



## The role of knowledge management practices in driving innovation: A systematic literature review in the Nigeria education sector

Nzubechukwu Obi<sup>1\*</sup>, Omama Ahmed Sirelkhatim<sup>2</sup>

<sup>1,2</sup>Universiti Kuala Lumpur Business School, Bandar Wawasan, 50250, Kuala Lumpur, Malaysia

\*Corresponding Author email: [obi.nzubechukwu01@s.unikl.edu.my](mailto:obi.nzubechukwu01@s.unikl.edu.my)

### ABSTRACT

The education sector is effectively sustained by innovation, which, in many cases, is a necessary requirement for achieving global acceptance. This systematic literature review intends to investigate the role of knowledge management practices toward improving innovation in Nigeria's education sector. Following PRISMA guidelines, the authors systematically identify, analyze, and synthesize relevant literature published between 2010 and 2024 to highlight key trends, challenges, and opportunities. Innovations in educational institutions depend on effective knowledge sharing, technological integration, and leadership; however, resource constraints, poor infrastructure, and resistance to change inhibit the successful implementation of knowledge management systems. This study outlines the necessity for the strategic spending of knowledge management systems, capacity-building programs, and policy amendments aimed at stimulating innovation in the education sector in Nigeria. By addressing gaps in the existing literature and making suggestions, this review will provide educators, policymakers, and researchers with practical insights into how knowledge management could be effectively utilized within a sustainable educational development framework.

### KEYWORDS

*Knowledge Management Practices;*

*Innovation;*

*Systematic Literature Review;*

*Nigerian Education Sector;*

*Education Management*

Submitted:  
05 January 2024

Revised:  
20 June 2024

Accepted:  
24 June 2025

## 1. INTRODUCTION

Education is regarded as one of the greatest determinants of the socio-economic development in any society (Barro, 2001). Global competition demands that educational institutions go for innovative practices for enhanced teaching, learning, and administrative outcomes (Nonaka & Takeuchi, 1995). It has emerged as one of the most important drivers of innovation across various sectors, including education, with systematic sharing and utilization of knowledge, which is known as Knowledge Management (KM). Institutions become more flexible and adaptable to the new challenges and concerns through a good knowledge management environment in relation to the requirements of their stakeholders (Davenport & Prusak, 1998).

Innovation in education is critical for developing economies such as Nigeria, where numerous challenges like inadequate funding, out dated curricula, and minimal access to processes that enjoy modernized technology exist (Olowoselu et al., 2018). These require an organized means of applying knowledge management to transform and sustain development in education.

Research has demonstrated that the gap between the traditional education methodologies and the modern-day demands of the 21st century has been narrowed by using effective KM practices such as knowledge sharing, retention, and application (Alavi & Leidner, 2001). Nonetheless, in spite of the well-advertised role of knowledge management, little empirical studies have been conducted on its importance in the promotion of innovations within the education division in Nigeria. Most of the previous studies have focused only on viewing KM in the corporate context or higher education institutions in developed nations (Chen & Huang, 2009).

It justifies the importance of going through a systematic investigation into how KM practices contribute to innovation within the educational landscape in Nigeria. This paper fills this gap by conducting a systematic literature review (SLR) on the role of KM practices in driving innovation in Nigeria's education sector. The study synthesizes existing literature and identifies major themes as well as the opportunities

and challenges involved in the KM adoption in educational institutions. This will serve as a source for guiding policymakers, researchers, and educators in developing strategies that support KM for sustainable innovation.

## 2. METHODOLOGY

The study adopts the systematic literature review (SLR) methodology to address the role of KM practices in promoting innovation in the Nigerian education sector. A systematic literature review is a structured and replicable approach designed to evaluate, identify, and synthesize existing research on a topic: thus giving a more comprehensive understanding of the research landscape (Tranfield et al., 2003). Such methodology outlines the reviewing framework, data collection procedures, inclusion and exclusion criteria, and analytical methods.

### 2.1. FRAMEWORK FOR SYSTEMATIC REVIEWS

The study followed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines.

The interrelationship among key concepts such as knowledge sharing, organizational learning, and innovation in the Nigerian education sector is illustrated in Fig. 1.

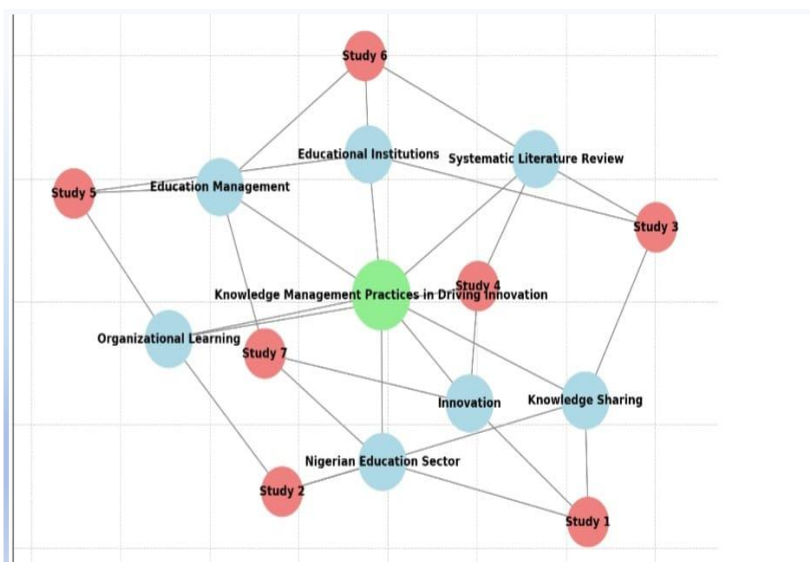


Fig. 1. Conceptual network of knowledge management practices in driving innovation within the Nigerian education sector.

There were eligibility criteria, in particular inclusion and exclusion criteria.

#### 2.1.1. INCLUSION CRITERIA

The studies collected were knowledge and management practices in Nigeria studies, innovation in education sector, peer reviewed journals published from 2010 to 2024. On the other hand, exclusion criteria included duplicates, non-education, non-management, non-innovation studies, as well as studies not being published in peer-reviewed journals.

#### 2.1.1. DATA EXTRACTION AND ANALYSIS

A standardized template was used for data extraction to ensure accuracy and consistency. The major characteristics extracted from each study were as follows: publication year, authors, research questions and objectives, methods used, findings concerning knowledge management practices and innovation, and implications to the education sector. The extracted data were analyzed in order to identify patterns, gaps, and insights regarding the role of knowledge management for driving innovation.

### 2.1.1. FLOWCHART OF THE ARTICLE SELECTION PROCESS

PRISMA flowchart was used to visualize the article selection process in its four main stages. It systematically organized the selection criteria for studies and increased transparency in inclusion and exclusion processes.

1. Identification: total records identified through database searches.
2. Screening: the abstracts and titles of the records were screened.
3. Eligibility: the article was read in full.
4. Included: included in the evaluation was an article considered for review.

The PRISMA flow diagram detailing the screening and selection of records is shown in Fig. 2

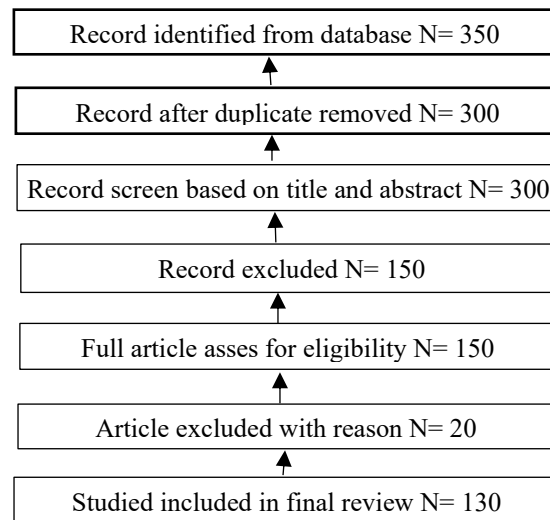


Fig. 2. Prisma framework

## 3. THEORETICAL BACKGROUND

KM is an integrated part of identification, acquisition, sharing, and use of knowledge in an organization for better efficiency, switching to a competitive edge, and creating an innovative possible environment. Knowledge has always been important for privatizing an organization but formalizing KM became eminent only in the late 1990s when organizations recognized the strategic value of knowledge in general and hence began inviting formal approaches to its management (Davenport & Prusak, 1998). Ever since, KM has turned into a dynamic interdisciplinary field that embraces human resources, organisational development, information management, and performance measurement.

Essentially, KM is capturing, mobilizing, and utilizing explicit and tacit knowledge for better organizational performances (refer to: Serban & Luan, 2002). Explicit knowledge is an organized codifiable knowledge easily documented, stored, and transmitted, usually manualized, reported, databased, or standard operating procedures. Whereas tacit knowledge, as formulated by Polanyi (1964); Nonaka and Tekeuchi (1995), is embedded within persons or actors as having relatively deprived formalized or transferable character. In higher education institutions, effective capturing mechanisms and dissemination of tacit knowledge towards the promotion of or innovation capability and efficiency are essential. As Malhotra, (2001); Serban and Luan (2002), indicates, important intellectual capital in value tends to be lost when there is staff turnover or other unforeseen forms of disruption when structured knowledge management strategies to prevent such loss are not in place.

### 3.1. KNOWLEDGE MANAGEMENT WITH INNOVATION

Organizations that can effectively develop and utilize their internal knowledge gain a comparative advantage; this is especially true in fast-changing and competitive environments (Nonaka, 1994).

Organizational learning is one critical dynamic capability that sustains knowledge creation and thus innovation (Teece et al., 1997; Carneiro, 2000). Previous studies have classified the major contributions that knowledge distribution brings to management by demonstrating that it reduces uncertainty during the innovation process (Cardinal et al., 2001) and increased innovation potential through strategic commitment of knowledge resources (Carneiro, 2000).

In addition, knowledge sharing produces culture-based continuous improvement, competitive advantage, and innovativeness (Alavi & Leidner, 2001). Tacit knowledge, in particular, is considered one of the key drivers for radical innovation due to its capacity to give rise to new insights and innovative problem-solving strategies (Seidler-de Alwis & Hartmann, 2008). Effective management of both explicit and tacit knowledge creates an environment that sustains innovation for the long term and success in organizations.

### **3.2. IMPORTANCE IN THE NIGERIAN EDUCATION SYSTEM**

The education sector in Nigeria plays an essential role in building the nation, contributing to human capital development, economic growth, and technological progress. Education promotes critical thinking, develops a specialized workforce.

## **4. FINDINGS AND DISCUSSION**

Effective knowledge sharing plays a vital role in facilitating innovation in the educational sector. More so, the existing literature highlighted the mechanisms by which effective knowledge exchange has occurred, these mechanisms include partnership-based learning sessions, open-access repositories, and professional development workshops (Adeyemi et al., 2015). The challenges of inadequate infrastructure and lack of trust persist even in the Nigerian educational institutions, thus limiting the extent to which knowledge is shared effectively (Okeke & Nnamdi, 2020).

Technology has proven to be a critical aspect of modern knowledge management practice. Learning management systems, collaborative platforms for documents, and storage in clouds all have proved themselves as means of improving knowledge capture and dissemination (Ibrahim et al., 2018). However, the incidence of using such technologies in the Nigerian education sector is still very low owing to technical and financial constraints (Oluwatobi et al., 2022). This is why addressing these barriers becomes critical for the educational institution to achieve the full benefits of technology in managing learning and innovation.

Leadership and organizational culture contribute significantly toward promoting innovation. Studies have shown that transformational leadership styles inspire creativity and the subsequent adoption of innovative practices (Adesanya et al., 2019). An organizational culture that fosters continuous learning and flexibility is fundamental in driving changes in the educational sector (Eze et al., 2021). Where there is a lack of strong leadership and a culture of facilitating innovation, many times, institutions may not be able to sustain and scale such improvements that are knowledge-driven.

Moreover, some other innovative practices instituted by the Nigerian educational institution include establishing knowledge hubs and innovation laboratories to promote problem-solving through collaboration (Chukwuma & Agbo, 2023). The increased use of digital learning tools has improved the dissemination and accessibility of knowledge (Amaka et al., 2020), while various partnerships involving foreign organizations have opened channels into funding and expertise (Okonkwo, 2021). However, all these advancements still face many challenges, such as lack of resources and interrupted policy practices.

The differences manifesting in a comparative study between Nigeria and other places are indeed very glaring. While for example in South Africa government-supported e-learning programs have made it possible for most students to use e-learning applications, in Nigeria not enough budget for these programs has constrained the similar endeavor (Maseko & Ntuli, 2020). Meanwhile, the developed nations, such as Finland, focus on well-established institutional frameworks along with teacher

empowerment to make knowledge management practices integrated into systems (Hämäläinen et al., 2017). But Nigeria's unique socio-cultural dynamics, especially community-based learning systems, produce avenues for localized knowledge-sharing.

## 5. CONCLUSION

This paper considers how key the functioning of knowledge sharing, the subtle manipulation of technology, and the supportive leadership culture are in nurturing innovation in the Nigerian education system. Difficulties such as technological impediments, resistance to changes, and lack of funds are still existent; however, considerable opportunities lie with the increasing adoption of digital tools, collaborative partnerships, and policy reform.

The study contributes to the body of knowledge and practice by providing guidelines on how knowledge management practices ought to be utilized to enhance innovation in the education sector-in particular, in developing contexts. The study further contributes to the existing literature by providing information on the challenges and opportunities in Nigeria while giving it a comparative perspective with other regions.

Educationalists must be encouraged to take part in professional development programs that promote their ability to use technology effectively and engage in collaborative knowledge-sharing practices. Psych political agents must inject digital infrastructure and allow public-private partnerships that can improve educational outcomes. Researchers ought to carry out empirical work to determine the effect of knowledge management practices on innovation in the education sector.

An identified limiting condition of the study is the systematized reviewing of extant literature, which does not take into account recent unpublished articles. Also, the focus on the Nigerian educational context has narrowed generalization of the findings in any other environment. Future studies should look at the longitudinal implications of knowledge management practices on innovation outcomes while conducting comparative studies on different educational sectors to shed broader light on the subject.

### Author Contributions:

Nzubechukwu Obi was crucial in the creation of the project's initial concept, the technique, and the first drafting of the document. Omama Ahmed Sirelkhatim responsibility was to gather and analyze the data. Nzubechukwu Obi was involved in visualization creation, text revision, and editing. All authors read and approve the final manuscript.

### Funding:

This research received no external funding.

### Institutional Review Board Statement:

Not applicable.

### Informed Consent Statement:

Not applicable.

### Data Availability Statement:

None.

### AI Disclosure Statement

Artificial intelligence tools, including ChatGPT, were used to support the development of this manuscript. These tools assisted in refining language, enhancing clarity, and formatting references according to APA 7th edition guidelines. All intellectual contributions, critical analysis, and final decisions regarding the content remain the sole responsibility of the author.

## Acknowledgments:

Special thanks to My Supervisor and co-supervisor for their unwavering support in my academic journey.

## Conflicts of Interest:

None.

## References:

- Adesanya, K. A., Bello, O. O., & Aluko, F. M. (2019). Transformational leadership and its role in fostering innovation in Nigerian higher education. *Leadership in Education Quarterly*, 8(3), 89–102.
- Adeyemi, T., Adedokun, A., & Oladipo, B. (2015). Knowledge sharing as a strategy for enhancing innovation in Nigerian educational institutions. *Journal of Education and Innovation*, 10(2), 123–135.
- Alavi, M., & Leidner, D. E. (2001). Knowledge management and knowledge management systems: Conceptual foundations and research issues1, 2. *MIS Quarterly*, 25(1), 107–136. <https://doi.org/10.2307/3250961>
- Amaka, C. I., Okoro, J., & Ezugwu, P. C. (2020). The impact of digital learning tools on knowledge dissemination in Nigerian universities. *International Journal of Educational Technology*, 7(1), 45–58.
- Barro, R. J. (2001). Human capital and growth. *American Economic Review*, 91(2), 12–17. <https://doi.org/10.1257/aer.91.2.12>
- Cardinal, L. B., Alessandri, T. M., & Turner, S. F. (2001). Knowledge codifiability, resources, and science-based innovation. *Journal of Knowledge Management*, 5(2), 195–204. <https://doi.org/10.1108/13673270110393266>
- Carneiro, A. (2000). How does knowledge management influence innovation and competitiveness? *Journal of Knowledge Management*, 4(2), 87–98.
- Chen, C. J., & Huang, J. W. (2009). Strategic human resource practices and innovation performance—The mediating role of knowledge management capacity. *Journal of Business Research*, 62(1), 104–114. <https://doi.org/10.1016/j.jbusres.2007.11.016>
- Chukwuma, N. A., & Agbo, O. A. (2023). Knowledge hubs and innovation labs in Nigerian education: Emerging practices. *Journal of Educational Change and Development*, 15(1), 67–81.
- Davenport, T. H., & Prusak, L. (1998). *Working Knowledge: How Organizations Manage What They Know*. Boston, MA: Harvard Business School Press.
- Eze, M. E., Nwankwo, C. O., & Opara, F. U. (2021). Organizational culture as a driver of innovation in Nigerian tertiary institutions. *Nigerian Journal of Educational Research*, 19(2), 102–115.
- Hämäläinen, R., De Wever, B., Malin, A., & Cress, U. (2017). Understanding collaborative learning processes in knowledge management contexts: A Finnish case study. *Journal of Knowledge Management Education*, 5(4), 321–345.
- Ibrahim, A. A., Yakubu, R., & Suleiman, U. (2018). The role of technology in knowledge management in Nigerian universities. *African Journal of Information Systems*, 11(3), 154–172.
- Malhotra, Y. (2001). *It's Time to Cultivate Growth. Leading Views*. Retrieved from <http://www.youcan.bt.com>.
- Maseko, N., & Ntuli, Z. (2020). Government funding and e-learning in South Africa: Lessons for Nigeria. *African Educational Technology Journal*, 9(2), 98–112.
- Nonaka, I. (1994). A dynamic theory of organizational knowledge creation. *Organization Science*, 5(1), 14–37. <https://doi.org/10.1287/orsc.5.1.14>
- Nonaka, I., & Takeuchi, H. (1995). *The Knowledge-Creating Company: How Japanese Companies Create the Dynamics of Innovation*. London: Oxford University Press.
- Okeke, I. U., & Nnamdi, C. L. (2020). Barriers to knowledge sharing in Nigerian educational institutions. *West African Journal of Education*, 25(1), 35–50.
- Okonkwo, J. (2021). Leveraging international partnerships to foster innovation in Nigerian education. *Global Journal of Education Development*, 6(3), 78–92.
- Olowoselu, A., Adeyemi, T., & Okonkwo, J. (2018). Challenges in the Nigerian education sector. *Nigerian Journal of Educational Research*, 14(1), 22–35.
- Oluwatobi, A., Fagbohun, T., & Olatunji, K. (2022). Challenges of technology adoption in knowledge management in Nigerian education. *Journal of African Education Studies*, 14(4), 210–225.
- Polanyi, M. (1964). *Science, Faith, and Society*. Chicago: University of Chicago Press.
- Seidler-de Alwis, R., & Hartmann, E. (2008). The use of tacit knowledge within innovative companies: Knowledge management in innovative enterprises. *Journal of Knowledge Management*, 12(1), 133–147. <https://doi.org/10.1108/13673270810852449>
- Serban, A. M., & Luan, J. (2002). Overview of Knowledge Management. In *New Directions for Institutional Research* (Vol. 113, pp. 5–16). Wiley Periodicals, Inc
- Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal*, 18(7), 509–533. [https://doi.org/10.1002/\(SICI\)1097-0266\(199708\)18:7<509::AID-SMJ882>3.0.CO;2-Z](https://doi.org/10.1002/(SICI)1097-0266(199708)18:7<509::AID-SMJ882>3.0.CO;2-Z)
- Tranfield, D., Denyer, D., & Smart, P. (2003). Towards a methodology for developing evidence-informed management knowledge by means of systematic review. *British Journal of Management*, 14(3), 207–222. <https://doi.org/10.1111/1467-8551.00375>