

The Influence of Digital Leadership on Organizational Readiness in Facing Technological Disruption

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Abstract

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The rapid advancement of technology has driven disruption across nearly all industrial sectors, demanding organizations to be highly prepared in responding to change. This study aims to examine the role of digital leadership in enhancing organizational readiness to face technological disruption through a Systematic Literature Review (SLR) approach. This research identifies conceptual patterns, trends, and research gaps concerning the relationship between digital leadership and organizational readiness. The analysis reveals that digital leadership plays a crucial role in fostering a culture of innovation, driving structural transformation, and strengthening the adoption of strategic technologies. Visionary, collaborative, and adaptive digital leaders are able to communicate transformational visions, manage change, and facilitate continuous organizational learning. Flatter, project-based, and agile organizational structures are considered more responsive to change. This study recommends strengthening digital leadership capabilities as an integral part of organizational strategy. Future research is encouraged to explore empirical contexts across sectors and other contextual variables to deepen the understanding of the dynamics of digital leadership in organizational transformation.

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1. Introduction

The rapid advancement of technology over the past decade has caused disruption across nearly all industrial sectors. Emerging technologies such as Artificial Intelligence (AI), the Internet of Things (IoT), blockchain, and big data analytics have created new opportunities for growth and efficiency while also posing serious risks to organizations unable to adapt quickly. This disruption is multidimensional, affecting business models, operations, customer relations, and supply chains. In today's fully digital environment, the capacity of organizations to adapt has become a key factor in maintaining competitiveness (Zaki, 2019; Vaz, 2021; Zhen et al., 2021).

Organizations are thus under increasing pressure to achieve readiness both technologically and strategically, enabling them to respond to external shifts and manage internal change effectively (Damerji & Salimi, 2021; Fonseca et al., 2021). In this dynamic context, leadership plays a central role. Leadership is no longer only about managing teams or decision-making; it now requires navigating complex digital ecosystems (Rudito & Sinaga, 2017; Carboni et al., 2021). This has given rise to the concept of digital leadership: a leadership style that integrates digital technology into decision-making, communication, collaboration, and long-term vision. Digital leaders are expected not only to understand technological potential but also to facilitate and drive digital transformation throughout the organization. They must be visionary, adaptive, collaborative, and capable of building innovation-driven cultures.

Digital leadership is distinguished from traditional leadership in several ways. First, digital leaders demonstrate openness to experimentation and data-driven risk-taking, using technology to interpret market trends, identify opportunities, and develop strategies in real time. Second, they foster cross-functional collaboration by leveraging digital platforms to create synergy across organizational units. Third, they excel in managing change and motivating teams amid uncertainty. This style strengthens organizational resilience to both internal disruptions, such as cultural shifts, and external challenges, such as new digital competitors. Studies confirm that organizations led by strong digital leaders are better prepared to handle disruption (Rudito & Sinaga, 2017; Skog et al, 2018; Sousa & Rocha, 2019). Such organizations benefit from clear digital visions, flexible structures, and cultures responsive to continuous learning and innovation.

Moreover, digital leaders align business strategies with technological developments and promote digital literacy across all organizational levels. These abilities enable rapid responses to environmental changes and more accurate data-driven decision-making. Despite this, scholarly understanding of digital leadership's contribution to organizational readiness remains incomplete. Much of the literature is fragmented, often limited to sectoral or technical approaches. For instance, some studies emphasize how technology adoption improves operational efficiency but neglect leadership's role, while others explore cultural shifts without analyzing how digital leaders catalyze such processes.

This indicates that research rarely integrates leadership dimensions, organizational readiness, and technological dynamics into a unified perspective. The

lack of comprehensive exploration highlights the need for systematic review. Integrating insights from strategic management, digital transformation, leadership, and organizational readiness is essential for understanding how organizations can face disruptive technological change. For this reason, the Systematic Literature Review (SLR) approach is particularly appropriate. SLR enables researchers to identify, filter, and analyze literature in a structured and transparent manner, producing not only a broad overview of existing findings but also highlighting underexplored areas for future research. The present study aims to address this gap by mapping and analyzing literature on the relationship between digital leadership and organizational readiness in responding to technological disruption. By reviewing studies published across a defined time frame in leading databases, this research seeks to identify common patterns, conceptual frameworks, and emerging trends in the discourse.

The expected contribution is twofold. Theoretically, the study enriches understanding of how digital leadership strengthens preparedness in facing disruption. Practically, it provides guidance for leaders seeking to build digital capabilities within their organizations. This includes recommendations on competencies required of digital leaders, strategies for effective technology implementation, and methods to cultivate organizational cultures that support innovation and collaboration. By identifying the key factors influencing readiness, leaders can design more realistic and sustainable roadmaps for digital transformation, ensuring that organizations remain competitive in an environment defined by constant technological change.

2. Methods

This study employs a Systematic Literature Review (SLR) approach as the primary method to organize, evaluate, and synthesize scientific findings that explain the relationship between digital leadership and organizational readiness in responding to technological disruption. The choice of the SLR method is strategic, as it allows researchers to build a strong conceptual foundation by reviewing existing scholarship in a structured, transparent, and replicable manner. Unlike traditional literature reviews that often rely on narrative summaries, the SLR approach emphasizes rigor and objectivity, ensuring that the findings are comprehensive and reliable. It also enables the identification of thematic patterns, conceptual trends, and research gaps that have not yet been fully addressed in the literature (Shaffril et al., 2021).

Data collection for the review was conducted using two well-regarded academic databases, Scopus and Web of Science, which were selected because of their strong reputation for indexing high-quality peer-reviewed publications in business, management, and technology. These databases provide broad international coverage and ensure that only credible, academically recognized sources were included in the study. To capture the breadth of the topic, carefully chosen keywords were used, including digital leadership, organizational readiness, technological disruption, digital transformation, and adaptive organization. The use of multiple keywords ensured that the search process was both inclusive and focused on the dimensions most relevant to this research.

The review applied strict inclusion and exclusion criteria. Articles were included if they were published within the last five years, directly addressed digital leadership and organizational readiness, and employed clear, scientifically accountable methodologies. Conversely, studies outside this timeframe, those with weak methodological rigor, or those unrelated to the core research themes were excluded. This process ensured that only relevant and recent contributions formed the basis of analysis. Once the articles were identified, thematic coding was employed as the analytical technique. Through systematic coding, key themes and recurring subthemes were extracted, such as leadership competencies, organizational adaptability, and strategies for digital transformation. The insights derived from this process were synthesized into a conceptual framework that illustrates how digital leadership contributes to enhancing organizational readiness and resilience when facing change driven by technological disruption.

3. Results and Discussion

3.1. Digital Leadership as a Driver of a Culture of Change and Innovation

One of the key findings from this Systematic Literature Review (SLR) is the central role of digital leadership in shaping an organizational culture that is adaptive to change and innovation, particularly in the face of technological disruption. Digital leadership is not merely about technical proficiency in understanding advanced technologies; it also encompasses the leader's capacity to influence, inspire, and guide the organization through fundamental changes driven by technological advancements (Cortellazzo et al., 2019; Kupiek, 2021; Porfirio et al., 2021). Digital

leaders tend to possess specific characteristics that distinguish them from traditional leaders, such as openness to adopting new technologies, readiness to take calculated risks, and the ability to foster cross-functional and interdepartmental collaboration. These traits have been shown to contribute significantly to the development of an organizational culture that promotes innovation and continuous learning.

The literature indicates that when an innovative culture is deeply embedded within an organization, its readiness to respond to technological disruptions increases significantly. Organizations with such cultures typically have flatter structures, open communication systems, and a tolerance for failure as part of the learning process. Under effective digital leadership, values such as agility, adaptability to change, and the courage to experiment become internalized and appreciated norms among all members of the organization. This fosters a work environment that is not only capable of quickly adapting to change but also proactive in seizing new opportunities that emerge from technological developments. Digital leadership also plays a strategic role in communicating a comprehensive vision of digital transformation across all levels of the organization (Klein, 2020; Porfírio et al., 2021). This vision is not only crucial as a strategic guide but also serves as a tool to build collective awareness and align individual goals with organizational objectives.

Leaders who successfully communicate the digital vision effectively are more likely to drive the organization toward sustainable transformation. They do so not only through words but also through consistent actions and behavior, becoming role models who inspire employees to actively engage in the change process. In the context of implementing digital transformation, one of the biggest challenges faced

by organizations is resistance to change, whether from individuals or from entrenched systems. This is where digital leadership plays a crucial role in overcoming such barriers. Studies show that resistance to change can be significantly reduced when leaders are directly involved in the transformation process and demonstrate genuine commitment to the proposed changes. The active participation of leaders in every stage of transformation sends a strong message that change is an organizational priority and that every individual has an important role to play in achieving it.

According to Liu et al. (2018), digital leaders also act as facilitators of organizational learning. They foster a work environment that encourages the exploration of new ideas, the development of digital competencies, and experimentation without fear of failure. This approach not only enhances individual employee capabilities but also strengthens the organization's collective ability to generate innovative solutions. In many organizations, digital leaders also promote the adoption of technology to support data-driven decision-making, accelerate work processes, and improve operational efficiency and effectiveness. Effective digital leadership is also characterized by the ability to manage the diversity and complexity that arise from digital transformation. Digital technologies often introduce new ways of working, different business models, and more flexible organizational structures. In such conditions, digital leaders must be able to manage diverse interests, navigate uncertainty, and maintain organizational stability while continuing to drive innovation. They are also expected to possess high levels of empathy and strong

interpersonal communication skills to bridge the gap between digital-native and digital-immigrant generations in increasingly diverse workplaces.

Many studies have also found that the success of digital leadership in enhancing organizational readiness is not only determined by the individual qualities of the leader, but also by the presence of supportive organizational structures, incentive systems, and evaluation mechanisms aligned with digital transformation goals. Therefore, it is essential for organizations to create an ecosystem that supports digital leadership, from leadership training and development to the formulation of policies that encourage collaboration and innovation. Digital leadership acts as a catalyst in the digital transformation process and in improving organizational readiness to face technological disruption. This type of leadership not only provides strategic direction but also creates the psychological and structural conditions necessary for sustainable change. Consequently, investing in the development of digital leadership is a critical strategy that cannot be overlooked in building resilient and adaptive organizations. These findings offer a strong conceptual foundation for organizations to integrate digital leadership development into their comprehensive transformation strategies.

3.2. Digital Leadership in Building Adaptive Organizational Structures

Digital leadership plays a strategic role in shaping organizational structures that are adaptive and responsive to various forms of technological disruption. In an era marked by rapid digital innovation and global market complexity, organizations can no longer rely on rigid, hierarchical structures that are slow in decision-making. Such structures often fail to keep pace with the rapidly changing dynamics of

technology, consumer behavior, and industry competition. In this context, digital leadership emerges as a catalyst for change, encouraging organizations to shift toward flatter, more collaborative, and flexible models (Rudito & Sinaga, 2017). This model not only reduces excessive bureaucracy but also accelerates information flow, strengthens cross-functional collaboration, and enhances responsiveness to external changes. Digital leaders are not merely decision-makers but also facilitators who empower teams and individuals to innovate. They promote collaborative, project-based work principles, where agile work units are formed with tasks and roles that can be adapted to current needs and challenges.

In this approach, authority is no longer centralized but dynamically distributed to speed up processes and increase participation. Digital leadership fosters an organizational culture that embraces experimentation, learning from failure, and continuous iteration all of which are essential elements of an adaptive organizational structure. The literature reviewed in this study indicates that organizations led by individuals with strong digital competencies tend to transform their structures more quickly. They do not merely adopt technology as operational tools but integrate it into the core of their business strategies. For example, the use of Artificial Intelligence (AI) and big data is not only aimed at improving efficiency but also at promoting data-driven decision-making at all levels of the organization. Digital leaders encourage the use of these technologies not on an ad-hoc basis but as part of long-term strategic planning.

This highlights that successful technology integration within organizations is largely determined by the capacity of digital leadership to articulate a clear vision,

design supportive structures, and build systems that enable sustainable technology adoption. A key characteristic of effective digital leadership is the ability to build sustainable organizational learning systems (Do & Mai, 2020). In many cases, organizations fail to adopt new technologies not due to a lack of access, but because of inadequate human resource readiness to use them effectively. Digital leaders recognize the importance of investing in digital capability development, whether through internal training, re-skilling, or partnerships with external institutions. They actively cultivate a learning culture that supports skills enhancement across all organizational levels, ensuring that every individual feels involved in the digital transformation process. Furthermore, digital leaders promote the alignment of individual goals with organizational objectives, which indirectly boosts employee motivation and productivity.

Digital leadership also contributes to redesigning work structures to enhance organizational responsiveness (Dery et al., 2017). In traditional structures, silos between divisions often hinder the flow of information and cross-functional coordination. In contrast, digital leaders promote the formation of dynamic cross-functional teams that possess high autonomy in executing projects. These teams are oriented toward solutions and outcomes rather than positions or titles. As a result, the organizational structure becomes more fluid and adaptive, capable of responding to continuously evolving business needs. This type of organization is referred to as an ambidextrous organization one that can explore new opportunities while simultaneously exploiting existing capabilities. Furthermore, digital leaders play a vital role in creating structures that are not only internally adaptive but also capable

of building external networks. They develop collaborative ecosystems with business partners, startups, research institutions, and digital communities to strengthen the organization's innovation capacity. Such collaboration enables faster and more efficient access to technologies, talent, and new markets. In many cases, organizational structures are developed in a modular and platform-based manner, allowing them to absorb and scale external innovations. This represents a critical form of structural adaptation in the digital era.

Findings from this study highlight that digital leadership is essential not only in leveraging technology but also in shaping organizational structures that can adapt quickly and effectively to disruption. Digital leaders drive a paradigm shift in how organizations operate from hierarchical to collaborative and project-based models. They ensure that the organizational structure supports agility, continuous learning, strategic technology adoption, and the engagement of all stakeholders, both internal and external. By building adaptive organizational structures, digital leaders help organizations not only to survive but also to thrive amid the uncertainty and constant changes of the modern business landscape.

4. Conclusion

This study affirms that digital leadership plays a strategic role in enhancing organizational readiness to face increasingly complex technological disruptions. Based on a systematic review of the literature, it was found that digital leaders act as key drivers in shaping an adaptive and innovative organizational culture. They promote the renewal of values, mindsets, and work practices to foster openness to

change, risk-taking, and continuous learning. Additionally, digital leadership has been shown to effectively design organizational structures that are more flexible, collaborative, and project-based. Such structures enable organizations to accelerate decision-making, strengthen cross-functional collaboration, and improve responsiveness to technological changes in real-time.

Digital leaders function not only as decision-makers but also as transformation facilitators and builders of organizational learning systems. They encourage the integration of technology into core strategies, facilitate digital competency development, and cultivate collaborative ecosystems with external partners. Through this approach, organizations can prepare comprehensively for disruption, addressing not only technological challenges but also cultural, structural, and strategic dimensions. Future research is recommended to develop empirical studies based on field data to test the conceptual framework derived from this review. Suggested areas of focus include analyzing differences across industrial sectors, the role of gender in digital leadership, and contextual factors such as national culture or local regulations that influence digital leadership effectiveness. Furthermore, longitudinal exploration of organizational change dynamics under digital leadership will enrich the understanding of adaptation and resistance in long-term digital transformation processes.

References

- Carboni, I., Cross, R., & Edmondson, A. C. (2021). No team is an island: How leaders shape networked ecosystems for team success. *California Management Review*, 64(1), 5-28.
- Cortellazzo, L., Bruni, E., & Zampieri, R. (2019). The role of leadership in a digitalized world: A review. *Frontiers in psychology*, 10, 1938.
- Damerji, H., & Salimi, A. (2021). Mediating effect of use perceptions on technology readiness and adoption of artificial intelligence in accounting. *Accounting Education*, 30(2), 107-130.
- Dery, K., Sebastian, I. M., & van der Meulen, N. (2017). The digital workplace is key to digital innovation. *MIS Quarterly Executive*, 16(2).
- Do, T. T., & Mai, N. K. (2020). Review of empirical research on leadership and organizational learning. *Journal of knowledge management*, 24(5), 1201-1220.
- Fonseca, L., Amaral, A., & Oliveira, J. (2021). Quality 4.0: the EFQM 2020 model and industry 4.0 relationships and implications. *Sustainability*, 13(6), 3107.
- Klein, M. (2020). Leadership characteristics in the era of digital transformation. *Business & Management Studies: An International Journal*, 8(1), 883-902.
- Kupiek, M. (2021). *Digital Leadership, Agile Change and the Emotional Organization*. Wiesbaden: Springer Fachmedien Wiesbaden.
- Liu, C., Ready, D., Roman, A., Van Wart, M., Wang, X., McCarthy, A., & Kim, S. (2018). E-leadership: an empirical study of organizational leaders' virtual

- communication adoption. *Leadership & Organization Development Journal*, 39(7), 826-843.
- Porfírio, J. A., Carrilho, T., Felício, J. A., & Jardim, J. (2021). Leadership characteristics and digital transformation. *Journal of Business Research*, 124, 610-619.
- Rudito, P., & Sinaga, M. F. (2017). *Digital mastery, Membangun kepemimpinan digital untuk memenangkan era disrupsi*. Jakarta Pusat: Gramedia Pustaka Utama.
- Skog, D. A., Wimelius, H., & Sandberg, J. (2018). Digital disruption. *Business & Information Systems Engineering*, 60(5), 431-437.
- Sousa, M. J., & Rocha, Á. (2019). Skills for disruptive digital business. *Journal of Business Research*, 94, 257-263.
- Vaz, N. (2021). *Digital business transformation: How established companies sustain competitive advantage from now to next*. New Jersey: John Wiley & Sons.
- Zaki, M. (2019). Digital transformation: harnessing digital technologies for the next generation of services. *Journal of Services Marketing*, 33(4), 429-435.
- Zhen, Z., Yousaf, Z., Radulescu, M., & Yasir, M. (2021). Nexus of digital organizational culture, capabilities, organizational readiness, and innovation: Investigation of SMEs operating in the digital economy. *Sustainability*, 13(2), 720.