



Transformational Leadership in the Digital Business Environment: A Systematic Literature Review of Innovation Capability, Management Accounting Systems, and Sustainable Firm Performance

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Abstract: The rapid advancement of digital technologies has fundamentally transformed organizational leadership, innovation, and strategic management practices. This study conducts a qualitative Systematic Literature Review (SLR) to synthesize existing evidence on the relationships among transformational leadership, innovation capability, management accounting systems (MAS), and sustainable firm performance in the digital business environment. Following the PRISMA 2020 guidelines, peer reviewed articles published in internationally recognized journals were systematically identified, screened, and synthesized. The review reveals that transformational leadership contributes to sustainable firm performance primarily through strengthening innovation capability and promoting the strategic use of management accounting systems rather than through direct effects. Innovation capability enhances organizational adaptability, knowledge sharing, and value creation, while advanced MAS supports strategic decision making and organizational control. The findings further indicate that integrating transformational leadership, digital transformation, innovation capability, and strategic management accounting enables organizations to achieve long-term competitiveness and sustainability. This review provides theoretical insights and practical implications for future leadership and digital business research.

Keywords: Transformational Leadership; Digital Business Environment; Innovation Capability; Management Accounting Systems; Sustainable Firm Performance.

1. Introduction

The rapid advancement of digital technologies has fundamentally transformed the competitive landscape, compelling organizations to rethink their leadership approaches, organizational capabilities, and management systems. The emergence of artificial intelligence, big data analytics, cloud computing, digital platforms, and automation has accelerated digital transformation across industries, creating unprecedented opportunities as well as significant organizational challenges. In this dynamic environment, firms are expected not only to achieve superior financial performance but also to create sustainable value by balancing economic, environmental, and social objectives. Consequently, transformational leadership has become increasingly important because it enables organizations to navigate uncertainty, encourage innovation, and build organizational resilience in digitally driven business ecosystems (Sainger, 2018; Deng et al., 2023).

Transformational leadership refers to a leadership style that inspires employees to exceed expected performance by articulating a compelling vision, promoting intellectual stimulation, providing individualized consideration, and serving as charismatic role models (Bass & Bass, 2008; Judge & Piccolo, 2004). Unlike transactional leadership, transformational leaders motivate employees to embrace organizational change, develop creative solutions, and pursue continuous learning, all of which are essential in highly competitive digital environments (Yukl, 2008; Hoch et al., 2018). Numerous empirical studies have consistently demonstrated that transformational leadership positively influences employee commitment, organizational citizenship behavior, innovation, knowledge sharing, and organizational learning, ultimately

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contributing to organizational effectiveness (Buil et al., 2019; Hilton et al., 2023; Keskes et al., 2018). Effective corporate governance and sustainable leadership will help a company perform much better (Kusnanto, E., 2022).

Despite this extensive body of literature, the relationship between transformational leadership and firm performance remains inconclusive. While many studies report a positive direct relationship (Nguyen et al., 2023; Jensen et al., 2020), others suggest that transformational leadership contributes to organizational performance primarily through indirect mechanisms involving organizational capabilities and management practices (Chen et al., 2019; Tran et al., 2025). These inconsistent findings indicate that leadership alone may not be sufficient to generate sustainable competitive advantage. Rather, organizational resources and capabilities must transform leadership influence into measurable business outcomes, consistent with the Resource-Based Theory (RBT), which argues that valuable, rare, inimitable, and organizationally embedded resources determine long-term competitive advantage (Varadarajan, 2023). A positive relationship between transformational leadership, job satisfaction, and organizational citizenship behavior human capital (Djap, W. et al., 2022).

Among the organizational capabilities receiving increasing scholarly attention, innovation capability has emerged as one of the most critical determinants of sustainable firm performance. Innovation capability represents an organization's ability to continuously generate, adopt, and implement new products, services, processes, and business models in response to changing market conditions (Saunila, 2020). In digital business environments characterized by technological disruption and rapidly changing customer expectations, firms with superior innovation capability are better positioned to adapt, compete, and sustain long-term growth (Migdadi, 2022). Previous research has demonstrated that transformational leadership significantly enhances innovation capability by encouraging knowledge sharing, creativity, organizational learning, and psychological empowerment among employees (Lei et al., 2020; García-Morales et al., 2012; Jia et al., 2018). Performance management systems are able to provide a framework to support various changes and drive innovation within a company culture (Sugiharti, T., 2022).

Innovation capability, however, cannot function effectively without appropriate organizational systems that facilitate strategic decision-making and performance evaluation. In this context, Management Accounting Systems (MAS) have evolved from traditional financial reporting tools into strategic information systems that support planning, control, performance measurement, risk management, and innovation management (Chenhall & Moers, 2015). Modern MAS integrates financial and non financial information, enabling organizations to respond rapidly to environmental uncertainty while supporting strategic decision making in digital business contexts (Hadid & Al-Sayed, 2021). Digital technologies have further enhanced MAS by enabling real-time analytics, predictive modeling, and integrated business intelligence, thereby strengthening organizational agility and competitiveness (Imjai et al., 2023).

The strategic role of MAS has attracted growing academic interest because organizations increasingly rely on high-quality management information to support innovation and organizational performance. Research suggests that transformational leaders encourage greater utilization of MAS by promoting information sharing, strategic alignment, and organizational learning (Nguyen et al., 2017; Abu Afifa & Nguyen, 2023). Furthermore, MAS facilitates innovation implementation by providing managers with accurate performance information, resource allocation mechanisms, and strategic feedback that improve organizational effectiveness (Pedroso & Gomes, 2020; Pasch, 2019). Consequently, MAS is increasingly recognized as an essential organizational capability that translates leadership vision into sustainable organizational outcomes.

Recent empirical evidence has further emphasized the importance of integrating transformational leadership, innovation capability, and MAS into a unified organizational framework. Tran, Chau, and Pham (2025) provided one of the most comprehensive examinations of these relationships by investigating firms operating in Vietnam, an emerging transition economy. Their findings revealed that transformational leadership does not directly improve firm performance; instead, its influence operates indirectly through innovation capability and management accounting systems usage. This study represents one of the first empirical investigations demonstrating a sequential mediation mechanism linking transformational leadership, innovation capability, MAS utilization, and organizational performance within a digital business environment. These findings challenge the traditional assumption that leadership directly determines organizational success and instead emphasize the importance of organizational capabilities as mediating mechanisms (Tran et al., 2025).

Although previous empirical studies have examined individual relationships among transformational leadership, innovation capability, management accounting systems, and firm performance, the existing literature remains fragmented. Most studies focus on isolated relationships, such as leadership and innovation (Lei et al., 2021), leadership and organizational performance (Hilton et al., 2023), leadership and MAS (Abu Afifa & Nguyen, 2023), or MAS and organizational performance (Pedroso et al., 2020). Comparatively few studies comprehensively synthesize how these constructs interact simultaneously within digitally transforming organizations while incorporating sustainability perspectives. Moreover, existing reviews often overlook recent developments related to digital transformation, sustainable business performance, and strategic management accounting integration.

The concept of sustainable firm performance has also evolved beyond traditional financial indicators. Contemporary organizations are increasingly evaluated according to their environmental, social, governance (ESG), innovation, resilience, and long term value creation performance. Sustainable firm performance therefore requires organizations to integrate leadership capability, innovation capability, digital technologies, and strategic management systems into coherent organizational strategies that support long-term competitiveness (Ojra et al., 2021). Transformational leaders play an essential role in fostering organizational cultures that encourage continuous innovation, ethical decision-making, stakeholder collaboration, and digital adaptation all critical components of sustainable organizational success.

Given these developments, a comprehensive Systematic Literature Review (SLR) is necessary to consolidate existing knowledge, identify emerging research trends, evaluate theoretical perspectives, and uncover research gaps concerning transformational leadership in digital business environments. Unlike narrative reviews, the SLR methodology provides a transparent, rigorous, and replicable approach to synthesizing evidence from high-quality scholarly publications, thereby improving the reliability of research conclusions and identifying future research opportunities.

Therefore, this study aims to systematically review the existing literature concerning the role of transformational leadership in enhancing sustainable firm performance through innovation capability and management accounting systems within digital business environments. Specifically, this review seeks to (1) synthesize current theoretical and empirical evidence regarding transformational leadership and sustainable organizational performance; (2) examine the mediating roles of innovation capability and management accounting systems; (3) identify dominant theoretical frameworks, methodological approaches, and emerging research themes; and (4) propose future research directions that contribute to the advancement of leadership, strategic management accounting, digital transformation, and sustainable business research. By integrating findings across multiple disciplines, this systematic literature review is expected to provide a comprehensive understanding of how transformational leadership can create sustainable organizational value in the era of digital business transformation.

2. Literature Review

The increasing complexity of the digital business environment has significantly transformed organizational leadership practices and strategic decision-making processes. Digital technologies such as artificial intelligence, cloud computing, big data analytics, blockchain, and the Internet of Things have fundamentally changed how organizations compete, innovate, and create sustainable value. These technological developments require leaders to possess not only technical understanding but also the ability to inspire organizational change, encourage innovation, and establish adaptive management systems capable of responding to rapidly changing business environments (Sainger, 2018; Deng et al., 2023). Consequently, transformational leadership has emerged as one of the most influential leadership approaches for organizations undergoing digital transformation.

Transformational leadership is characterized by leaders' ability to motivate followers through inspirational vision, intellectual stimulation, individualized consideration, and idealized influence. Bass and Bass (2008) argue that transformational leaders encourage employees to exceed organizational expectations by promoting creativity, continuous learning, and organizational commitment. Similarly, Judge and Piccolo (2004), through their meta-analysis, concluded that transformational leadership consistently demonstrates stronger relationships with employee satisfaction, organizational commitment, and performance compared to transactional leadership. More recently, Deng et al. (2023) reaffirmed that

transformational leadership remains one of the most empirically supported leadership theories for improving organizational effectiveness across various industrial contexts, particularly under conditions of uncertainty and technological disruption.

Within digital business environments, transformational leadership becomes increasingly important because organizational success depends heavily on knowledge creation, innovation capability, and continuous adaptation. Sainger (2018) explains that digital leaders must act as change agents capable of fostering digital culture, encouraging experimentation, and integrating emerging technologies into business strategies. Similarly, Jensen, Potočník, and Chaudhry (2020) found that CEO transformational leadership positively influences firm performance by strengthening organizational adaptability and strategic flexibility. Their mixed-methods study demonstrated that transformational leadership contributes not only to financial outcomes but also to long-term organizational resilience.

Although transformational leadership has been widely associated with superior organizational performance, empirical findings remain inconsistent regarding its direct effect on firm performance. Nguyen et al. (2023) reported that transformational leadership positively influences organizational culture and organizational performance within emerging economies, suggesting that leaders create supportive work environments that enhance employee productivity and organizational effectiveness. Hilton et al. (2023) similarly found that transformational leadership improves organizational performance indirectly through increased employee job satisfaction. These findings imply that leadership effectiveness frequently depends on mediating organizational mechanisms rather than direct causal relationships.

This perspective is further supported by Tran, Chau, and Pham (2025), whose recent study represents one of the most comprehensive investigations of transformational leadership within the context of digital business organizations. Using Partial Least Squares Structural Equation Modeling (PLS-SEM) on Vietnamese firms, they demonstrated that transformational leadership does not directly improve firm performance. Instead, innovation capability and management accounting systems (MAS) usage fully mediate this relationship. Their findings indicate that leadership primarily functions by developing organizational capabilities that subsequently enhance sustainable business performance. This study substantially extends previous leadership research by integrating innovation capability and management accounting systems into a single causal framework, thereby providing new evidence supporting the Resource Based Theory (RBT).

Innovation capability has become a central organizational resource in today's knowledge-driven economy. According to Saunila (2020), innovation capability refers to an organization's capacity to continuously develop, implement, and commercialize new products, services, processes, and business models. Organizations possessing strong innovation capability are more likely to adapt successfully to environmental uncertainty while maintaining sustainable competitive advantages. Migdadi (2022) further demonstrated that innovation capability significantly improves organizational performance through effective knowledge management processes and organizational learning mechanisms.

Numerous empirical studies suggest that transformational leadership substantially enhances innovation capability. García-Morales, Jiménez-Barrionuevo, and Gutiérrez-Gutiérrez (2012) found that transformational leaders promote organizational learning, which subsequently increases innovation performance and organizational effectiveness. Lei, Leungkhamma, and Le (2020) similarly demonstrated that employees' psychological capital mediates the relationship between transformational leadership and innovation capability. Their findings indicate that transformational leaders encourage employee confidence, resilience, optimism, and creativity, ultimately fostering innovation within organizations. Likewise, Lei, Gui, and Le (2021) reported that transformational leadership promotes frugal innovation through tacit and explicit knowledge sharing, highlighting the importance of collaborative knowledge creation in digital organizations.

Innovation capability alone, however, is insufficient unless organizations possess effective management systems capable of transforming innovative ideas into measurable organizational outcomes. In this regard, Management Accounting Systems (MAS) have evolved from traditional cost accounting functions into strategic decision-support systems that facilitate planning, organizational control, innovation management, and performance evaluation (Chenhall & Moers, 2015). Contemporary MAS increasingly incorporates digital technologies that enable real-time information processing, predictive analytics, integrated dashboards, and strategic performance monitoring, thereby enhancing managerial decision-making quality (Hadid & Al-Sayed, 2021).

The literature consistently demonstrates that transformational leadership positively influences the utilization of management accounting systems. Nguyen et al. (2017) found that transformational leadership improves managerial performance by encouraging interactive use of management control systems. Abu Afifa and Nguyen (2023) further revealed that transformational leadership increases managers' willingness to utilize management accounting information for strategic decision-making, particularly under conditions involving organizational risk-taking and uncertainty. These findings suggest that transformational leaders actively create organizational cultures that encourage evidence-based decision-making supported by high-quality accounting information.

Furthermore, management accounting systems significantly contribute to innovation implementation and sustainable organizational performance. Pedroso and Gomes (2020) proposed that effective MAS provides multidimensional performance measurement that supports strategic planning and organizational competitiveness. Similarly, Pedroso, Gomes, and Yasin (2020) concluded that sophisticated management accounting systems improve organizational competitive performance by integrating financial and non-financial information into managerial decision-making processes. Pasch (2019) also emphasized that management accountants play an increasingly strategic role in facilitating innovation by providing relevant information for strategic investments and innovation management.

Recent studies have increasingly highlighted the importance of integrating digital competencies into management accounting practices. Imjai, Aujirapongpan, and Mahadi (2023) demonstrated that digital competency combined with management accounting capability significantly enhances competitive performance among microenterprises operating within open innovation ecosystems. Likewise, Hassan and Maelah (2023) argued that digital inclusion substantially improves the usefulness of management accounting information for SMEs, enabling firms to respond more effectively to environmental changes and market uncertainty.

The concept of sustainable firm performance has also evolved considerably over recent decades. Contemporary organizations are evaluated not only based on financial performance but also according to innovation, organizational resilience, environmental sustainability, stakeholder satisfaction, and long-term value creation. Resource Based Theory suggests that sustainable competitive advantage originates from valuable organizational resources and capabilities that competitors cannot easily imitate (Varadarajan, 2023). Within this theoretical perspective, transformational leadership, innovation capability, and management accounting systems represent strategic organizational resources that collectively contribute to sustainable organizational performance.

Despite considerable empirical evidence examining these constructs individually, the literature remains fragmented regarding their integrated relationships within digital business environments. Many previous studies focus exclusively on transformational leadership and organizational performance (Hilton et al., 2023; Jensen et al., 2020), transformational leadership and innovation capability (Lei et al., 2020), or management accounting systems and organizational performance (Pedroso et al., 2020). Comparatively fewer studies simultaneously investigate how transformational leadership strengthens innovation capability, promotes management accounting systems utilization, and ultimately improves sustainable firm performance within digitally transforming organizations. Tran et al. (2025) addressed part of this research gap by demonstrating the sequential mediating roles of innovation capability and MAS usage. Nevertheless, further synthesis remains necessary because empirical findings continue to vary across countries, industries, organizational sizes, and technological contexts.

Accordingly, this systematic literature review integrates previous empirical findings concerning transformational leadership, innovation capability, management accounting systems, and sustainable firm performance to develop a comprehensive understanding of their interrelationships within digital business environments. By synthesizing evidence from recent high-quality studies, this review seeks to identify dominant theoretical perspectives, emerging research themes, methodological developments, and future research opportunities that can advance leadership, strategic management accounting, and digital transformation research while contributing to sustainable organizational performance.

3. Method

This study employed a qualitative Systematic Literature Review (SLR) approach to synthesize and critically evaluate the existing body of knowledge regarding the relationships

among transformational leadership, innovation capability, management accounting systems (MAS), and sustainable firm performance in the digital business environment. Unlike traditional narrative reviews, a systematic literature review follows a transparent, structured, and reproducible process for identifying, selecting, evaluating, and synthesizing relevant scholarly evidence, thereby minimizing researcher bias while enhancing the reliability and validity of research findings (Page et al., 2021).

The review methodology was designed following the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA 2020) guidelines, which represent the current international standard for conducting and reporting systematic reviews. PRISMA 2020 provides a comprehensive framework consisting of four major phases identification, screening, eligibility assessment, and inclusion to ensure transparency and reproducibility throughout the review process (Page et al., 2021).

This research adopted a qualitative evidence synthesis design. Rather than statistically combining empirical findings through meta-analysis, the study focused on interpreting, comparing, and integrating theoretical perspectives and empirical evidence reported in previous studies. A qualitative SLR is particularly appropriate because the relationships among transformational leadership, innovation capability, management accounting systems, and sustainable firm performance have been investigated using diverse theoretical perspectives, research contexts, industrial sectors, and methodological approaches. Consequently, qualitative synthesis provides a richer understanding of conceptual development, emerging research trends, theoretical integration, and future research opportunities.

A comprehensive literature search was conducted using internationally recognized scientific databases to ensure that only high-quality academic publications were included. The primary databases. The databases were selected because they index peer-reviewed journals with high scientific credibility in the fields of management, accounting, leadership, innovation, and organizational studies.

The literature search employed combinations of keywords using Boolean operators (and, or), including: "transformational leadership", "digital leadership", "digital business", "innovation capability", "innovation capacity", "management accounting systems", "strategic management accounting", "digital transformation", "sustainable firm performance", "organizational performance", "sustainability", "competitive advantage". Various combinations of these keywords were used to maximize search sensitivity while maintaining relevance to the research objectives.

To maintain methodological rigor, explicit inclusion and exclusion criteria were established before the literature search. The inclusion criteria were as follows: Peer-reviewed journal articles published in English. Articles indexed in Scopus or Web of Science. Publications addressing transformational leadership, innovation capability, management accounting systems, digital transformation, or sustainable organizational performance. Empirical or conceptual studies published between 2015 and 2025, allowing the review to capture contemporary developments in digital business environments. Full-text articles accessible for detailed evaluation. The exclusion criteria included: Conference proceedings. Editorials. Book reviews. Theses and dissertations. Non-English publications. Duplicate records. Studies unrelated to leadership, innovation capability, management accounting, or organizational performance. These criteria ensured that the review incorporated only rigorous and relevant scientific evidence.

The study selection process followed the four PRISMA 2020 stages. The identification stage involved retrieving publications from the selected databases using predefined search strings. During the screening stage, duplicate records were removed, followed by title and abstract screening to eliminate irrelevant studies. The eligibility stage consisted of a full text assessment to determine whether each article satisfied all inclusion criteria.

Finally, the included stage consisted of the final sample of eligible studies used for qualitative synthesis. Throughout the screening process, each article was independently evaluated based on research objectives, theoretical relevance, methodological quality, and contribution to understanding transformational leadership within digital business environments (Page et al., 2021).

Data extraction was conducted systematically using a standardized coding framework developed specifically for this review. For each selected article, the following information was extracted: author(s), publication year, country, journal, research objective, theoretical framework, research methodology, sample characteristics, key variables, main findings, practical implications, research limitations. This structured extraction facilitated comparison

across studies and enabled the identification of recurring patterns, similarities, differences, and emerging research themes.

The methodological quality of the selected studies was evaluated by considering journal quality, research design, methodological transparency, theoretical contribution, and empirical rigor. Priority was given to articles published in high impact journals indexed in Scopus, ensuring that synthesized findings originated from reliable and scientifically robust evidence. Furthermore, studies employing rigorous empirical methodologies, including Structural Equation Modeling (SEM), Partial Least Squares Structural Equation Modeling (PLS-SEM), longitudinal analysis, mixed-methods research, and systematic literature reviews were considered particularly valuable due to their methodological robustness.

The collected literature was analyzed using thematic content analysis. This analytical approach enables researchers to identify recurring concepts, categorize research findings into coherent themes, compare theoretical perspectives, and construct an integrated understanding of the relationships among transformational leadership, innovation capability, management accounting systems, and sustainable firm performance.

The thematic analysis consisted of five sequential stages: familiarization with the selected literature. Open coding of important concepts. Categorization of related concepts into broader themes. Cross-study comparison and synthesis. Development of an integrated conceptual interpretation highlighting research trends, theoretical relationships, and future research directions.

The synthesis emphasized identifying the mechanisms through which transformational leadership contributes to sustainable organizational performance by strengthening innovation capability and encouraging the strategic use of management accounting systems in digitally transforming organizations.

To enhance the credibility of the review, methodological triangulation was applied through multiple databases, explicit inclusion criteria, standardized data extraction procedures, and transparent reporting based on PRISMA 2020 guidelines. The systematic review protocol ensured reproducibility by documenting each stage of article identification, selection, evaluation, and synthesis. Furthermore, only peer-reviewed publications from internationally recognized journals were included to strengthen the reliability and validity of the synthesized evidence.

Overall, this methodological approach provides a rigorous and comprehensive foundation for understanding how transformational leadership interacts with innovation capability and management accounting systems to improve sustainable firm performance in increasingly digitalized business environments.

4. Results and Discussion

The systematic literature review reveals that research on transformational leadership in the digital business environment has expanded considerably during the last decade, particularly after the acceleration of digital transformation initiatives worldwide. The reviewed studies consistently indicate that transformational leadership is no longer viewed merely as an interpersonal leadership style but as a strategic organizational capability that enables firms to adapt to technological disruption, strengthen innovation capability, optimize management accounting systems (MAS), and achieve sustainable organizational performance (Sainger, 2018; Deng et al., 2023).

Transformational Leadership as a Strategic Driver of Digital Business. One of the dominant findings emerging from the reviewed literature is that transformational leadership serves as the primary catalyst for successful digital transformation. Organizations operating in dynamic digital environments require leaders capable of articulating a compelling digital vision, encouraging continuous learning, promoting collaboration, and facilitating organizational adaptability.

Recent systematic reviews confirm that transformational leadership positively influences organizational innovation, digital capability, organizational agility, and firm performance across different industrial sectors. The majority of empirical studies reviewed report positive relationships between transformational leadership and organizational outcomes, although the magnitude of these relationships varies depending on contextual and organizational factors.

Jensen, Potočník, and Chaudhry (2020) demonstrated that CEO transformational leadership improves strategic adaptability and long-term firm performance, while Nguyen et al. (2023) found that transformational leadership strengthens organizational culture, which subsequently enhances organizational performance. Hilton et al. (2023) further reported that

employee job satisfaction partially mediates this relationship, indicating that leadership influences organizational outcomes indirectly through human capital development.

Innovation Capability as the Primary Mediating Mechanism. A second major finding concerns the critical role of innovation capability. Across the reviewed studies, innovation capability consistently emerged as one of the strongest mediators linking transformational leadership to organizational performance.

Transformational leaders stimulate creativity by encouraging knowledge sharing, employee empowerment, experimentation, and organizational learning. Consequently, organizations become more capable of introducing new products, redesigning business processes, and responding rapidly to changing customer expectations.

Lei, Leaungkhamma, and Le (2020) found that employees' psychological capital mediates the influence of transformational leadership on innovation capability. García-Morales et al. (2012) similarly concluded that organizational learning significantly strengthens innovation performance under transformational leadership. Migdadi (2022) further demonstrated that knowledge management processes substantially improve innovation capability, which subsequently enhances organizational productivity and competitiveness.

These findings are consistent with the Resource-Based Theory, suggesting that innovation capability represents an intangible organizational resource that is valuable, difficult to imitate, and capable of generating sustainable competitive advantage.

Strategic Role of Management Accounting Systems. Another important finding concerns the evolving role of Management Accounting Systems (MAS). Traditionally, MAS primarily supported financial reporting and operational control. However, the reviewed studies indicate that MAS has evolved into a strategic management information system supporting organizational innovation, digital transformation, strategic planning, and performance evaluation.

Hadid and Al-Sayed (2021) argued that modern MAS integrates financial and non-financial information, allowing managers to make evidence-based strategic decisions. Pedroso and Gomes (2020) demonstrated that multidimensional management accounting systems significantly improve SME competitiveness through better strategic planning and organizational control.

The literature further indicates that transformational leadership positively influences the utilization of management accounting information. Abu Afifa and Nguyen (2023) reported that transformational leadership encourages managers to rely more extensively on MAS information during strategic decision-making. Likewise, Nguyen et al. (2017) showed that interactive management control systems significantly improve managerial performance when supported by transformational leadership.

Digital technologies further strengthen MAS capabilities by enabling real-time reporting, predictive analytics, artificial intelligence, business intelligence dashboards, and integrated enterprise systems. Consequently, MAS increasingly functions not only as a control mechanism but also as an organizational capability supporting innovation and sustainable performance.

Integrated Relationship among Leadership, Innovation, MAS, and Sustainable Firm Performance. Perhaps the most significant finding emerging from this review concerns the integrated relationship among transformational leadership, innovation capability, MAS, and sustainable firm performance.

The most comprehensive empirical evidence is provided by Tran, Chau, and Pham (2025), who examined companies operating in Vietnam using Partial Least Squares Structural Equation Modeling (PLS-SEM). Contrary to traditional assumptions, their study found that transformational leadership does not directly influence firm performance. Instead, leadership exerts its influence indirectly through innovation capability and management accounting systems usage.

This finding substantially advances previous leadership literature because it demonstrates that organizational capabilities represent the actual mechanisms translating leadership into measurable organizational outcomes. Innovation capability facilitates organizational adaptability and value creation, while MAS enables strategic implementation and organizational control. Together, these capabilities strengthen sustainable firm performance.

The findings also complement previous studies by Chen et al. (2019), which reported that exploratory innovation mediates the relationship between CEO transformational leadership and organizational performance under environmental uncertainty. Similarly, Puni et al. (2022) found that innovative organizational climate significantly mediates the relationship between transformational leadership and firm performance.

Sustainable Firm Performance in the Digital Era. The review further demonstrates that organizational performance has evolved beyond traditional financial indicators. Sustainable firm performance increasingly incorporates financial performance, innovation performance, operational resilience, organizational learning, stakeholder satisfaction, environmental responsibility, and long-term competitive advantage.

Recent evidence suggests that organizations implementing transformational leadership together with digital transformation initiatives consistently achieve superior sustainability outcomes because they simultaneously improve operational efficiency, innovation capability, organizational agility, and strategic flexibility.

The reviewed literature also indicates that sustainable firm performance depends on organizational capabilities rather than leadership alone. Leadership establishes strategic direction, innovation capability generates organizational value, while management accounting systems provide decision-support information and performance monitoring. These complementary capabilities collectively determine sustainable organizational success.

Emerging Research Trends and Future Research Directions. Several emerging themes are evident across the reviewed literature. First, recent studies increasingly integrate transformational leadership with digital leadership, artificial intelligence, digital capability, organizational resilience, ESG performance, and sustainable innovation. Second, scholars are moving beyond direct-effect models toward more sophisticated frameworks involving mediation, moderation, and dynamic capability perspectives. Third, digital transformation has become an important contextual variable explaining how leadership influences organizational performance.

Despite these advances, important research gaps remain. Most empirical studies employ cross-sectional survey designs, limiting causal inference. Longitudinal and mixed-method research remains relatively scarce. In addition, most studies investigate innovation capability and management accounting systems separately rather than examining their simultaneous interaction within integrated digital business ecosystems. Comparative evidence across developed and emerging economies also remains limited.

Overall, this systematic review demonstrates that transformational leadership contributes to sustainable firm performance primarily through strengthening organizational innovation capability and promoting the strategic utilization of management accounting systems. In digitally transforming organizations, leadership alone is insufficient; sustainable competitive advantage emerges when visionary leadership is supported by organizational learning, innovation capability, digital technologies, and sophisticated management accounting systems. This integrated perspective provides a comprehensive theoretical foundation for future research on leadership, strategic management accounting, and sustainable digital transformation.

5. Conclusions

This systematic literature review synthesizes contemporary evidence on the relationships among transformational leadership, innovation capability, management accounting systems (MAS), and sustainable firm performance within the digital business environment. The review demonstrates that transformational leadership has evolved from a traditional leadership approach into a strategic organizational capability that enables firms to respond effectively to digital transformation, technological disruption, and increasingly dynamic competitive environments.

The findings indicate that transformational leadership does not consistently exert a direct influence on sustainable firm performance. Instead, its impact is primarily realized through organizational capabilities that translate leadership vision into superior organizational outcomes. Innovation capability emerged as one of the most significant mediating mechanisms, enabling organizations to enhance creativity, organizational learning, knowledge sharing, and continuous innovation. Firms possessing strong innovation capability are better positioned to adapt to rapidly changing market conditions, develop new products and services, improve operational efficiency, and maintain long-term competitive advantages.

The review also highlights the increasingly strategic role of management accounting systems in digitally transforming organizations. Contemporary MAS extends beyond traditional financial reporting by providing integrated financial and non-financial information, real-time analytics, strategic planning support, performance measurement, and decision-making capabilities. Transformational leaders foster organizational cultures that encourage

the effective utilization of management accounting information, thereby improving managerial decision quality and organizational adaptability.

Furthermore, the reviewed studies consistently support the proposition that sustainable firm performance is multidimensional, encompassing financial performance, innovation outcomes, organizational resilience, operational excellence, stakeholder satisfaction, environmental sustainability, and long-term value creation. Sustainable organizational success therefore depends not solely on leadership effectiveness but on the interaction between transformational leadership, innovation capability, and strategic management accounting systems within digitally enabled organizations.

From a theoretical perspective, the findings reinforce the Resource-Based Theory and Dynamic Capabilities Theory by demonstrating that transformational leadership creates valuable organizational capabilities that are difficult for competitors to imitate. Innovation capability and management accounting systems function as strategic organizational resources that strengthen sustainable competitive advantage by facilitating organizational learning, knowledge integration, strategic decision-making, and continuous adaptation.

Practically, the review suggests that organizational leaders should invest not only in leadership development but also in strengthening innovation capability, digital competencies, and advanced management accounting systems. Organizations seeking sustainable performance in the digital era should integrate transformational leadership practices with digital transformation strategies, innovation management, and data-driven decision-support systems. Such integration enables organizations to achieve superior organizational performance while remaining resilient in increasingly uncertain business environments.

Overall, this systematic literature review contributes to the growing body of knowledge by providing a comprehensive synthesis of empirical evidence concerning transformational leadership in the digital business environment. It offers an integrated conceptual understanding of how leadership, innovation capability, and management accounting systems jointly contribute to sustainable firm performance and provides valuable directions for future academic research and managerial practice.

6. Limitations

Although this systematic literature review provides a comprehensive synthesis of previous studies, several limitations should be acknowledged. First, this review includes only peer-reviewed journal articles published in English and indexed primarily in international databases. Consequently, potentially relevant studies published in other languages, regional journals, conference proceedings, books, or dissertations were excluded, which may limit the comprehensiveness of the reviewed evidence.

Second, the reviewed studies employ diverse theoretical frameworks, research methodologies, industrial contexts, organizational sizes, and geographical settings. Such heterogeneity limits direct comparison among empirical findings and may explain inconsistencies regarding the strength and significance of relationships among transformational leadership, innovation capability, management accounting systems, and sustainable firm performance.

Third, the majority of empirical studies included in this review rely on cross-sectional survey designs. While these studies provide valuable empirical evidence, they offer limited insights into causal relationships and the dynamic evolution of leadership and organizational capabilities over time. Longitudinal studies remain relatively limited within this research domain.

Fourth, although this review integrates transformational leadership, innovation capability, management accounting systems, and sustainable firm performance into a unified conceptual framework, several potentially important contextual variables receive limited attention in the existing literature. These include artificial intelligence adoption, digital organizational culture, digital capability, environmental uncertainty, ESG implementation, organizational resilience, and platform ecosystem dynamics, all of which may influence the effectiveness of transformational leadership in digital environments.

Finally, the rapid evolution of digital technologies suggests that organizational practices continue to change at an unprecedented pace. Emerging technologies such as generative artificial intelligence, machine learning, blockchain, digital twins, and advanced business analytics are likely to reshape leadership practices and management accounting systems in

ways that remain insufficiently explored. Therefore, future research should employ longitudinal, mixed-method, and cross-country comparative designs to develop a more comprehensive understanding of how transformational leadership interacts with emerging digital technologies to enhance innovation capability, management accounting systems, and sustainable firm performance across different organizational contexts.

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