Digital Leadership in Asian Countries, Antecendents and Consequences: A Systematic Literature Review

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A B S T R A C T

The advent of the digital era has heightened the awareness of companies and researchers in Asian countries regarding the significance of digital leadership. As interest in this field continues to grow, existing literature remains relatively limited, signaling a need for further exploration. Using a systematic literature review (SLR) methodology, this study analyzed 24 relevant articles sourced from the Scopus database to examine the evolution of digital leadership within the Asian context. The findings reveal that digital leadership is conceptualized through characteristics such as creativity and visionary thinking, and is primarily driven by digital engagement and learning culture. Furthermore, this study establishes a comprehensive framework identifying key consequences at the organizational (e.g., dynamic capability, performance) and individual levels (e.g., innovative work behavior), while highlighting techno-stress and market orientation as significant moderators. These findings contribute to a deeper understanding of digital leadership and provide practical implications for organizations seeking to strengthen digital transformation, leadership capabilities, innovation, and sustainable competitiveness in increasingly dynamic business environments across Asia.

INTRODUCTION

The rapid growth of the global digital economy has led to structural changes in the economy and technology in every country, including Asian countries (Sichoongwe, 2024). Companies themselves need to undergo digital transformation by updating their management and operational systems to suit the digital era (Lin, 2025). Various initiatives for change will require leaders as the key to driving transformation in the digital era (Karippur & Balaramachandran, 2022). Leaders who are suitable and adaptive to implementing digitalization technology are those who utilize digital leadership (Tigre et al., 2023).

Leaders with digital leadership combine their leadership skills with digital competencies, such as the ability to use digital technology (Sahut et al., 2021; Karakose & Tülübaş, 2023). Digital leadership competencies can influence employees to utilize digital technology and digitally transform the company (Benitez et al., 2022). Digital leadership capabilities also enable innovation within the company, which is important in today's digital era because it requires the involvement of technology development with an effective and sustainable approach (Erhan et al., 2022; Oberer & Erkollar, 2018).

Despite its growing importance, the academic literature surrounding digital leadership remains fragmented and relatively underdeveloped. Even though research on digital leadership itself has received increasing attention from researchers (Zeike et al., 2019), developments in digital leadership based on a review of the Scopus database (www.scopus.com) in total, from 2007 to 2025, using the keyword “Digital Leadership” OR “Digital Leader” OR “Virtual Leadership” amounted to 777 documents, which is a relatively small number. The limited number of research publications indicates a research gap regarding the underdeveloped theory of digital leadership (Jameson, 2022). The gap in theoretical development also arises because previous research equated digital leadership with e-leadership or technology leadership, leading to confusion in conceptual development (Lin, 2025; Saraih, 2022).

This theoretical gap is particularly problematic in the context of Asian countries, where unique economic and cultural dynamics shape organizational behavior. Asian countries are experiencing rapid economic development and need leaders with digital capabilities to maintain corporate competitiveness and sustainability (Karippur & Balaramachandran, 2022). The urgency of the role of digital leaders in the economic development of Asian countries is further supported by the increasing technological

advancements in Asia, particularly in East Asia, thereby requiring leaders who are experts in digitalization and strategy to support innovation and efficiency (Seo & Koek, 2012).

Another unique aspect of Asian countries compared to Western countries is the cultural factors influencing digital leadership, such as collectivism, the power distance between superiors and subordinates, and social relationships that differ from those in Western countries (Lam et al., 2012; Rowley & Ulrich, 2012). Asian countries themselves have a hierarchical culture where leaders tend to be more authoritarian and subordinates are more likely to follow all decisions made by leaders (Koo & Park, 2018). Therefore, leadership research focused on different cultural contexts may yield findings and interpretations that differ from those not.

. Therefore, this systematic literature review aims to comprehensively evaluate the current state of digital leadership specifically within Asian organizations. By synthesizing the existing research, this study bridges the literature gap and innovates by establishing a clear framework of the antecedents, mediators, moderators, and consequences of digital leadership in this unique cultural setting. The research questions in this study are as follows:

RQ1. What are the defining conceptual characteristics and antecedents of digital leadership within the context of Asian organizations?
RQ2. What are the consequences, mediators, and moderators that influence the outcomes of digital leadership in this context?

METHOD

This study adopted a Systematic Literature Review (SLR) approach to comprehensively discuss key knowledge on the researched topic (Tranfield et al., 2003). The SLR approach made it possible to answer key questions regarding the research framework, namely digital leadership in the digital era in the context of Asian countries. SLR was used in this study to provide an objective and comprehensive discussion of research developments and implementations related to digital leadership. The systematic and rigorous SLR procedure minimizes research bias, thereby enhancing the validity and reliability of the findings. SLR also enables the production of high-quality and relevant results aligned with the researcher's formulated discussion.

The steps in conducting SLR in this study utilize the PRISMA method, which includes identification, screening, eligibility, and finally identifying the articles used or included (Hijriyah et al., 2024). This approach ensures the development of a clear research protocol, comprehensive literature search through leading scientific databases, application of predetermined inclusion and exclusion criteria, assessment of the quality of identified studies, systematic data extraction, and synthesis and reporting of findings. Each step is carried out transparently and well-documented to ensure the traceability and reproducibility of the research process.

The SLR protocol design used in this study includes a systematic review process. Peer-reviewed articles related to digital leadership were searched using a scientific database, namely Scopus. Scopus is a scientific database that has more than 25,300 peer-reviewed journal titles and 12.5 million conference papers (Elsevier, 2024). This capability provides broad and comprehensive coverage in identifying studies on digital leadership for this research.

In this study, the following logical operators were used: “Digital Leadership” OR “Digital Leader” OR “Virtual Leadership.” Logical operators are used in Scopus database searches, known as Boolean. Boolean involves logical operators such as AND and OR to combine relevant keywords and synonyms, allowing researchers to narrow or broaden search results as needed. Furthermore, the search strategy was determined based on three main criteria: scope, search method, and search string. The scope of the search was limited to the title, abstract, and keywords of the article to ensure relevance to the research topic.

To ensure the synthesis directly answered the research questions, strict inclusion and exclusion criteria were established. The search was explicitly limited to the *Business, Management, and Accounting* subject area to exclude irrelevant contexts (e.g. purely technical computer science domains) and maintain a strict focus on corporate organizational behavior. Furthermore, the geographic scope was limited to Asian countries to isolate leadership dynamics within distinct cultural paradigms, such as high power distance and collectivism, which differ significantly from Western models. Finally, the selection was restricted to peer-reviewed journal articles to ensure the included literature met high standards of scientific rigor. Additionally, limiting the results to English-language publications facilitated a

standardized data extraction process, while the open-access criterion guaranteed full-text availability for comprehensive quality assessment

A structured assessment and data-extraction matrix was developed to systematically evaluate and record information from each identified study. The matrix captured bibliographic and publication characteristics, including authors, publication year, source title, DOI, Scopus quartile where available, document type, publication stage, and indexing source, as well as study characteristics such as research method, object, country, and open-access status. To assess relevance and support the synthesis, information from the abstract and author keywords was examined alongside the reported antecedents, outputs, and findings of each study. The extracted information was subsequently coded and synthesized to identify recurring patterns in the conceptualization, antecedents, outcomes, and other relationships associated with digital leadership in the Asian context.

This study used three processes in determining the primary studies used in the SLR, namely Identification, Screening, and Eligibility (Figure 1). The initial search conducted in the Scopus database identified 777 records related to digital leadership. The records were subsequently filtered using multiple database-level criteria, including subject area, publication language, document type, and other predefined search restrictions, which were applied simultaneously rather than as sequentially exclusive filters.

After applying these criteria concurrently, 79 records remained for further assessment. The remaining records were then assessed based on their relevance to the study context and topic, particularly whether the study was conducted in an Asian country and addressed digital leadership, resulting in 24 articles eligible for inclusion in the systematic literature review.

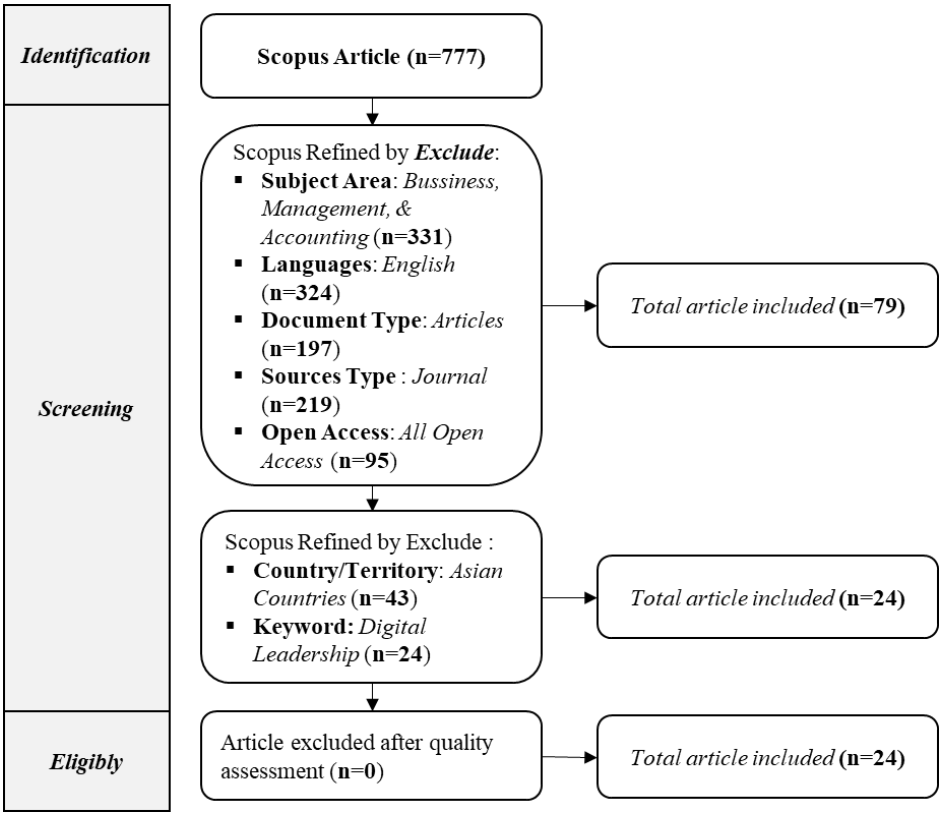


Figure 1. Flowchart of Search, Screening, and Study Selection

Table 1. List of Selected Journal Articles

No.	Title of the Article
1	A Conversation with ChatGPT about Digital Leadership and Technology Integration: Comparative Analysis Based on Human–AI Collaboration
2	Digital Leadership towards Performance Through Mediation of Organizational Commitment to E-commerce in Indonesia

3	Antecedents of Effective Digital Leadership of Enterprises in Asia Pacific
4	Digital leadership, business model innovation and organizational change: role of leader in steering digital transformation
5	Digital Leadership and Organizational Communication Toward Millennial Employees in a Televommunication Company
6	Digital job resources, digital engagement, digital leadership, and innovative work behaviour: a serial mediation model
7	The Role of Digital Leadership, Customer Orientation and Business Model Innovation for IoT Companies
8	Digital innovation drivers in retail banking: the role of leadership, culture, and technostress inhibitors
9	Unlocking the potential: the impact of digital leadership on firms' performance through digital transformation
10	Influences of industrial internet platform firms' ESG performance and digital leadership on user firms' innovation performance: The mediating role of inter-firm trust
11	Exploring digital agility and digital transformation leadership: A mixed method study
12	Digital workplace and organization performance: Moderating role of digital leadership capability
13	Examining the Effects of Digital Leadership Strategies on Enhancing Organizational Innovation Performance
14	Determinants of Digital Adoption Capability for Service Performance in Indonesian Hospitals: A Conceptual Model
15	Digital leadership role in developing business model innovation and customer experience orientation in industry 4.0
16	Dynamic capability: The effect of digital leadership on fostering innovation capability based on market orientation
17	The influence of digital leadership on innovation management based on dynamic capability: Market orientation as a moderator
18	Understanding digital public relations practices among exemplar school principals in Malaysian schools
19	Engaging the millennials at office: Tracking the antecedents of holistic work engagement
20	Digital leadership impacts on developing dynamic capability and strategic alliance based on market orientation
21	Impact of digital transformation on banking employee performance with self-efficacy as a mediator
22	The Effect of Digital Leadership and Organizational Support on Innovative Work Behavior: The Mediating Role of Emotional Intelligence
23	Contemporary communication conduit among exemplar school principals in Malaysian schools
24	Government digital initiatives and firm digital innovation: Evidence from China

Source: Data processed by the authors, 2025.

RESULT & DISCUSSION

Bibliometric Profile and Methodological Trends

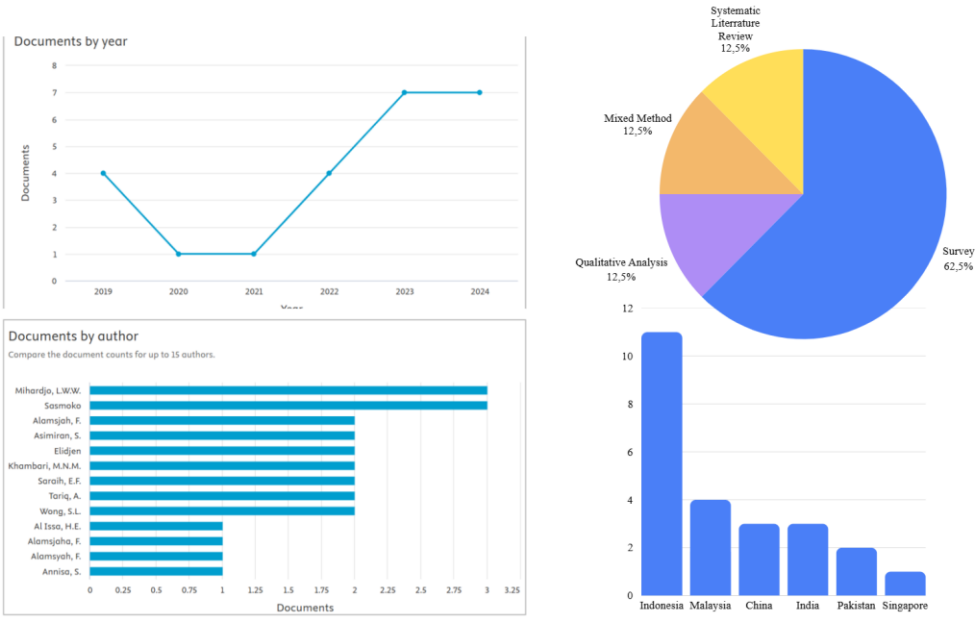


Figure 2. The Journal Articles' Bibliometric profile and Methodological Trends in Desriptive Data

Research on digital leadership in Asian organizations has grown considerably in recent years, particularly in 2023 and 2024. Much of this research has come from Southeast Asian countries, especially Indonesia and Malaysia, with scholars such as Mihardjo and Sasmoko contributing significantly to the growing body of literature. However, the existing studies remain scattered across 21 different journals, suggesting that a coherent theoretical discussion of digital leadership in the Asian context is still developing. In terms of methodology, most studies rely on quantitative survey approaches, accounting for 15 of the 24 studies reviewed. This dominance of quantitative methods highlights an opportunity for future qualitative research to provide deeper insights into how digital leadership is experienced and practiced within organizations.

The Development of Digital Leadership's Concept

The table 4. explains the definitions used by the literature in this systematic review study. The definitions of digital leadership from Zhu (2014) and Erhan et al. (2022) share similarities in defining digital leadership, emphasizing the inherent characteristics of a digital leader. Zhu (2014) explains that there are at least five characteristics possessed by leaders with digital leadership: thinker, visionary, creative, inquisitive, and digital knowledge. Erhan et al. (2022) explains that digital leadership involves communicative, collaborative, data-driven decision-making, and consumer-focused traits.

Other references also emphasize the characteristics of a leader to explain digital leadership, such as Toduk & Gande (2016): creativity, digital knowledge, visionary; also Oberer & Erkollar (2018): team-oriented, innovative, and cooperative. These characteristics are known to build the identity of a digital leader. There are several characteristics that frequently emerge, such as creativity, in-depth digital knowledge, and visionary. This indicates that current research trends on digital leadership in the Asian context define digital leadership as a set of characteristics inherent in a leader, namely creativity, visionary, and digital knowledge.

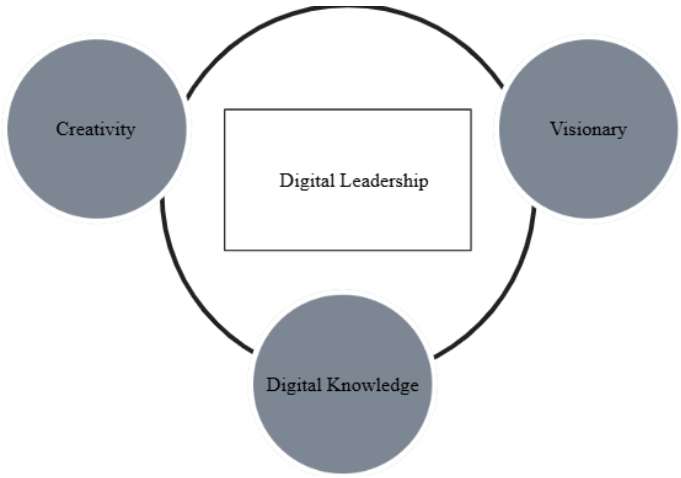


Figure 1. Characteristics of Digital Leadership in Asian Organization Perspective

Table 2. Definiton of Digital Leadership Based on the Primary Literatures

No.	Definition of Digital Leadership	Primary Articles
1	Digital leadership is a combination of leadership techniques and the utilization of technology (Sahut et al., 2021).	(Gunawan et al., 2023)
2	Digital leadership refers to leaders who focus on communication, collaboration, data-driven decision-making, and customer orientation. It also embodies a proactive and transformative leadership role in achieving organizational goals (Erhan et al., 2022).	(Annisa et al., 2024; Malik et al., 2025)
3	Digital leadership represents leaders who are digitally and innovation-oriented, characterized by agility, cooperation, and team orientation (Oberer & Erkollar, 2018).	(Widyaputri & Sary, 2022)
4	Digital leadership is the individual's ability to lead an organization by leveraging digital thinking to enhance decision-making, increase digital literacy, and ensure the achievement of organizational goals (Peng, 2022).	(Zia et al., 2024)
5	Digital leadership refers to individuals who demonstrate five key characteristics: critical thinking, visionary mindset, creativity, inquisitiveness, and deep digital knowledge (Zhu, 2014).	(Mihardjo et al., 2019b, 2019a)
6	Digital leaders are those who possess a clear and meaningful vision of digitalization processes and the ability to realize them (Larjovuori et al., 2016).	(Al Issa & Omar, 2024)
7	Digital leadership is defined as a leader's competence in managing employees' online activities, leading digital marketing efforts, solving problems, and making informed decisions (Borah et al., 2022).	(Mo et al., 2023)
8	Digital leadership involves the understanding, adoption, and application of emerging technologies (Lingyun Fang, 2023).	(Lingyun Fang, 2023)
9	Digital leadership comprises two main dimensions: digital attitude and leadership skills (Rudito & Sinaga, 2017).	(Saputra & Hutajulu, 2020)
10	Digital leadership is characterized by creativity, deep digital knowledge, extensive digital networks, and loyal participation through a compelling vision (Toduk & Gande, 2016).	(Wang et al., 2023)

Source: Data processed by the authors, 2025.

Antecedents and Consequences of Digital Leadership

A framework in Figure 4 explains the antecedents (preceding factors), moderator roles (weakening or strengthening relationships), and consequences of digital leadership. The framework was developed based on the researchers' review of the literature in this systematic review study.

The factors contributing to the emergence of digital leadership, as outlined in the framework, are digital engagement and learning culture. These two variables are known to facilitate the emergence of digital leadership within organizations in the Asian context. These variables can be identified at different levels, with digital engagement operating at the individual level, while learning culture is an organizational-level variable.

The consequences or outcomes of implementing digital leadership are comprehensively outlined in the framework above. The factors or variables influenced by digital leadership can be categorized into organizational and individual levels. At the organizational level, digital leadership has been proven to bring about the following factors: Organization Commitment, Dynamic Capability, and Organization Performance. Individual-level variables resulting from digital leadership include Self-Efficacy, Innovative Work Behavior, and Employee Performance.

The role of moderators is also explained in the framework above. The role of moderators refers to factors or variables that influence the impact of digital leadership on its consequences. This study identifies two factors that act as moderators in the influence of digital leadership. These two factors are Techno-Stress and Market Orientation.

Other factors that interact with digital leadership in influencing outcomes are also depicted in the framework above. These factors have an influence on the consequences of digital leadership. The variables are Employee Work-Life Balance and Managerial Digital Attention. Overall, the framework in Figure 4 provides a deep understanding of how Digital Leadership develops and how Digital Leadership impacts significant outcomes, both at the individual and organizational levels, as well as the components that moderate and interact with the effects of Digital Leadership.

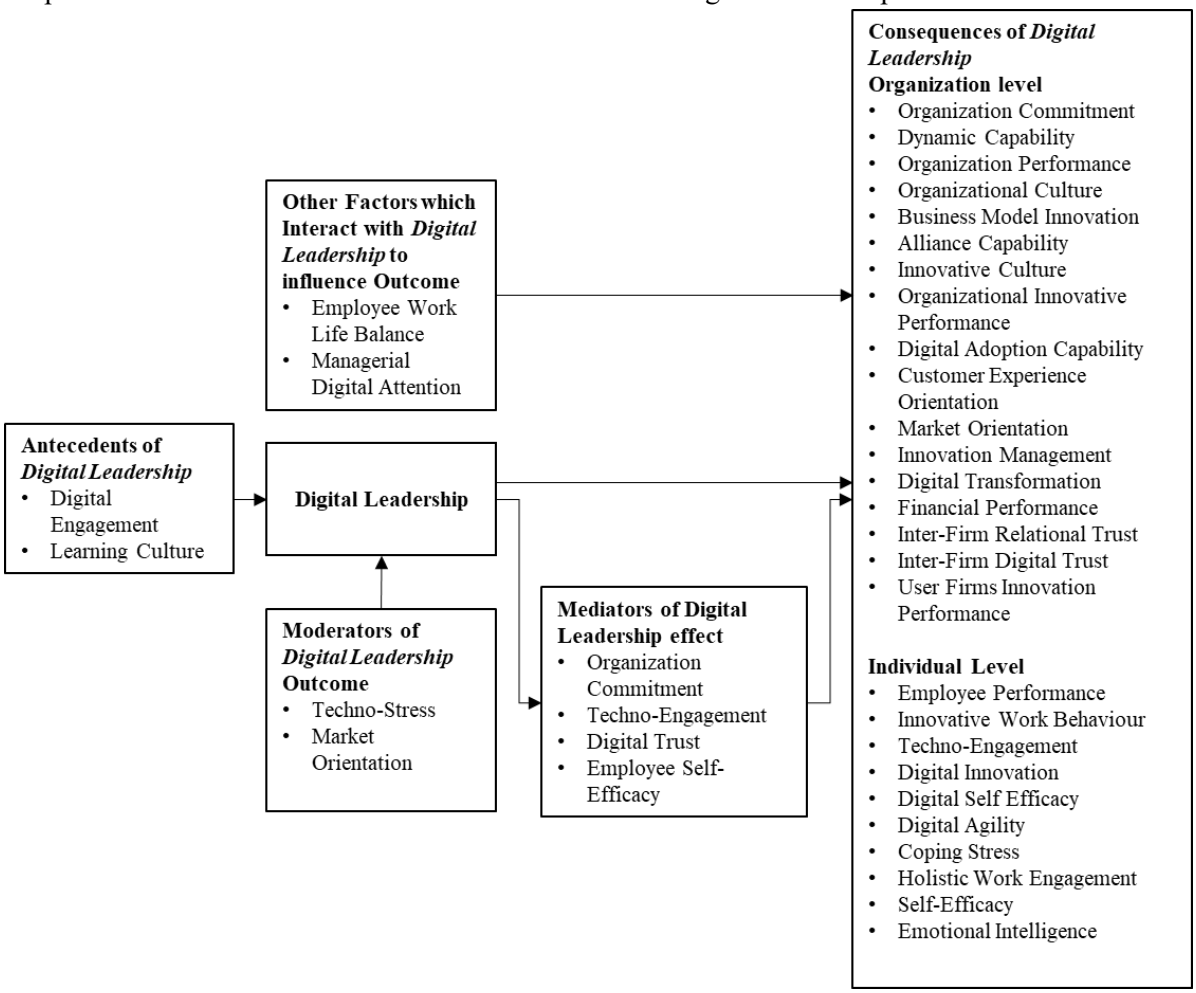


Figure 2. Antecedents and Consequences of Digital Leadership

CONCLUSIONS

This systematic literature review synthesized 24 articles to evaluate the conceptual development and implications of digital leadership within Asian organizations. Digital leadership, which is a leadership style that involves the digital competence of leaders, is known to have a real contribution to organizations or companies, both at the individual and organizational levels. The findings of this literature review can be used as a reference by other researchers in formulating digital leadership based on the perspective of Asian countries.

This SLR study resulted in a conceptual development of digital leadership in Asian countries. Digital leadership is dominated by an understanding of the characteristics of a leader who is able to think creatively, has a high level of digital understanding, and is visionary. By identifying these conceptual patterns, this study clarifies the fragmented definitions of digital leadership and grounds them specifically within the unique cultural and hierarchical contexts of Asian countries.

The primary theoretical contribution of this study is the formulation of a comprehensive framework mapping the antecedents, mediators, moderators, and consequences of digital leadership. The synthesis substantially provides an overview of digital leadership regarding triggering factors: digital engagement and learning culture, as well as the consequences that arise from the application of digital leadership, both at the individual level: innovative work behavior and employee performance, and at the organizational level: dynamic capability and digital transformation. Furthermore, identifying variables like techno-stress and market orientation as crucial moderators provides a foundational map for researchers to predict and test complex organizational relationships in future empirical studies.

The findings of this study have managerial implications for leaders, managers, and human resource managers in companies. These stakeholders can consider the findings of this study for application in the operations of their organizations or companies. The implementation of digital leadership in organizations enables the formation of organizations with better dynamic capabilities, improved company performance, and a more innovative workforce. The framework as a finding from this systematic literature review can be used as a map for leaders in understanding the integration of digital leadership in companies in the context of Asian countries.

Despite these contributions, the synthesis of the literature exposed several critical research gaps. There is a notable limitation regarding the variables explored as antecedents, indicating that future research must investigate a broader range of organizational drivers that trigger digital leadership. Additionally, the existing studies heavily rely on quantitative surveys, revealing a methodological gap that future researchers should address by employing qualitative approaches, such as case studies, critical incident technique (CIT), and grounded theory to explore the concept of digital leadership more deeply.

Additionally, this study is subject to certain methodological limitations, primarily its reliance on a single academic database (Scopus), which may have excluded relevant digital leadership studies indexed elsewhere. Furthermore, potential selection bias may arise from restricting the search to English-language, open-access literature. To address these constraints, future systematic reviews should expand database parameters to encompass a wider linguistic scope, ensuring an even more robust understanding of digital leadership as the digital era continues to evolve.

This systematic literature review successfully identified the potential of digital leadership to improve positive outcomes for companies in the Asian context, despite the limitations of this study. The application of digital leadership by organizations based on the Asian context can contribute to both employees and the organization as a whole. Practitioners and researchers need to continue developing the foundation of digital leadership science to produce more mature literature and practical implications in line with the development of the digital era.

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