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The Synergy of Organizational Culture and Leadership in Supporting Digital Transformation

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Abstract

This study aims to analyze the relationship between organizational culture, leadership, and the success of digital transformation based on the scientific literature published in the last five years. Using a descriptive qualitative approach, this study examined several articles indexed by Google Scholar to identify conceptual patterns, trends in findings, and research gaps related to organizational change in the digital era. The results of the analysis show that digital transformation not only focuses on the application of technology, but also includes the process of adapting values, behaviors, and organizational structures. An organizational culture that is open to innovation, collaboration, and continuous learning is a key factor in the success of digitalization. Meanwhile, transformational leadership plays an important role in building a shared vision, creating a collaborative environment, and strengthening commitment to change. The synergy between organizational culture and leadership forms a strategic foundation that strengthens organizational resilience, efficiency, and competitiveness in the midst of digital disruption. This research emphasizes the urgency of a holistic approach that integrates technological aspects, cultural values, and leadership styles in designing adaptive and sustainable digital transformation policies.

1. Introduction

Digital transformation has become a global phenomenon that has changed the paradigm of organizations in carrying out business, management, and public service activities. The Industrial Revolution 4.0 has a major impact on organizational work patterns by demanding the speed of adaptation to technology and information management. In this context, digitalization is not just the application of technology, but a complete change in the way organizations operate, interact, and create added value. These changes require a transformation in aspects of organizational culture, leadership structures, and work systems in order to be able to adapt to the increasingly complex and competitive environmental dynamics (Verhoef et al., 2021).

Organizational culture plays an important role in the success of digital transformation. According to Trushkina et al. (2020), digitalization creates information economy conditions that require organizations to have an open culture of innovation, collaboration, and continuous learning. Without adaptive cultural support, digital transformation tends to be hampered due to internal resistance and unpreparedness of human resources. In this context, a strong organizational culture can be a driver of change that allows organizations to transform in a more systematic and sustainable way. This is in line with the view of Tambunan and Anwar (2019), who stated that institutional transformation cannot be realized only through structural reform, but requires the formation of *shared values* and transformative leadership that internalizes new cultures in daily activities.

In addition to organizational culture, leadership plays a central role in supporting the success of digital transformation. Digital leadership focuses not only on the utilization of technology, but also on the ability to inspire, guide, and encourage organizational members to think innovatively (Cortellazzo et al., 2019). Leaders play a role in building a shared vision as well as ensuring that each individual understands the strategic direction of the organization in the digital age. Kane et al. (2018) added that leadership in the digital era must be oriented towards learning and cross-functional collaboration so that innovation can run continuously. Therefore, the success of digitalization depends on the ability of leaders to instill the values of flexibility, trust, and adaptation across the organization's lines.

Digital transformation also demands changes in business models and operational processes. Schaeffer and Sovie (2019) emphasizes that organizations must redesign their strategies and structures to adapt to technological developments as well as changing consumer behavior. In this process, organizational culture management is a crucial component because it is the basis for the organization's ability to learn, experiment, and innovate. Alvarenga et al. (2020) show that the success of knowledge management in digital organizations is highly dependent on a cultural environment that supports openness and collaboration. Therefore, digital transformation can be said to be successful when organizations are able to integrate technology dimensions with mutually reinforcing cultural and leadership values.

However, there is still a research gap related to the linkage between organizational culture, leadership, and digital transformation holistically. Most previous research has focused more on technical aspects, such as the application of

information technology and product innovation, rather than the behavioral and social dimensions in organizations (Sousa & Rocha, 2019). In fact, the success of digital transformation is not only determined by technology investment, but also by the readiness of human resources and organizational culture to accept change.

Therefore, this study tries to comprehensively examine the dynamics of organizational culture and leadership in facing the digital era. This approach seeks to identify the cultural factors that influence the successful implementation of digitalization and how leadership styles are able to strengthen the transformation process. Digital transformation demands synergy between technology strategies, organizational culture changes, and visionary leadership. This article seeks to broaden the understanding of how organizational values can adapt to the demands of digitalization without losing the identity and essence of the organization itself. Through theoretical review and qualitative analysis, this research is expected to make an empirical contribution to the development of organizational transformation theory and become a practical reference for leaders and policymakers in managing change in the digital era.

2. Literature Review

2.1. Organizational Culture in Digital Transformation

Organizational culture is a fundamental element in supporting the success of digital transformation. According to Trushkina et al. (2020), organizational culture serves as a value system and beliefs that shape the behavior of organizational members, including their readiness for technology-based change. In the context of

digitalization, organizations need to instill values such as collaboration, continuous learning, and the courage to take risks in order to be able to adapt quickly to innovation and market dynamics. Without a culture that supports innovation, technology adoption is likely to fail due to internal resistance and misalignment of organizational vision.

Tambunan and Anwar (2019) emphasized that cultural transformation is not just a symbolic change, but a process of internalizing new values that are integrated into the organization's daily activities. A strong culture creates shared values that drive employee trust and engagement in the digital transformation process. This is in line with Verhoef et al. (2021), who stated that the success of digitalization is not only determined by technology strategies, but also by the ability of organizations to change their collective mindset to be more adaptive and open to experimentation. Therefore, learning-oriented organizations have a competitive advantage in managing digital change in a sustainable manner. Thus, a strong and adaptive organizational culture acts as a catalyst for change towards the digital era, creating synergies between technology and human values that strengthen organizational competitiveness.

2.2. Leadership and Strategic Adaptation in the Digital Era

Leadership plays a strategic role in steering organizations in facing digital transformation. According to Cortellazzo et al. (2019), digital leadership is characterized by the ability to leverage technology while inspiring behavioral change in organizations. Digital leaders play the role of facilitators who encourage innovation, cross-functional collaboration, and data-driven decision-making. In this

context, the success of digital transformation depends on a visionary, adaptive, and transformative leadership style.

Kane et al. (2018) mentioned that leaders in the digital era must be learning-oriented and empower teams to innovate independently. Effective leadership creates a safe environment for employees to experiment, share ideas, and learn from failure. Schaeffer and Sovie (2019) adds that digital leadership does not only rely on formal authority, but also the power of influence through open and empathetic communication. Thus, leaders serve as agents of change that ensure that the organization's digital vision is translated into concrete action at all levels. Leadership in the digital age must be able to balance between focusing on technology and empowering people. Successful leaders not only master digital strategies, but are also able to foster an innovative and collaborative culture that is the foundation for the sustainability of organizational transformation.

3. Method

This study uses a descriptive qualitative approach that focuses on the analysis of the scientific literature on the relationship between organizational culture, leadership, and the digital transformation process in the last five years. This approach was chosen because it provides space to describe phenomena in depth through theoretical and conceptual studies that have been developed in various recent academic publications. Descriptive qualitative research focuses on the exploration of meaning, relationship patterns, and processes that occur in social and organizational contexts without involving direct intervention on the research

subject. Thus, this study fully uses secondary data from various credible and internationally indexed scientific sources.

The research stage begins with the process of identifying and selecting literature that is relevant to the research theme. A search was conducted for scientific journal articles that discuss issues of organizational culture, leadership, and digital transformation with an emphasis on conceptual and empirical contexts. The selection of literature was carried out by paying attention to the suitability of the topic, novelty, and contribution to the development of modern management theory. All literature used was published within the last five years to ensure that the analysis produced was up-to-date and relevant to current conditions.

The analysis process is carried out through a thematic approach by grouping the literature based on the similarity of the focus of the study and the main findings. Each article was analyzed to find conceptual patterns that explain the interconnectedness between organizational culture, leadership style, and organizational readiness to adopt technology-based change. The results of the analysis are then synthesized to build a complete understanding of how the two elements interact in strengthening the effectiveness of digital transformation.

The next step is to conduct a comparative conceptual synthesis of the findings from various sources. This approach is used to examine differences and similarities of views between researchers and identify the theoretical trends underlying the phenomenon of digital transformation. This analysis also includes an evaluation of the contribution of each literature in strengthening the understanding of culture and leadership in the digital age. The final result of this study is in the form of a

conceptual model that explains the synergistic relationship between organizational culture and leadership in supporting digital transformation. The findings are expected to make a theoretical contribution to the development of management science and become a practical basis for organizations in formulating adaptive and sustainable strategies in the midst of rapid technological change dynamics.

4. Results

The results of this study are compiled based on an analysis of the scientific literature over the past five years that highlights the relationship between organizational culture, leadership, and digital transformation. The analysis shows that digital transformation is not just a technological process, but a systemic change that involves the human dimension, structure, and values of the organization. Organizational culture and leadership are two dominant factors that determine the success of the implementation of digital transformation in various sectors, both public and private.

In general, organizational culture serves as the foundation that determines how individuals and groups adapt to change. In the context of digitalization, organizations with an open, collaborative, and learning-based culture find it easier to integrate technological innovations into their business processes (Trushkina et al., 2020). The culture encourages employees to not only be users of technology, but also agents of change who are proactive towards innovation. According to Verhoef et al. (2021), organizations with the values of flexibility, participation, and the courage to experiment have a greater ability to respond to digital change in an

ongoing manner. On the other hand, organizations with bureaucratic and change-resistant cultures tend to fail in carrying out the digitalization process because they are hampered by hierarchy and fear of failure.

The results of the study from Tambunan and Anwar (2019) show that organizational culture change takes a long time and requires the commitment of all organizational elements. Digital transformation demands a fundamental shift from conventional work patterns to a more dynamic, adaptive, and performance-oriented structure. In the context of public organizations, for example, cultural change often proceeds more slowly because it is influenced by rigid regulations and bureaucracy. However, the study also found that internalizing new values such as professionalism, innovation, and integrity can improve organizational readiness in the face of digital disruption. This proves that although digital transformation is often associated with the private sector, the principles of organizational culture remain a universal determinant of the success of technology adoption.

The role of leadership in the context of digital transformation has also received great attention in various studies. Effective leadership in the digital age is characterized by the ability of leaders to inspire change, facilitate cross-functional collaboration, and instill a clear vision of the direction of organizational transformation (Cortellazzo et al., 2019). Digital leaders are not just technology managers, but strategic leaders who connect the potential of technology with business vision and human values. Kane et al. (2018) affirm that successful leaders in the digital age are those who focus energy on developing employees' digital competencies as well as creating an environment that encourages innovation.

Schaeffer and Sovie (2019) added that digital leadership is inclusive, where each individual is encouraged to contribute to the decision-making process. This kind of leadership approach allows organizations to react quickly to market changes and technological developments. This is in line with the findings of Li et al. (2018) who highlight that the ability of leaders to encourage the active participation of organizational members in the transformation process is a determining factor for the success of digitalization, especially in small and medium-scale organizations.

In addition, transformational leadership has been shown to have a significant influence on an adaptive organizational culture. Matarazzo et al. (2021) state that a leadership style that emphasizes open communication, empowerment, and trust encourages the formation of a culture that supports digital innovation. Transformational leaders play a role in directing changes in employee behavior to be more learning-oriented and collaboration across departments. This reinforces the views of Alvarenga et al. (2020), who emphasize the importance of knowledge management and knowledge sharing as part of an organizational culture that supports digitalization. In modern organizations, the ability of leaders to create a knowledge-sharing system is one of the concrete forms of cultural adaptation to the digital era.

Findings from Wang et al. (2018) show that in the public sector, digital leadership has a more complex role as it must balance between innovation and accountability. Digital transformation in this sector depends not only on technological capabilities, but also on the moral and ethical commitment of leaders in building public trust. Leaders must ensure that the digitalization process improves

transparency, efficiency, and service quality without sacrificing good governance principles. Meanwhile, in the private sector, digital leadership tends to be focused on increasing competitiveness through continuous innovation and operational efficiency (Verhoef et al., 2021).

Furthermore, the results of the analysis also show that there is a synergistic relationship between organizational culture and leadership in strengthening digital readiness. Trushkina et al. (2020) found that innovative cultures accelerate the technology adoption process when supported by visionary leadership. Conversely, authoritarian leadership can stifle innovative initiatives even if the organization has adequate technological resources. This is in line with the view of Sousa and Rocha (2019) that leaders play an important role in directing organizational culture transformation through digital education and adaptive training. Leadership that encourages continuous learning creates an environment that allows employees to develop new skills that are relevant to the needs of digitalization.

The findings of Li et al. (2018) and Matarazzo et al. (2021) also show that the success of digital transformation is influenced by a combination of digital capability and organizational learning. Leaders must be able to facilitate collective learning, not just rely on investment in technological infrastructure. This emphasizes that digitalization is not only about information systems and software, but also about how people in the organization understand and use these technologies effectively.

The results of the literature analysis also show that resistance to change is still the main challenge in digital transformation. Trushkina et al. (2020) mentioned that psychological factors such as fear of automation and job loss often create internal

barriers to the adoption of new technologies. In this context, transformational leadership has a role to play in reducing resistance by creating empathetic communication and building trust. Verhoef et al. (2021) added that an approach that emphasizes cross-functional collaboration can help address organizational fragmentation that is often an obstacle to digital transformation.

Meanwhile, in terms of organizational performance, research by Lombardi and Secundo (2021) found that digitalization accompanied by an innovative culture is able to improve efficiency, decision quality, and transparency of business processes. In many cases, organizations that successfully implement digitalization also show increased productivity and employee job satisfaction. This is because technology allows the automation of routine tasks, so employees can focus on high-value-added activities such as analysis and innovation. Similar results were found by Kane et al. (2018), who identified that organizations with a strong digital culture have higher levels of employee engagement.

Nevertheless, the challenges of digital transformation sustainability remain. Schaeffer and Sovie (2019) emphasizes that many organizations fail to sustain the momentum of change after the initial phase of technology implementation. One of the main causes is the lack of integration between the digital strategy and the organization's long-term vision. When digitalization is only considered a temporary project, not part of a core strategy, cultural and behavioral change is difficult to sustain. To overcome this, leaders must ensure that digital transformation becomes part of the organization's identity and is internalized in all aspects of management (Tambunan & Anwar, 2019).

Finally, the results of analysis from various literature reinforce the conclusion that digital transformation is a cultural and leadership journey, not just a technology project. An organizational culture that supports innovation and learning creates a strong foundation for organizations to adopt and utilize technology effectively. On the other hand, transformative leadership ensures that the change is strategic, inclusive, and sustainable. The interaction of the two results in a resilient organization that is ready to face future uncertainty.

This research emphasizes the importance of a holistic approach in understanding digital transformation. Technology, human, and organizational structure factors cannot be separated, but must be synergized through a strong organizational culture and visionary leadership. Thus, the success of digital transformation is not only measured by the level of technology adoption, but also by the extent to which the organization is able to create new value, strengthen internal trust, and maintain a competitive advantage in the era of digital disruption.

5. Discussion

The results of the literature analysis show that digital transformation is a multidimensional process that involves complex interactions between technology, organizational culture, and leadership. In this context, the discussion focused on the interpretation of the main findings and their relevance to the development of modern management theory. One of the key findings is that digitalization cannot run effectively without the foundation of an adaptive organizational culture and transformative leadership. According to Verhoef et al. (2021), the success of digital

transformation depends on an organization's ability to integrate technological change into its internal values and norms. Without cultural change, technology investments are unlikely to have a significant impact on organizational performance.

The context of organizational culture is a crucial point in determining the readiness and sustainability of digitalization. A culture that is open to learning, collaboration, and innovation has been shown to accelerate the adoption of new technologies (Trushkina et al., 2020). In this environment, employees are more motivated to be actively involved in the transformation process and feel they have an important role to play in the change. In contrast, a hierarchical, control-oriented culture often hinders organizational flexibility. These results are in line with the research of Tambunan and Anwar (2019), which emphasizes the need for value and mindset reform in the face of the digital era, where cultural change is a prerequisite for creating agile and highly competitive organizations.

The leadership aspect also plays an equally important role. Digital leadership requires leaders to have strategic competence and high interpersonal abilities. Kane et al. (2018) argue that digital leaders must be able to create a shared vision and facilitate learning-based transformation. Leaders are no longer just decision-makers, but also agents of change who drive participatory adoption of technology. Schaeffer and Sovie (2019) added that effective leaders in the digital age are those who balance the exploitation of technology and the exploration of human values, including empathy, collaboration, and trust. This shows that digital leadership is not only technocratic, but also humanistic.

Another interesting finding is the mutual relationship between organizational culture and leadership in shaping digital readiness. Cortellazzo et al. (2019) explain that leaders act as catalysts that accelerate cultural change through communication, exemplary, and empowerment. Meanwhile, a positive organizational culture provides an environment that allows a transformative leadership style to flourish naturally. The synergy between the two creates an adaptive and innovative organizational system. Within the framework of contemporary management theory, this relationship can be understood as a process of co-evolution between social structure and leadership behavior in the face of digital disruption.

This discussion emphasized that digital transformation cannot be understood in isolation from the context of people and organizational culture. The technology factor is just one dimension of the broader change. The practical implication is that organizations need to put cultural and leadership strategies at the forefront of the digitalization agenda. Leaders must function as cultural drivers and builders of a sustainable learning ecosystem. Thus, digital transformation can run in an inclusive, ethical, and oriented manner to increase long-term value for organizations and society.

6. Conclusion

Digital transformation is a strategic process that not only focuses on the application of technology, but also involves fundamental changes in organizational values, behaviors, and work patterns. The results of this study confirm that the success of digitalization is highly determined by two main pillars, namely

organizational culture and leadership. An adaptive and learning-oriented organizational culture is able to create an environment that supports innovation, collaboration, and openness to change. Meanwhile, transformative leadership plays a role in instilling vision, building trust, and encouraging all members of the organization to actively participate in the transformation process. The integration between culture and leadership creates synergies that strengthen organizational resilience in facing the challenges of the digital era.

Visionary leaders are able to steer organizations to not only adopt technology, but also make it an integral part of the long-term strategy. Thus, digital transformation not only results in operational efficiency, but also increases organizational value through human resource development and strengthening innovative culture. This research provides important implications for policymakers and management practitioners to place cultural and leadership aspects as top priorities in any digital initiative. Going forward, a holistic approach that balances technology, people, and organizational values will be key to the success and sustainability of digital transformation across various sectors.

References

Alvarenga, A., Matos, F., Godina, R., & CO Matias, J. (2020). Digital transformation and knowledge management in the public sector. *Sustainability*, *12*(14), 5824.

Cortellazzo, L., Bruni, E., & Zampieri, R. (2019). The role of leadership in a digitalized world: A review. *Frontiers in psychology*, *10*, 1938.

Kane, G. C., Palmer, D., Phillips, A. N., Kiron, D., & Buckley, N. (2018). *Coming of age digitally: Learning, leadership, and legacy. MIT Sloan Management Review, 59*(3), 34–45.

Li, L., Su, F., Zhang, W., & Mao, J. Y. (2018). Digital transformation by SME entrepreneurs: A capability perspective. *Information Systems Journal, 28*(6), 1129–1157.

Lombardi, R., & Secundo, G. (2021). The digital transformation of corporate reporting–a systematic literature review and avenues for future research. *Meditari accountancy research*, *29*(5), 1179-1208.

Matarazzo, M., Penco, L., Profumo, G., & Quaglia, R. (2021). Digital transformation and customer value creation in Made in Italy SMEs: A dynamic capabilities perspective. *Journal of Business research*, *123*, 642-656.

Schaeffer, E., & Sovie, D. (2019). *Reinventing the product: How to transform your business and create value in the digital age*. London: Kogan Page Publishers.

Sousa, M. J., & Rocha, Á. (2019). Digital learning: Developing skills for digital transformation of organizations. *Future Generation Computer Systems*, *91*, 327-334.

Tambunan, M. R., & Anwar, R. (2019). Transformasi budaya organisasi otoritas perpajakan indonesia menghadapi era ekonomi digital. *Jurnal Aplikasi Bisnis Dan Manajemen (JABM)*, *5*(2), 253-253.

Trushkina, N., Abazov, R., Rynkevych, N., & Bakhautdinova, G. (2020). Digital transformation of organizational culture under conditions of the information economy. *Virtual Economics*, *3*(1), 7-38.

Wang, C., Medaglia, R., & Zheng, L. (2018). Towards a typology of adaptive governance in the digital government context: The role of decision-making and accountability. *Government Information Quarterly*, *35*(2), 306-322.

Verhoef, P. C., Broekhuizen, T., Bart, Y., Bhattacharya, A., Dong, J. Q., Fabian, N., & Haenlein, M. (2021). Digital transformation: A multidisciplinary reflection and research agenda. *Journal of business research*, *122*, 889-901.