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Digital transformation and innovation management: A systematic literature review

Syafri Naldi[1*], Ryndian Gusty[2], Fatma Saqdiah[3]
[1, 3] Politeknik Negeri Batam, Batam, Indonesia
[2] Politeknik Negeri Medan, Medan, Indonesia

Abstract
Digital transformation has become a strategic driver that significantly influences organizational sustainability through changes in technology, business models, and innovation management. This study aims to examine the relationship between digital transformation and innovation management by employing a Systematic Literature Review (SLR) method. A total of 20 articles published between 2020 and 2025 were analyzed to identify trends, thematic focuses, and methodological gaps. The findings reveal seven dominant themes: digital business model innovation, digital strategy and organizational effectiveness, data-driven innovation and entrepreneurship, innovation management systems and tools, open innovation and ecosystems, entrepreneurship and digital innovation, and agile innovation and organizational adaptability. The study highlights that the literature remains dominated by conceptual and review-based research, with a limited number of empirical and quantitative analyses. This indicates the need for further research that explores practical applications and organizational contexts. The conclusion emphasizes the importance of integrating digital strategies with innovation management to achieve sustainable competitive advantage. The practical implication suggests that organizations should strengthen their innovation culture, organizational agility, and technology adoption. The theoretical implication contributes by mapping thematic trends and identifying gaps that may serve as a foundation for future research and theory development.
Keywords: Digital Transformation, Innovation Management, Systematic Literature Review

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***Corresponding Author**:
syafrinaldi@polibatam.ac.id

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INTRODUCTION

The development of digital technology has brought fundamental changes to the way organizations operate and create value, both in the business and academic sectors. The shift from the industrial era to the digital era is marked by increased product connectivity, technology integration, and changes in business models that have a broad impact on society and organizations (Grimaldi et al., 2025; Lin, 2024). In this context, digital transformation has become a critical strategy for addressing disruption, enhancing competitiveness, and ensuring organizational sustainability amid the growing complexity of the business environment (Khalaf Alafi, 2024; Tulungen et al., 2022).

Digital transformation not only involves the adoption of technologies such as big data, cloud computing, and predictive analytics, but also requires organizations to manage innovation systematically in order to align with long-term goals (Vial, 2019). On the other hand, innovation management plays a crucial role in helping organizations redesign their structures, business processes, and strategies to effectively respond to the challenges and opportunities arising from digitalization. Therefore, the integration between digital transformation and innovation management has become a strategic issue increasingly recognized by both practitioners and academics.

Although literature on digital transformation and innovation continues to grow, empirical and quantitative studies remain limited. Most previous research has focused on conceptual studies and literature reviews (Amamou, 2025; Rubio-Andrés et al., 2024). This creates a research gap, particularly in understanding how digital transformation is actually implemented within organizations and how innovation management can support the success of digital adaptation. Therefore, research is needed that not only maps literature trends but also identifies opportunities for more applied research.

This study offers novelty by conducting a Systematic Literature Review (SLR) of 20 scientific articles published between 2020 and 2025. The study focuses on the relationship between digital transformation and innovation management, while identifying key themes, development trends, and methodological gaps in the existing literature. Academically, this research contributes to strengthening the conceptual foundation of the field of digital transformation and innovation, while practically, the research results can serve as a reference for organizations in developing innovation-based digital strategies to enhance competitive advantage.

Theoretical Background: Digital Transformation in the Perspective of Innovation Management

Digital transformation (DT) has become a multidimensional phenomenon involving the integration of technology, organizational restructuring, and business model shifts. Vial (2019) defines DT as a process to enhance organizational capabilities through the fundamental use of digital technology, not merely the digitization of data. As such, DT is viewed as an adaptive strategy that enables organizations to respond to dynamic and disruptive changes in the business environment.

Previous studies have shown that digital technologies such as big data, cloud computing, the Internet of Things (IoT), and artificial intelligence (AI) serve as catalysts for business process change and the creation of new value (Chen et al., 2025; Fitzgerald et al., 2013). However, the adoption of technology alone does not guarantee the success of transformation; organizational capabilities in managing innovation are required to ensure that the benefits of technology are integrated into long-term strategies and operations (Zhu, 2024).

In this case, innovation management plays a central role. (Matt et al., 2015) emphasize that innovation is not only the final product, but also a process that involves searching for ideas, testing, implementation, and evaluation. Wheelen et al. (2012) even highlight four stages of

innovation management: environmental monitoring, idea formulation, implementation, and continuous evaluation. With this approach, organizations can integrate digital technology into their business strategies in a more systematic manner.

However, the literature still shows contradictions. Some studies focus on conceptual frameworks (Stoiber et al., 2023; Trischler & Li-Ying, 2023), while empirical and quantitative studies are relatively scarce (Amamou, 2025). This creates a research gap regarding how organizations actually implement digital innovation in real-world contexts. Additionally, some studies tend to emphasize technological aspects but fail to explore organizational culture, leadership, and human resources as key determinants of transformation success (Han et al., 2024; Rubio-Andrés et al., 2024).

From the perspective of innovation management theory, the success of DT is not only determined by technology adoption, but also by the organization's ability to build an innovative culture and adaptive structures (Brynjolfsson & Hitt, 2000; Magistretti & Trabucchi, 2025). Therefore, this study uses a Systematic Literature Review (SLR) approach to identify how digital transformation and innovation management interact in various contexts, while also identifying patterns, gaps, and new research opportunities.

METHOD

A systematic review can be understood as a comprehensive summary of the results of major studies compiled using specific methods and replicable in nature (Greenhalgh, 1997). This approach has a number of advantages, including reducing potential bias, increasing the reliability of results, and providing accuracy in concluding findings. In the context of this study, the systematic literature review approach was used to explore the relationship between the use of digital technology and the implementation of innovation management. The literature screening process was carried out in several stages, as shown in Figure 1, where each stage was designed to narrow down the number of articles based on predetermined inclusion criteria.

Stage 1: Initial literature search in May 2025 in the SpringerLink database. The use of the SpringerLink database in this study was based on considerations of accessibility, reputation, and relevance. SpringerLink provides internationally recognized journals in the fields of management, business, and innovation, making it representative in capturing the current state of research on digital transformation and innovation management. To identify articles related to the subjects of digital transformation and innovation management, the following search terms were used in the database search: “Digital Transformation” AND “Innovation Management.”

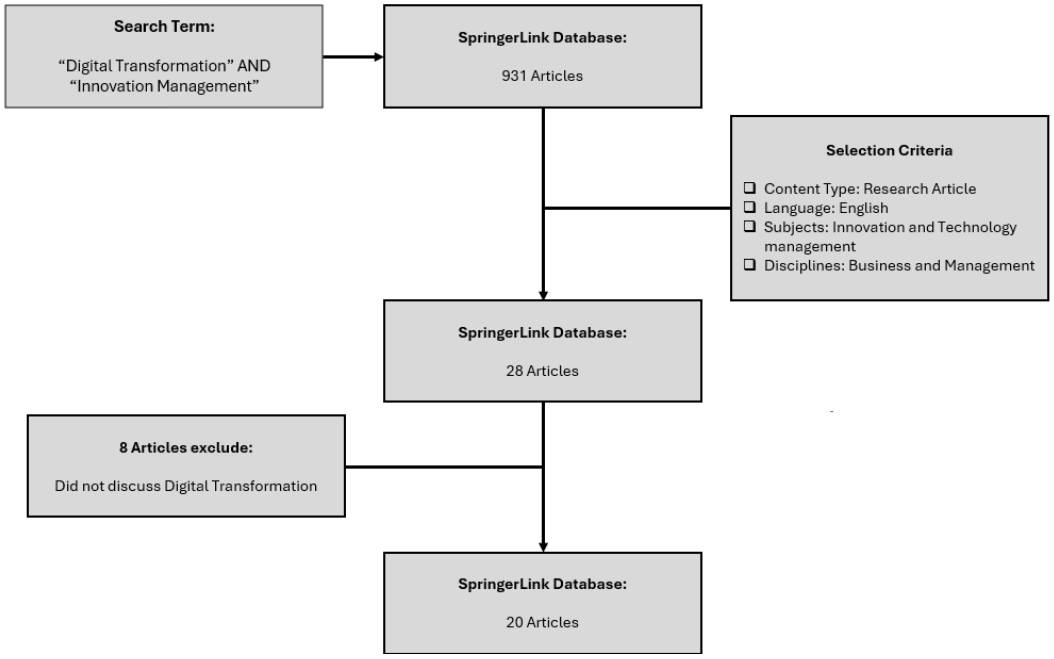

Figure 1. Stages of the systematic search process

Stage 2: At this stage, only articles written in English in the fields of Business and Management were included. The initial search yielded 28 potentially relevant articles.

Stage 3: The 28 selected articles were analyzed to determine the list of relevant articles. Eight articles were excluded from the sample as they did not align with the research subject. Ultimately, 20 articles were selected as relevant and included for the systematic analysis.

The thematic analysis was conducted in several stages. First, each article that met the inclusion criteria was thoroughly reviewed to identify key issues. Second, initial open coding was performed manually using a categorization table to highlight concepts, variables, and research foci. Third, the coded data were compared and organized through axial coding, allowing the emergence of consistent thematic patterns. Finally, these themes were synthesized into seven major categories that reflect the dominant directions of prior research. This approach enhances transparency and increases the replicability of the review

RESULTS AND DISCUSSION

Result

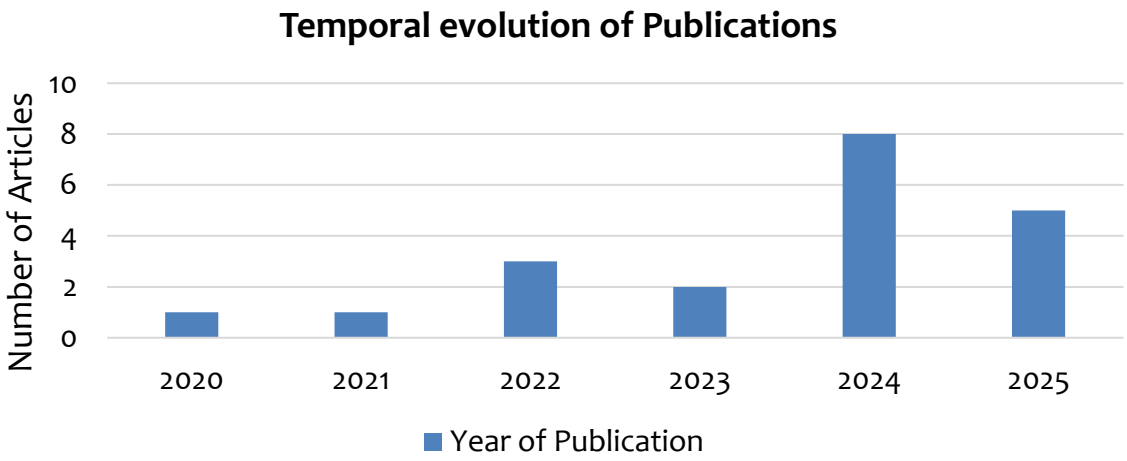

Figure 2. Temporal evolution of publications

Based on the results of a search and analysis of 20 scientific articles obtained from the SpringerLink database, a significant increase was found in the number of publications discussing the topics of digital transformation and innovation management over the past five years. The distribution of publications shows that in 2020 and 2021, there was only one article relevant to this topic in each year. This number began to increase in 2022 with three publications, and rose again in 2023 with two publications. The peak in publications occurred in 2024 with eight articles, followed by 2025 with five articles.

These findings reflect that the issues of digital transformation and innovation management have gained widespread attention from academics, especially in the last two years. The sharp increase in the number of publications after 2022 can be attributed to the acceleration of digital technology adoption that has occurred globally, especially after the COVID-19 pandemic, which has driven major changes in organizational business and operational models. Overall, 13 out of 20 articles (65%) were published in the last two years (2024–2025), indicating that this topic is a highly relevant and evolving area of research.

This distribution also provides a strong basis for assessing that the literature analyzed in this study is up-to-date, thus representing the latest dynamics in the scientific discourse on digitalization and innovation in various industrial sectors.

Table 1. List of Journals

No.	Journal Name / Publisher	Number of Articles
1	*Springer Science and Business Media*	11
2	*Springer*	4
3	*Springer Science and Business Media LLC*	3
4	*Institute for Ionics*	1
5	*Springer Nature*	1

The analysis of the 20 articles obtained shows that most of the publications come from journals published by the Springer publishing group. Specifically, 11 articles (55%) were published by Springer Science and Business Media Deutschland GmbH, followed by Springer with 4 articles (20%), and Springer Science and Business Media LLC with 3 articles (15%). Meanwhile, the other two articles originated from the Institute for Ionics and Springer Nature, respectively.

Springer's dominance as the main publisher in literature related to digital transformation and innovation management shows that this topic is an important focus in various journals under the publisher's umbrella. This reflects the relevance and urgency of the topic in the academic realm and indicates that researchers globally are increasingly publishing their research findings in high-impact channels provided by Springer. Thus, the publications used as sources in this study can be considered to originate from reputable and credible journals in the fields of management, technology, and innovation.

Table 2. List of type of studies

No.	Type of Study	Number of Articles
1	Literature Review	8
2	Conceptual Paper	6
3	Empirical Study	3
4	Qualitative	2
5	Case Study	1
6	Quantitative	0

The most dominant study approach in the study of digital transformation and innovation management is Literature Review (including systematic review and integrative review). A total of 8 articles out of 20 reviewed articles adopted this approach. This shows that researchers are still trying to strengthen the theoretical basis and broaden conceptual understanding of digital transformation and innovation through synthesis of previous literature.

Conceptual Papers occupy the next position with 6 articles proposing new theoretical perspectives or ideas without empirical testing. Meanwhile, the number of empirical studies remains relatively low, with only 3 articles presenting real data from interviews, surveys, or observations. This reflects that studies on digital transformation and managerial innovation are still predominantly theoretical and exploratory in nature.

Furthermore, the Qualitative approach was only found in 2 articles, while the use of Case Studies appeared in only 1 article. Interestingly, none of the articles used the Quantitative or Mixed Methods approach. This indicates a research gap in more quantitative or mixed methodological aspects, as well as a lack of in-depth studies based on real organizational contexts (e.g., through comprehensive case studies).

Digital Transformation and Innovation Management: Thematic Groups

As part of efforts to gain a deeper understanding of the research landscape related to digital transformation and innovation management, a thematic analysis was conducted on 20 scientific articles selected through a Systematic Literature Review (SLR) approach. This analysis aimed to identify the main focus of research, scientific trends, and research gaps that could form the basis for further studies. Based on an examination of the abstracts, objectives, and main findings of each article, this study grouped the emerging topics into several central themes. These themes reflect the main directions of research and the aspects most frequently discussed in relation to the adoption of digital technology and innovation management across various organizational and industrial contexts. This thematic grouping not only helps map conceptual developments in the field but also provides an analytical framework for explaining the theoretical and practical contributions of each study.

1. Theme: Digital Business Model Innovation

The theme of Digital Business Model Innovation (DBMI) is one of the main focuses in the literature on digital transformation and innovation management. Based on a systematic review of three articles included in this theme, it can be concluded that DBMI is not only related to the adoption of digital technology, but also encompasses fundamental shifts in the logic of value creation, organizational structure, and strategic orientation of companies. The article by Magni et al. (2024) highlights the importance of the Responsible Business Model Innovation (RBMI) approach, which integrates principles of social responsibility, inclusivity, and reflective knowledge exchange, particularly in the context of Asian companies. This responsible business model innovation is grounded in stakeholder theory and the knowledge-based view, indicating that the success of DBMI depends on the extent to which organizations are able to respond to ethical and social needs in the innovation process.

Furthermore, Trischler and Li-Ying (2023) identified conceptual ambiguity in the definition of DBMI among academics. They proposed a new, clearer, and more comprehensive definition to strengthen the theoretical foundation of this field. DBMI is closely related to the dynamic capabilities of organizations and is part of a long-term strategy in facing digital transformation. Meanwhile, Stoiber et al. (2023) emphasize the role of ambidextrous organizational structures, which refer to a company's ability to explore new business models while continuing to exploit existing ones. This ambidextrous structure has proven effective in reducing barriers to the

implementation of disruptive business models that emerge due to the pressures of digital transformation.

2. Theme: Digital Strategy and Organizational Effectiveness

Digital transformation has prompted organizations to adopt strategies that can improve operational effectiveness and long-term performance. The theme of Digital Strategy and Organizational Effectiveness reveals how digital strategies are not only technological support tools, but also strategic forces that can improve organizational capabilities, particularly in terms of innovation, human resource efficiency, and market development. Based on findings from the article by RubioAndrés et al. (2024), digital transformation strategies have been proven to have a positive impact on three dimensions of organizational effectiveness—economic, human resources, and internationalization. Through an Input-Mediator-Output approach and SEM-PLS analysis of over 1,000 SMEs in Spain, this study found that corporate innovation serves as a crucial mediator in strengthening the relationship between digital strategy and organizational effectiveness. This means that a successful digital strategy is not merely about adopting technology but must also be accompanied by a culture and processes that foster internal innovation.

Furthermore, an empirical study by Amamou (2025) focusing on digital companies in Saudi Arabia highlights the important role of innovation-driven corporate culture in supporting corporate success. Cultural components such as participation in decision-making, reward systems, learning programs, and tolerance for failure contribute significantly to the success rate of digital companies. Logistic regression results indicate that organizations that cultivate an innovative culture have a greater chance of surviving and growing amid digital competition. The emphasis on human resource aspects expands the understanding that effective digital strategies require organizational culture support aligned with the spirit of innovation.

Meanwhile, Han et al. (2024) present a comprehensive bibliometric and content review of the literature on digital management in companies. By combining analyses from CSSCI journals and Web of Science, this study constructs a digital management framework based on the IPO (Input–Process–Output) model, encompassing foundational elements, management processes, and managerial effectiveness. Additionally, the article provides directions for future research, such as the need for regulation of digital technology misuse, cross-technology collaboration, and the development of platform-based digital ecosystem strategies. This study enriches the literature with a macro approach emphasizing the importance of alignment between digital strategies and structured managerial systems.

3. Theme: Data-Driven Innovation & Entrepreneurship

The theme of Data-Driven Innovation and Entrepreneurship highlights the central role of data and smart technology in driving the creation of entrepreneurial opportunities and knowledge-based innovation. Digital transformation has accelerated the use of data as a strategic resource for organizations, whether in decision-making processes, service innovation, or the development of new business models. Grimaldi et al. (2025) argue that the principle of data-driven management has become the foundation for the emergence of the concept of data-driven entrepreneurship. Through a constructivist grounded theory-based qualitative approach, this study produced a conceptual framework that explains how data drives the creation of entrepreneurial opportunities and various forms of innovation through the integration of cultural, human resource, and technological dimensions. The emphasis on knowledge management and data interpretation capabilities makes this approach relevant in the context of techno-entrepreneurship.

Furthermore, Schymanietz et al. (2022) developed an understanding of data-driven service innovation by emphasizing the importance of utilizing data in creating new services that add value for customers. This research combines a systematic literature review and expert interviews to develop a framework that includes attributes of data-driven service innovation, such as data-oriented culture, privacy, data access and ownership, and new revenue models. The study highlights that data-driven innovation requires organizations to build appropriate strategies and capabilities, including adaptation to the complexity and ethical challenges of data use.

Chen et al. (2025) demonstrate the contribution of smart technology, particularly artificial intelligence (AI), in driving quality productive forces through innovation. Using panel data from public companies in China and empirical analysis methods, this study finds that AI has a significant influence on improving corporate innovation capabilities. This effect is mediated by innovation-drivenness and moderated by the level of market competition and the availability of financing. These results reinforce the idea that the use of data and smart technology not only promotes efficiency but also becomes a source of growth in the productive quality of companies.

4. Theme: Innovation Management System & Tools

The development of digital transformation not only has strategic implications for business models and organizational culture, but also drives the need for effective innovation management systems and tools. The theme of Innovation Management System & Tools highlights the importance of technological tools, analytical methodologies, and collaborative approaches in systematically managing innovation in modern organizational environments. The article by Endres et al. (2022) examines the adoption of Innovation Management Software (IMS) in the context of entrepreneurial ecosystems, focusing on the features and services that influence the success of its implementation. The results of a survey of 199 innovation managers in Germany show that idea management features and update & upgrade services are crucial for increasing IMS adoption. However, surprisingly, additional consulting services actually reduce adoption interest, likely due to perceptions of added complexity or unexpected costs.

On the other hand, Chim-Miki et al. (2024) developed a theoretical framework on coopetition strategy in business cluster management through an integrative systematic literature review approach. They identified six important dimensions in intra-cluster coopetition and produced a two-level coding system from 486 elements of literature analyzed. This study provides a framework for understanding the dynamics of collaboration and competition among actors in innovation ecosystems and suggests new managerial approaches in the context of open-system-based clusters. Emphasis on social interactions and formal support structures is key to managing innovation in collaborative environments.

Meanwhile, Wulf (2020) uses a design science research approach to design an AHP (Analytic Hierarchy Process) hierarchy for managing omnichannel capabilities in B2C organizations. This study presents a hierarchy-based decision-making tool that can be used to evaluate and prioritize innovation projects across various service channels. The development of this AHP model was achieved through a qualitative research process involving case studies, in-depth interviews, and cross-data analysis. The results not only contribute theoretically to omnichannel management but also offer practical instruments for capability management in the digital age.

5. Theme: Open Innovation & Innovation Ecosystems

The Open Innovation & Innovation Ecosystems theme highlights how cross-organizational collaboration and ecosystem approaches are key factors in creating sustainable innovation, especially in the context of social issues, crises, and digital transitions. Bertello et al.

(2024) use a bibliometric and content analysis approach to analyze the development of open innovation literature over the past 12 years. This study identifies how open innovation practices have evolved in response to the shift toward a more digital and sustainable society. This research not only maps the knowledge structure in this field but also reveals a shift in topics from a focus on internal organizations to collaborative approaches involving various stakeholders. These findings show that open innovation practices are becoming more systemic and open to contributions from outside the company.

Meanwhile, Cortese et al. (2024) offer a more contextual approach by focusing on transformative social innovation in developing country ecosystems. Using a fuzzy-set qualitative comparative analysis approach to 18 social projects in the coffee sector, they identify combinations of characteristics such as stakeholder empowerment, local knowledge exchange, and cooperative strategies as key prerequisites for transformative social innovation. This study emphasizes the importance of relational and participatory perspectives, replacing firm-centric approaches with collaborative, equitable approaches. These findings expand the scope of open innovation to the social and grassroots community domains, enriching the definition of innovation ecosystems with social and inclusive dimensions.

Brem et al. (2024) add a new perspective by examining crisis innovation as the innovation system's response to external shocks (exogenous shocks) such as pandemics. Through a systematic literature review and natural language processing-based topic analysis, they developed a taxonomy of crisis innovation across various scales—from social and financial crises to digital and organizational disruptions. The study found that innovation ecosystems tend to open up to open and collaborative approaches in crisis situations, but lack the durable network structures needed to sustain long-term transformation. Therefore, strengthening the structure and governance of ecosystems is crucial to ensuring the sustainability of innovations emerging from crises.

6. Theme: Entrepreneurship & Digital Innovation

The Entrepreneurship & Digital Innovation theme examines the role of entrepreneurship as a key driver in creating and disseminating digital innovation in the era of technological transformation. In this context, entrepreneurship is not only understood as the process of creating new businesses, but also as an important mechanism in transforming ideas into digital solutions that have market and social value. Felicetti et al. (2024), through a systematic literature review of 185 scientific articles, identified six main topics in the relationship between digital innovation and entrepreneurship, namely: startup collaboration networks, business model innovation, digital platforms, digital ventures, digital entrepreneur profiles, and digital innovation ecosystems. This study shows that digital innovation in entrepreneurship has highly dynamic and multidimensional characteristics, requiring a cross-disciplinary approach and more contextual theories. Additionally, this article suggests future research directions emphasizing multi-level analysis, interdisciplinary approaches, and the development of specialized theoretical frameworks to explain the dynamics of digital innovation within the entrepreneurial context.

On the other hand, Schulte (Schulte, 2022) raises a different perspective by integrating the paradox theory approach into the study of Strategic Management of Innovation (SMI). He highlights the inherent tension between the need to achieve short-term performance and long-term innovation, particularly in the context of entrepreneurial organizations operating in a high-pressure digital environment. This research highlights various paradoxes that emerge at multiple levels—interorganizational, corporate, project, and individual—reflecting the real challenges in balancing the exploitation of current value and future exploration. This approach offers new insights into the fact that digital innovation in entrepreneurship is not merely about technology

or strategy, but also involves value conflicts, time constraints, and resource limitations that require a well-developed conceptual framework for addressing them.

7. Theme: Agile Innovation & Organizational Adaptability

The theme of Agile Innovation & Organizational Adaptability highlights the importance of organizational agility in facing the dynamics and uncertainties of the business environment triggered by digital transformation. In the digital age, an organization's ability to innovate quickly and adaptively is a key factor in maintaining competitive advantage. Nadkarni & Prügl (2021) present a systematic review of 58 studies on digital transformation, developing thematic maps that identify two main dimensions: technology and actors. The study emphasizes that the digital transformation process cannot be separated from the speed of change, work culture, and the role of middle management—factors that have often been overlooked in previous literature. Their findings highlight the need to strengthen a managerial perspective that is not only technical but also strategic and organizational in managing disruptive innovation.

Magistretti & Trabucchi (2025) complement this perspective by reviewing the evolution of agile approaches to innovation, using contingency theory and configuration. Using a bibliometric and text mining approach, they distinguish two main perspectives in the agile literature: agile-as-a-tool (flexibility in projects) and agile-as-a-culture (organizational values and mindset). This study shows that to be truly adaptive, organizations need to integrate agility not only in practice but also throughout their work culture. Additionally, the research emphasizes the importance of a holistic approach that combines structure, values, and technology in the agile innovation process.

Meanwhile, Alaassar et al. (2025) contribute through bibliometric and content analysis of digital innovation literature, highlighting how knowledge structures, academic social networks, and key concepts in digital innovation have evolved. Their analysis results show an urgent need to understand the managerial issues organizations face in managing digital innovation, as well as to develop a new research agenda to address the challenges of organizational adaptation to rapid digital change.

Discussion

Integration of Digital Transformation & Innovation Management Themes

A systematic analysis of 20 articles shows that the digital transformation process in organizations takes place through a structured flow, starting from external triggers to achieving success in the digital economy era. The initial stage begins with the organization's awareness of digital transformation as a strategic necessity. This transformation is driven by the emergence and development of digital technologies such as artificial intelligence (AI), the Internet of Things (IoT), cloud computing, and big data analytics, which form the main foundation for change.

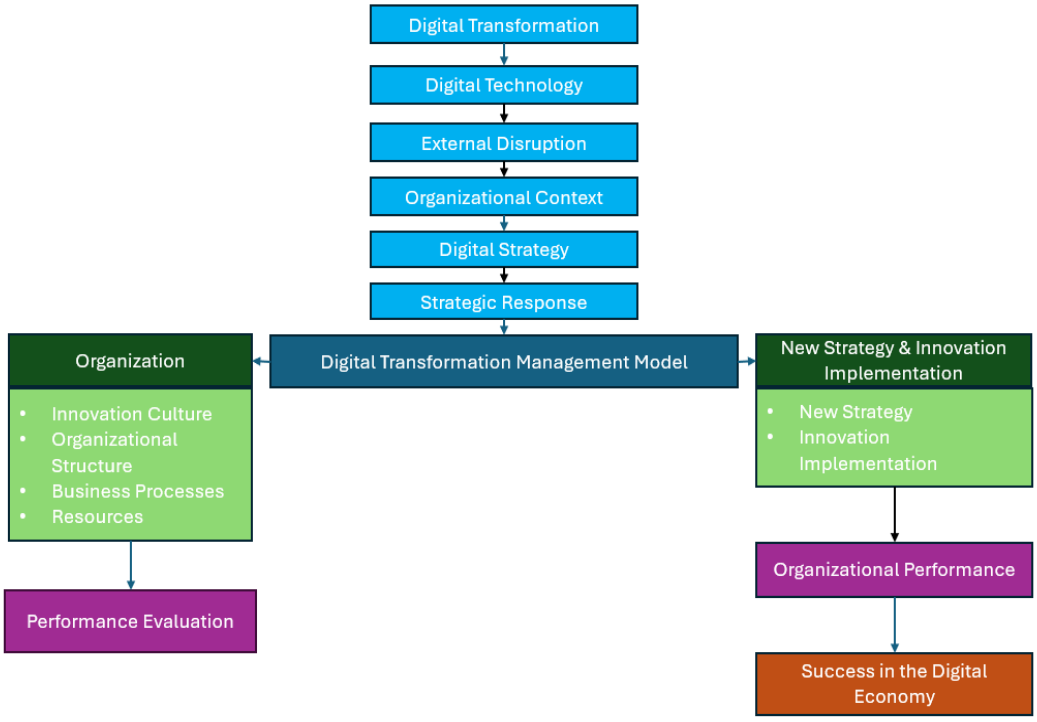

Figure 3. Integration of Digital Transformation & Innovation Management Themes

These technological advances have triggered external disruption in the form of shifts in consumer behavior, the emergence of new business models, and increased competition. This disruption has prompted organizations to conduct comprehensive contextual analyses of internal and external conditions, including opportunities, threats, strengths, and weaknesses. The results of these analyses then shape digital strategies that serve as the organization's strategic response to the changing business environment.

The digital strategy is then translated into strategic responses in the form of specific programs, policies, or initiatives. At this stage, organizations build a digital transformation management model as a framework that integrates strategic vision with implementation plans. This model divides the direction of development into two main paths. The first track is organizational infrastructure, which includes fostering an innovation culture, adjusting organizational structure, improving business processes, and optimizing resources to support technology adoption. The second track is innovation implementation, which includes formulating new strategies and executing digital-based innovations.

These two paths are interrelated and contribute to organizational performance, which reflects the company's performance after implementing a digital strategy. Performance evaluation is carried out continuously, both as part of monitoring the organizational context and to measure the success of implementation. This process ultimately guides the organization toward success in the digital economy era, characterized by competitive advantage, improved operational efficiency, sustainable innovation, and the creation of value for stakeholders.

This integrative framework not only maps the relationships between the key elements of digital transformation but also demonstrates that organizational success in the digital era depends on the integration of strategic response, internal readiness, and the effectiveness of innovation implementation.

CONCLUSION

Conclusion

This study aims to examine the relationship between digital transformation and innovation management through a Systematic Literature Review approach of 20 scientific articles published between 2020 and 2025. The findings reveal that digital transformation is not only about technology adoption but also involves organizational restructuring, strengthening innovation culture, and aligning business strategies with the demands of the digital era. This study successfully enriches theoretical understanding by mapping seven main themes: digital business model innovation, digital strategy and organizational effectiveness, data-driven innovation & entrepreneurship, innovation management systems & tools, open innovation & innovation ecosystems, entrepreneurship & digital innovation, and agile innovation & organizational adaptability.

Limitations

This study has several limitations. First, the SLR only involved 20 articles from the SpringerLink database, which may restrict literature coverage and exclude relevant studies from other sources. Second, most of the analyzed articles are conceptual studies and literature reviews, so the findings may not fully capture empirical realities. Third, the study has not addressed contextual aspects such as industry sector differences, organizational size, or cultural factors that influence the success of digital transformation. To address these limitations, future research should broaden the database scope and employ more diverse empirical approaches. Quantitative methods such as Structural Equation Modeling (SEM-PLS) could test relationships among variables on a larger scale, while longitudinal case studies may provide deeper insights into organizational dynamics. Experimental or mixed-methods designs would also help capture the complex interactions between digital strategy, innovation, and organizational performance.

Research Implications

In practical terms, this research provides insights for organizations in designing digital transformation strategies that are more integrated with innovation management. Organizations need to emphasize the development of an innovation culture, strengthening organizational agility, and leveraging smart technology to create sustainable competitive advantage. The research findings can also serve as a reference for policymakers to support the adoption of digital technology through policies that encourage open innovation and cross-sector collaboration.

Theoretically, the findings of this study not only map the current trends in the literature but also contribute to the development of innovation management theories, particularly within the framework of dynamic capabilities, which emphasizes the ability of organizations to adapt to digital environmental changes. In addition, the resource-based view is reinforced through the insight that digital technology adoption must be supported by internal capabilities and an innovative culture. Thus, this study extends theoretical foundations in explaining the interaction between digital strategy, organizational structure, and innovation outcomes.

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