

Corporate Governance and Strategic Management in the Digital Era: A Conceptual Framework of Board Digital Capability

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Abstract

Digital transformation has reshaped corporate strategy, increasing technological complexity and strategic uncertainty. Traditional corporate governance research, which emphasizes monitoring and control, provides limited explanation of how boards influence strategic adaptation in digitally intensive environments. This study develops a conceptual framework linking corporate governance and strategic management through board digital capability. Integrating agency theory, resource dependence theory, and upper echelons theory, the framework identifies three mechanisms—monitoring enhancement, resource provision, and cognitive framing—through which board digital capability shapes strategic adaptability and digital transformation. The study advances propositions suggesting that technologically competent boards improve strategic alignment, innovation orientation, and long-term competitiveness, particularly in high-technology industries. By reconceptualizing boards as strategic enablers rather than purely monitoring bodies, this research bridges governance and strategy scholarship and offers a capability-based perspective on corporate governance in the digital era.

1. Introduction

Digital transformation has fundamentally altered the logic of corporate strategy. Firms are no longer competing solely through scale efficiency or cost leadership; instead, competitive advantage increasingly derives from data capabilities, platform integration, artificial intelligence, and digital ecosystems. Strategic management in the digital era therefore requires rapid adaptation, technological understanding, and long-term investment under heightened uncertainty. Digitalization reshapes value creation processes, organizational structures, and industry boundaries, making strategic decisions more complex and less predictable.

In this context, the role of corporate governance has evolved significantly. Traditionally, corporate governance mechanisms—particularly boards of directors—have been viewed primarily as monitoring bodies designed to mitigate agency conflicts between managers and shareholders (Fama & Jensen, 1983). However, as firms confront digital disruption and technological transformation, boards are increasingly expected to participate in strategic deliberation rather than merely exercising *ex post* oversight. Directors are now required to understand emerging technologies, evaluate digital investments, and guide strategic change. Consequently, the board’s function has gradually expanded from compliance monitoring to strategic engagement.

Despite this evolution, existing research largely treats corporate governance and strategic management as separate domains. Governance studies focus on board independence, ownership structure, and monitoring effectiveness, often emphasizing control and accountability. In contrast, strategic management research concentrates on competitive positioning, resource deployment, and organizational adaptation. Although both streams acknowledge the importance of top-level decision-making, they rarely integrate governance structures with strategic processes in a coherent theoretical framework. As a result, the mechanisms through which governance characteristics shape strategic outcomes remain underdeveloped, particularly in digitally intensive environments.

The digital era further exposes this theoretical gap. Digital transformation requires not only managerial initiative but also governance-level understanding of technological risks and opportunities. Board members’ expertise, especially digital capability, may influence strategic direction, investment priorities, and organizational adaptability. Yet current theories provide limited explanation of how board-level competencies translate into strategic change. The separation between governance and strategy becomes increasingly problematic when technological complexity demands integrated oversight and strategic guidance.

To address this gap, this study reconceptualizes the board’s role by integrating corporate governance and strategic management perspectives. Specifically, we argue that board digital capability serves as a critical linkage mechanism between governance structures and strategic outcomes in the digital era. By synthesizing agency theory, resource dependence theory, and upper echelons theory, we develop a conceptual framework that explains how board-level digital expertise enhances strategic adaptability and transformation.

2. Theoretical Foundations

Understanding how corporate governance influences strategic management requires integrating multiple theoretical lenses. This study synthesizes agency theory, resource dependence theory, and upper echelons theory to explain the evolving role of boards in the digital era. While each theory provides valuable insights, none fully captures the strategic implications of board digital capability under conditions of technological disruption.

2.1 Agency Theory and the Monitoring Role of the Board

Agency theory posits that separation of ownership and control generates conflicts of interest between shareholders and managers (Jensen & Meckling, 1976). Boards of directors serve as monitoring mechanisms designed to reduce opportunistic behavior and ensure alignment with

shareholder interests (Fama & Jensen, 1983). Within this framework, governance effectiveness is typically evaluated through board independence, oversight intensity, and control structures.

Although agency theory explains the monitoring function of boards, its assumptions are primarily grounded in control and compliance logic. Strategic decisions are treated as managerial prerogatives subject to oversight rather than collaborative processes involving directors. In digital contexts, however, monitoring alone is insufficient. Digital investments involve high uncertainty, long-term horizons, and intangible assets that are difficult to evaluate using traditional financial metrics. Effective oversight requires substantive technological understanding rather than purely structural independence.

Moreover, digital transformation entails proactive strategic shifts rather than reactive control. Agency theory does not fully address how directors contribute to shaping strategy when technological complexity reduces information symmetry between management and the board. Thus, while agency theory highlights governance discipline, it underestimates the board's strategic involvement in digital environments.

2.2 Resource Dependence Theory and Strategic Resource Provision

Resource dependence theory conceptualizes boards as providers of critical resources, including expertise, legitimacy, and external connections (Pfeffer & Salancik, 1978). Directors reduce environmental uncertainty by linking the firm to external stakeholders and supplying knowledge that supports strategic initiatives. From this perspective, board composition influences firm outcomes by shaping access to valuable capabilities.

In digital transformation, technological expertise represents a strategic resource. Directors with digital backgrounds may provide insights into innovation opportunities, platform ecosystems, and technological risks. Their presence can enhance strategic decision quality by supplying specialized knowledge unavailable internally.

However, traditional applications of resource dependence theory often focus on political ties, financial expertise, or industry connections. The theory has not fully incorporated digital capability as a distinct and dynamic resource in governance research. Furthermore, while resource dependence theory explains resource provision, it does not clearly articulate how such resources translate into strategic change processes within the firm. In digital contexts, the value of board expertise lies not only in access but also in influencing strategic cognition and decision framing. Thus, the theory requires extension to explain how board-level digital capability shapes strategic management outcomes.

2.3 Upper Echelons Theory and Strategic Cognition

Upper echelons theory argues that organizational outcomes reflect the cognitive bases and values of top executives (Hambrick & Mason, 1984). Leaders' backgrounds, experiences, and expertise shape how they interpret environmental signals and formulate strategy. Although originally focused on executives, this perspective can be extended to boards, whose members participate in high-level strategic decisions.

In the digital era, cognitive framing becomes critical. Directors with digital experience may interpret technological change as opportunity rather than threat, influencing the firm's strategic orientation toward innovation and transformation. Board digital capability can therefore shape strategic vision, risk tolerance, and long-term investment priorities.

Nevertheless, upper echelons theory traditionally centers on executive teams rather than governance bodies. It also assumes relatively stable environments where background characteristics influence incremental strategic choices. Rapid technological change challenges these assumptions by introducing extreme uncertainty and nonlinear disruption. Consequently, extending upper echelons theory to governance contexts requires recognizing boards as strategic actors whose collective expertise influences firm adaptability.

2.4 The Need for Theoretical Integration in the Digital Era

Individually, agency theory emphasizes monitoring, resource dependence theory highlights resource provision, and upper echelons theory focuses on cognitive influence. Yet digital transformation demands the simultaneous integration of these functions. Boards must monitor complex technological investments, provide strategic digital resources, and shape cognitive interpretations of disruption.

Existing literature often isolates these perspectives, failing to explain how governance structures and strategic management processes interact dynamically. In digitally intensive environments, governance cannot be separated from strategy; effective oversight requires strategic understanding, and strategic direction depends on governance-level capabilities.

Therefore, a theoretical framework integrating these perspectives is necessary to explain how board digital capability links corporate governance and strategic management. By synthesizing monitoring, resource, and cognitive mechanisms, this study advances a more comprehensive understanding of governance in the digital era.

3. Conceptual Framework Development

3.1 Conceptual Definitions and Integrative Logic

This study develops an integrative framework linking corporate governance and strategic management through board digital capability. To establish theoretical clarity, three core constructs are defined and embedded within a unified logic.

Corporate governance refers to the system of mechanisms through which firms are directed and controlled, particularly the board of directors' role in overseeing managerial decisions and safeguarding long-term value (Fama & Jensen, 1983). While traditional governance scholarship emphasizes monitoring and accountability, contemporary perspectives increasingly recognize that boards also shape strategic direction. In digitally dynamic contexts, governance extends beyond compliance toward active participation in evaluating and guiding transformation initiatives.

Strategic management involves the formulation and implementation of long-term objectives that determine competitive positioning and organizational survival (Hambrick & Mason, 1984). In the digital era, strategic management is characterized by technological integration, platform-based competition, innovation ecosystems, and continuous adaptation. Digital transformation therefore represents a strategic reconfiguration process rather than a mere operational upgrade.

Board digital capability is conceptualized as the collective technological expertise, digital experience, and cognitive familiarity with emerging technologies embedded within the board. Drawing on resource dependence theory, such expertise constitutes a strategic resource (Pfeffer & Salancik, 1978). Extending upper echelons logic, directors' backgrounds influence how strategic issues are interpreted and prioritized (Hambrick & Mason, 1984). Board digital capability thus

represents a governance-level competence that shapes both oversight quality and strategic cognition.

Integrating these constructs requires moving beyond fragmented theoretical explanations. Agency theory explains monitoring, resource dependence theory highlights resource provision, and upper echelons theory emphasizes cognitive influence. However, digital transformation demands simultaneous activation of all three functions. The proposed framework therefore conceptualizes board digital capability as a bridging mechanism connecting governance structures to strategic management outcomes.

3.2 Mechanisms Linking Governance and Strategy

The first mechanism is monitoring enhancement. Agency theory posits that boards mitigate managerial opportunism by reducing information asymmetry (Jensen & Meckling, 1976). Digital investments—such as AI systems, data infrastructure, or platform expansion—are characterized by high uncertainty and intangible returns. Without technological expertise, boards may struggle to evaluate strategic proposals effectively. Board digital capability strengthens monitoring quality by enabling directors to critically assess technological feasibility, long-term scalability, and strategic alignment. This reduces the likelihood of symbolic or misaligned digital initiatives and enhances strategic discipline. In digital environments, monitoring becomes forward-looking and strategic rather than purely compliance-based.

The second mechanism is resource provision. Resource dependence theory conceptualizes boards as boundary-spanning actors who provide access to valuable knowledge and external linkages (Pfeffer & Salancik, 1978). In digitally intensive industries, technological knowledge and innovation networks are essential strategic resources. Directors with digital expertise contribute not only technical insight but also legitimacy within technology ecosystems. Their presence may facilitate partnerships, talent acquisition, and access to innovation networks. More importantly, board digital capability supports strategic resource orchestration—aligning digital investments with broader corporate objectives. Thus, governance structures become embedded in the configuration of strategic resources.

The third mechanism involves cognitive framing. Upper echelons theory suggests that organizational outcomes reflect the cognitive bases of top decision-makers (Hambrick & Mason, 1984). Directors influence strategic discourse by shaping how environmental uncertainty is interpreted. In the face of digital disruption, boards lacking technological familiarity may adopt defensive or risk-averse strategies. Conversely, boards possessing digital capability may frame technological turbulence as opportunity, encouraging proactive transformation and experimentation. This cognitive orientation affects strategic adaptability—the firm's ability to reconfigure assets and reposition competitively.

Together, these mechanisms demonstrate that governance in the digital era is inseparable from strategy formation. Monitoring ensures disciplined digital investment, resource provision enhances technological capacity, and cognitive framing shapes strategic vision. Board digital capability therefore serves as the integrative conduit through which corporate governance influences strategic management outcomes.

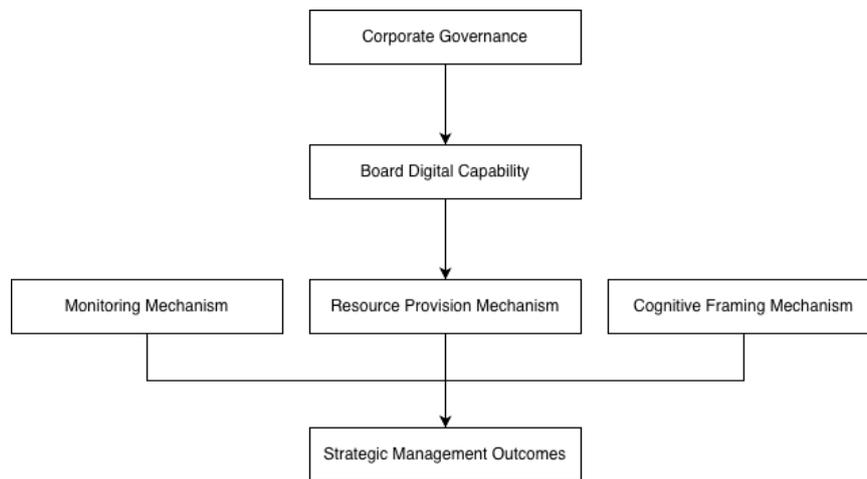


Figure 1. Conceptual Framework Linking Corporate Governance and Strategic Management

As illustrated in Figure 1, corporate governance influences strategic management through board digital capability, which operates via monitoring, resource provision, and cognitive framing mechanisms. Environmental context—such as technological intensity—may further condition these relationships.

Based on this integrative logic, several propositions are advanced.

Proposition 1: Board digital capability enhances strategic adaptability in digital transformation.

Proposition 2: The positive relationship between board digital capability and strategic adaptability is stronger in high-technology industries.

Proposition 3: Board digital capability improves the alignment between digital investment decisions and long-term competitive positioning.

Proposition 4: Board digital capability fosters a proactive innovation-oriented strategic orientation.

These propositions collectively reconceptualize corporate governance as a strategic enabler rather than a purely monitoring mechanism, thereby integrating governance and strategic management within a unified theoretical framework.

4. Theoretical and Managerial Implications

4.1 Theoretical Implications

This study contributes to corporate governance and strategic management literature in three important ways.

First, it reconceptualizes corporate governance as a strategic capability rather than solely a monitoring mechanism. Recent governance research has increasingly emphasized that boards influence strategic decision-making, innovation, and risk-taking (Zona, 2016; Pugliese et al., 2014). However, much of this literature still treats governance involvement as a behavioral phenomenon without fully theorizing how board-level competencies shape strategic outcomes. By introducing board digital capability as an integrative construct, this study extends governance theory from structural attributes (e.g., independence, diversity) toward capability-based

explanations. This shift aligns with emerging calls to understand boards as active strategic actors in turbulent environments (Krause, Withers, & Semadeni, 2017).

Second, this framework bridges corporate governance and strategic management by incorporating digital transformation as a contextual boundary condition. Strategic management scholarship has highlighted the increasing importance of dynamic capabilities and digital innovation in shaping competitive advantage (Teece, 2018; Warner & Wäger, 2019). Yet governance research rarely embeds these strategic dynamics within board-level analysis. By linking board digital capability to strategic adaptability, this study integrates governance structures with dynamic capability logic. In doing so, it responds to calls for multilevel integration between governance systems and strategic renewal processes.

Third, this framework advances upper echelons theory by extending cognitive influence beyond executive teams to governance bodies. While recent research acknowledges that boards participate in strategic discussions (Forbes & Milliken, 1999; Minichilli, Zattoni, & Zona, 2009), the cognitive mechanisms through which directors shape strategic orientation remain underdeveloped. By identifying cognitive framing as a central pathway, this study situates board expertise within the strategic cognition literature and emphasizes how technological familiarity alters interpretation of environmental uncertainty. In digitally disruptive contexts, cognition becomes as critical as monitoring and resource provision.

Overall, this study contributes to an emerging view of governance as a dynamic, capability-based system embedded in strategic transformation processes. It moves beyond static governance models and proposes an integrative explanation suited to technologically turbulent environments.

4.2 Managerial Implications

The framework also provides important practical implications for firms navigating digital transformation.

First, firms should reconsider board composition criteria. Traditional governance reforms emphasize independence and financial expertise. While these remain important, digital capability becomes strategically critical in technologically intensive industries. Appointing directors with technological experience, digital innovation backgrounds, or platform ecosystem knowledge may enhance strategic oversight quality and long-term competitiveness.

Second, boards should institutionalize digital literacy as part of governance processes. Even when full technological expertise is not present, structured digital training and advisory integration may reduce information asymmetry in strategic technology decisions. This reduces the risk of symbolic digital adoption and improves alignment between digital investment and strategic objectives.

Third, governance design should reflect environmental conditions. In high-technology or digitally disrupted industries, the marginal value of board digital capability is likely to be greater. Firms operating in stable industries may not require the same level of digital expertise at the board level. Thus, governance structures should be contingent rather than uniform.

By reframing governance as a strategic enabler, this study encourages firms to treat board composition as a dynamic strategic decision rather than a purely compliance-driven requirement.

5. Future Research Directions

This conceptual framework opens several avenues for future research.

First, empirical research may test the proposed propositions using cross-industry or cross-country data. Scholars may examine whether board digital capability influences measurable indicators of digital transformation, innovation output, or strategic renewal. Longitudinal designs would be particularly valuable in capturing dynamic adaptation processes.

Second, future studies may explore interaction effects between board digital capability and executive digital expertise. The complementarity or substitution between governance-level and managerial-level digital competence remains theoretically underexplored.

Third, comparative institutional research may examine whether governance systems (e.g., one-tier vs. two-tier boards) moderate the influence of digital capability on strategic outcomes. Institutional contexts may shape how governance bodies engage in strategic processes.

Finally, future research may extend this framework to emerging technologies such as artificial intelligence governance, cybersecurity oversight, and platform regulation. As digital transformation evolves, governance theory must continuously adapt to new technological realities.

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