. (2025). Who pays a visit to Brussels? Firm value effects of cross-border political access to European Commissioners. *Journal of Financial and Quantitative Analysis*, Vol. 60 (2), 948-973.
- Bushman, R. M., Piotroski, J. O. and Smith, A. J. (2004). What determines corporate transparency?". *Journal of Accounting Research*, 42(2):207-252.
- Chakrouni, N., and Cherkaoui, M. (2023). "The impact of digitalization on the value creation and the financial performance of companies, A literature review. *International Journal of Accounting, Finance, Auditing, Management and Economics*, Vol. 4 (2-1), 270-284.
- Chen, C., Liu, J., Zhang, Y. and Wang, S. (2023). Digital transformation and firm performance: A case study on China's listed companies in 2009-2020. *Journal of Digital Economy*, Vol. 1 (1), 59-78.
- Chen, Y., Chiplunkar, G., Sekhri, S., Sen, A. and Seth, A. (2025). How do political connections of firms matter during an economic crisis? *Journal of Development Economics*, Vol. 175, June, 103471.
- Chkir, I. and Toukabri, M. (2022). Do politically connected firms borrow cheaply? Evidence from two post U.S. election campaigns. *Applied Economics Letters*, Vol. 29 (3), 200-205.
- Cucerzan, T. (2023). "Non-financial reporting and digitalization, key factors in stakeholder engagement. *Journal of Financial Studies*, Vol. 15 (8), 46-66.
- Cumming, D. J., Javakhadze, D. and Suleymanov, M. (2024). Political connections and government contracting: An international analysis of procurement decisions and firm value. *European Corporate Governance Institute*. Working Paper. available at: <https://ssrn.com/abstract=4809238>
- Dai, M. and Wang, Y. (2024). Political connection and firm diversification: evidence from China. *Applied Economics*, Vol. 56 (50), 6126-6143.
- Dang, V. Q. T., Otchere, I. and So, E. P. K. (2022). Does the nature of political connection matter for corporate social responsibility engagement? Evidence from China. *Emerging Markets Review*, Vol. 52, 100907.
- Demartini, M. C., Beretta, V. and Larisch, A. (2025). Does the transparency of sustainability reports matter? A quantitative assessment. *Corporate Social Responsibility and Environmental Management*, Vol. 32 (1), 18-43.
- Dewi, I. G. P. E. R. and Pramanaswari, A. S. I. (2024). The impact of political connection on tax avoidance; A literature review. *Jurnal Minfo Polgan*, Vol. 13 (1), 390-396.
- Diaz-Diaz, N. L. D., Iturriaga, F. J. L. and Martín, D. J. S. (2022). The role of political ties and political uncertainty in corporate innovation. *Long Range Planning*, Vol. 55, 102111.
- Diez, E. B. and Sotorrío, L. L. (2018). The mediating effect of transparency in the relationship between corporate social responsibility and corporate reputation. *Review of Business Management*, Vol. 20 (1), 5-21.
- Ding, Y., Mo, D. and Huang, Y. (2024). Does readability of digital transformation information disclosure affect asset mispricing? A signaling theory perspective. *Theoretical Economics Letters*, Vol. 14 (3), 878-898.
- Elkholy, O. A., Al-Shafei, M. M. R. and Eid, A. E. (2025). Political connections, board characteristics and firm value: evidence from Egypt. *The Scientific Journal of Financial and Managerial Studies and Research*, Vol. 17 (1), 188-241.
- European Commission. (2022). Directive corporate sustainability reporting. *Official Journal of the European Union*, Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32022L2464>.

- Faisal, F., Ridhasyah, R. and Haryanto, H. (2023). Political connections and firm performance in an emerging market context: the mediating effect of sustainability disclosure. *International Journal of Emerging Markets*, Vol. 18 (10), 3935-3953.
- Fang, Q., Yu, N. and Xu, H. (2023). Governance effects of digital transformation: from the perspective of accounting quality. *China Journal of Accounting Studies*, Vol. 11 (1), 77-107.
- Ferreira, P., Oliveira, J. and Azevedo, G. (2024). Understanding the political connections of Portuguese companies through their board members. *European Journal of Management Studies*, Vol. 29 (3), 39-360.
- Friske, W., Hoelscher, S. A. and Nikolov, A. N. (2023). The impact of voluntary sustainability reporting on firm value: Insights from signaling theory. *Journal of the Academy of Marketing Science*, Vol. 51, 372-392.
- Ganguly, K., Mishra, A. K. and Parikh, B. (2023). Do Political connections influence investment decisions? Evidence from India. *Finance Research Letters*, Vol. 52, 103385.
- Global Sustainability Standards Board (GSSB). (2021). *Global Reporting Initiative (GRI)*, Available at: <https://www.globalreporting.org/standards>.
- Guo, L. and Xu, L. (2021). The effects of digital transformation on firm performance: Evidence from China's manufacturing sector. *Sustainability*, Vol. 13 (22), 1-18.
- Healy, P. M. and Palepu, K. G. (2001). Information asymmetry, corporate disclosure, and the capital markets: A review of the empirical disclosure literature. *Journal of Accounting and Economics*, Vol. 31 (1-3), 405-440.
- Hu, X. (2024). Digital transformation and enterprise value-based on empirical data of listed companies in china. *Highlights in Business, Economics and Management*, Vol. 28, 434-447.
- International Integrated Reporting Committee (IIRC). (2021). *The International Integrated Reporting Framework*, International Integrated Reporting Council.
- International Sustainability Standards Board (ISSB). (2023). IFRS S1: General requirements for disclosure of sustainability-related Financial Information. *International Financial Reporting Standards Foundation*.
- International Sustainability Standards Board (ISSB). (2023). IFRS S2: Climate-related disclosures. *International Financial Reporting Standards Foundation*.
- Jin, X., Li, T., Shi, Y. and Zhang, M. (2024). Do political connections facilitate or inhibit firms' digital transformation? Evidence from China's A-share private listed companies. *PLoS One*, Vol. 19 (5), 1-27.
- Khan, A. U. (2024). Political connection and firm's financial performance; the role of corporate governance. *Corporate Governance: The International Journal of Business in Society*, Ahead-of-print, <https://doi.org/10.1108/CG-04-2024-0223>.
- Khelil, I. (2025). Political connections and cost of debt: a meta-analysis. *Journal of Financial Reporting and Accounting*, Vol. 23 (3), 1114-1129.
- Kuzey, C. and Uyar, A. (2017). Determinants of sustainability reporting and its impact on firm value: Evidence from the emerging market of Turkey. *Journal of Cleaner Production*, Vol. 143, 27-39.
- Landis, C. and Paglietti, P. (2025). Legitimacy and anti-corruption disclosures: insights into the early effects of the European Non-Financial Reporting Directive. *Journal of Accounting and Organizational Change*, Vol. 21 (3), 424-445.
- Li, Z., Xie, B., Chen, X. and Fu, Q. (2024). Corporate digital transformation, governance shifts and executive pay-performance sensitivity. *International Review of Financial Analysis*, Vol. 92, 103060.
- Liu, F., Lin, H. and Wu, H. (2018). Political connections and firm value in China: An event study. *Journal of Business Ethics*, Vol. 152, 551-571.
- Liu, Y., Xu, X., Cao, Y. and Huang, J. (2024). Decarbonization commitment, political connections and firm value: Evidence from China. Available at SSRN: <https://ssrn.com/abstract=4923155>.
- Maaloul, A., Chakroun, R. and Yahyaoui, S. (2018). The effect of political connections on companies' performance and value: Evidence from Tunisian companies after the revolution. *Journal of Accounting in Emerging Economies*, Vol. 8 (2), 185-204.
- Mabizela, H. (2024). Political patronage: A catalyst for corruption and misgovernance in South Africa. *Journal of Infrastructure, Policy and Development*, Vol. 8 (15), 9627.
- Merhi, M. I. (2022). The Effect of Digital Transformation on Corruption: A Global Analysis. *Pacific Asia Journal of the Association for Information Systems*, Vol. 14 (2), 42-58.
- Ministry of Planning and Economic Development. (2023). *Egypt Vision 2030: Updated Version*, Arab Republic of Egypt, Available at: https://mped.gov.eg/Files/2030BookletFinalSoftCopy_DigitalUse.pdf.
- Nasih, M., Al-Cholili, A. S., Harymawan, I., Haider, I. and Rahayu, N. K. (2020). Political connections, overinvestment and governance mechanism in Indonesia. *Cogent Economics and Finance*, Vol. 8 (1),

- 1790220.
- Ngo, T. Q. and Ha, T. T. V. (2024). Political connections and firm performance: evidence from Vietnamese SMEs. *Journal of Small Business Strategy*, Vol. 34 (1), 1–44.
- Nguyen, H. T., Nguyen, L. T. T., Nguyen, H. T. N., Nguyen, A. T. M. and Nguyen, H. M. (2025). Political connectedness and stock price informativeness: the moderating role of legal institutions. *Applied Economics*, February, 1–17.
- Pan, X. and Tian, G. G. (2020). Political connections and corporate investments: Evidence from the recent anti-corruption campaign in China. *Journal of Banking and Finance*, Vol. 119, 105108.
- Qian, W. and Chen, X. (2021). Corporate environmental disclosure and political connection in regulatory and leadership changes: The case of China. *The British Accounting Review*, Vol. 53 (1), 1-19.
- Reis, J., Amorim, M., Melão, N. and Matos, P. (2018). Digital transformation: a literature review and guidelines for future research. *Trends and Advances in Information Systems and Technologies*, 411-421, https://doi.org/10.1007/978-3-319-77703-0_41.
- Santiso, C. (2022). Govtech against corruption: What are the integrity dividends of government digitalization? *Data and Policy*, Vol. 4, e39.
- Shahzad, F., Saeed, A., Asim, G. A., Qureshi, F., Rehman, I. U. and Qureshi, S. (2021). Political connections and firm performance: Further evidence using a generalised quantile regression approach. *IIMB Management Review*, Vol. 33, 205-213.
- Sui, B. and Yao, L. (2023). The impact of digital transformation on corporate financialization: The mediating effect of green technology innovation. *Innovation and Green Development*, Vol. 2 (1), 1-9.
- Sustainability Accounting Standards Board (SASB). (2023). *SASB Standards*, IFRS Foundation, Available at: <https://www.sasb.org/standards/>.
- Tan, K. W. and Wong, M. F. (2024). Heterogeneous political connections and corporate overinvestment: evidence from Malaysian firms. *Managerial Finance*, Vol. 50 (10), 1705-1726.
- Tarmizi, N.F.A., Brahmana, R.K. (2023). Environmental performance, political connection, and financial performance: evidence from global oil and gas companies. *Environmental Science and Pollution Research*, Vol. 30, 11081–11098.
- Tran, L.T.H., Tu, T.T.K. and To, B. C. N. (2024). Uncertainty and cash holdings: the moderating role of political connections. *International Journal of Managerial Finance*, Vol. 20 (5), 1218-1243.
- Ullah, S., Khan, S., Hussain, S., Alam, M., and Haroon, M. (2021). Political connections, family ownership, and firm performance: An emerging economy. *International Journal of the Economics of Business*, Vol. 28 (3), 471–487.
- Wang, J., Wang, L., Feng, H. and Zhang, J. (2025). Politically connected CEOs and liquidity risk: some Chinese evidence. *Review of Quantitative Finance and Accounting*, Vol. 64, 1671–1718.
- Wang, L., Kang, S. And Wu, H. (2021). Do politically connected firms pay less toward environmental protection? Firm-level evidence from polluting industries in China. *A Journal of Accounting, Finance and Business Studies*, Vol. 57 (2), 362-405.
- Wang, Z., Fu, H. and Ren, X. (2023). Political connections and corporate carbon emission: New evidence from Chinese industrial firms. *Technological Forecasting and Social Change*, Vol. 188, 122326.
- Wellalage, N. H., Thrikawala, S. and Ghardallou, W. (2022). Political connections, family ownership and access to bank credit. *Finance Research Letters*, Vol. 50, 102471.
- Xie, Y., Zhang, H. and Sikveland, M. (2025). Political connections and financing sources for firms under the COVID-19 pandemic. *Studies in Economics and Finance*, Vol. 42 (5), 887–907
- Xu, Z., Meng, L., He, D., Shi, X. and Chen, K. (2022). Government Support's signaling effect on credit financing for new-energy enterprises. *Energy Policy*, Vol. 164, 112921.
- Yang, X., Dong, L. and Nahm, A. (2024). Mingling business and politics in China – Does it build value? The relationship between political connection and firm performance. *Journal of Strategy and Management*, Vol. 17 (1), 22-40.
- Zareie, M., Attig, N., El Ghouli, S., and Fooladi, I. (2024). Firm digital transformation and corporate performance: The moderating effect of organizational capital. *Finance Research Letters*, Vol. 61, 105032.
- Zhang, D., and Lucey, B. M. (2022). Sustainable behaviors and firm performance: The role of financial constraints' alleviation. *Economic Analysis and Policy*, Vol. 74, 220-233.
- Zhao, H., Ni, J. and Liu, X. (2024). Political connections and corporate innovation: A stepping stone or stumbling block? *International Review of Economics and Finance*, Vol. 89 (part A), 310-326.

- Zhao, T., Yan, N. and Ji, L. (2023). Digital transformation, life cycle and internal control effectiveness: Evidence from China. *Finance Research Letters*, Vol. 58(A), 104223.
- Zhou, P., Arndt, F., Jiang, K. and Dai, W. (2021). Looking Backward and Forward: Political Links and Environmental Corporate Social Responsibility in China. *Journal of Business Ethics*, Vol. 169, 631–649.