

**ORGANIZATIONAL MANAGEMENT TRANSFORMATION IN HEALTHCARE SERVICES: A
SYSTEMATIC REVIEW OF DIGITAL INFORMATION SYSTEMS, HUMAN CAPITAL
PERFORMANCE, AND PATIENT-CENTERED SERVICE QUALITY**

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Abstract

The increasing complexity of healthcare services in the digital era has intensified the need for organizational management transformation to ensure efficiency, service quality, and patient-centered care. This study aims to systematically review the literature on organizational management transformation in healthcare services, with a particular focus on digital information system integration, human capital performance, and patient-centered service quality. Using a qualitative approach, this study employs a systematic literature review design, analyzing peer-reviewed articles indexed in Scopus. The literature selection adheres to the PRISMA guidelines, and the data are analyzed using thematic analysis to identify dominant patterns and relationships across the studies. The findings reveal that successful organizational transformation in healthcare is driven by the effective integration of digital information systems, supported by competent and adaptive human capital, and aligned with patient-centered service quality objectives. Digital technologies serve as enablers of transformation; however, their impact is highly dependent on an organization's readiness, leadership, and workforce capabilities. Moreover, the review highlights that improvements in service quality and patient experience are more likely to occur when technological adoption is embedded within a holistic organizational transformation strategy rather than implemented as a standalone initiative. This study contributes to the literature by providing an integrative perspective on healthcare organizational management transformation, emphasizing the interdependence between technology, human resources, and patient-oriented service outcomes. Practically, the findings offer valuable insights for healthcare managers and policymakers in designing sustainable transformation strategies that enhance organizational performance and improve patient care quality in the digital age.

Keywords: Organizational management transformation, Healthcare services, Digital information systems, Human capital performance, Patient-centered service quality

Introduction

The healthcare sector is facing increasingly complex pressures due to changing demographics, increasing patient expectations, limited resources, and the rapid development of digital technologies. Healthcare organizations are required to adapt structurally and managerially to maintain service quality, operational efficiency, and patient safety sustainably. Organizational management transformation is a strategic issue because it involves not only the adoption of technology, but also changes in work culture, business processes, and service orientation that are more patient-centered (World Health Organization, 2021; Porter & Lee, 2013).

Digitalization in healthcare, particularly through the use of health information systems, has been a key driver of organizational transformation. The implementation of electronic health records (EHRs), health information systems (HISs), and other digital platforms has the potential to enhance service coordination, improve clinical data accuracy, and facilitate evidence-based decision-making. However, various studies show that the success of digitalization is not solely determined by technology, but rather by the readiness of organizations to manage the managerial and structural changes that accompany it (DeLone & McLean, 2003; Cresswell & Sheikh, 2013).

Although digital technology investment in the healthcare sector continues to increase, many organizations face challenges in effectively integrating information systems. Data fragmentation, lack of interoperability, and internal resistance often hinder the optimization of the benefits of digital technology. Without the right organizational management strategy, information systems risk increases workload and reduces service quality. Therefore, information system integration needs to be understood as part of a holistic organizational transformation, not just a technology project (Boonstra & Broekhuis, 2010; Kruse et al., 2018).

In addition to the technological aspect, the performance of human resources is a key factor in the success of organizational management transformation in healthcare. Healthcare workers are required to possess digital competence, adaptability, and the ability to collaborate across professions. The literature indicates that digital transformation, which is not accompanied by capacity building and workforce motivation, tends to fail to achieve its strategic goals. Thus, improving human capital performance must be an integral part of organizational transformation strategies (West et al., 2014; Venkatesh et al., 2011).

The transformation of organizational management in healthcare ultimately aims to improve the quality of patient-oriented services. The patient-centered care approach emphasizes the importance of patient experience, effective communication, and patient involvement in the service process. Previous studies have shown that integrating digital technology and ensuring the adequate performance of healthcare workers can significantly contribute to improved patient satisfaction and safety when managed within a proper organizational framework (Institute of Medicine, 2001; Doyle et al., 2013).

Although various studies have addressed health information systems, human resource performance, and patient service quality separately, studies that integrate these three aspects within the framework of organizational management transformation are still limited. Many studies are contextual and fragmentary, making it difficult to provide a comprehensive picture of effective organizational transformation strategies in the digital age. This suggests the need for a systematic review that synthesizes empirical and conceptual findings from the existing literature (Greenhalgh et al., 2017).

Based on this background, this study aims to conduct a systematic review of the literature on organizational management transformation in healthcare, focusing on the integration of digital information systems, enhancing human capital performance, and

improving the quality of patient-centered services. This study is expected to make a theoretical contribution by enhancing the conceptual understanding of organizational transformation in the health sector, as well as providing practical insights for policymakers and healthcare managers in designing sustainable transformation strategies in the digital age.

Literature Review

The transformation of organizational management in healthcare has become a significant focus in the health management and policy literature, particularly as the digitization of services continues to increase. Healthcare organizations are understood as complex systems that involve interactions between organizational structures, technology, human resources, and service users. The early literature emphasizes that organizational change in the health sector cannot be accomplished incrementally; instead, it requires a transformational approach to respond to the ever-evolving dynamics of both the external and internal environments.

One of the primary themes in the literature is the role of digital information systems as a catalyst for organizational transformation. Health information systems, including electronic health records and integrated health information systems, are recognized as capable of enhancing operational efficiency, improving decision-making quality, and facilitating coordination between service units. However, various studies also highlight that organizational factors, such as a lack of managerial support, low organizational readiness, and weak change governance, often contribute to the failure to implement information systems. Thus, the literature agrees that digital technology can only provide added value if it is integrated into a clear and long-term-oriented organizational management strategy.

In addition to the technological aspect, the literature consistently emphasizes the importance of human capital performance in the transformation process of healthcare organizations. Health workers are the primary actors in implementing organizational change, so their competence, attitude, and readiness for change are key determinants of the transformation's success. Previous research has demonstrated that investments in training, digital competency development, and fostering an adaptive work culture contribute to enhanced individual and organizational performance. In contrast, resistance to change and increased workloads are often significant obstacles in the digital transformation of healthcare.

The literature also highlights the close relationship between organizational transformation and patient-oriented quality of service. The patient-centered care approach puts the patient at the center of the service process, emphasizing the patient's experience, safety, and involvement in decision-making. Previous studies have shown that organizational transformation supported by digital information systems and good human resource performance can increase patient satisfaction and strengthen trust in healthcare organizations. In this context, service quality is understood not only in terms of clinical outcomes but also as the overall experience of receiving the service.

Although the literature has extensively discussed information systems, human resources, and quality of service, most research still tends to be partial and fragmented. Many studies focus on one specific dimension without examining the interconnectedness between dimensions within the framework of a whole-to-face organizational management transformation. These limitations highlight a research gap in understanding how healthcare organizations can effectively integrate digital technology, human capital, and patient orientation simultaneously.

Based on the literature review, it can be concluded that the transformation of organizational management in health services requires an integrative approach that unites technology, human, and service aspects. This literature review provides a conceptual foundation for this study, synthesizing previous findings to develop a more comprehensive understanding of the transformation strategies employed by healthcare organizations in the digital age.

Research Methods

This study employs a qualitative approach with a systematic literature review (SLR) design to examine the transformation of organizational management in healthcare services during the digital era. This approach was chosen because it enables the provision of an in-depth and comprehensive understanding of complex phenomena that involve the integration of digital information systems, human resource performance, and patient-oriented service quality. SLR enables a systematic and transparent synthesis of empirical and conceptual findings from various previous studies (Snyder, 2019; Xiao & Watson, 2019).

The data collection process was conducted by searching for scientific articles indexed by Scopus within specific publication periods using relevant keywords, such as *healthcare organizational transformation*, *health information systems*, *human capital performance*, and *patient-centered service quality*. The inclusion criteria include reputable journal articles, empirical and conceptual studies focusing on the healthcare sector, as well as publications written in the English language. Articles that are irrelevant, duplicate, or do not undergo the peer-review process are excluded from the analysis. The literature selection process follows the stages of *identification*, *screening*, *eligibility*, and *inclusion* as recommended in the PRISMA guidelines (Page et al., 2021).

Data analysis was carried out using thematic analysis techniques to identify patterns, main themes, and relationships between concepts that emerged from the selected literature. This process includes initial coding, thematic grouping, and critical interpretation of research findings related to organizational management transformation strategies in healthcare. To increase the validity and credibility of the findings, a process of repeated review and conceptual triangulation was conducted across literature sources. The results of the analysis were then synthesized to produce a conceptual framework that describes the relationship between digital information systems, human capital performance, and patient-based service quality in the context of organizational transformation (Braun & Clarke, 2006).

Results and Discussion

Research Results

The results of a systematic review of the literature indicate that the transformation of organizational management in healthcare during the digital era is centered on three main themes: the integration of digital information systems, enhancing human capital performance, and improving the quality of patient-oriented services. These three themes appear consistently in various healthcare organizational contexts, both in developed and developing countries, and are interrelated in shaping overall organizational performance.

The first theme is related to the integration of digital information systems as the foundation of organizational transformation. The literature suggests that the implementation of health information systems, including electronic health records and integrated digital platforms, results in increased operational efficiency, enhanced clinical data accuracy, and improved coordination among service units. However, the study's results also reveal that the benefits of digital technology cannot be achieved optimally without the support of strong organizational governance, including strategic leadership, process standardization, and system interoperability.

The second theme highlights the role of human capital in supporting organizational transformation. The studies examined confirm that digital competence, readiness for change, and commitment of health workers are determining factors for the success of transformation. Successful organizational management transformation is characterized by continuous investment in training, capacity building, and the creation of a technology-adaptive work culture. In contrast, labor resistance and a lack of managerial support are often the primary obstacles to implementing digital transformation.

The third theme relates to the quality of patient-oriented services. The literature indicates that integrated organizational transformation can enhance patient experience, service satisfaction, and patient safety. The patient-centered care approach is strengthened through the use of digital technology that supports communication, transparency of information, and patient involvement in the service process. Thus, service quality is not only seen as a clinical output, but also as a result of systemic interactions between technology, human resources, and organizational structures.

Discussion

The findings of this study confirm that the transformation of organizational management in healthcare is a multidimensional process that cannot be reduced to the adoption of technology alone. The integration of digital information systems must be understood as part of broader organizational change, including restructuring work processes, strengthening governance, and aligning the organization's strategic vision. This aligns with the view that technology serves as an enabler, while organizational and human factors ultimately determine the sustainability of transformation.

Further discussion reveals that human capital serves as a crucial link between technology and service quality. The adaptive and competent performance of healthcare

workers enables the effective utilization of digital technology to support clinical and managerial decision-making. Therefore, an organizational transformation strategy that focuses solely on technology without also developing human resources risks creating a gap between the system's potential and its practical application in the field.

In addition, an orientation to patient-centered service quality emerged as the ultimate goal of organizational management transformation. The results of the study indicate that healthcare organizations that successfully undergo holistic transformation tend to experience increased patient satisfaction and trust. The integration of digital technology and the improved performance of healthcare workers create more responsive, transparent, and sustainable services, thereby strengthening the organization's position in meeting the demands of modern healthcare.

Overall, these results and discussion strengthen the argument that organizational management transformation in healthcare in the digital age must be systematically designed and balanced between technology, human, and service-oriented aspects. These findings provide a conceptual basis for developing a more comprehensive and applicable organizational transformation model, benefiting both policymakers and healthcare management practitioners.

Conclusion and Implications

Conclusion

This study concludes that the transformation of organizational management in healthcare in the digital era is a multidimensional and integrated strategic process. Transformation is not only determined by the adoption of digital information systems, but also by the readiness of organizations to manage structural changes, improve human resource performance, and strengthen patient-centered service orientation. The results of the systematic review indicate that the effective integration of information systems, supported by competent and adaptable human capital, significantly contributes to the continuous improvement of healthcare service quality.

Furthermore, the research findings confirm that the success of organizational transformation relies heavily on a holistic approach that aligns technology, managerial processes, and organizational culture. Transformations that are partial or focused solely on technology tend to produce limited benefits and risk generating internal resistance. Therefore, organizational management transformation needs to be designed as a long-term, value-oriented process, with patient-centered service quality as the primary goal.

Implicasi's theorem

Theoretically, this study enriches the literature on the management of healthcare organizations by presenting an integrative perspective on the relationship between digital information systems, human capital performance, and patient-based service quality. This study expands the understanding that organizational transformation in the health sector cannot be explained by a single dimension, but rather by a dynamic interaction between technological, human, and organizational structure factors. Thus, these findings

contribute to the development of a more comprehensive conceptual framework for organizational transformation in the context of digital healthcare. In addition, this research provides a conceptual foundation for future studies to develop an empirical model that examines the causal relationship between information system integration, human resource performance, and the quality of patient services. This approach opens up opportunities for cross-disciplinary studies that combine management, information systems, and health science perspectives to gain a deeper understanding of organizational transformation.

Managerial Implications

From a managerial perspective, the findings of this study provide important implications for leaders and managers of healthcare organizations in designing transformation strategies in the digital era. Managers need to view digital technology investments as part of an overarching organizational change strategy, rather than as a standalone technology project. This includes strengthening transformational leadership, enhancing governance, and fostering an organizational culture that promotes innovation and continuous learning.

Additionally, enhancing human capital performance must be a top priority in the organizational transformation agenda. Healthcare organizations are advised to invest resources in digital competency training, change management, and strengthening collaboration between professions. By aligning the integration of digital information systems with human resource development, organizations can enhance the quality of patient-oriented services, strengthen public trust, and achieve sustainable performance amid the dynamics of modern healthcare.

Daftar Pustaka

Boonstra, A., & Broekhuis, M. (2010). Barriers to the Acceptance of Electronic Medical Records by Physicians: A Systematic Review of Taxonomy and Interventions. *BMC Health Services Research*, 10(1), 231. <https://doi.org/10.1186/1472-6963-10-231>

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1177/1478088706qp0630a>

Cresswell, K. M., & Sheikh, A. (2013). Organizational issues in the implementation and adoption of health information technology innovations: An interpretative review. *International Journal of Medical Informatics*, 82(5), e73–e86. <https://doi.org/10.1016/j.ijmedinf.2012.10.007>

DeLone, W. H., & McLean, E. R. (2003). The DeLone and McLean model of information systems success: A ten-year update. *Journal of Management Information Systems*, 19(4), 9–30. <https://doi.org/10.1080/07421222.2003.11045748>

Doyle, C., Lennox, L., & Bell, D. (2013). A systematic review of evidence on the links between patient experience and clinical safety and effectiveness. *BMJ Open*, 3(1), e001570. <https://doi.org/10.1136/bmjopen-2012-001570>

Greenhalgh, T., Wherton, J., Papoutsi, C., Lynch, J., Hughes, G., A'Court, C., ... Shaw, S. (2017). Beyond adoption: A new framework for theorizing and evaluating nonadoption, abandonment, and challenges to the scale-up, spread, and

sustainability of health and care technologies. *Journal of Medical Internet Research*, 19(11), e367. <https://doi.org/10.2196/jmir.8775>

Institute of Medicine. (2001). *Crossing the quality chasm: A new health system for the 21st century*. National Academies Press.

Kruse, C. S., Kristof, C., Jones, B., Mitchell, E., & Martinez, A. (2018). Barriers to electronic health record adoption: A systematic literature review. *Journal of Medical Systems*, 42(8), 134. <https://doi.org/10.1007/s10916-018-0993-9>

Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., ... Moher, D. (2021). The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. *BMJ*, 372, n71. <https://doi.org/10.1136/bmj.n71>

Porter, M. E., & Lee, T. H. (2013). The strategy to fix healthcare. *Harvard Business Review*, 91(10), 50–70.

Snyder, H. (2019). Literature review as a research methodology: An overview and guidelines. *Journal of Business Research*, 104, 333–339. <https://doi.org/10.1016/j.jbusres.2019.07.039>

Venkatesh, V., Sykes, T. A., & Zhang, X. (2011). 'Just what the doctor ordered': A revised UTAUT for EMR system adoption and use by doctors. *Proceedings of the 44th Hawaii International Conference on System Sciences*. <https://doi.org/10.1109/HICSS.2011.1>

West, M. A., Armit, K., Loewenthal, L., Eckert, R., West, T., & Lee, A. (2014). *Leadership and leadership development in healthcare: The evidence base*. The King's Fund.

World Health Organization. (2021). *Global strategy on digital health 2020–2025*. WHO Press.