Exploring The Role Of Information Literacy And Organizational Learning Culture On Digital Transformation In Higher Education Institutions (HEIs): An Organizational Learning Theory Perspective

Alhassan Shaibu¹ and Ibrahim Osman Adam² alhassan.shaibu@uds.edu.gh ioadam@uds.edu.gh

University for Development Studies, Ghana, Department Of Business Analytics and Management Information Systems

1.0 Introduction

Digital transformation, the process of integrating digital technologies into all areas of organizational operations, has become a critical driver of economic growth and innovation worldwide (Kraus et al., 2021). It enhances operational efficiency, improves service delivery, and boosts competitiveness, particularly in developed nations where the infrastructure and resources to support this transition are readily available (Vial, 2021). In contrast, developing countries face a unique set of challenges that often hinder the successful adoption of digital technologies. These include inadequate infrastructure, limited investment in technology, a shortage of skilled labor, and socio-cultural barriers such as resistance to change (Omweri, 2024)

A key factor enabling digital transformation is information literacy, which equips individuals with the ability to effectively locate, assess, and utilize digital information for decision-making and problem-solving (Deja et al., 2021). Employees who are proficient in information literacy are better positioned to adapt to new technologies and contribute to organizational innovation. However, in many developing countries, the lack of structured training programs and limited access to advanced digital tools hinder the development of these critical skills (Nguyen et al., 2015).

Beyond individual skills, the culture within an organization is essential to the success of digital transformation (Butt et al., 2024). An organizational learning culture defined as an environment that promotes continuous learning, knowledge sharing, and adaptability plays a pivotal role in fostering innovation and resilience during digital transitions (Ghafoori et al., 2024). Such cultures encourage employees to embrace new technologies and adapt to change effectively. Yet, many organizations in developing countries struggle to establish this culture due to hierarchical management systems, insufficient resources for employee development, and weak leadership support (Asif et al., 2024).

External challenges such as unreliable internet connectivity, lack of affordable digital infrastructure, and economic constraints further complicate the adoption of digital technologies in developing nations (Müller et al., 2024). These systemic issues not only slow down the pace of digital transformation but also widen the digital divide, leaving many organizations unable to

remain competitive in technology-driven markets (Schiuma et al., 2022). Overcoming these barriers requires a multifaceted approach that includes investments in infrastructure, leadership committed to driving change and fostering environments that prioritize learning and innovation (Halabi, 2024).

This study focuses on understanding the roles of information literacy and organizational learning culture as critical enablers of digital transformation in higher education institutions within developing countries. Using insights from organizational learning theory, the research explores how these factors interact to drive successful digital transitions. By synthesizing existing literature, the study aims to identify effective strategies to overcome the challenges of digital transformation and offers actionable recommendations for HEI heads, policymakers, and researchers.

The findings of this review are particularly important as they emphasize the need for tailored approaches to digital transformation in HEIs, where economic, social, and institutional dynamics differ significantly from those of developed nations. The study seeks to bridge knowledge gaps and provide a framework for organizations to navigate the complexities of digital transformation while leveraging the benefits of information literacy and organizational learning culture.

1.1 Research Problem

Despite the widespread adoption of digital technologies, many Higher Education Institutions (HEIs) find it difficult to successfully implement digital transformation because of information literacy gaps and inept organizational learning culture. This is the study's main research problem. HEIs must undergo a change in institutional culture, teaching methods, and administrative procedures in order to fully embrace digital transformation. The inability of faculty, staff, and students to critically assess, manage, and use digital resources for learning and decision-making, however, makes it difficult for many institutions to effectively use digital tools

Furthermore, the learning culture of an organization has a significant impact on how educational institutions adjust to new technology. Successful digital transformation is more likely to occur in HEIs with a strong organizational learning culture that promotes knowledge-sharing, teamwork, and continuous improvement (Gkrimpizi et al., 2023). The inability of many HEIs to adopt digital transformation holistically is hampered by their aversion to change, fragmented knowledge structures, and insufficient professional development programs (Anwar & Saraih, 2024). Institutions find it difficult to successfully adopt new digital methods in the absence of an adaptable and learning-oriented culture, which leaves digital tools underutilized and adopted in fragments (Abdul Razzak, 2020). Since organizational learning culture and information literacy are essential components in determining an institution's preparedness for digital transformation, the issue is made worse by the absence of synergy between these two areas. According to Chen and Zainudin (2024), although a robust learning culture guarantees that institutions stay flexible and adaptable to new technology trends, a well-developed information literacy framework allows teachers and students to critically engage with digital content (Hakim & Hayat, 2024).

1.2 Research Context

The research is set in the context of Higher Education Institutions (HEIs), where rapid technological advancements and the increasing demand for digital transformation require institutions to enhance their information literacy and cultivate a strong organizational learning culture to effectively integrate digital tools in teaching, learning, and administrative processes.

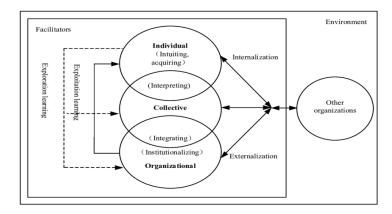
2.0 Research Method

There are three types of methodological approaches: mixed, qualitative, and quantitative (Boateng, 2016). While qualitative research appears to be more common in interpretive information systems research, quantitative approaches are also valid (Agbeko et al., 2021). However, a **qualitative** approach was determined to be more appropriate as this study tries to gain a deeper knowledge of how information literacy and organizational learning culture navigate digital transformation challenges at the workplace specifically HEIs, as it provides a better opportunity to acquire richer and more contextualized data than does a quantitative approach.

3.0 Research Theory

The theory of organizational learning which would be used for this study was established in the 1970s by Donald Schon and Chris Agris. Due to its reliance on the principle that people learn from their mistakes. In the view of Agris, organizational learning is defined as "the detection and correction of errors."

Organizational learning theory explains how organizations change and adapt by learning from their experiences and applying that information to enhance productivity and efficacy (Argyris & Schön, 1997). According to this theory, it's critical to establish a learning culture in a company where the pursuit of constant improvement, information exchange, and flexibility are valued. Diagrammatically, it can be seen below



Source: Haibo et al. (2010)

4.0 Conclusion

In this paper, we explore the impact of information literacy and organizational learning culture on digital transformation in Higher Education Institutions (HEIs). We propose a conceptual model grounded in organizational learning theory to help stakeholders evaluate these factors' influence on digital adoption. The framework aims to guide HEIs in integrating digital tools by promoting continuous learning and improving information literacy among faculty, staff, and students.

References

- Abdul Razzak, N. (2020). Leadership on information technology in education. In *Encyclopedia of Education and Information Technologies* (pp. 1029–1044). Springer.
- Agbeko, M., Effah, J., & Boateng, R. (2021). Digital transformation initiative in a public sector organization: stakeholder viewpoints and responses in Ghana.
- Anwar, S., & Saraih, U. N. (2024). Digital leadership in the digital era of education: enhancing knowledge sharing and emotional intelligence. *International Journal of Educational Management*, 38(6), 1581–1611. https://doi.org/https://doi.org/10.1108/IJEM-11-2023-0540
- Argyris, C., & Schön, D. A. (1997). Organizational learning: A theory of action perspective. *Reis*, 77/78, 345–348.
- Asif, M., Yang, L., & Hashim, M. (2024). The role of digital transformation, corporate culture, and leadership in enhancing corporate sustainable performance in the manufacturing sector of China. *Sustainability*, 16(7), 2651.
- Boateng, R. (2016). Research made easy. CreateSpace Independent Publishing Platform.
- Butt, A., Imran, F., Helo, P., & Kantola, J. (2024). Strategic design of culture for digital transformation. *Long Range Planning*, 57(2), 102415.
- Chen, Z., & Zainudin, Z. (2024). Systematic Review on Developing Digital Literacy Approach in Higher Education Institution. *Uniglobal Journal of Social Sciences and Humanities*, 3(2), 234–241.
- Deja, M., Rak, D., & Bell, B. (2021). Digital transformation readiness: perspectives on academia and library outcomes in information literacy. *The Journal of Academic Librarianship*, 47(5), 102403. https://doi.org/10.1016/j.acalib.2021.102403
- Ghafoori, A., Gupta, M., Merhi, M. I., Gupta, S., & Shore, A. P. (2024). Toward the role of organizational culture in data-driven digital transformation. *International Journal of Production Economics*, 271, 109205.
- Gkrimpizi, T., Peristeras, V., & Magnisalis, I. (2023). Classification of barriers to digital transformation in higher education institutions: Systematic literature review. *Education Sciences*, 13(7), 746.
- Haibo, Y. U., Liluo, F., & Wenquan, L. (2010). An empirical study on the construct and effective mechanism of organizational learning. *Frontiers of Business Research in China*, 4(2), 242–270.
- Hakim, A., & Hayat, A. (2024). Transforming Public Policy in Developing Countries: A

- Comprehensive Review of Digital Implementation. *Journal of ICT Standardization*, 12(3), 337–364.
- Halabi, N. (2024). Driving Innovation: Interdisciplinary Perspectives and Adaptive Leadership for Cultural Change. In *Transformative Leadership and Sustainable Innovation in Education: Interdisciplinary Perspectives* (pp. 11–25). Emerald Publishing Limited.
- Kraus, S., Jones, P., Kailer, N., Weinmann, A., Chaparro-Banegas, N., & Roig-Tierno, N. (2021). Digital transformation: An overview of the current state of the art of research. *Sage Open*, 11(3), 21582440211047576.
- Müller, S. D., Konzag, H., Nielsen, J. A., & Sandholt, H. B. (2024). Digital transformation leadership competencies: A contingency approach. *International Journal of Information Management*, 75, 102734.
- Omweri, F. S. (2024). A Systematic Literature Review of E-Government Implementation in Developing Countries: Examining Urban-Rural Disparities, Institutional Capacity, and Socio-Cultural Factors in the Context of Local Governance and Progress towards SDG 16.6. *International Journal of Research and Innovation in Social Science*, 8(8), 1173–1199.
- Schiuma, G., Schettini, E., Santarsiero, F., & Carlucci, D. (2022). The transformative leadership compass: six competencies for digital transformation entrepreneurship. *International Journal of Entrepreneurial Behavior & Research*, 28(5), 1273–1291.
- Vial, G. (2021). Understanding digital transformation: A review and a research agenda. *Managing Digital Transformation*, 13–66.