African Journal of Emerging Issues
Peer reviewed | Double blind | Interdisciplinary

African Journal of Emerging Issues
(AJOEI)
Online ISSN: 2663 - 9335
Available at: https://ajoeijournals.org

EDUCATION

USE OF ICT AND KNOWLEDGE MANAGEMENT TO STRENGTHEN UNIVERSITIES' POSITION IN THE SOCIETY IN KENYA

[*1]Sharon Onditi & [2]Jeremiah Onunga

[1]Lecturer, Department of Educational Psychology and Science, Rongo University, Kenya

[2]Lecturer, Department of Renewable Energy and Technology, Turkana University College, Kenya

Email addresses: shahanyango@yahoo.com & jerryosida@gmail.com
Publication Date: November 2024

ABSTRACT

Statement of the Problem: The problem identified in this study is the lack of full integration and application of Information Communication Technology (ICT) and Knowledge Management (KM) activities in Kenyan universities, which affects their ability to strengthen their societal position as leaders in research, teaching, learning, and community service.

Purpose of the Study: The purpose of the study was to explore the integration of ICT and KM in Kenyan universities and their role in strengthening these universities' position in society. The paper aimed to provide insights into how ICT and KM could be innovatively managed within the universities to better serve societal needs and enhance their academic and community roles.

Research Methodology: The study employed a non-probability sampling method to collect data. The researcher analyzed statements, open-access journals, and electronic documents relevant to ICT, KM, and technological innovation in Kenyan universities. The research methodology involved examining the applicability of KM pillars and the current status of ICT and KM integration in these institutions.

Findings and Discussion: The findings showed that the current use of ICT and KM in Kenyan universities had not been fully exploited. The research highlighted the importance of ICT infrastructure and KM practices for the universities' societal positioning. It also revealed several barriers to the effective use of ICT and KM, including inadequate technological infrastructure and insufficient knowledge-sharing practices.

Conclusion: The study concluded that ICT and KM could play a significant role in improving the societal position of Kenyan universities. However, for these benefits to be realized, universities needed to enhance their ICT infrastructure, better manage knowledge, and develop skills related to KM.

Keywords: *Use of ICT, Knowledge Management, Strengthen Universities' Position, Society in Kenya*

INTRODUCTION

The development of a knowledge-based economy has underscored the need for effective exploitation of knowledge, making knowledge management (KM) essential in organizations. This shift has prompted many universities in Kenya to reconsider their roles, particularly in how they use emerging trends to position themselves in society. KM is a systematic process of leveraging intellectual capital and knowledge assets to drive organizational success. It helps organizations build capacity by developing, organizing, retaining, and utilizing human and knowledge resources, all of which directly contribute to survival and profitability. Information Communication Technology (ICT), on the other hand, is often referred to as the technology of the 21st century. The field of ICT has experienced significant growth, expanding beyond its traditional role of providing back-office support to organizations. Today, ICT plays a strategic role in supporting various business functions and in shaping new strategies within organizations. In education, ICT has evolved into "E-learning," which has transformed into Open, Distance, and e-Learning (ODeL). The implementation of ODeL in education has fostered broader innovations, enabling universities to expand their geographical reach, interact with prospective students globally, and establish themselves as global education providers.

With the growing recognition of the value of knowledge and the need to leverage it in daily operations, both public and private sector organizations have embarked on KM initiatives. Many have created formal positions or new departments focused on applying ICT and KM within their operations. This has created a demand for training ICT and KM professionals who can lead the development and implementation of KM initiatives in their institutions or organizations. Globally, there has been a movement toward applying ICT and KM in universities to improve educational systems and enhance their appeal to society (O'Neil & Perez, 2002). Today, the use of computers and knowledge management tools provides vast amounts of data that are accessible to all, symbolizing a transformation in service delivery and the positioning of institutions in society (Isman & Dabaj, 2004). The use of ICT in service delivery has become a key concern, particularly in higher education. For example, this approach is seen as cost-effective by governments, as it enables services and necessary documents to be accessed online without requiring in-person visits to offices (Moore & Tait, 2002).

Following the establishment of various educational commissions, the new communication revolution in Kenya has made service delivery in universities more relevant (Kamunge Report, 1988; Mungai Report, 1995; Koech Report, 1999). However, innovation has primarily focused on academic institutions, aiming to provide students with a more adaptable and transparent learning environment. Several studies have explored the role and added value of ICT and KM in classrooms and their impact on students' performance. Since the advent of the internet, there has been a shift toward studying the effects of online activities, such as the use of online education platforms, digital devices, and the use of blogs and wikis among students. These activities heavily depend on the ownership of ICT devices, internet connectivity, and prior ICT skills. However, few studies have focused on the specific ICT and KM pillars that enable universities in Kenya to strengthen their roles and positions within Kenyan society.

ICT AND KNOWLEDGE MANAGEMENT IN KENYAN UNIVERSITIES

By its very nature, the university environment is well-suited for the application of knowledge management (KM) principles and methods (Mikulecky & Mikulecka, 1999). Universities typically have access to modern information and communication technology (ICT) infrastructure, and knowledge sharing is a natural practice among lecturers. Students, in turn, are eager to acquire knowledge from readily accessible sources as quickly as possible. As universities strive to meet the expectations of a global society, they must adopt and adapt best practices stemming from ICT and globalization. Traditionally, the primary functions of universities are to create and disseminate knowledge, which they achieve through research, teaching, and community outreach programs. According to Metaxiotis and Psarras (2003), universities fulfill three major missions: Learning and Teaching, Research, and Community Service.

Higher education institutions capture, share, and deliver knowledge from faculty members to students. Universities have significant opportunities to apply KM practices to support all aspects of their mission (Kidwell et al., 2001). KM should not be viewed by universities as a radically new concept, but rather as an enhancement to improve their core activities and functions. As both public and private institutions respond to the rapid growth of online courses, e-learning, cyber colleges, and virtual universities, the need to adopt KM becomes even more pressing. It is through the integration and application of KM that universities can increase student retention and graduation rates, address workforce shortages in technology fields,

expand new web-based offerings, and analyze the cost-effective use of technology to accommodate rising enrollment numbers. Additionally, KM can help universities transform transaction-based systems into platforms that provide actionable information, rather than just raw data, for better management. Isaias et al. (2020). As universities compete in a globalized environment where institutions cross state and national borders to meet the needs of students, KM can play a key role in strengthening their societal position by ensuring they provide comprehensive solutions to societal demands.

FUNDAMENTALS OF KNOWLEDGE MANAGEMENT TO STRENGTHEN SOCIETAL POSITION OF UNIVERSITIES IN KENYA

Leadership

Leadership develops business and operational strategies to survive and position for success in today's dynamic environment. The strategies determine the vision and must align knowledge management with business tactics to drive the value of KM throughout the institution. The focus must be placed on building executive support and KM champions. Successful implementation of a knowledge management system requires a leader at or near the top of an organization who can provide the strong and dedicated leadership needed for cultural change (Rana et al., 2019).

Organization

The value of knowledge creation and collaboration should be intertwined throughout an enterprise. Operational processes must align with the KM framework and strategy, including all performance metrics and objectives. While operational needs dictate organizational alignment, a KM system must be designed to facilitate KM throughout the organization. Operational processes must be aligned with the new vision while redesigning the organization and identifying key levers of change, including roles and responsibilities. Introducing knowledge management requires organizational change, and KM inevitably acts as a catalyst to transform the organization's culture. The increasing value placed on highly capable people, rising job complexity, and the universal availability of information on the Internet are fundamental changes contributing to the move by organizations to leverage KM solutions. To begin changing the organization, knowledge management must be integrated into business processes (Uden et al., 2018).

Technology

Technology enables and provides the entire infrastructure and tools to support KM within an institution or organization. While cultural and organizational changes are vital to achieving a KM strategy, a lack of the proper tools and technology infrastructure can lead to failure. Any technical solution must add value to the process and achieve measurable improvements. Properly assessing and defining IT capabilities is essential, as is identifying and deploying best-of-breed KM software and IT tools to match and align with the organization's requirements.

Learning

The best tools and processes alone will not achieve a KM strategy. Ultimately, people are responsible for using the tools and performing the operations. Creating organizational behavior that supports a KM strategy will continue long after the system is established. Organizational learning must be addressed with approaches such as increasing internal communications, promoting cross-functional teams, and creating a learning community. Learning is an integral part of knowledge management. In this context, learning can be described as the acquisition of knowledge or a skill through study, experience, or instruction. Organizations/institutions must recognize that people operate and communicate through learning that includes the social processes of collaborating, sharing knowledge, and building on each other's ideas (Schwab, 2017).

Managers must recognize that knowledge resides in people, and knowledge creation occurs in the process of social interaction and learning. The need for knowledge management translates throughout the entire organization. It is not a separate function characterized by a separate KM department or a KM process; it must be embedded into all of the organization's business processes. Knowledge management is crucial to achieving permanent performance improvements and innovation. Efficient knowledge-intensive core processes and a fundamental architecture must be established to effectively initiate and implement KM. The four pillars provide the necessary architecture (McInerney & Koenig, 2022).

DISCUSSION

With the rapidly changing economic environment, the role of universities and higher education institutions as knowledge providers has come under scrutiny and challenge from various

stakeholders, including the public. To meet these challenges, universities must adopt knowledge management (KM) principles and strategies to support fundamental and applied research, offer relevant curricula, utilize knowledge for management decision-making, improve internal document management, and enhance the dissemination and application of knowledge to bring about qualitative changes in the educational process. The introduction of KM methods and tools would enable universities to better share their knowledge, improve teaching and research collaboration, and strengthen relationships among staff, students, and other stakeholders (Mikulecky & Mikulecka, 1999). All of these benefits are achievable if universities fully integrate and apply KM elements.

To effectively manage KM initiatives, university leadership must consciously and strategically oversee the processes involved in creating and managing their knowledge assets, recognizing the value of their intellectual capital to their ongoing role in society (Rowley, 2000). However, focusing solely on the technical aspects—such as improving computer literacy and providing adequate ICT infrastructure—will not guarantee the success of KM initiatives. Management must also address the more complex challenges related to social and cultural issues in organizational knowledge management.

The evolving business environment demands foresight, superior performance, innovation, and adaptability, rather than simply optimizing existing processes. Effective and comprehensive planning for knowledge management is essential. According to Marwick (2001), successful KM requires a balanced combination of organizational, social, and managerial initiatives, along with the appropriate deployment of technology. Therefore, the main objective of this article is to evaluate and highlight the application of KM pillars to enhance the performance of Kenyan universities in delivering their core functions.

CONCLUSION

Knowledge management is of great importance especially to Kenyan universities, since using management techniques and technologies in higher education is vital and if done effectively, it can lead to better decision-making capabilities, reduced “product” development cycle time for example, curriculum development and research, improved academic and administrative services, and reduced costs.

REFERENCES

Galliers, R. D., Leidner, D. E., & Simeonova, B. (Eds.). (2020). *Strategic information management: Theory and practice* (5th ed.). Routledge. https://doi.org/10.4324/978042928679

Isaias, P., Sampson, D. G., & Ifenthaler, D. (2020). *Online Teaching and Learning in Higher Education*. Springer Nature.

Kidwel, B. (2001). An examination of college student money management tendencies. Journal of Economic Psychology

Marwick, A. D. (2001). Knowledge management technology. *IBM Systems Journal*, 40 (4), p.814-830.

McInerney, C., & Koenig, M. E. (2022). *Knowledge Management (KM) Processes in Organizations: Theoretical Foundations and Practice*. Springer Nature.

Metaxiotis, K. and Psarras, J. (2003). Applying knowledge management in higher education: The Creation of a learning organization. *Journal of information and knowledge management* 2(4).

Mikulecky, P. and Mikulecka, J. (1999). *Knowledge management in a university setting*. In: IV. International conference, *Economy and Informatics in the turn of the century*, Liberec, p. 125127.

Moores, G. M & Taita, A. (2002). Reflection on student support in open and distance learning. *International Review of research in Open and Distance learning.*

O'Neil, H. F., Jr., & Perez, R. S. (Eds.). (2002). *Technology applications in education: A learning view* (1st ed.). Routledge. https://doi.org/10.4324/9781410606754

Otike, J. N. (2003). The development of academic libraries in Kenya. *Innovation vol. 28*, p.1-8.

Rana, N. P., Slade, E. L., Sahu, G. P., Kizgin, H., Singh, N., Dey, B., Gutierrez, A., & Dwivedi, Y. K. (2019). *Digital and Social Media Marketing: Emerging Applications and Theoretical Development*. Springer Nature.

Rowley, J. (2000). Is higher education ready for knowledge management? *The International Journal of Educational Management*. 14(7) p. 325-333.

Schwab, K. (2017). *The Fourth Industrial Revolution*. Penguin UK.

Uden, L., Hadzima, B., & Ting, I. (2018). *Knowledge Management in Organizations: 13th International Conference, KMO 2018, Žilina, Slovakia, August 6–10, 2018, Proceedings*. Springer.