

Determinants of Digital Leadership on Business Success and Sustainability Performance: A Systematic Literature Review

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Abstract

Purpose: *This study addresses a critical research gap, while rapid technological development reshapes organizational competitiveness, evidence on how digital leadership specifically drives long-term sustainable performance remains highly fragmented. Consequently, this study aims to systematically examine the role of digital leadership in achieving business success and sustainability in the digital transformation era.*

Methodology/approach: *Using the PRISMA and SALSA approach, twenty peer-reviewed articles (2015–2025) were screened, evaluated, and analyzed thematically.*

Findings: *Findings reveal that digital leadership positively influences business success and sustainability, with digital capability, culture, affective commitment, and top-management innovativeness serving as key mediators.*

Practical implications: *The study concludes that strengthening digital leadership is essential for firms to achieve competitive advantage and sustainability outcomes, offering strategic implications for policy, organizational development, and future academic research.*

Originality/value: *This research addresses a fundamental gap in prior studies, the absence of an integrated framework for digital leadership. The novelty lies in synthesizing ten years of systematic literature to comprehensively map the determinants, mediators, and outcomes of digital leadership on business and sustainability performance.*

Keywords:

Digital Leadership; Business Success; Sustainability Performance.

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INTRODUCTION

Over the past decades, the rapid development of digital technology has fundamentally transformed how companies operate, innovate, and interact with stakeholders (Harefa & Lase, 2025). This change marks the emergence of digital transformation, a process of integrating digital technology into all aspects of business, reshaping how companies create value, manage resources, and provide new experiences to customers and stakeholders (Marnewick & Marnewick, 2022). According to data from Verified Market Reports (2025), the global digital transformation market reached USD 1.2 trillion in 2024 and is projected to grow to USD 3.8 trillion by 2033, with a CAGR of 14.5% from 2026 to 2033. This indicates that digital transformation is no longer merely an option, but an economic imperative for companies to remain competitive and relevant amid digital disruption.

The success of implementing digital transformation depends heavily on an organization's ability to adapt, not only in terms of technology but also in leadership (Mehreen et al., 2024). Leaders play a crucial role in ensuring that digital transformation does not solely focus on technology adoption, but also on changes in business strategies, organizational culture, and human resource mindsets. This has led to the concept of digital leadership, a leadership style capable of integrating digital technologies in alignment with strategic vision, fostering innovation, and creating a collaborative and adaptive work environment (Kawiana, 2023).

Digital leadership plays a vital role in guiding companies to survive and grow amid the complexity of modern business environments characterized by technological disruption and rapid market dynamics (Araujo et al., 2021). Within this concept, leaders at the top management level are expected not only to understand technology but also to strategically utilize it to create added value. They act as visionary leaders, navigating organizations through digital transformation by embedding a culture of innovation, cross-functional collaboration, and sustainability orientation (Cortellazzo et al., 2019; Tagscherer & Carbon, 2023).

Digital leadership is believed to enhance business success through improved organizational performance. Liu & Wang (2025) found that digital leaders who effectively leverage organizational digital platforms can stimulate innovation capabilities and ultimately foster competitive advantage. Similarly, Mollah et al. (2024) revealed that the impact of digital leadership on competitive performance is indirect, as strong digital leadership cultivates digital culture and employees' affective commitment, which then enhances long-term performance. These findings confirm that beyond technological aspects, organizational culture and employee engagement are critical in achieving business success through digital leadership.

On the other hand, companies are increasingly emphasizing long-term success through sustainability performance, which encompasses environmental, social, and governance (ESG)

dimensions. ESG measurement has become a benchmark to ensure business activities align with sustainable environmental welfare (Mardika et al., 2022). Several studies examine how digital leadership contributes to sustainability. Niu et al. (2022) found that digital leadership significantly improves ESG management implementation and organizational innovation, contributing to sustainable performance. Moreover, Lu et al. (2024) demonstrated that digital leadership has both direct and indirect effects on organizational sustainability through strengthened digital leadership capability. These findings indicate that organizations with strong digital leadership tend to perform better in meeting environmental, social, and governance standards.

While previous studies unequivocally highlight the importance of digital leadership in driving innovation, performance, and sustainability, the current body of literature remains highly fragmented and theoretically siloed. Existing research predominantly isolates specific mediating mechanisms, such as digital leadership capability (Lu et al., 2024), technological leadership (Saddique et al., 2023), or digital culture (Priyamedha et al., 2025) without examining how these elements interact within a broader organizational ecosystem. This fragmentation creates a critical analytical gap: the literature confirms that digital leadership matters, but fails to provide a unified framework explaining how its various determinants and mediators concurrently drive both financial (business success) and non-financial (sustainability/ESG) outcomes. Consequently, a stark contrast exists between the complex, multi-dimensional demands placed on modern digital leaders and the narrow, single-variable models offered by current research. Furthermore, as Khaw et al. (2022) emphasize, empirical investigations explicitly bridging digital leadership with comprehensive sustainable performance remain remarkably scarce, leaving a blind spot in how leaders can effectively balance digital disruption with long-term ESG mandates.

Therefore, this study aims to address these gaps by conducting a systematic literature review (SLR) of research published over the last ten years (2015–2025) to comprehensively map the impact of leadership transformation on business success and sustainability performance in the current digital era. Additionally, this study identifies various mediating determinants of digital leadership in improving business success and sustainability performance. Thus, it is expected to contribute theoretically to the development of a conceptual framework on the role of digital leadership in the digital transformation era, while also offering practical implications for organizations seeking long-term business success and sustainability. To explicitly address the overarching research problem of theoretical fragmentation and empirical inconsistency, this study is driven by two core research questions. First, how does digital leadership impact business success and sustainable performance? Second, what are the determinant factors of digital leadership that enhance business success and sustainability performance?

LITERATURE REVIEW

The primary theoretical foundations underlying the relationship between digital leadership and firm performance in this study are Dynamic Capabilities Theory and Upper Echelons Theory. From the Dynamic Capabilities perspective, digital leadership functions as a meta-capability that enables organizations to integrate and reconfigure internal competencies to address the dynamic digital environment (Teece, Pisano, & Shuen, 1997; Wang & Ahmed, 2007). Leaders act as agents who recognize new technological opportunities and align them with business strategies to sustain competitive advantage (Ambrosini & Bowman, 2009). This is reinforced by Upper Echelons Theory, which posits that strategic decisions and organizational performance are reflections of the cognitive characteristics, experiences, and values of top management (Bekos & Chari, 2025; Hambrick, 2007). Leaders possessing technological expertise and digital vision will shape an adaptive organizational culture, which ultimately facilitates the achievement of the company's strategic goals.

Conceptually, digital leadership is defined as a leadership style that focuses not only on technological mastery but also on the strategic ability to inspire innovation and lead change within a digital ecosystem (Sağbaşı & Erdoğan, 2022; Ye et al., 2025). This leadership plays a crucial role in driving business success, measured through the achievement of financial goals, stakeholder satisfaction, and corporate reputation (Gemina et al., 2024; Hani, 2021). Previous studies show that visionary digital leaders contribute significantly to organizational agility and business model innovation (Chen et al., 2024; Beth & Setzler, 2024). Furthermore, this influence is often mediated by the formation of a strong digital culture and increased employee affective commitment, which subsequently impact long-term competitive advantage (Mollah et al., 2024).

Beyond financial success, recent literature increasingly highlights the role of digital leadership in achieving sustainable performance. This concept refers to a firm's ability to balance economic achievement with social responsibility and environmental preservation, in accordance with the triple bottom line principle (Okharedia & Adekunle, 2023; Henao & Sarache, 2022). Empirical research proves that digital leadership enhances the implementation of ESG (Environmental, Social, and Governance) management and green innovation, which simultaneously contribute to organizational sustainability (Niu et al., 2022; Lu et al., 2024). In this context, digital leaders act as key drivers who steer digital transformation not only for operational efficiency but also to meet global sustainability standards.

Although many studies have examined these elements separately, the current literature remains deeply fragmented, suffering from both notable conceptual gaps and empirical inconsistencies (Khaw et al., 2022). Conceptually, there is a distinct lack of consensus on how to unify the mediation mechanisms that connect digital leadership to dual outcomes. Most existing

frameworks are theoretically siloed, they tend to either focus exclusively on financial business success driven by technological capabilities or isolate ESG outcomes without integrating economic viability. Empirically, prior research yields conflicting findings that complicate a universal understanding of these relationships. For instance, the exact role and significance of mediators, such as organizational culture and ESG mechanisms, frequently contradict one another across different geographical and industrial contexts. A clear example of this empirical inconsistency is the divergent mediation pathways observed between Korean and Chinese contexts regarding how digital leadership influences performance (Niu et al., 2022). Furthermore, while some studies report direct positive impacts of digital leadership on sustainability, others argue the relationship is strictly contingent upon specific intervening variables. Therefore, this systematic review is urgently needed to reconcile these conceptual and empirical disjoints, comprehensively mapping the determinants and mediation pathways into a single, holistic framework that integrates digital leadership with both business success and sustainable performance.

METHOD

This research employs a Systematic Literature Review (SLR) approach by integrating two main frameworks, namely the SALSA Framework (Search, Appraisal, Synthesis, and Analysis) and PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) (Page et al., 2020), to comprehensively map the relationship between digital leadership, business success, and sustainability performance within the 2015–2025 period.

The first stage of the SLR process is the Search stage, conducted through the exploration of reputable academic databases such as ScienceDirect, Emerald, SpringerLink, and Wiley, including grey literature. While broad indexing databases such as Scopus or Web of Science (WoS) are widely used for initial metadata mapping, this study deliberately selected primary publisher platforms to ensure direct and immediate access to full-text, peer-reviewed articles. Furthermore, because our inclusion criteria strictly require complete, open-access academic structures, relying directly on these primary databases allowed for more precise filtering. This strategy effectively eliminated the accessibility barriers and paywall reroutes frequently encountered when navigating from secondary indexing services like Scopus or WoS. The search was performed using keyword combinations such as “digital leadership,” “business success,” “sustainability performance,” and “ESG.” The search process was further refined using Boolean operators “AND” and “OR,” specifically (“digital leadership” AND “business success”) OR (“digital leadership” AND “sustainability performance” OR “ESG”). The initial search generated a set of articles which were then filtered to remove duplicates and categorized as initial search results.

The second stage is Appraisal, which involved screening and assessing article quality.

Screening was conducted at the title, abstract, and full-text levels using inclusion and exclusion criteria as shown in Table 1. Articles written in English and published between 2015–2025 were categorized as studies found. Further screening assessed article accessibility (open access) and completeness of academic structure, with eligible papers categorized as candidate studies. The abstracts and main content of these articles were reviewed to evaluate relevance to the research objective concerning the influence of digital leadership on business success and sustainability performance. Articles meeting these criteria were classified as selected studies.

In the Synthesis stage, all included articles were extracted into a data matrix containing information on author, publication year, research objectives, methodology, variables, mediating relationships, and main findings. The synthesis was carried out through thematic synthesis and content analysis to identify relational patterns between digital leadership, business success, and sustainability performance, including mapping the mediating factors involved in these relationships.

At the Analysis stage, the researchers evaluated the consistency of findings, identified emerging cause–effect relationships, and mapped mediator variables influencing the link between digital leadership, business success, and sustainability performance. Additionally, the analysis assessed whether the influence of digital leadership is more dominant at the strategic level (e.g., data-driven decision-making), operational level (e.g., efficiency through technology), or organizational level (e.g., adaptive and innovative culture).

Table 1. Inclusions and Exclusions Criteria

Criteria	Inclusion	Exclusion
Language	English	Other English
Year of Publication	Between 2015 - 2025	Before 2015
Access Type	Open Access	Closed Access
Article Structure	Complete Structure (Abstract, Chapter 1-5, & references)	Incomplete Structure
Article Keyword	Related Keyword	Different Keyword
Abstract	Related Abstract	Non-related Abstract

Source: Authors (2025)

Figure 1 illustrates the article selection flow using the PRISMA framework. Initially, 624 articles were identified from various repositories including ScienceDirect, Wiley Online Library, ACM Digital Library, SpringerLink, and Emerald. After applying exclusion criteria, a total of 20 relevant articles were selected for final review and analysis.

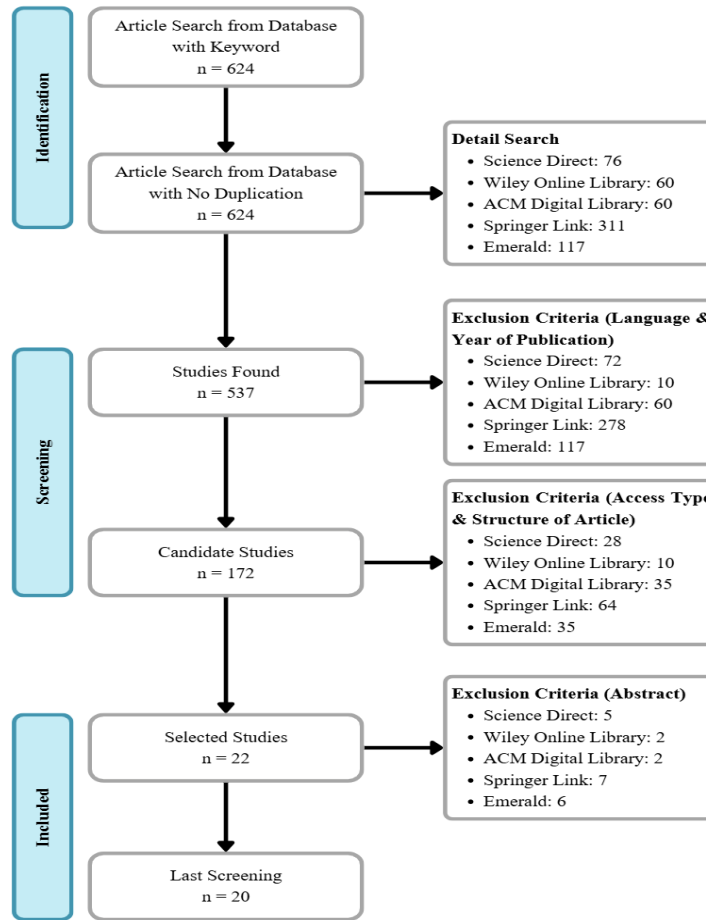


Figure 1. PRISMA Diagram
Source: Authors' compilation (2025)

RESULTS AND DISCUSSION

Table 2. Analysis of Literature Search Synthesis

No	Researcher and Year	Journal Name	Article Title	Types of Research	Research Result
1	Mo, J., Liu. Y., Lu., C., & Yu., J (2023)	Journal of Digital Economy	Influences of industrial internet platform firms' ESG performance and digital leadership on user firms' innovation performance: The mediating role of inter-firm trust	Quantitative (Survey & Regression Analysis)	Platform firms' digital leadership significantly enhances user firms' innovation performance, a positive impact that is mediated by the strengthening of both relational and digital inter-firm trust.
2	Chatterjee. S., Chaudhuri. R., Vrontis. D., & Giovando.	Journal of Innovation & Knowledge	Digital workplace and organization performance: Moderating role of digital leadership	Quantitative (Survey & PLS-SEM (Partial Least Squares Structural	Digital leadership capability acts as a significant moderator that amplifies the positive impact of employees' digital

	G. (2023)		capability	Equation Modelling))	workplace performance and work-life balance on overall organizational performance.
3	Pandey. J., Majumdarr. S., Hassan. Y., & Benuyenah . V. (2023)	Journal of Global Information Management	Role of Digital Leadership Capability in Shaping IT Innovation: A Digital Agility Perspective	Quantitative (Survey & Regression Analysis)	Digital leadership capability significantly drives IT innovation both directly and indirectly by facilitating inter-team coordination, a relationship that is notably strengthened when organizations possess high knowledge-integration capability.
4	Braojos, J., Weritz, P., & Matute. J (2023)	Information System Journal	Empowering organisational commitment through digital transformation capabilities: The role of digital leadership and a continuous learning environment	Quantitative (PLS-SEM (Partial Least Squares Structural Equation Modelling))	Digital leadership acts as a crucial mediator that translates digital transformation capabilities into higher organizational commitment by communicating vision and supporting employees.
5	Chen, A., Li. L., & Shahid, W. (2024)	Heliyon	Digital transformation as the driving force for sustainable business performance: A moderated mediation model of market-driven business model innovation and digital leadership capabilities	Quantitative (Survey & Regression Analysis)	Digital leadership capabilities significantly moderate the relationship between market-driven business model innovation and sustainable business performance.
6	Mollah, M. A., Ibrahim, Masud, A. A., &	Heliyon	How does digital leadership boost competitive performance? The role of	Quantitative (Survey & Path Analysis)	Digital leadership does not directly impact competitive performance but influences it indirectly

	Chowdhury, M. S. (2024)		digital culture, affective commitment, and strategic agility		by fully mediating through affective commitment and positively affecting digital culture.
7	Tortora, D., Genovino, C., Andreis, F. D., Loia, F., & Cuomo, M. T. (2024)	Journal of Intellectual Capital	Boosting intellectual capital and digital maturity of SMEs: an investigation of enterprises in an Italian Southern tourist district	Mixed - Quantitative Questionnaire & Logistic Regression)	A data-driven and consultative management style, acting as a core component of intellectual capital, positively influences the digital maturity of SMEs.
8	Palmucci, D. N., & Giovando, G. (2024)	Management Decision	The post-Covid era: digital leadership, organizational performance and employee motivation	Qualitative (Semi-structured Interview)	The study identifies specific skills (strategic, flexible, authentic, coach, inclusive) required for "STP leaders" (Sustainability, Technology, People) to motivate employees in the digitized post-COVID era.
9	Mehreen, M., Mustafa, R. M., Naukhez, S., & Adeel, T. (2024).	Benchmarking : An International Journal	Digital leadership, business model innovation and organizational change: role of leader in steering digital transformation	Qualitative (Conceptual/ Review)	Digital leadership characteristics, styles, and skills are identified as critical drivers for innovating business models and facilitating organizational cultural change during digital transformation.
10	Cheng, Z., Jin, X., & Kwak, W. J. (2025)	Acta Psychologica	Using the new positive aspect of digital leadership to improve organizational sustainability: Testing moderated mediation model	Quantitative (Survey & Structural Equation Modeling (SEM) and Bootstrap)	Digital leadership enhances organizational sustainability both directly and indirectly by fostering digital capabilities and a digital organizational culture.
11	Moshoeshe, G. & Pelsier, T. (2025)	Proceedings of the Sixth International Conference on Digital Age &	Drivers for Successful Digital Transformation in Advancing Environmental	Qualitative (semi-interview)	Digital leadership is identified as a key internal driver for successfully adopting AI and digital

		Technological Advances for Sustainable Development	Sustainability in Manufacturing		transformation to achieve environmental sustainability in manufacturing.
12	Zada, M. Zada, S., Dhar, B. K., Ping, C., & Sarkar, S. (2025)	Sustainable Development	Digital Leadership and Sustainable Development: Enhancing Firm Sustainability Through Green Innovation and Top Management Innovativeness	Quantitative (Time-lagged survey, Structural Equation Modeling/SEM)	Digital leadership positively influences green innovation and firm sustainability, with top management innovativeness amplifying the positive effects of digital leadership.
13	Javed, T., Azhar, J., Shabbir, M.F. et al. (2025)	Discover Sustainability	Sustainable performance in public sector universities of Punjab: examining the moderating impact of digital leadership amid digital transformation and innovativeness	Quantitative (Survey, Structural Equation Modeling with SmartPLS)	Digital leadership has a significant direct impact on sustainable performance and strengthens the relationship between digital innovativeness and sustainable performance.
14	Ismail, H.A., Kotp, M.H., Basyouny, H.A.A. et al. (2025)	BMC Nursing	Sustainable healthcare futures: how digital leadership stimulates nurses' green creativity: a quasi-experimental study	Quantitative (Quasi-experimental, Paired & Independent t-tests)	Participation in a digital leadership program significantly enhances nurses' knowledge and competencies, which subsequently fosters their green creativity.
15	Ye, Q. (2025)	Scientific Reports	Digital leadership enhances organizational resilience by fostering job crafting: the moderating role of organizational culture	Quantitative (Survey, PLS-SEM)	Digital leadership enhances organizational resilience directly and indirectly by fostering employee job crafting, with organizational culture moderating this relationship.
16	Ren, L., Deng, S.,	Humanities & Social	A study on factors shaping	Quantitative (Questionnaire)	While general digital leadership did not

	Men, L. et al. (2025)	Sciences Communications	innovative work behavior and service innovation performance in government sectors role of digital leadership and dynamic capabilities	e survey, PLS-SEM)	directly affect innovative behavior, specific roles like "digital pioneer" and "digital enabler" positively influenced innovative work behavior and government service innovation.
17	Shen, Y., Deng, Y., Xiao, Z. et al. (2025)	BMC Psychology	Driving green digital innovation in higher education: the influence of leadership and dynamic capabilities on cultivating a green digital mindset and knowledge sharing for sustainable practices	Quantitative (Survey, PLS-SEM)	Digital leadership does not directly predict green digital innovation but significantly influences it indirectly through knowledge sharing.
18	Möller, D.P.F., Wang, Q., Huang, L. et al. (2025)	Carbon Neutral Systems	Impact of digital transformation for sustainable circular economic environments	Qualitative (Review/Conceptual Analysis)	Digital leadership is identified as essential for guiding organizations through digital transformation to enable a sustainable circular economy by investing in talent and skills.
19	Cyfert, S., Chwiłkowska-Kubala, A., Malewska, K., & Chomicki, M. (2025)	Journal of Strategy and Management	Reframing the digital strategy–organisational culture relationship: a contingency-theoretic study of digital transformation in Polish energy SMEs	Quantitative (Survey, Mediation analysis using OLS regression)	Digital transformational leadership partially mediates the relationship between digital strategy and digital organizational culture, acting as a key enabler alongside digital capabilities.

20	Akhtar, F., Senadjki, A., & Kumaran, V. V. (2025)	Journal of Innovative Digital Transformation	Sustainability meets digital culture: the influence of ESG on financial performance in Malaysian manufacturing SMEs	Quantitative (Survey, Structural Equation Modeling with SmartPLS)	While focusing on digital organizational culture, the study implies that management must prioritize digital culture and intellectual capital to enhance financial performance and ESG outcomes.
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Source: Processed Data (2025)

The Impact of Digital Leadership on Business Success and Sustainable Performance

Based on the analysis of 20 screened journal articles related to the relationship between digital leadership, business success, and sustainable performance, it can be explained that methodologically, most studies employed a quantitative approach using Structural Equation Modeling (SEM) to validate complex mediation–moderation models. The literature review shows that the shift toward digital leadership brings significant multidimensional impacts on organizations. These impacts are not limited to operational efficiency but also extend to economic, social, and environmental sustainability dimensions. This transformation reflects a shift from traditional hierarchical leadership models to distributed, data-driven leadership.

One of the most consistent findings across the reviewed literature is the influence of digital leadership on traditional business success metrics, such as competitive performance and business model innovation. Chen et al. (2024) emphasize that digital transformation driven by effective leadership acts as a key driver for sustainable business performance. They found that digital leadership facilitates Market-Driven Business Model Innovation (MDBMI). This form of business model innovation is not merely a product modification but a fundamental transformation in how firms create, deliver, and capture value. Viewed through the lens of Dynamic Capabilities Theory (DCT), digital leadership operates as the ultimate meta-capability that enables an organization to "sense" changing market preferences through data analytics, and "seize" these opportunities by structurally transforming how they create and capture value. Their SEM analysis shows that MDBMI has a substantial effect on sustainable business performance, confirming that digital leadership drives business success through continuous renewal of business logic to align with digital market dynamics.

In digitally mature environments (e.g., China’s IT sector), leaders can directly leverage technology to enhance sustainability and profitability. Conversely, in digitally or infrastructurally less developed settings, leaders may need to focus on developing intermediary capabilities such as trust culture and employee commitment before financial results can be achieved. This implies

that the impact of digital leadership transformation on business success is contextual and gradual.

Furthermore, digital leadership generates profound effects at the individual level, a phenomenon best explained by Upper Echelons Theory (UET). UET posits that the cognitive frameworks, values, and psychological orientations of top executives fundamentally shape organizational outcomes. Chatterjee et al. (2023) provided empirical evidence in the context of Indian organizations, finding that Digital Leadership Capability moderates the relationship between employees' digital workplace performance and overall organizational performance.

A crucial aspect of this transformation relates to Work-Life Balance (WLB). Without strong digital leadership, transitions toward remote or hybrid digital work may trigger technostress and fatigue due to constant connectivity. However, effective digital leaders establish new norms (e.g., the right to disconnect) that transform digital tools into facilitators of work-life balance rather than stressors. Chatterjee et al. (2023) concluded that improved WLB supported by digital leadership positively impacts organizational performance.

Furthermore, Palmucci et al. (2025) through qualitative research highlighted that post-pandemic leaders must adopt an "STP" model (Sustainability, Technology, People). Leadership that emphasizes the human aspect increases employee motivation. Successful digital leaders no longer rely on command-and-control methods but on a facilitative, empowering approach. This supports employees in demonstrating Innovative Work Behavior (IWB), where they feel psychologically safe to experiment with new technologies and take calculated risks for innovation.

Beyond business success, the literature review demonstrates a strong positive link between digital leadership and organizational sustainability performance, defined holistically across economic, social, and environmental dimensions. Cheng et al. (2025) presented strong statistical evidence in IT SMEs in China, showing that digital leadership directly improves organizational sustainability. Their path analysis confirmed significant coefficients, indicating that leaders who integrate digital vision with business strategy contribute to organizational resilience and sustainability.

In this context, DCT and UET converge seamlessly. Under UET, unlike traditional leaders who might cognitively frame sustainability and digitalization as conflicting costs, digital leaders possess the modern cognitive flexibility to view them as interdependent synergies. They act as institutional entrepreneurs, navigating coercive and normative pressures to legitimize sustainability initiatives. Simultaneously, under DCT, these leaders deploy their dynamic capability of foresight to actively integrate fragmented digital tools, such as Big Data Analytics, Artificial Intelligence (AI), and Cloud Computing into a cohesive strategy that achieves resource efficiency and meets global ESG standards. Thus, the impacts observed in these quantitative studies are not mere statistical coincidences, but manifestations of upper-echelon cognition driving dynamic organizational

capabilities.

Additionally, Malik et al. (2024) expanded this understanding by framing digital leadership within Institutional Theory. They argue that digital leaders act as institutional entrepreneurs, navigating coercive, normative, and mimetic pressures to adopt digital transformation. Through this role, they legitimize sustainability initiatives in the eyes of stakeholders. Thus, the “direct” effects observed in quantitative studies may represent statistical manifestations of leaders’ ability to align organizations simultaneously with digital modernization and environmental responsibility.

Determinants of Digital Leadership in Enhancing Business Success and Sustainability Performance

The emergence and operation of these mediating factors can be profoundly explained by returning to our foundational frameworks: Dynamic Capabilities Theory (DCT) and Upper Echelons Theory (UET). Viewed through the lens of DCT, the most fundamental determinant factor identified in the literature, Digital Capabilities, does not emerge in a vacuum. Rather, digital leadership functions as a meta-capability that actively integrates and reconfigures internal competencies to survive the dynamic digital environment. Cheng et al. (2025) found that these capabilities significantly mediate the relationship between digital leadership and organizational sustainability.

Chen et al. (2024) further dissect this determinant into two dimensions: Digital Exploitation Capability and Digital Exploration Capability. Digital exploitation is the ability to optimize existing processes (for example, using AI to reduce energy consumption in factories), while digital exploration refers to the capability to innovate and create new value propositions (such as developing a digital platform for waste trading). From a DCT perspective, digital exploitation (optimizing existing processes) and digital exploration (innovating new value propositions) represent the tangible outcomes of a leader's ability to orchestrate and reconfigure resources. Both capabilities effectively mediate the impact of leadership on sustainable business performance because they translate the abstract meta-capability of a leader into concrete organizational agility. Their findings indicate that both types of capabilities mediate the impact of leadership on sustainable business performance.

Furthermore, Upper Echelons Theory (UET) provides the critical explanatory mechanism for the human and cultural mediators. UET posits that strategic decisions and organizational performance are direct reflections of the cognitive characteristics, experiences, and values of top management. This perfectly explains why Digital Organizational Culture and Affective Commitment emerge as vital mediators. Cheng et al. (2025) reported a significant mediating role of digital culture, arguing that leaders shape culture by promoting accountability, open communication, and a digital-first mindset. In this view, digital culture serves as fertile ground where sustainable

practices can grow. However, findings from Mollah et al. (2024) in Bangladesh present an interesting contradiction. Their study found that digital culture did not significantly influence competitive performance, nor did it mediate the digital leadership–performance relationship.

However, Mollah et al. (2024) found an interesting contradiction in Bangladesh, where Affective Commitment, not digital culture, acted as the full mediator. This difference suggests that cultural determinants are contextual. In developing countries or specific cultural settings, “human factors” (loyalty, commitment) may be more influential than “structural factors” (digital culture) in driving performance. Employees may support digital initiatives not because they possess a digital mindset, but because they trust their leaders. This implies that in certain contexts, the primary determinant of digital leadership success lies in its ability to build emotional trust rather than merely instilling a technological culture.

Finally, Zada et al. (2025) identified Top Management Innovativeness (TMI) as a critical moderating determinant. This is the quintessential embodiment of Upper Echelons Theory. Their analysis revealed a significant interaction between digital leadership and green innovation moderated by TMI. When top management inherently possesses high cognitive innovativeness, it results in a strong correlation between digital leadership and green innovation. Conversely, conservative management leads to failure in achieving these outcomes, even with strong operational digital leadership. Ultimately, UET confirms that without the genuine cognitive alignment and innovative spirit of the upper echelons, digital capabilities at lower levels remain fundamentally constrained.

CONCLUSION, IMPLICATION AND LIMITATION

Based on a systematic review of twenty selected studies published between 2015–2025, this research confirms that digital leadership holds a significant and multidimensional influence on business success and sustainability performance. Addressing the first research question, the study concludes that digital leadership has a profound, multidimensional impact on both business success and sustainable performance. It not only drives market-driven business model innovation and competitive advantage but also synergizes these financial goals with long-term ESG mandates and organizational resilience through the development of digital capabilities, green innovation, cultural transformation, and employee empowerment. In response to the second research question, this study provides a comprehensive mapping of determinants (mediating and moderating) variables that connect digital leadership with business and sustainability outcomes, such as digital capabilities, digital culture, affective commitment, top management innovativeness, and knowledge sharing which showing that the success of digital transformation highly depends on organizational context, leadership orientation, and employee engagement. The advantage of this

study lies in its integrative approach that synthesizes fragmented findings into a unified framework, offering a holistic perspective that has been largely underexplored in earlier research.

However, this study is limited to articles accessible under open access, English-language publications, and a ten-year research span, which may exclude relevant findings beyond those boundaries. These restrictions may introduce selection bias, potentially leading to an overrepresentation of studies from certain regions or publication outlets, and consequently limiting the generalizability of the findings across diverse institutional, cultural, and industrial contexts. As a result, the synthesized relationships between digital leadership, business success, and sustainability performance may not fully capture variations observed in non-English or non-open-access literature.

Furthermore, the review is constrained by the predominance of quantitative SEM-based research. This methodological concentration may lead to an overemphasis on statistically significant linear relationships, while underrepresenting complex, context-dependent, and non-linear dynamics. Consequently, the findings may provide a strong structural explanation of digital leadership effects but offer limited insight into the underlying behavioral, psychological, and cultural mechanisms that shape digital leadership adoption and effectiveness. Future studies may address these limitations by extending the dataset, incorporating meta-analysis techniques to improve robustness, exploring industry-specific dynamics, and employing longitudinal as well as qualitative or mixed-method approaches to capture deeper and more nuanced insights into digital leadership phenomena.

The results of this study can be applied in practical organizational settings, particularly for companies aiming to accelerate digital transformation while ensuring long-term sustainability. Crucially, the findings of this review offer highly specific, actionable implications tailored for Small and Medium Enterprises (SMEs), which often navigate digital transformation under strict resource constraints. First, drawing from empirical evidence in diverse SME contexts, leaders must pivot away from top-down technological mandates and instead adopt a "data-driven and consultative" management style. Actionably, SME owners should focus on consultatively building the intellectual capital of their existing workforce by involving employees in technology selection and implementation, which has proven to directly boost both digital maturity and financial performance.

Second, SME management must strategically prioritize the cultivation of a digital organizational culture over massive capital expenditure on hardware. For resource-constrained SMEs, digital transformational leadership acts as the vital bridge that aligns a company's overarching digital strategy with its day-to-day culture. Therefore, practical recommendations for SME leaders include: (1) establishing open, psychologically safe feedback loops that encourage bottom-up digital

innovation (job crafting); (2) investing in targeted digital upskilling and continuous learning environments rather than sweeping software procurement; and (3) explicitly linking daily digital operational tasks to the firm's broader ESG and sustainability targets to foster employee affective commitment. Ultimately, policymakers and practitioners can adopt these insights to design leadership development programs that empower SMEs to achieve competitive advantage, operational resilience, and sustainable growth without requiring enterprise-level budgets.

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