

The Influence of Digital Leadership on Innovation Capability: Evidence from Modern Organizations in Jiangyang, China

Mou Yuhao ¹, Atipon Satranarakun ^{2*}, Pariwut Prachayanant ³
Digital Business Program, International College, Pathumthani University ^{1, 2*, 3}
Corresponding author's e-mail: atipon.s@ptu.ac.th

Abstract

The objectives of this study were (1) to explore how digital leadership is perceived and implemented in modern organizations, (2) to examine the influence of digital leadership on organizational innovation capability, and (3) to identify organizational and contextual factors that shape the effectiveness of digital leadership. This study employed a qualitative research design to gain an in-depth understanding of leadership practices in digitally transforming organizations. The population comprised leaders and managers from modern organizations in Jiangyang, China, and purposive sampling was used to select twelve participants with direct experience in digital leadership and innovation initiatives. The primary research tool was semi-structured in-depth interviews, which enabled the collection of rich and detailed qualitative data. Data were analyzed using thematic analysis to identify recurring patterns, key themes, and relationships across participants' responses. The study's results revealed that digital leadership is perceived as a multidimensional construct integrating technological competence, strategic vision, and people-centered leadership behaviors. Digital leadership was shown to significantly enhance organizational innovation capability by fostering idea generation, collaboration, and the effective implementation of innovative solutions. Furthermore, the findings revealed that the effectiveness of digital leadership is influenced by internal organizational factors, such as culture, digital infrastructure, and leadership support, as well as external factors including market competition and technological change. Overall, the study highlights the critical role of digital leadership in building sustainable innovation capability within modern organizations.

Keywords: Digital Leadership; Innovation Capability; Digital Transformation; Organizational Culture; Qualitative Research

Introduction

In the current era of rapid technological advancement and digital transformation, organizational success increasingly depends on the ability to innovate and adapt to evolving market demands. Innovation capability—the capacity of an organization to generate, adopt, and implement new ideas, products, or processes—has emerged as a critical determinant of competitive advantage (Agustian et al., 2023; Canbul & Çemberci, 2023; Chavarnakul et al., 2025; Zhang et al., 2025). Concurrently, digital leadership, defined as the ability of leaders to strategically leverage digital technologies while fostering a culture of innovation, has gained prominence as a key driver of organizational performance. Effective digital leadership not only facilitates the adoption of advanced technologies but also encourages creativity, collaboration, and knowledge sharing across all levels of the organization (Brunner et al., 2023; Turyadi et al., 2023; Wang et al., 2022; Yang et al., 2025).

Modern organizations are therefore confronted with the dual challenge of integrating digital tools into everyday operations while cultivating an innovation-driven culture (Baptista et al., 2020; Pescatore, 2022; Siripipatthanakul et al., 2022). Leaders must navigate complex organizational structures, technological disruptions, and dynamic external environments to ensure that innovation becomes both sustainable and strategically aligned with organizational

goals. In this context, understanding the relationship between digital leadership and innovation capability is essential, particularly in emerging economies and regional business hubs, where the pace of digital transformation may vary across industries and organizational types (Ali, 2023; Lobo et al., 2025; Odai et al., 2025; Sunoto & Daryanto, 2025).

Digital leadership has been widely recognized in the literature as a multidimensional construct encompassing strategic vision, technological literacy, and people-oriented leadership behaviors. Leaders with strong digital capabilities are able to guide organizations through digital transformation initiatives, encouraging experimentation, facilitating collaboration, and enabling employees to contribute innovative solutions. Innovation capability, on the other hand, encompasses the processes, structures, and cultural factors that enable an organization to transform ideas into actionable outcomes. The intersection of digital leadership and innovation capability is increasingly important as organizations strive to maintain competitiveness in fast-changing markets (Lam et al., 2021; Müller et al., 2024; Schiuma et al., 2024; Senadjki et al., 2024; Sahibzada et al., 2025; Shatila, 2025).

Despite the growing importance of digital leadership, research examining its impact on innovation capability remains limited, particularly in regional contexts such as Jiangyang, China. Most existing studies have focused on large metropolitan areas, such as Beijing, Shanghai, and Shenzhen, where organizations have more resources and established digital infrastructure. Consequently, there is a lack of understanding regarding how digital leadership is perceived, implemented, and operationalized in smaller, rapidly developing urban centers where resource constraints, organizational culture, and external pressures may differ significantly. Additionally, much of the existing literature emphasizes quantitative measurement of leadership and innovation outcomes, leaving a gap in qualitative insights into the experiences and perspectives of organizational leaders and employees.

This study addresses these research gaps by exploring digital leadership practices and their influence on innovation capability in modern organizations in Jiangyang, China. By adopting a qualitative approach, the study captures in-depth insights into how leaders foster innovation, the challenges they face, and the organizational and contextual factors that facilitate or hinder their effectiveness. This approach provides a rich understanding of the mechanisms through which digital leadership contributes to organizational innovation, going beyond numerical measures to uncover the human and cultural dimensions of digital transformation. The contributions of this study are threefold. First, it extends academic knowledge by providing empirical evidence on digital leadership and innovation capability in a regional Chinese context, offering insights that are currently underrepresented in the literature. Second, the study contributes to organizational practice by highlighting effective digital leadership strategies, organizational enablers, and potential barriers, thereby informing leaders, managers, and policymakers seeking to enhance performance. Third, the study offers practical recommendations for fostering a culture of innovation and digital adoption, providing actionable guidance for organizations navigating digital transformation in similar urban and industrial settings. This research aims to bridge the gap between theory and practice by examining the interplay between digital leadership and innovation capability, shedding light on the experiences of organizational leaders and employees, and offering insights that are both academically rigorous and practically relevant.

Research Methodology

This study employed a qualitative research methodology to explore the perceptions, practices, and impacts of digital leadership on organizational innovation capability. A purposive sampling technique was used to select twelve participants from various modern organizations in Jiangyang, China, ensuring that each respondent had direct experience with digital leadership and innovation initiatives. Data were collected through in-depth, semi-

structured interviews, which allowed participants to provide rich, detailed accounts of their experiences, perspectives, and organizational contexts. The interview questions focused on respondents' understanding of digital leadership, practical implementation strategies, and the influence of leadership on innovation processes, as well as the organizational and external factors affecting these practices. All interviews were conducted face-to-face and digitally recorded, then transcribed verbatim to maintain accuracy and enable comprehensive analysis. Thematic analysis was applied to identify recurring patterns, key themes, and insights across participants, emphasizing both strategic and operational aspects of digital leadership. This approach provided a holistic understanding of how leaders leverage digital tools, foster innovation, and navigate organizational and environmental challenges, ensuring that the findings reflected both depth and contextual nuance in the Jiangyang setting.

Result

The study involved 12 participants from modern organizations in Jiangyang, China, selected for their experience in digital leadership and innovation. The sample included seven males and five females, aged 29–52, reflecting a combination of digital literacy and leadership experience. Participants held diverse positions, including executives, middle managers, and team leaders, and had 6–25 years of professional experience. They represented technology, manufacturing, and service industries, and all held at least a bachelor's degree, with half possessing master's degrees. This diverse and experienced group provided a solid foundation for exploring digital leadership practices and innovation capability.

The first theme is perceptions and implementation of digital leadership. Respondents consistently defined digital leadership as guiding teams through technology-driven processes while fostering a culture of innovation, combining mindset and practice with adaptability, strategic thinking, and effective communication. Leaders were described as inspiring digital thinking, integrating technology into decision-making, and embedding innovation in organizational culture. In practice, digital leadership manifested through daily operational activities such as virtual meetings, collaboration platforms, dashboards, real-time feedback, and digital training initiatives. Leaders facilitated communication, aligned teams with organizational goals, encouraged experimentation, and ensured transparency. The analysis indicates that digital leadership encompasses not only technological proficiency but also people-oriented leadership and strategic vision. Across the sample, it was clear that leaders' ability to model digital behaviors and cultivate a digital mindset was crucial in promoting team collaboration, responsiveness, and innovation, reflecting the dual strategic and operational nature of digital leadership in the Jiangyang context.

The second theme is the influence of digital leadership on innovation capability. Digital leadership was found to play a critical role in enhancing organizational innovation. Respondents reported that leaders actively stimulate idea generation by providing platforms for collaboration, encouraging risk-taking, and recognizing creative contributions, thereby fostering an environment where employees feel safe and motivated to propose solutions. Leaders also support the implementation of innovative ideas by allocating resources, coordinating teams, and leveraging digital tools to ensure alignment with strategic objectives, facilitating timely and effective execution. Moreover, digital leadership was seen as shaping a broader culture of innovation, where experimentation, digital adoption, and creativity are normalized and embedded in daily practices. Collectively, the findings suggest that digital leadership acts as a catalyst for transforming individual creativity into tangible organizational outcomes, enhancing both the quality and quantity of innovation, and reinforcing its pivotal role in building organizational innovation capability.

The final theme is organizational and contextual factors affecting digital leadership. The study identified several internal and external factors influencing digital leadership

effectiveness. Internally, supportive organizational culture, access to digital infrastructure, training programs, and strong leadership guidance were key facilitators, enabling leaders to implement innovation strategies effectively and foster a participative, risk-tolerant environment. Conversely, resistance to change, limited resources, and structural misalignments emerged as barriers, constraining leaders' ability to fully leverage digital initiatives. Externally, participants emphasized the impact of market competition, government policies, and emerging technological trends, which require leaders to adapt continuously and prioritize innovation to remain competitive. While digital leadership is essential for driving innovation, its effectiveness is contingent upon a combination of enabling organizational conditions and responsive adaptation to external pressures, highlighting the interconnected nature of internal and external influences on leadership practices.

Discussion and conclusions

This study explored the influence of digital leadership on innovation capability in modern organizations in Jiangyang, China. The findings revealed three overarching themes: perceptions and implementation of digital leadership, influence of digital leadership on innovation capability, and organizational and contextual factors affecting digital leadership.

The findings of this study align closely with existing research emphasizing the strategic and human-centered nature of digital leadership. Participants' perceptions of digital leadership as a combination of technological proficiency, strategic thinking, and people-oriented behaviors are consistent with prior studies that describe digital leadership as a catalyst for organizational transformation and innovation (Brunner et al., 2023; Müller et al., 2024). The results reinforce the view that digital leadership extends beyond technology adoption to include cultural and behavioral dimensions that enable innovation. The study further confirms that digital leadership plays a critical role in strengthening innovation capability by creating environments that support experimentation, collaboration, and risk-taking. This finding supports earlier research demonstrating that leaders who promote digital tools and participative decision-making enhance employee creativity and innovation outcomes (Wang et al., 2022; Yang et al., 2025; Zia et al., 2025).

Moreover, the emphasis on translating ideas into actionable results aligns with studies highlighting the importance of leadership in bridging the gap between creativity and implementation (Canbul & Çemberci, 2023; Zhang et al., 2025). Additionally, the identification of organizational and contextual factors echoes prior literature suggesting that leadership effectiveness is contingent upon supportive organizational culture, infrastructure, and external conditions (Lam et al., 2021; Baptista et al., 2020). The Jiangyang context illustrates how regional organizations face unique challenges related to resource constraints and environmental uncertainty, reinforcing arguments by Ali (2023) and Sunoto and Daryanto (2025) that digital leadership must be adaptive and context-sensitive. By providing qualitative evidence from a regional Chinese setting, this study extends existing research that has largely focused on major metropolitan areas and quantitative approaches.

This study concludes that digital leadership is a critical driver of organizational innovation capability in modern organizations in Jiangyang, China. Digital leaders not only enable the adoption of digital technologies but also cultivate innovation-oriented cultures that encourage collaboration, learning, and experimentation. The findings demonstrate that digital leadership acts as a catalyst for converting individual ideas into organizational innovation outcomes. However, the effectiveness of digital leadership is influenced by both internal organizational conditions and external environmental factors. By addressing gaps in regional and qualitative research, this study contributes to a deeper understanding of how digital leadership operates in emerging urban contexts and underscores its strategic importance for sustaining innovation in rapidly changing environments

Suggestion

Based on the findings, several recommendations are proposed. From a theoretical perspective, future studies should continue to contextualize digital leadership by examining how leadership behaviors interact with organizational culture and innovation processes in diverse regional and cultural settings. Emphasizing the multidimensional nature of digital leadership can further enrich existing frameworks by moving beyond a narrow focus on technological adoption toward a more holistic understanding of leadership as a catalyst for sustained innovation. From a practical standpoint, organizations are advised to prioritize leadership development initiatives that integrate digital competencies with people-oriented leadership capabilities. Leaders should be encouraged to leverage digital collaboration platforms, foster knowledge-sharing practices, and cultivate psychologically safe environments that support experimentation and learning. In parallel, policymakers and organizational decision-makers should invest in robust digital infrastructure and continuous professional development programs to mitigate resistance to change. Collectively, these efforts can enhance organizational preparedness for digital transformation and support long-term innovation performance in increasingly competitive environments.

Notwithstanding its contributions, this study is subject to several limitations. The relatively small sample size of twelve participants may constrain the generalizability of the findings. Additionally, the focus on organizations within a single regional context may limit the transferability of the results to other cultural, organizational, or industrial settings. Furthermore, the qualitative design relied on self-reported perceptions, which may be influenced by subjective bias. Future research should consider employing mixed-methods or quantitative designs to validate and extend these findings across larger and more diverse samples. Comparative investigations between metropolitan and regional organizations could yield valuable insights into contextual variations in digital leadership practices. Moreover, examining potential mediating or moderating factors—such as organizational culture, knowledge-sharing mechanisms, or levels of digital maturity—would help to further elucidate the pathways through which digital leadership shapes innovation capability.

References

- Agustian, K., Mubarak, E. S., Zen, A., Wiwin, W., & Malik, A. J. (2023). The impact of digital transformation on business models and competitive advantage. *Technology and Society Perspectives, 1*(2), 79-93. <https://doi.org/10.61100/tacit.v1i2.55>
- Ali, M. (2023). Strategic leadership in the digital age: Navigating uncertainty. *Journal of Management & Social Science, 1*(1), 1-8. <https://www.researchgate.net/publication/390951502>
- Baptista, J., Stein, M. K., Klein, S., Watson-Manheim, M. B., & Lee, J. (2020). Digital work and organisational transformation: Emergent Digital/Human work configurations in modern organisations. *The Journal of Strategic Information Systems, 29*(2), 101618. <https://doi.org/10.1016/j.jsis.2020.101618>
- Brunner, T. J., Schuster, T., & Lehmann, C. (2023). Leadership's long arm: The positive influence of digital leadership on managing technology-driven change over a strengthened service innovation capacity. *Frontiers in Psychology, 14*, 988808. <https://doi.org/10.3389/fpsyg.2023.988808>
- Canbul, A., & Çemberci, M. (2023). Innovation capability as key to competitive advantage: Relation of product innovation capability, process innovation capability, and firm performance. *Journal of International Trade, Logistics and Law, 9*(1), 134-142. <https://www.jital.org/index.php/jital/article/view/345>

- Chavarnakul, T., Xu, L. D., Bi, Z., Shankar, A., Dhiman, G., Viriyasitavat, W., & Hoonsoon, D. (2025). A systematic literature review on resilient digital transformation, examining how organizations sustain digital capabilities. *HighTech and Innovation Journal*, 6(2), 687-722. <https://doi.org/10.28991/HIJ-2025-06-02-021>
- Lam, L., Nguyen, P., Le, N., & Tran, K. (2021). The relation among organizational culture, knowledge management, and innovation capability: Its implication for open innovation. *Journal of Open Innovation: Technology, Market, and Complexity*, 7(1), 66. <https://doi.org/10.3390/joitmc7010066>
- Lobo, C. A., Marinho, A., Santos Pereira, C., Azevedo, M., & Moreira, F. (2025). The role of leadership and strategic alliances in innovation and digital transformation for sustainable entrepreneurial ecosystems: A comprehensive analysis of the existing literature. *Sustainability*, 17(13), 6182. <https://doi.org/10.3390/su17136182>
- Müller, S. D., Konzag, H., Nielsen, J. A., & Sandholt, H. B. (2024). Digital transformation leadership competencies: A contingency approach. *International Journal of Information Management*, 75, 102734. <https://doi.org/10.1016/j.ijinfomgt.2023.102734>
- Odai, L. A., Xiao, Y., Korankye, B., & Ahakwa, I. (2025). Navigating digital transformation: The critical role of knowledge sharing and digital transformational leadership in boosting innovation capability in Sub-Saharan Africa. *Business Process Management Journal*. <https://doi.org/10.1108/BPMJ-01-2025-0120>
- Pescatore, I. (2022). Smart organisations: A new relationship between organisations and individuals in the digital age. *PuntOorg International Journal*, 7(2), 93-107. <https://doi.org/10.19245/25.05.pij.7.2.1>
- Sahibzada, U. F., Aslam, N., Muavia, M., Shujahat, M., & Rafi-ul-Shan, P. M. (2025). Navigating digital waves: Unveiling entrepreneurial leadership toward digital innovation and sustainable performance in the Chinese IT industry. *Journal of Enterprise Information Management*, 38(2), 474-501. <https://doi.org/10.1108/JEIM-01-2024-0023>
- Schiuma, G., Santarsiero, F., Carlucci, D., & Jarrar, Y. (2024). Transformative leadership competencies for organizational digital transformation. *Business Horizons*, 67(4), 425-437. <https://doi.org/10.1016/j.bushor.2024.04.004>
- Senadjki, A., Au Yong, H. N., Ganapathy, T., & Ogbeibu, S. (2024). Unlocking the potential: The impact of digital leadership on firms' performance through digital transformation. *Journal of Business and Socio-Economic Development*, 4(2), 161-177. <https://doi.org/10.1108/JBSED-06-2023-0050>
- Shatila, K. (2025). Artificial intelligence and organizational resilience: The mediating role of agility, innovation, and digital leadership. *Strategy & Leadership*, 1-25. <https://doi.org/10.1108/SL-08-2025-0275>
- Siripipatthanakul, S., Limna, P., Sitthipon, T., Jaipong, P., Siripipattanakul, S., & Sriboonruang, P. (2022). Total quality management for modern organisations in the digital era. *Advance Knowledge for Executives*, 1(1), 1-9. <https://www.researchgate.net/publication/362230893>
- Sunoto, S. P., & Daryanto, E. (2025). The role of strategic leadership in building organizational resilience. *International Journal of Integrative Sciences*, 4(3), 517-532. <https://doi.org/10.55927/ijis.v4i3.89>
- Turyadi, I., Zulkifli, Z., Tawil, M. R., Ali, H., & Sadikin, A. (2023). The role of digital leadership in organizations to improve employee performance and business success. *Jurnal Ekonomi*, 12(02), 1671-1677. <https://www.ejournal.seaninstitute.or.id/index.php/Ekonomi/article/view/2001>
- Wang, T., Lin, X., & Sheng, F. (2022). Digital leadership and exploratory innovation: From the dual perspectives of strategic orientation and organizational culture. *Frontiers in Psychology*, 13, 902693. <https://doi.org/10.3389/fpsyg.2022.902693>

- Yang, M., Talha, M., Zhang, S., & Zhang, Y. (2025). Exploring the mechanisms linking digital leadership to employee creativity: A moderated mediation model. *Behavioral Sciences, 15*(8), 1024. <https://doi.org/10.3390/bs15081024>
- Zhang, J., Jehangir, F. N., Yang, L., Tahir, M. A., & Tabasum, S. (2025). Competitive advantage and firm performance: The role of organizational culture, organizational innovation, and knowledge sharing. *Journal of the Knowledge Economy, 16*, 3081-3107. <https://doi.org/10.1007/s13132-024-01910-3>
- Zia, A., Memon, M. A., Mirza, M. Z., Iqbal, Y. M. J., & Tariq, A. (2025). Digital job resources, digital engagement, digital leadership, and innovative work behaviour: A serial mediation model. *European Journal of Innovation Management, 28*(8), 3192-3216. <https://doi.org/10.1108/EJIM-04-2023-0311>