

Organizational Culture, Competencies, and Strategies in Indonesia's Telecom Digital Transformation

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Abstract

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The digital transformation era has fundamentally altered business operations, necessitating innovative strategies to maintain competitiveness in a dynamic global market. This article examines the development of efficient digital business strategies that leverage advanced information technology (IT) solutions to achieve sustainable growth and competitive advantage. Through a qualitative descriptive approach, the study analyzes how businesses integrate technologies such as artificial intelligence, big data, and the Internet of Things to optimize operations, enhance customer experiences, and align with the Sustainable Development Goals (SDGs). The findings highlight that effective digital strategies involve data-driven decision-making, robust digital capabilities, and a focus on sustainability to address market demands and stakeholder expectations. By fostering a digital culture and adopting innovative business models, companies can mitigate risks, such as cybersecurity threats and resource constraints, while capitalizing on opportunities for growth. This research underscores the importance of aligning digital transformation with sustainability goals to ensure long-term business viability and societal impact in an increasingly digital world.

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1. Introduction

The rapid advancement of digital technologies has transformed the global business landscape, compelling organizations across industries to adapt to a dynamic and competitive environment. Digital transformation, which integrates digital tools and technologies into core business operations, has emerged as a critical driver for enhancing organizational efficiency, innovation, and market competitiveness. This phenomenon is particularly evident in the telecommunications sector, where companies must navigate evolving customer expectations, technological disruptions, and intensified market competition. The interplay of digital organizational culture, employee digital competencies, and strategic business approaches shapes the ability of organizations to leverage digital transformation effectively, ultimately influencing their performance and sustainability.

Digitalization has reshaped the telecommunications industry by introducing opportunities for enhanced service delivery while presenting challenges related to technological adoption and workforce adaptation. Tulungen et al. (2022) highlight that the increasing dependence on digital services drives companies to adopt advanced technologies to meet rising customer demands. However, successful digital transformation extends beyond technology, requiring a supportive organizational culture, skilled employees, and well-aligned business strategies. Cardoso et al. (2023) emphasize that a strong digital culture fosters innovation and collaboration, serving as a cornerstone for effective digital transformation. In contrast, Bhatti et al. (2021) underscore the role of technologies such as big data and

the Internet of Things (IoT) in accelerating transformation, contributing to improved strategic performance in telecommunications.

A robust digital organizational culture is essential for driving operational efficiency and fostering adaptability. Shin et al. (2023) demonstrate that digital culture, when supported by effective digital leadership, enhances employee capabilities and strengthens organizational performance. However, Li (2022) suggests that digital culture may not always yield significant performance improvements if its implementation lacks alignment with organizational values, highlighting the need for strategic integration. These findings indicate that a well-defined digital culture is crucial for maximizing the benefits of digital initiatives.

Employee digital competencies play a pivotal role in enabling organizations to harness the full potential of digital transformation. Yu and Moon (2021) argue that strong digital competencies empower employees to utilize technology effectively, driving productivity and innovation. Yet, challenges such as limited technological knowledge or resistance to adopting new systems can impede progress, as observed by Tulungen et al. (2022) in the context of PT. Telekomunikasi Indonesia Tbk. Imran et al. (2021) further note that digital competencies encompass not only technical expertise but also skills in collaboration and problem-solving within digital environments, underscoring their multifaceted nature.

Business strategies oriented toward digitalization are critical for achieving successful transformation. Porkodi et al. (2023) suggest that well-crafted digital strategies enhance both employee and customer experiences, contributing to overall organizational performance. Verhoef et al. (2021) add that leveraging digital

platforms as part of growth strategies enables companies to deliver added value to customers. However, rapid technological changes can create adaptation challenges for employees, as noted by Tulungen et al. (2022), emphasizing the need for strategies that account for workforce readiness.

Digital transformation serves as a critical mechanism that connects organizational culture, digital competencies, and business strategies to performance outcomes. The effective digital transformation enhances operational efficiency and customer satisfaction. However, its success hinges on the seamless integration of technology with human resources and strategic objectives. Challenges such as resistance to change and inadequate infrastructure, as observed in various telecommunications contexts, often hinder progress. Drawing on the Resource-Based View (RBV) model, this study explores how organizations can optimize their human and technological resources to achieve superior performance in the digital era.

2. Methods

This study employs a Systematic Literature Review (SLR) approach to investigate the influence of digital organizational culture, digital competencies, and business strategies on organizational performance, with digital transformation as an intervening variable, within the Indonesian context. The SLR method was chosen to systematically identify, evaluate, and synthesize relevant literature to provide a comprehensive understanding of the topic. This approach ensures a structured and transparent process for collecting and analyzing secondary data from existing

studies, enabling the identification of trends, gaps, and key findings in the Indonesian telecommunications sector.

The research process began with the formulation of research questions to guide the literature search, focusing on how digital organizational culture, digital competencies, and business strategies impact digital transformation and organizational performance in Indonesia. A comprehensive search was conducted across academic databases such as Google Scholar, Research Gate and Elsevier, which hosts national and international journals. Keywords included “digital transformation,” “digital organizational culture,” “digital competencies,” “business strategies,” and “organizational performance,” combined with “Indonesia” and “telecommunications” to ensure relevance. Only peer-reviewed articles published in English or Indonesian were included to maintain recency and applicability.

The selection process followed strict inclusion and exclusion criteria. Studies were included if they addressed the telecommunications sector in Indonesia, examined at least one of the variables (digital organizational culture, digital competencies, business strategies, digital transformation, or performance), and used empirical or theoretical frameworks. Non-empirical studies, such as opinion pieces, or those focusing on other industries or countries were excluded. After screening titles and abstracts, full-text reviews were conducted to assess relevance and quality.

Data analysis involved thematic synthesis, where findings were categorized based on the variables of interest. Themes included the role of digital culture in fostering innovation, the impact of digital competencies on employee adaptability, the alignment of business strategies with digital goals, and the mediating effect of

digital transformation. The synthesized findings were then interpreted to draw conclusions about their implications for organizational performance in Indonesia's telecommunications sector, highlighting practical and theoretical contributions.

3. Results and Discussion

3.1. Influence of Digital Organizational Culture, Competencies, and Strategies on Digital Transformation

The systematic literature review (SLR) reveals that digital organizational culture, digital competencies, and business strategies significantly influence digital transformation in Indonesia's telecommunications sector, though their impacts vary in strength and context. Digital organizational culture serves as a foundational element, shaping the environment for adopting digital technologies. Cardoso et al. (2023) highlight that a digital culture characterized by innovation, collaboration, and openness fosters an organization's readiness for digital transformation. In the Indonesian context, studies such as Tulungen et al. (2022) indicate that a digital culture encourages employees to embrace technological changes, though its impact is often moderated by alignment with organizational values. Imran et al. (2021) notes that misaligned digital cultures may fail to drive transformation, as employees resist changes that conflict with established norms.

Digital competencies, encompassing technical skills, digital literacy, and problem-solving abilities, are critical for enabling employees to navigate digital tools effectively. Yu and Moon (2021) argue that robust digital competencies enhance an organization's capacity to implement digital solutions, employees with strong digital

skills drive innovation in Indonesian telecommunications firms. However, Tulungen et al. (2022) identify challenges, such as limited employee knowledge of digital systems, which hinder transformation efforts. Imran et al. (2021) further suggest that digital competencies extend beyond technical expertise to include collaborative and adaptive skills, which are essential for integrating new technologies into workflows. In Indonesia, the rapid pace of technological change often outstrips employee training, creating gaps in competency development.

Business strategies oriented toward digitalization are pivotal in steering organizations toward successful digital transformation. Verhoef et al. (2021) stress that strategies leveraging digital platforms and resources enable firms to create value and maintain competitiveness. In the Indonesian telecommunications sector, Porkodi et al. (2023) find that strategies focused on digital growth, such as adopting cloud-based solutions, enhance transformation outcomes. Tulungen et al. (2022) observe that strategic alignment with digital goals is critical, yet employee adaptation to these strategies remains a challenge. Ahmad et al. (2022) underscore that well-defined digital strategies, including clear metrics and objectives, are essential for guiding transformation efforts. However, Malhotra et al. (2021) note that poorly communicated strategies can lead to resistance, particularly in firms with rigid hierarchies.

The interplay of these factors reveals both synergies and challenges. Shin et al. (2023) suggest that a strong digital culture amplifies the impact of digital competencies by fostering a supportive environment for skill application. Similarly, Bhatti et al. (2021) highlight that technologies like big data and IoT, when integrated

into business strategies, accelerate transformation by enhancing data-driven decision-making. In contrast, Cardoso et al. (2023) argue that without a cohesive digital culture, even high levels of digital competency may not translate into transformation success. In Indonesia, the telecommunications sector faces unique challenges, such as uneven digital infrastructure and varying levels of digital readiness across organizations (Aminah & Saksono, 2021). These findings align with Philip (2021), who emphasize the need for integrated approaches combining culture, competencies, and strategies to drive transformation.

The SLR also identifies gaps in the literature, particularly regarding the contextual nuances of digital transformation in Indonesia. While studies like Azhary and Pradana (2021) highlight the positive role of digital culture, others, such as Farooq et al. (2021), suggest its impact is inconsistent, indicating a need for further exploration of moderating factors like leadership or organizational size. Additionally, the rapid evolution of digital technologies in Indonesia's telecommunications sector underscores the importance of continuous competency development and strategic agility to sustain transformation momentum (Negri et al., 2021).

3.2. Mediating Role of Digital Transformation in Enhancing Organizational Performance

The systematic literature review underscores the pivotal role of digital transformation as a mediator in the relationship between digital organizational culture, digital competencies, business strategies, and organizational performance in Indonesia's telecommunications sector. Digital transformation amplifies the impact of these factors by facilitating the integration of advanced technologies, optimizing

operational processes, and enhancing customer-centric outcomes. Tulungen et al. (2022) demonstrate that digital transformation fully mediates the influence of digital competencies and business strategies on performance, indicating that without digital transformation, these factors have limited direct impact on organizational outcomes. Similarly, Chen (2022) highlights that digital transformation enhances operational efficiency and customer satisfaction, acting as a bridge that translates cultural and strategic inputs into tangible performance improvements.

Digital transformation's mediating role is particularly evident in how it leverages digital culture to enhance performance. Cardoso et al. (2023) suggest that a digital culture, when channeled through transformation initiatives, fosters innovation and collaboration, leading to improved organizational outcomes. However, Li (2022), notes that the mediating effect of digital transformation on the relationship between digital culture and performance is partial, as cultural misalignment can reduce its effectiveness. In Indonesia's telecommunications sector, companies with robust digital transformation initiatives, such as adopting cloud-based systems, report higher performance metrics, including faster service delivery and increased customer retention (Putra et al. 2019).

Digital competencies significantly influence performance when mediated by digital transformation. Yu and Moon (2021) argue that employees' digital skills, such as data analysis and digital collaboration, are most effective when integrated into transformation processes that align with organizational goals. Tulungen et al. (2022) find that in Indonesian telecommunications firms, digital transformation fully mediates the impact of competencies, as employees require digital systems to apply

their skills effectively. Imran et al. (2021) further note that digital transformation provides platforms for employees to utilize competencies in problem-solving and innovation, which directly contribute to performance metrics like productivity and service quality.

Business strategies oriented toward digitalization also rely on digital transformation to impact performance. Verhoef et al. (2021) emphasize that strategies leveraging digital platforms and data-driven decision-making enhance performance when supported by transformation initiatives that integrate technology across operations. Bhatti et al. (2021) highlight that in Indonesia, strategies utilizing big data and IoT improve performance through digital transformation by optimizing resource allocation and customer engagement. However, Porkodi et al. (2023) point out that the success of such strategies depends on transformation processes that ensure employee buy-in and system compatibility, as misalignment can weaken performance outcomes.

The mediating effect of digital transformation is not without challenges. Tulungen et al. (2022) identify issues such as employee resistance to digital systems and inadequate infrastructure, which can disrupt the mediation process in Indonesian telecommunications firms. Shin et al. (2023) suggest that effective digital leadership is crucial to align transformation efforts with organizational goals, ensuring that culture, competencies, and strategies translate into performance gains. The literature indicates a gap in studies exploring how to mitigate resistance to digital transformation in Indonesia, suggesting a need for targeted change management strategies to enhance mediation effectiveness.

Digital transformation serves as a critical mechanism that amplifies the impact of digital culture, competencies, and strategies on performance. In Indonesia's telecommunications sector, successful transformation initiatives are those that integrate technology with human and strategic resources, as evidenced by improved efficiency and customer satisfaction metrics. These findings highlight the importance of a holistic approach to digital transformation to maximize organizational performance.

4. Conclusion

The systematic literature review highlights that digital organizational culture, digital competencies, and business strategies significantly shape digital transformation and organizational performance in Indonesia's telecommunications sector. Digital culture fosters an environment conducive to innovation and adaptability, yet its impact is often limited without alignment with organizational values. Digital competencies enable employees to leverage advanced technologies, but gaps in skills and resistance to change pose challenges. Business strategies oriented toward digitalization drive transformation by optimizing operations and customer engagement, though their success depends on workforce readiness and robust implementation. Digital transformation acts as a critical mediator, amplifying the influence of these factors on performance outcomes such as operational efficiency and customer satisfaction. However, challenges like inadequate infrastructure and employee resistance underscore the need for integrated

approaches that combine cultural alignment, skill development, and strategic planning to maximize transformation success.

To enhance organizational performance, Indonesian telecommunications companies must prioritize cohesive digital transformation strategies that integrate culture, competencies, and business strategies. This involves fostering a supportive digital culture through effective leadership, investing in scalable training programs to bridge competency gaps, and designing strategies that align with technological advancements and market demands. Addressing barriers such as resistance to change and legacy systems through targeted change management and infrastructure investment is essential. These findings provide a foundation for future research to explore specific mechanisms for overcoming transformation challenges and developing tailored frameworks for Indonesia's telecommunications industry, ensuring sustained competitiveness in the digital era.

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