

The role of transformational leadership in enhancing employee performance in the digital era

Sewang

¹Program Studi Kewirausahaan, Fakultas Ekonomi dan Bisnis Digital, Universitas Megarezky, Makassar, Indonesia

Abstract

This study explores the role of transformational leadership in improving employee performance during digital transformation at PT Kawasan Industri Makassar (PT KIMA), an industrial estate management company in Indonesia. Using a qualitative case study approach, data were collected through interviews with eight managers and key employees, participatory observation, and document analysis. Findings reveal that the four dimensions of transformational leadership—idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration—enhance employee adaptability to digital systems, foster interdepartmental collaboration, and improve operational efficiency. Practically, the study suggests the importance of leadership development programs incorporating digital skills and emotional intelligence to support organizational change. Theoretically, it contributes to digital leadership literature by framing transformational leadership within industrial management in a developing country context. The results highlight the necessity of adaptive leadership to manage technological disruption and optimize human resource performance in the digital era.

Article Info

Article history:

Received : Apr 28, 2025

Revised : May 27, 2025

Accepted : May 31, 2025

Keywords:

Digital era;
Employee performance;
Transformational leadership.

Corresponding Author:

Sewang,
Program Studi Kewirausahaan, Fakultas Ekonomi dan Bisnis
Digital,
Universitas Megarezky,
Jl. Antang Raya, Kec. Manggala, Kota Makassar, Indonesia.
sewangsulsel@gmail.com.

This is an open access article under
the [CC BY](#) license.



Introduction

The rapid advancement of digital technology has fundamentally reshaped organizational landscapes across various industrial sectors. The digital era demands agility, innovation, and adaptability from every component within an organization, particularly human resources, which play a central role in realizing strategic goals (Afsar et al., 2023). Digitalization has altered work patterns and operational flows, necessitating not only technological adjustments but also a shift in leadership styles that can effectively direct, inspire, and empower employees to cope with these transitions. In this evolving environment, leadership emerges as a key factor in facilitating organizational transformation, navigating change, and sustaining optimal employee performance (Chen et al., 2022).

Transformational leadership is widely recognized as a leadership model capable of addressing the dynamic demands of modern organizations. This model comprises four primary components: idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration. Collectively, these elements enhance employee motivation, creativity,

and collaboration while fostering a resilient and innovation-oriented organizational culture (Buil et al., 2022). Numerous studies have confirmed the positive correlation between transformational leadership and various aspects of employee outcomes, including job satisfaction, engagement, and innovation. However, most existing research has focused on public institutions, educational settings, or large corporations in developed countries, with limited empirical evidence on its implementation within the industrial estate management sector, particularly in developing economies such as Indonesia.

In this regard, a significant research gap remains in understanding how transformational leadership is operationalized in industrial estate organizations undergoing digital transformation. Industrial estate management companies play a critical role in regional economic development by providing infrastructure, services, and investment facilitation. However, the intersection between digitalization and leadership dynamics in these organizations remains underexplored—especially in the context of Southeast Asia.

PT Kawasan Industri Makassar (PT KIMA), located in South Sulawesi, is one such organization. It is tasked with managing and developing industrial zones, offering infrastructure and investment support services. In recent years, PT KIMA has adopted various digital innovations—including cloud-based management systems, interdepartmental communication platforms, and customer service applications—to improve competitiveness and operational efficiency (Gupta & Kumar, 2022). These changes have brought new challenges, particularly in terms of shifting organizational culture, enhancing digital competencies among staff, and adapting leadership practices to support the transformation process (Muliawan & Ulum, 2025).

To respond effectively to these dynamics, PT KIMA's leadership must be capable of driving transformation while maintaining employee engagement and performance. Transformational leadership offers a relevant approach due to its focus on articulating a clear vision, motivating intrinsically, stimulating creativity, and addressing individual employee needs (Hidayat et al., 2023). Yet, how effectively this leadership style can be implemented in industrial estate management companies during digital transformation remains insufficiently investigated, especially in the Indonesian context.

Moreover, the challenges faced by PT KIMA are not limited to technology adoption but also involve significant human resource issues such as generational digital divides, resistance to new systems, and the need for continuous upskilling. In this context, leadership that applies individualized support, inspirational vision, and intellectual stimulation is essential to facilitate employee adaptation and sustained performance improvement (Majeed et al., 2022).

This study adopts a qualitative case study approach at PT KIMA to explore the application and impact of transformational leadership on employee performance within a digitally transforming organization. Data were collected through in-depth interviews with managers and key employees, participatory observation of digital work processes, and analysis of leadership-related documents (Octoyuda, Siagian, & Putri, 2023). This approach enables a comprehensive understanding of leadership practices and challenges within industrial estate management settings undergoing digital transformation.

By narrowing the scope to PT KIMA, this study aims to contribute both theoretically and practically to the discourse on human resource development and leadership in the digital era. Theoretically, it enriches the literature on transformational leadership by contextualizing its application in an underrepresented sector within a developing country. Practically, the results offer strategic insights for similar organizations seeking to optimize employee performance and adapt leadership frameworks amid accelerating technological change and increasing market demands (Putra & Widjaja, 2024).

a. Transformational Leadership

In recent years, transformational leadership has remained a relevant leadership style for addressing organizational dynamics, particularly in the digital era. According to Sewang et al. (2024), transformational leadership enhances employee engagement and motivation by providing an inspirational vision and strong individualized support. Furthermore, research by Chen et al. (2021) confirms that transformational leaders play a crucial role in fostering an innovation-oriented culture, especially by promoting intellectual stimulation and employee creativity.

In addition, Gupta and Kumar (2022) found that the individualized consideration dimension significantly contributes to enhancing employees' adaptability to technological changes and new work environments—an essential factor in the context of digital transformation. This aligns with findings by Sewang (2023), who noted that transformational leadership effectively mitigates resistance to technological change in industrial organizations.

b. Employee Performance in the Digital Era

The digital era requires human resources not only to be quantitatively productive but also to be adaptive and innovative. According to Sewang (2023), employee performance in digital environments is strongly influenced by their ability to collaborate virtually and innovate through the use of technology. Vial (2021) further emphasized that intrinsic motivation—triggered by effective leadership—is a key factor in enhancing employee engagement and performance in organizations undergoing digitalization.

In the industrial context, Sewang (2024) argued that key indicators of successful digital transformation include employee adaptability to new technologies and effective cross-divisional communication. These findings highlight the critical need for leaders who can provide clear guidance and support (Yustika, 2025).

c. Digital Transformation and Leadership

A study by Wang, Lu, and Siu (2022) explained that digital transformation involves not only the implementation of technology but also cultural and behavioral changes within the organization, which must be led by adaptive and visionary leadership. Transformational leaders are considered capable of facilitating these changes by inspiring employees and cultivating innovation capabilities.

Recent research by Vial (2021) underscores the importance of empowering leadership in accelerating digital technology adoption and creating a collaborative work environment. In the context of industrial estate management, Hidayat et al. (2023) observed that digital transformation brings challenges such as resistance and competency gaps, which can only be addressed through transformational leadership approaches.

d. The Relationship Between Transformational Leadership and Employee Performance in the Digital Era

A meta-analysis conducted by Wang et al. (2022) revealed a strong positive relationship between transformational leadership and employee performance in organizations undergoing digitalization. The dimensions of idealized influence and inspirational motivation have been shown to foster employee engagement and creativity, while individualized consideration helps address psychological barriers associated with technological change (Makmur et al., 2023). Moreover, research by (Iskandar, 2024) in Indonesia's manufacturing sector highlighted that intellectual stimulation provided by transformational leaders plays a crucial role in driving innovative solutions, thereby supporting improvements in technology-driven work efficiency.

Based on the aforementioned literature, the theoretical framework of this study refers to the concept of transformational leadership developed by Bass and Avolio, which has been modified and validated by recent studies from 2019 to 2024. This framework comprises four main dimensions:

a. Idealized Influence:

Idealized influence refers to the dimension in which leaders serve as role models and exemplars for their employees. Such leaders demonstrate integrity, high ethical standards, and reliability, thereby fostering respect and trust from their subordinates (Xu, Zhang, & Li, 2023). In the context of the digital era, leaders who exhibit idealized influence are able to steer transformational visions with confidence and consistency, motivating employees to internalize organizational values and commit to shared goals (Wang et al., 2022).

b. Inspirational Motivation:

Inspirational motivation describes a leader's ability to articulate a compelling vision and mission while inspiring employees to pursue those goals with enthusiasm (Yang & Chen, 2022). Leaders utilize inspiring communication and optimism to uplift employee morale and confidence in facing the challenges of technological change (Yu, Liu, & Wang, 2021). This form of motivation is essential for encouraging employees to actively participate in innovation and digital development initiatives within the organization.

c. Intellectual Stimulation:

This dimension refers to the leader's encouragement for employees to think creatively, critically, and innovatively when solving problems (Gupta & Kumar, 2020). Transformational leaders do not merely offer solutions, but also challenge existing assumptions and conventional methods, thereby fostering a culture of continuous learning and innovation (Zhang & Zhao, 2023). In the digital era, intellectual stimulation is crucial for helping employees adapt to new technologies and design more efficient workflows (Ibrahim & Wildan, 2022).

d. Individualized Consideration:

This dimension reflects the leader's attentiveness to the unique needs and personal development of each employee (Majeed et al., 2022). Leaders act as mentors by providing tailored support, training, and feedback aligned with individual potential and challenges (Sewang, 2023). Such an approach helps employees feel valued and motivated to enhance their digital competencies and overall performance, particularly amid the rapid changes in digital work environments (Wujarso et al., 2023).

These four dimensions are posited as independent variables influencing employee performance (the dependent variable), particularly in terms of digital technology adaptation, cross-functional collaboration, and workplace innovation.

Method

This research employs a qualitative strategy through a case study design to explore how transformational leadership affects employee performance amid digital transformation at PT Kawasan Industri Makassar (PT KIMA). The study was situated at PT KIMA, a firm undergoing digital modernization in managing industrial estates. Participants included managerial personnel and selected staff directly engaged in implementing digital systems and experiencing the leadership practices firsthand.

Purposive sampling was used to identify 8 to 12 informants who met specific criteria: managers leading newly formed digital units, employees directly interacting with digital workflows, and high-performing individuals actively adapting to technological changes.

Data were collected using semi-structured in-depth interviews, participatory observation of digital work processes, and document analysis (e.g., leadership policies, performance records, meeting minutes, and digital training modules) (Erman & Winario, 2024). To analyze the qualitative data, thematic analysis was applied using NVivo 12 Plus. The process followed three systematic coding stages:

- a. Open coding, where initial categories and indicators were identified directly from interview transcripts and field notes;
- b. Axial coding, in which codes were grouped into broader categories aligning with the four dimensions of transformational leadership;
- c. Selective coding, where final core themes were constructed by linking leadership dimensions with observable impacts on employee performance.
- d. The analysis generated four overarching themes that reflected how each dimension—idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration—manifested within the organizational context and influenced adaptability, collaboration, innovation, and task execution.

To ensure the credibility and trustworthiness of findings, triangulation was conducted across data sources, including interview narratives, observational records, and internal company documents. The entire research process adhered to established ethical standards: participants' identities were anonymized, data were used solely for academic purposes, and informed written consent was obtained after participants received full disclosure of the study's objectives (Ahmad & Yousaf, 2022).

Result and Discussion

This study reveals that transformational leadership is actively implemented at PT Kawasan Industri Makassar (PT KIMA) to facilitate its digital transformation initiatives. The analysis of field data—comprising in-depth interviews, participatory observation, and document review—demonstrates that each dimension of transformational leadership is directly linked to specific improvements in employee performance.

Idealized Influence was observed in leaders acting as digital role models. Leaders not only used new digital systems themselves but consistently exhibited integrity and commitment to the company's digital vision. This behavior cultivated employee trust and loyalty, which increased their willingness to adopt digital tools. One employee stated, "When I saw my supervisor using the new system without hesitation, it made me feel more confident to try it too." This influence translated into improved initiative and self-driven adaptation to digital platforms.

Inspirational Motivation emerged through visionary communication. Leaders clearly articulated the purpose and benefits of digital transformation, inspiring employees to embrace the changes. This dimension contributed to heightened morale, goal alignment, and participation in innovation initiatives. A staff member remarked, "Our manager didn't just tell us to change, he explained why it matters—and that made me want to support the new system." This motivation was reflected in improved employee engagement and consistent attendance in training sessions and cross-departmental initiatives.

Intellectual Stimulation was evident in how leaders encouraged employees to generate solutions to digital workflow challenges. Leaders posed open-ended questions and welcomed input during meetings, stimulating analytical thinking and innovation. For instance, an IT staff member reported, "I suggested a more efficient way to input client data, and it was immediately tested. It felt good to be heard." This practice led to measurable improvements in workflow efficiency and employee creativity.

Individualized Consideration was demonstrated through personalized support, especially for employees who struggled with digital adaptation. Leaders provided mentoring, assigned tech-savvy colleagues as peer guides, and allowed flexibility in learning paces. A senior employee noted, "They didn't push us to be fast, but they gave time and helped us individually until we got it." This approach not only reduced resistance to change but also accelerated competency development among diverse age groups.

These findings systematically align with employee performance indicators identified in the field, including:

- a. Adaptability to digital systems (evidenced by reduced error rates and faster onboarding),
- b. Cross-functional collaboration (reflected in smoother communication between departments),
- c. Innovation (noted through employee-led system improvements),
- d. Operational efficiency (e.g., faster task completion times and fewer system-related complaints).

Additionally, participatory observation recorded enhanced task execution, with notable improvements in speed and accuracy when using digital platforms. Cross-divisional coordination also improved, particularly in scheduling, reporting, and client response times—areas previously hampered by siloed processes.

Despite these positive outcomes, the study also identified barriers. A prominent issue was the digital skills gap among employee generations, where senior staff required more hands-on and prolonged support. One respondent admitted, “Learning the new system was stressful, but the manager’s patience helped me continue.” This indicates the critical role of individualized support in addressing generational learning disparities.

Furthermore, initial resistance to changing established workflows was common but mitigated over time through inspirational and supportive leadership. Employees acknowledged that continued encouragement and training sessions eased their anxiety and increased willingness to adapt. The increased workload during transition periods—particularly in learning phases—also required careful management to prevent burnout. Leaders who actively monitored staff stress levels and adjusted workloads helped maintain morale.

These empirical findings reinforce established theoretical perspectives. As suggested by Bass & Avolio (1994), transformational leadership drives organizational performance by cultivating a culture of trust, vision alignment, intellectual engagement, and personal development. The study affirms Buil et al. (2019) and Wang et al. (2022), who argue that such leadership styles are particularly effective in fast-changing digital environments. Moreover, the observed influence of individualized support and innovation-focused stimulation reflects Putra & Widjaja’s (2024) conclusion that these elements are essential for digital adaptability in industrial settings.

In summary, transformational leadership has proven to be a central determinant of employee performance during digital transformation at PT KIMA. However, to fully optimize outcomes, this leadership model must be complemented by:

- a. Continuous digital training programs,
- b. Structured change management strategies, and
- c. Tailored support systems that address workforce diversity.
- d. These complementary efforts are essential to bridge skill gaps, overcome resistance, and sustain long-term digital innovation and competitiveness.

Conclusion

This study concludes that transformational leadership significantly enhances employee performance in the digital era, particularly in the context of PT Kawasan Industri Makassar (PT KIMA), an industrial estate management firm in Indonesia. The research confirms that the four core dimensions—Idealized Influence, Inspirational Motivation, Intellectual Stimulation, and Individualized Consideration—work synergistically to strengthen employee adaptability to digital technologies, stimulate innovation, and improve cross-departmental collaboration. Importantly, the study demonstrates that inspirational vision and personalized leadership practices are crucial in

mitigating resistance to technological change and bridging digital competency gaps, challenges commonly found in developing countries undergoing digitalization. These findings contribute to expanding the current understanding of transformational leadership by highlighting its practical implementation in industrial sectors of emerging economies, where leadership capacity often determines the success of digital transformation efforts. From a theoretical perspective, this research extends the application of transformational leadership frameworks into underrepresented organizational contexts, such as estate management firms in Indonesia. Practically, it reinforces the need for sustained leadership development, supported by ongoing digital training and structured change management. For future research, it is recommended to explore comparative case studies across different types of industrial organizations—public vs. private, urban vs. rural—to examine contextual influences on leadership effectiveness. Additionally, integrating quantitative measurements of employee performance post-transformation could further validate and complement qualitative insights gathered in this study.

Reference

- Afsar, B., Badir, Y., & Kiani, U. S. (2023). Leadership and employee performance in the digital era: The mediating role of motivation and digital skills. *Journal of Business Research*, 155, 113456. <https://doi.org/10.1016/j.jbusres.2023.113456>
- Ahmad, S., & Yousaf, M. (2022). Transformational leadership and organizational innovation in the digital age: A mediating role of employee adaptability. *Technological Innovation Management Review*, 12(7), 32–41. <https://doi.org/10.22215/timreview/1455>
- Buil, I., Martínez, E., & Matute, J. (2021). Transformational leadership and employee engagement: The role of psychological empowerment and intrinsic motivation. *Personnel Review*, 50(4), 1231–1248. <https://doi.org/10.1108/PR-11-2020-0753>
- Chen, Y., Li, H., & Wang, X. (2022). The impact of transformational leadership on innovation: Evidence from digital transformation contexts. *Technological Forecasting and Social Change*, 180, 121686. <https://doi.org/10.1016/j.techfore.2022.121686>
- Erman, N., & Winario, M. (2024). Kepemimpinan transformasional terhadap kemampuan organisasi dalam mengatasi krisis di era digital. *Innovative: Journal Of Social Science Research*, 4(1), 11022-11034.
- Gupta, R., & Kumar, S. (2022). Intellectual stimulation as a driver of employee creativity in digital workplaces: The moderating role of leadership style. *Leadership & Organization Development Journal*, 43(3), 389–406. <https://doi.org/10.1108/LODJ-10-2021-0512>
- Hidayat, R., Sutanto, J., & Purnomo, Y. W. (2023). Managing digital transformation in industrial zones: Leadership challenges and workforce adaptation. *Journal of Industrial Engineering and Management*, 16(2), 95–114. <https://doi.org/10.3926/jiem.3849>
- Ibrahim, V. M., & Wildan, M. A. (2022). PERAN KEPEMIMPINAN TRANSFORMASIONAL DALAM MENGHADAPI PARIWISATA ERA DIGITAL. *Eqien-Jurnal Ekonomi dan Bisnis*, 11(04), 587-594.
- Iskandar, M. R. (2024). Gaya Kepemimpinan dan Kinerja Karyawan: Tinjauan Sistematis dari Studi Empiris. *Economics and Digital Business Review*, 5(2), 789-809.
- Lee, S., & Lee, J. (2023). Employee engagement and performance in digital transformation: The role of transformational leadership and intrinsic motivation. *International Journal of Human Resource Management*, 34(8), 1765–1784. <https://doi.org/10.1080/09585192.2022.2104113>
- Makmur, A., Saepudin, M. A., Sudarto, T., Maftuh, A., & Purwadi, P. (2023). Model Kepemimpinan Transformasional dalam Dunia Pendidikan di Era Digital. *Jurnal Syntax Admiration*, 4(1), 33-46.
- Majeed, A., Shah, N., & Khalid, R. (2022). Overcoming resistance to digital transformation: The role of transformational leadership and employee readiness. *Journal of Change Management*, 22(4), 358–374. <https://doi.org/10.1080/14697017.2022.2053456>
- Muliawan, F., & Ulum, M. (2025). Analisis Gaya Kepemimpinan Transformasional dan Peningkatan Kinerja Karyawan. *ETNOMANAJEMEN: Journal of Management Research*, 1(1), 1-12.
- Octoyuda, E., Siagian, H. S. P., & Putri, H. (2023). Menjawab Tantangan Transformasi Digital: Implikasi Kepemimpinan Transformasional terhadap Adopsi Teknologi Digital. *Ekonomi Dan Bisnis*, 10(2), 31-49.

- Putra, A. A., & Widjaja, H. (2024). Intellectual stimulation and employee innovative behavior: Evidence from the Indonesian manufacturing sector. *Asian Journal of Business and Management*, 12(1), 56–70. <https://doi.org/10.20473/ajbm.v12i1.4532>
- Sewang, S., Ainun, A. N. A., & Misrah, M. (2024). Artificial intelligence dalam Rekrutmen dan Seleksi Karyawan: Manfaat dan Tantangannya. *Jurnal Publikasi Manajemen Informatika*, 3(3), 69-77.
- Sewang, S. (2023). Pengaruh budaya organisasi dan gaya kepemimpinan terhadap kepuasan kerja pegawai Bappeda Kabupaten Jenepono. *Public Service and Governance Journal*, 4(2), 51-60.
- Sewang, S. (2023). Pengaruh Motivasi Terhadap Kinerja Pegawai Dinas Kelautan Dan Perikanan Kabupaten Takalar. *Economics and Digital Business Review*, 4(1), 109-199.
- Sewang, S. (2024). Competence of Human Resources (HR) in Small and Medium Enterprises (SMEs) Has a Significant Impact on Performance. *Indonesian Journal of Innovation Multidisipliner Research*, 2(2), 265-279.
- Umar, S. M., Nurtanio, I., & Zainuddin, Z. (2024, July). Analysis of Consistency and Structure of Scholarly Papers Using Natural Language Processing. In *2024 International Seminar on Intelligent Technology and Its Applications (ISITIA)* (pp. 190-195). IEEE.
- Wang, H., Lu, C., & Siu, O. L. (2022). Transformational leadership and employee creativity in digital organizations: The mediating role of psychological empowerment. *Journal of Management & Organization*, 28(6), 1067–1082. <https://doi.org/10.1017/jmo.2020.91>
- Wujarso, R., Pitoyo, B. S., & Prakoso, R. (2023). Peran Kepemimpinan Digital Dalam Era Digital. *Journal of Information System, Applied, Management, Accounting and Research*, 7(1), 1-9.
- Xu, J., Zhang, Y., & Li, X. (2023). The role of transformational leadership in facilitating digital innovation: A multi-level analysis. *Information & Management*, 60(1), 103754. <https://doi.org/10.1016/j.im.2022.103754>
- Yang, Z., & Chen, Y. (2022). Digital transformation leadership and employee engagement: Evidence from the high-tech sector. *Computers in Human Behavior*, 134, 107341. <https://doi.org/10.1016/j.chb.2022.107341>
- Yustika, S. (2025). Pengaruh Kepemimpinan Transformasional terhadap Kinerja Karyawan di Era Digital. *JOURNAL OF ECONOMICS, BUSINESS, MANAGEMENT, ACCOUNTING AND SOCIAL SCIENCES*, 3(2), 119-123.
- Yu, L., Liu, J., & Wang, Z. (2021). Leadership styles and digital transformation outcomes: The moderating role of organizational culture. *Management Decision*, 59(7), 1641–1658. <https://doi.org/10.1108/MD-09-2020-1254>
- Vial, G. (2021). Understanding digital transformation: A review and a research agenda. *The Journal of Strategic Information Systems*, 30(2), 118–144. <https://doi.org/10.1016/j.jsis.2021.101731>
- Zhang, T., & Zhao, X. (2023). Transformational leadership and digital readiness: Impacts on organizational innovation performance. *Journal of Business & Industrial Marketing*, 38(3), 494–506. <https://doi.org/10.1108/JBIM-06-2021-0306>