

2024-06-01

Value of academic libraries in improving higher education institutions' knowledge management practices

Mosha, Neema

Regional Institute of Information and Knowledge Management

<https://dspace.nm-aist.ac.tz/handle/20.500.12479/2854>

Provided with love from The Nelson Mandela African Institution of Science and Technology

Value of academic libraries in improving higher education institutions' knowledge management practices

Vol. 9 No. 1

April 2024

Neema Florence Vincent Mosha

University of South Africa (UNISA)

moshanf@unisa.ac.za

<https://orcid.org/0000-0001-9154-7383>

Patrick Ngulube

University of South Africa (UNISA)

ngulup@unisa.ac.za

<https://orcid.org/0000-0002-7676-3931>

Abstract

Rationale of Study – Academic libraries are widely recognised globally as necessary for improving knowledge management (KM) practices in higher learning institutions (HLIs). This study investigated the value of academic libraries in improving KM practices in HLIs.

Methodology – A quantitative cross-sectional research design was conducted across academic libraries in selected HLIs in Tanzania. A systematic sampling technique was used to recruit librarians from academic libraries as study participants. Data analysis was performed using IBM SPSS Statistics® 29.0.2 statistical software.

Findings – Findings revealed a low level of KM practices and a lack of KM training among respondents. Knowledge retrieval and access, along with knowledge capture and creation, were mentioned among the critical KM practices performed in academic libraries to enhance KM practices within HLIs. Furthermore, enhancing teaching, learning, research, and innovation were identified as notable benefits resulting from improved KM practices in HLIs. Respondents highlighted a scarcity of KM skills and competencies as the main challenge that limits academic libraries to improve KM practices in HLIs.

Implications – The study will lead to a deeper understanding of the value of academic libraries in supporting KM practices in higher education. Policies will be formulated to implement the identified need. For instance, various policies need to be developed regarding the types of knowledge to be captured and preserved, the duration of preservation, and the methods of processing it.

Originality – This study's uniqueness lies in the fact that limited research has been conducted by academic libraries in the country, and the findings indicate minimal efforts to embrace KM practices in HLIs.

Keywords

Knowledge assets, knowledge management guidelines, knowledge management skills and competencies, knowledge enablers, academic libraries

Citation: Mosha, N.F.V. & Ngulube, P. (2024). Value of academic libraries in improving higher education institutions' knowledge management practices. *Regional Journal of Information and Knowledge Management*, 9(1),103-119.



Published by the

**Regional Institute of
Information and Knowledge
Management**

P.O. Box 24358 – 00100 –
Nairobi, Kenya

1 Introduction

Knowledge has become an essential asset as labour, land, and capital (Holsapple & Joshi, 2000; Mohajan, 2016; Sinha, 2014). The foundation of industrialised economies has shifted from natural resources to intellectual assets (Dobrica, 2021; Shropshire et al., 2020), termed as knowledge economy organisations and people acquire, create, disseminate and use knowledge for more significant economic and social development (Hislop, 2013; Mosha, 2017). Indeed, societies and economies are knowledge-based, using knowledge to provide both social and economic benefits (Jennex, 2006). Knowledge is mainly tacit and explicit (Hislop, 2013). Tacit knowledge tends to reside within the heads of the knower (Daland, 2016; Dalkir, 2017), while explicit knowledge represents contents that have been captured in some physical forms, such as words, audio recordings and images and can be retrieved online and/or physically (Dalkir, 2017; Mosha et al., 2015). For knowledge to be effectively used, it must be created, captured, shared, and moved to the appropriate location through knowledge management (KM) processes (Chiu & Chen, 2016; Mosha, 2017; Wang & Yang, 2016). The primary purpose of KM is to support the achievement of the organisation's mission, vision and goals (Andriani et al., 2019). KM promotes the development and application of tacit, explicit and intellectual capital, that is, leveraging personal understanding, organisational actions capabilities and other intellectual assets to attain the organisational goals (Benmoussa & Achouri, 2021; Hislop, 2013). To ensure that a KM project is in line with the organisation's competitive strategy and win organisational and leadership support, a KM strategy is required (Jennex, 2018). KM also plays a significant role as an integral component of governance and leadership within an organisation. Organisations all over the world carry out KM practices to evaluate the knowledge and competence of their employees and to disseminate and develop new knowledge. It is thus recommended that organisations should take preventive measures to secure their interests by coordinating knowledge, abilities and tools among their employees (Andriani et al., 2019). The adoption of KM practices is increasing globally and across different sectors, and it has started to gain attention in academic institutions (Mosha, 2017), where their importance is recognised in academic libraries as the custodian of all the knowledge created within HLIs.

KM practices encompass many activities such as knowledge collection, transfer, application, (re)use, and sharing. Capturing the organisation's collective knowledge and intelligence and using it in ongoing organisational teaching and learning are examples of

KM practices (Chierici et al., 2019; Jain, 2013; Wang & Yang, 2016). KM practises offer an organised method for gathering, organising, creating, and efficiently disseminating pertinent knowledge inside an organisation (Harandi et al., 2019). A knowledge-based economy is becoming more prevalent due to global trends, which means KM strategies that take into account both information management and people management are required. The use of KM techniques in academic libraries has been viewed as a paradigm shift from information management (IM) to KM (Adedokun-Shittu & Shittu, 2013; Bello, 2018; Daland, 2016; Kanwal et al., 2019; Mavodza & Ngulube, 2012; Pathak, 2014). Academic libraries possess ample information resources, allowing them to fulfil users' information requirements and facilitate their information-seeking habits, thus facilitating the creation of both tacit and explicit knowledge (Adedokun-Shittu & Shittu, 2013; Mosha, 2017). This can be accomplished by instilling in the libraries an organisational culture that values knowledge and skill sharing (Rao, 2018). Academic libraries can assist HLIs in creating and leveraging their knowledge base through the initiation of appropriate KM practices (Mostofa & Mezbah-Ul-Islam, 2015).

2 Literature review

This section delves into literature that explores how academic libraries leverage KM practices to assist HLIs in realising their overarching objectives. The discussion encompasses various aspects, including KM policies and strategies in HLIs, the KM practices performed in academic libraries and values of academic libraries on improving KM practices in HLIs, KM practices performed in academic libraries, and the importance of academic libraries in improving KM practices in HLIs.

2.1 KM policies and strategies in HLIs

The true potential of KM lies in the strategic implementation of KM policies and strategies, enabling HLIs to effectively manage their knowledge and streamline while streamlining their KM practices (Mabunda & Du Plessis, 2022; Mosha, 2017). The value of this research lies in exploring the possibilities that go beyond simple information storage in academic libraries to actively support the development, curation, and distribution of knowledge. Organisational knowledge is increasingly recognised as an asset for fostering innovation and facilitation of teaching and learning in HLIs (Best & Holmes, 2010) through the application of KM practices facilitated by academic libraries (Chierici et al., 2019; Mosha, 2017).

There has been a shift towards understanding how knowledge is created and utilised, explicitly concerning the implementation of KM practices (Lee & Choi, 2003; Mosha, 2017; Newell et al., 2009). These developments have introduced concepts to guide KM practices in acquiring tacit and explicit knowledge, along with associated terminologies to facilitate the mobilisation, translation, brokerage, and utilisation of knowledge (Shaxson et al., 2015). This enables scholars to explore how HLIs, through their academic libraries, ensure the generation, implementation, and preservation of both tacit and tacit knowledge for future use (Fombad & Sirorei, 2019; Mabunda & Du Plessis, 2022).

2.2 KM practices conducted in academic libraries

The literature presented various KM practices conducted in academic libraries (Bashir & Farooq, 2019; Benmoussa & Achouri, 2021; Deja & Rak, 2019; Mosha, 2017). KM practices involve processes of capturing, distributing, and effectively using knowledge (Deja & Rak, 2019). The four central pillars that support the practices are knowledge acquisition, knowledge storage and organisation, knowledge sharing, and knowledge reuse. Knowledge acquisition is the process of identifying, gathering and creating new knowledge from data and information (Ferraris et al., 2019). The processes make it possible to retrieve knowledge from individuals, organisational entities, or artefacts that are internal or external to the organisation (Ndiege & Wamuyu, 2019). Documenting freshly discovered knowledge that must be marked for processing and classification, as well as knowledge that has never been documented in an organisation, may be required. The knowledge needs to be organised and stored so that it may be distributed and shared. Academic libraries facilitate the storage and organisation of knowledge in virtual and physical platforms. Librarians keep an eye on metrics related to knowledge management, such as knowledge utilisation, how frequently users search knowledge records in a knowledge base, how often users utilise knowledge for self-help, and how frequently users search for knowledge for self-help.

Academic libraries can also monitor knowledge sharing and knowledge reuse through KM metrics (Kaffashan Kakhki et al., 2021; Mohammed, 2022). Knowledge sharing is linked to the procedures that make knowledge retrieval possible, and organisations should establish policies and procedures that encourage knowledge sharing (Ferraris et al., 2019). In academic libraries' reference departments, where staff members regularly interact with users, knowledge sharing is seen as a fundamental component of the knowledge management process (Jain, 2013). By collecting and disseminating their users' knowledge, reference librarians aid in the process of making decisions (Jain, 2013). Participatory

approaches, such as appropriately scheduled meetings, discussions, and feedback, promote employee knowledge sharing (Benmoussa & Achouri, 2021). Knowledge sharing has the potential to be a technique that supports service delivery by increasing practitioners' levels of competence and knowledge at a lower cost (Tahleho & Ngulube, 2022).

Utilising knowledge entails combining previously found, recorded, and disseminated information for practical use (Ferraris et al., 2019; Ndiege & Wamuyu, 2019). When members apply their knowledge, they can use both internal and external resources to complete tasks (Akhavan et al., 2019). Knowledge use is essential to a knowledge recipient who employs knowledge for innovation and consequently improves organisational performance (Osabutey & Jin, 2016; Yeboah, 2023). Academic libraries have a responsibility to lead the way in implementing KM practices, while effective leadership and culture, together with other KM enablers like policies, contemporary technology, and systems, are what determine the attainment of best practices (Mosha, 2017).

2.3 The importance of academic libraries in improving KM practices in HLIs

Academic libraries play an essential role in improving KM practices in HLIs (Jain, 2013; Jennex, 2017). Academic libraries are places where knowledge is not only produced but also overseen by competent librarians (Poonkothai, 2016). When library employees comprehend their institutions' needs, their expertise and abilities in KM help academic libraries fulfil the purpose, vision, and goals of universities (Jain, 2013; Kwanya, 2023) through improving KM practices in various ways (Enakrire & Onyancha, 2020). Librarians create, preserve, produce, and make use of both new and old knowledge sources. In addition to knowledge codification, which entails transforming implicit knowledge into explicit knowledge, librarians support the implementation of a variety of KM enablers that support KM practices like knowledge transfer, sharing, communication, and storage (Enakrire & Onyancha, 2020; Islam et al., 2020; Mohammed, 2022; Hislop, 2013). One factor cited for the significance of academic libraries in enhancing KM practices in HLIs is the expertise of library workers in executing these activities. Utilising the knowledge and resources of its staff will help an academic library succeed in better serving the academic community (Islam et al., 2015). For example, Algerian institutions were able to adopt more effective KM procedures because library staff members had KM expertise (Benmoussa & Achouri, 2021).

Knowledge management systems (KMSs) are among the KM systems that support KM practices and applications (Kaffashan Kakhki et al., 2021; Mohammed, 2022; Mubuyaeta

& Ngulube, 2024). Academic libraries can use KMSs and other tools of decision support systems, database management systems, web portals, electronic document management systems (EDMS) and management systems to monitor and evaluate KM practices to improve effectiveness and economies of scale (Enakrire & Onyancha, 2020). Academic libraries can enhance KM practices by using a hierarchy model that can produce actionable intelligence by creating filters that separate essential data, information, and knowledge from the vast amounts of irrelevant data, information, and knowledge that have been obtained (Jennex, 2017). Tools and models such as the modified knowledge pyramid proposed by Jennex (2018) enable various KM practices such as knowledge transfer, access, and flow. Additionally, by promoting social interaction and supporting organisational learning and knowledge management efficiency, IT/ICT tools like electronic whiteboards, databases, discussion boards, video conferencing, e-learning, and knowledge repositories can help with the collection, storing, and exchange of knowledge (Koloniari et al., 2015; Koloniari & Fassoulis, 2017).

3 Research problem statement

Academic libraries can play a crucial role in improving KM practices in HLIs by using library staff knowledge and skills. They are called upon not only to possess the right skills and competencies for managing knowledge and improving KM practices in the operations of HLIs' core activities (Enakrire & Onyancha, 2020). On the other hand, academic libraries as information hubs are well placed to assist HLIs in harnessing the available tacit and explicit knowledge to improve performance in HLIs. The efficiency of HLIs' advancement can be negatively impacted by learning degeneration caused by a lack of KM practices. Studies have been conducted on various roles of academic libraries in supporting the implementation of KM practices in HLIs from different countries worldwide, such as Tanzania, Nigeria, South Africa and the United States of America (Charles & Nawe, 2017; Enakrire & Onyancha, 2020; Mavodza & Ngulube, 2012; Mabunda & Du Plessis, 2022; Mosha, 2017; Oliva et al., 2019; Shropshire et al., 2020; Quarchioni et al., 2022). However, only a few academic libraries have adopted KM practices to support their HLIs. This is primarily due to limited comprehension among librarians regarding the implementation of KM practices, low level of understanding among librarians on implementing KM practices, insufficient support and funding, a dearth of culture for capturing and sharing knowledge, and a lack of collaborative initiatives. The main objective of this study was to investigate the value of academic libraries in improving higher education institutions' KM practices. The specific objectives were to assess the level of KM understanding among respondents,

determine KM practices conducted in academic libraries, evaluate the benefits of KM practices in HLIs, establish KM enablers for academic libraries to improve the application of KM practices in HLIs, and determine the challenges that hinder academic libraries from improving KM practices in HLIs.

4 Research methodology

The study used a quantitative research design (Creswell & Creswell, 2018). Academic libraries were recruited from eight out of twelve public HLIs in different regions of Tanzania. The criteria for selecting the HLIs were first established. The study focused on HLIs that had been in operation for at least ten years. The chosen duration was sufficient to ensure that the HLIs had adequate infrastructure, stability, and resources for teaching, learning, and research. They also could have many permanent, qualified staff members, well-stocked libraries, and viable undergraduate and graduate programmes. The eight academic libraries that were selected included the Ardhi University (ARU) Library, the University of Dar-es-Salaam (UDSM) Library, the University of Dodoma (UDOM) Library, Muhimbili University of Health, and Allied Sciences (MUHAS) Library, Mzumbe University (MU) Library, the Open University of Tanzania (OUT) Library, Sokoine National Agriculture (SNA) Library and State University of Zanzibar (SUZA) Library.

The population comprised library staff working in academic libraries from different categories, including library assistants, librarians, IT specialists, principal librarians, chief librarians, library professors, associate library professors and senior librarians. The online sample size calculator was used to calculate the sample size for library staff (Calculator.net, 2008 - 2024) and the margin error of $\pm 2.5\%$ error margin at the intended 95% confidence level. This was done to gain greater precision, as suggested by James et al. (2015). This resulted in the total estimated sample size of 278 library staff (See Table 1). Ten per cent of the sample size was further added to account for non-responses, giving the sample size 306.

A simple stratified random sampling technique was used to select study participants, as illustrated in Table 1. A list of all library staff was obtained from the office of human resources from each HLI, and then a random selection from each library was performed. Data capturing, cleaning and analysis were performed using Statistical Package for the Social Sciences (SPSS), also known as IBM-SPSS statistics software Version 21. Descriptive statistics of study participants were summarised using frequency and percentages for categorical variables. Validity and reliability were maintained in this study.

The study examined the cross-sectional validity and test-retest reliability of the data collection tool.

Table 1: Sample size for the study

SN	Academic library	Librarians	Responses	Non-responses (10%)	% for a stratified sample
1	UDSM Library	81	67	74	28
2	UDOM Library	50	44	48	17
3	MU Library	45	40	44	16
4	SNA Library	37	34	36	12
5	OUT Library	22	21	22	8
6	MUHAS Library	20	19	20	7
7	ARU Library	20	19	20	7
8	SUZA Library	14	14	14	5
Total		289	258	27	100

Additionally, reliability was determined through the repeatability of findings. Ethical approval was granted by the Ethical Review Committee of the College of Human Sciences at the University of South Africa (UNISA). Permission to collect data and interact with HLIs was obtained from each HLI. The researchers visited each HLI, introduced the study to the heads of each HLI, and provided them with the study information and consent form. Respondents had the right not to participate in the study. In the introductory letter to the questionnaire, they signed a declaration indicating that they were participating in the study voluntarily.

4 Research findings

Three hundred and six copies of questionnaires were circulated to library staff from the selected eight academic libraries. The return rate was 254 (83%). Among the respondents, 129 (50.8%) were men. Of all the respondents, 119 (46.9%) were middle-aged, from 21 to 30 years. Most of the respondents, 181 (71.3%), were administrative library staff, and 73 (28.7%) were academic library staff. One hundred and thirty-two (52.0%) respondents were working at readers' service departments in selected academic libraries, as illustrated in Table 2.

Table 2: Demographic information of respondents (N=254)

Item(s)	Categories	Frequency
Gender	Male	129 (50.8%)
	Female	125 (49.2%)

Age (in years)	21-30	119 (46.9%)
	31-40	100 (39.4%)
	41-50	27 (10.6%)
	51-60	8 (3.1%)
Library	ARU	18 (7.1%)
	OUT	20 (7.9%)
	MUHAS	15 (15.9%)
	MU	40 (12.7%)
	SNAL	31 (15%)
	SUZA	14 (5.5%)
	UDSM	71 (28%)
	UDOM	45 (17.7%)
Department	Readers' services	132 (52%)
	Collection development	82 (32.3%)
	ICT and e-resources	31 (12.2%)
	Information studies	9 (#.5%)

4.1 Level of KM understanding among respondents

82 (32.3%) of the respondents sufficiently understood the KM concepts. The level of KM practices among respondents was investigated, and it was found that 101 (40.1%) respondents had a low level of awareness of KM practice, as shown in Figure 1.

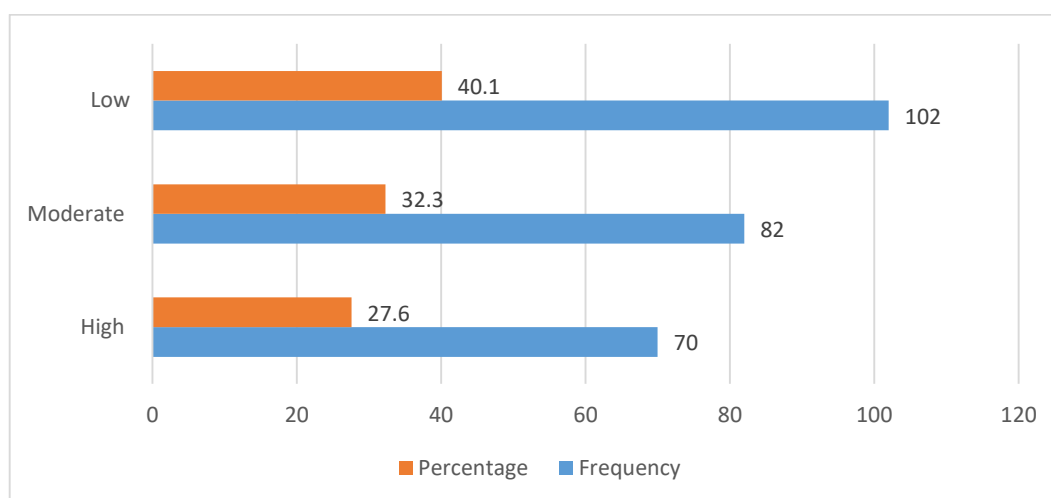


Figure 1: Level of KM understanding among respondents

In addition, the responses were evaluated to determine whether they had received KM training. A total of 142 (55.9%) had not taken part in any KM training programmes. Additionally, it was discovered that a total of 112 (44.1%) respondents participated in KM training, 45 (40.17%) respondents conducted independent studies using resources like books, libraries, audio, and video programmes, 41 (36.60%) respondents attended short courses like workshops and seminars, and 26 (23.23%) respondents participated in long courses like degrees and postgraduate studies as illustrated in Figure 2.

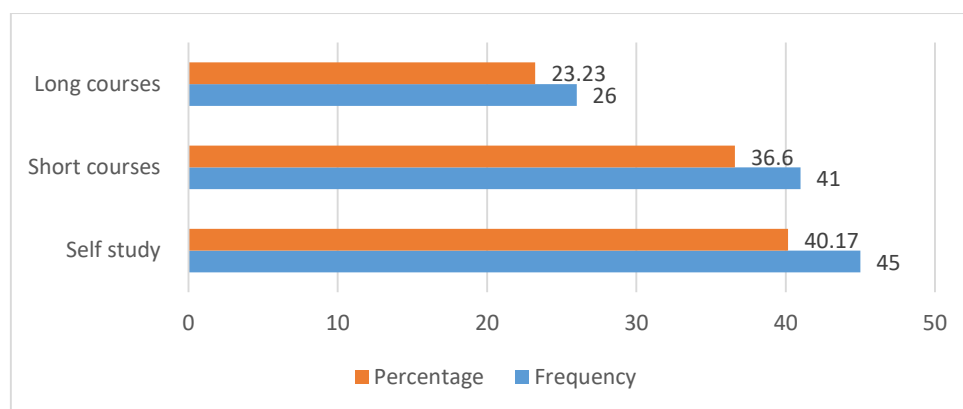


Figure 2: KM training programmes

4.2 KM practices conducted in academic libraries

A total of 31 respondents (37.3%) reported knowledge retrieval and access were among KM practices conducted in their academic libraries, whereas a total of 16(19%) reported knowledge capture and creation (Figure 3).

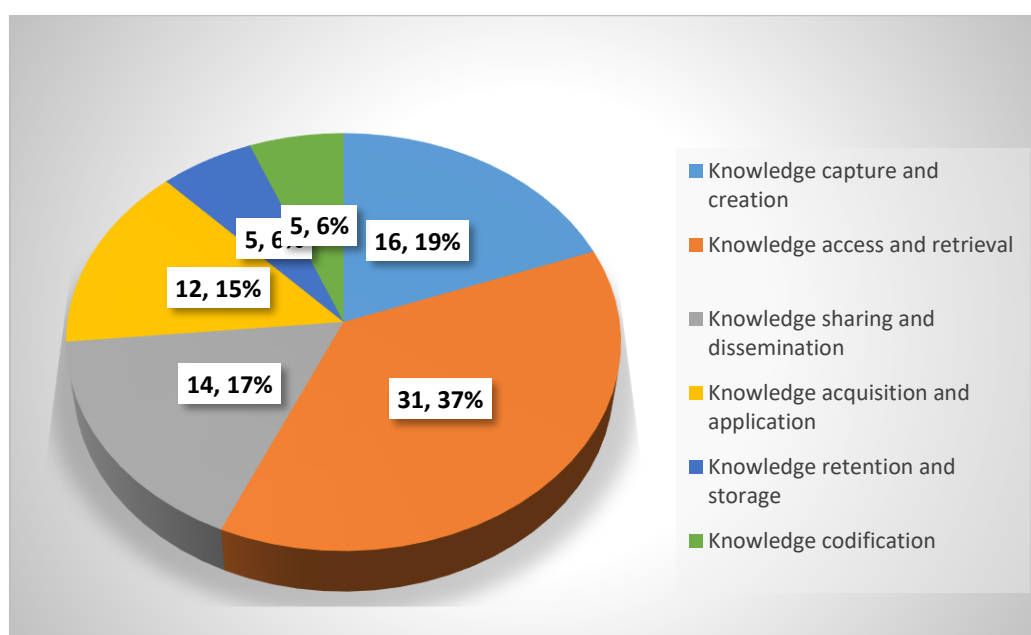


Figure 3: KM practices conducted in academic libraries

4.3 Benefits of KM practices in HLIs

Respondents claimed a variety of benefits from improving KM practices in HLIs. A total of 232 (91%) respondents mentioned improving teaching, learning, research, and innovation, while 230 (90%) respondents said they wanted to improve scholarly communication (Table 4).

Table 3: The benefits of KM practices in HLIs

The benefits of KM practices	Yes N (%)	No N (%)
Improve teaching, learning, research, and innovation	232 (91%)	22 (9%)
Improve library services and productivity	221 (87%)	33 (13%)
Enhance scholarly communication	230 (90%)	24 (10%)
Create communities of practice	229 (89%)	24 (11%)
Manage information overload	222 (87%)	32 (13%)
Develop corporate memory	224 (88%)	30 (12%)
Enhance organisation commitment	229 (90%)	25 (10%)

4.4 KM enablers for academic libraries to improve the application of KM practices in HLIs

A total of 253 (99%) respondents mentioned technology advancement and enhancement, while 251 (98%) respondents mentioned knowledge systems and repositories. Table 4 presents KM enablers to enhance the application of KM practices in HLIs.

Table 4: KM enablers to improve the application of KM practices in HLIs.

Knowledge enablers	Yes N (%)	No N (%)
Knowledge experts and expertise	249 (97%)	5 (3%)
Technology advancement and enhancement	253 (99%)	1 (1%)
Organisation infrastructure and culture	231 (91%)	23 (9%)
Human Resources Management (HRM) practices	249 (97%)	5 (3%)
Knowledge systems and repositories	251 (98%)	3 (2%)
Incentives for workers	232 (92%)	22 (8%)
Trust and friendship	214 (84%)	40 (16%)

4.5 Challenges that hinder academic libraries from improving KM practices in HLIs

107 (42.1%) respondents lacked the necessary skills and competencies. Figure 4 depicts other challenges.

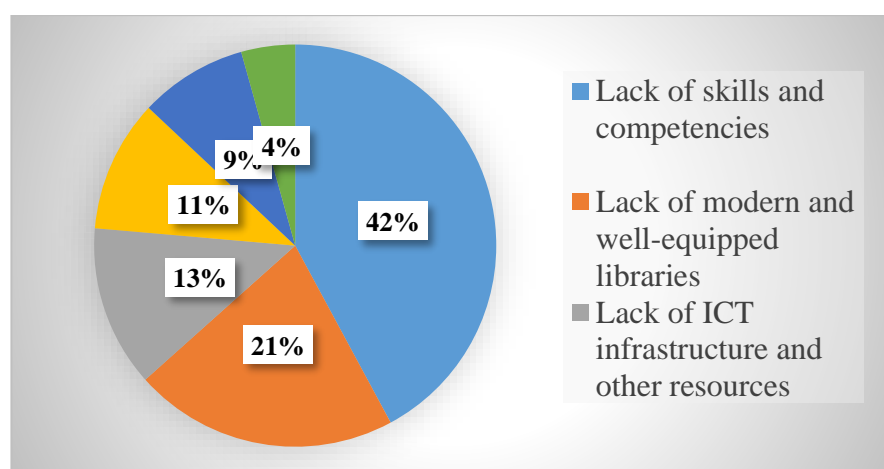


Figure 4: Challenges that hinder academic libraries from improving KM practices in HLIs

5 Discussion of findings

The present study found the level of KM understanding among librarians, which might affect the value of academic libraries in improving KM practices in HLIs. Asiedu et al. (2022) suggest that KM practices must be understood before being implemented. The majority of respondents did not attend any KM training programmes, and few obtained KM training via individual efforts. The same observation was also reported by Islam et al. (2014). KM training among librarians is critical for the implementation of KM practices in HLIs (Anike & Echedom, 2020; Krishnamurthy & Balasubramani, 2012). The International Federation of Library Associations and Institutions (IFLA) highlighted in its KM section the necessity for librarians to have KM skills to maximise intellectual resources and promote knowledge generation and exchange (IFLA, 2016).

The study also found knowledge retrieval and access followed by knowledge capture and creation among KM practices, which were highly conducted among the visited academic libraries to improve KM practices in HLIs. However, the findings were inconsistent with the findings from Galgotia and Lakshmi (2022), which found knowledge capturing and preservation practices. Thus, these practices enable knowledge creation in HLIs to be available for public use. Another study by Asiedu et al. (2022) found knowledge codification and sharing practices, and to improve these practices, academic libraries need to establish and enhance communities of practices, knowledge partnering and knowledge harvesting. The establishment of communities of practices as one of the values to support KM practices in HLIs is also supported by (Dei & Van der Walt, 2020).

Improving teaching, learning, research, and innovation, as well as enhancing scholarly communication, were found in this study to be among the benefits of KM practices. The same observation was found by Islam et al. (2013), which is that most HLI members create and share knowledge for publications and consultations as well as for teaching, learning, research, and innovation. KM practices enable academics to improve their services and products to serve their users better (Mavodza & Ngulube, 2012; Jain, 2012; 2015; Mostofa & Mezbah-ul-Islam, 2015); thus, academic libraries need to assist HLIs in identifying the needed knowledge, ensure its usage and support its preservation for future use (Jain, 2015; Mostofa & Mezbah-ul-Islam, 2015). Additionally, knowledge retention is among the KM benefits in which librarians can assist HLIs in retaining knowledge created by academicians for future use whenever an individual retires, dies or leaves HLIs (Jain, 2012; Mosha, 2017).

The study also found technological advancement and enhancement, as well as knowledge systems and repositories, to be KM enablers for academic libraries to improve the application of KM practices in HLIs. The same observation was reported by Agarwal and Islam (2014) that technology is a KM enabler for KM practices; however, technology tools are not adequate in most academic libraries. It is also reported that emerging technologies can be used to improve KM practices by supporting various KM practices, such as the codification of knowledge and enhancing rich and interactive forms of communication and collaboration (Dei & Van der Walt, 2020; Hislop, 2013). Other critical KM enablers were recommended by various studies, including organisation infrastructure and culture, human resources, financial resources, and information technology (Bezzina et al., 2020; Chiu & Chen, 2016; Shropshire et al., 2020; Dobrica, 2021). For example, an organisation's culture is regarded as the main factor that influences KM and the application of its outcomes (Chidambaranathan & Rani, 2015; Roy, 2015). Shropshire, Semenza and Koury (2020) add that organisational culture is among the supportive capabilities for the valuation of organisational knowledge and builds an interactive, collaborative atmosphere among the organisation's members.

Lastly, the study found a lack of skills and competencies among respondents, which limits the value of academic libraries in improving KM practices in HLIs. The same observations were obtained by Mostofa and Mezbah-ul-Islam (2015) that indicated a lack of skills and competencies, the reluctance of library professionals to accept the change, a misunderstanding of KM concepts, a lack of a knowledge-sharing culture and top management commitment, and a lack of collaboration. However, Memon et al. (2022) add that academic libraries fail to control and maintain tacit knowledge which resides in the human brain; academic libraries cannot document this knowledge. Additionally, Mostofa and Mezbah-ul-Islam (2015) mention a lack of clear guidelines, inadequate staff training, insufficient technology, lack of awareness, lack of funds and lack of cooperation among junior and senior staff. The study also found a lack of modern and well-equipped libraries. Other studies added challenges that are facing academic libraries in general. For instance, Roknuzzaman et al. (2009) add that library staff are unwilling, there is confusion about KM concepts, there is an absence of knowledge capturing and sharing culture, and there is a lack of collaborative efforts. In contrast, Islam et al. (2020) add that there is a lack of good governance, corruption, and the absence of fundamental concepts and practices in some cases.

Generally, the present study found that the majority of HLIs have struggled to implement KM practices due to a lack of necessary knowledge and skills among those responsible for implementation. Equipping librarians with the required knowledge and skills not only improves the adoption of KM practices in HLIs but also enables them to utilise KM tools and systems to engage academicians and other HLI members regardless of their location. This approach, known as second-generation KM, aims to enhance not just knowledge sharing but also the generation of knowledge, particularly within an academic context rather than solely in a business setting. For instance, many academic libraries are incorporating artificial intelligence (AI) technology to assist library users in generating more knowledge. This study underscores the critical role played by academic libraries in the successful application of KM strategies in higher education institutions. Their function goes beyond merely storing data, information, and knowledge; they also actively influence the academic environment at institutions.

6 Conclusion

KM practices have been identified as an integral part of HLIs worldwide; however, the importance of academic libraries in improving KM practices is still low and unplanned. A lack of KM training and skills on how to implement the importance of academic libraries in supporting KM practices is not documented. Among the findings reported was the low level of KM practices level among library staff, as well as a lack of KM enablers to support the improvement of KM practices in HLIs. The implication of this study lies in the improvement of KM practices via their academic libraries. Academic libraries need to support HLIs in collecting, filtering, storing, and enabling access to the knowledge created by their employees; thus, the importance of academic libraries.

7 Recommendations

- Academic librarians are responsible for delivering KM training and supporting the establishment of KM repositories to store knowledge.
- Policymakers should generate 'state of the art' knowledge on policy problems and related issues in HLIs.
- Policymakers should advise on KM policy generation and implementations in HLIs.
- Libraries should identify KM practices that align with the mission, vision, and objectives of HLIs.

- HLI's leadership shall ensure the improvement of KM practices in collaboration with academic librarians and libraries.

8 Limitation

This study has several limitations. Methodologically, it relied on a monomethod. Triangulation research methods or mixed methods research was not only going to enhance the validity of the study but also provide a comprehensive understanding of the phenomenon and explanation of the results, particularly those that resulted from regression analysis. The study was conducted in academic libraries located at HLI institutions. There is a need to investigate academic librarians in private academic libraries as well to make a reasonable generalisation. Formative research to explore the knowledge from heads of academic libraries, HRM and top management members could add more knowledge and opinions towards the application of KM practices in academic libraries.

References

- Adedokun-Shittu, N. A., & Shittu, A. J. K. (2013). Knowledge management implementation in the information society: A review of IJUM Library KM strategy. *International Journal of Knowledge Management (IJKM)*, 9(4), 51-66. <https://doi.org/10.4018/Ijkm.2013100104>
- Agarwal, N. K., & Islam, M. A. (2014). Knowledge management implementation in a library: Mapping tools and technologies to phases of the KM cycle. *Vine Journal of Information and Knowledge Management Systems*, 44 (3), 322–324. <https://doi.org/10.1108/Vine-01-2014-0002>.
- Akhavan, P., Philsoophian, M., & Karimi, M. H. (2019). Selection and prioritisation of knowledge management strategies as proportionate with organisations' level of maturity using fuzzy topsis approach, case study: A research organisation. *Vine Journal of Information and Knowledge Management Systems*, 49(3), 397–419. <https://doi.org/10.1108/Vjikms-12-2018-0131>
- Andriani, M., Samadhi, T. A., Siswanto, J., & Suryadi, K. (2019). Knowledge management strategy: An organisational development approach. *Business Process Management Journal*, 25(7), 1474-1490. <http://dx.doi.org/10.1108/BPMJ-07-2018-0191>
- Anike, A. N., & Echedom, A. U. (2020). Awareness and application of organisational knowledge management by academic librarians in university libraries in South-East Nigeria. *Library Philosophy and Practice (E-Journal)*. 4322. <https://Digitalcommons.Unl.Edu/Libphilprac/4322>
- Asiedu, N. K., Abah, M., & Dei, D. J. (2022). Understanding knowledge management strategies in institutions of higher learning and the corporate world: A systematic review. *Cogent Business and Management*, 9(1), 2108218-210. <https://doi.org/10.1080/23311975.2022.2108218>
- Bashir, M., & Farooq, R. (2019). The synergetic effect of knowledge management and business model innovation on firm competence: A systematic review. *International Journal of Innovation Science*, 11(3), 362–387. <https://doi.org/10.1108/Ijis-10-2018-0103>
- Bello, A. A. (2018). Knowledge management in academic libraries: Trends, issues, and challenges. *World Journal of Research and Review*, 6 (2), 20–25.
- Benmoussa, M., & Achouri, B. (2021). Knowledge management practices among 'administrative, technical staff and service agents (ATS) staff in Algerian universities: An exploratory study. *Al-Bashaer Economic Journal*, 7(3), 716-735.
- Best, A., & Holmes, B. (2010). Systems thinking, knowledge and action: Towards better models and methods. *Evidence & Policy*, 6(2), 145-159. <https://doi.org/10.1332/174426410X502284>
- Bezzina, F., Baldacchino, D., & Cassar, V. (2020). Relating knowledge management enablers, knowledge management processes, and organisational effectiveness: The case for the Maltese pharmaceutical sector. *International Journal of Knowledge Management (IJKM)*, 16(4):1-16. <https://doi.org/10.4018/IJKM.2020100106>.
- Calculator.net. (2008 - 2024). Sample size calculator. <https://www.calculator.net/sample-size-calculator.html>

- Charles, W., & Nawe, J. (2017). Knowledge management (KM) practices in institutions of higher learning in Tanzania with reference to Mbeya University of Science and Technology. *University of Dar es Salaam Library Journal*, 12(1), 48-65.
- Chidambaranathan, K., & Rani, S. B. S. (2015). Knowledge management and organisational culture in higher educational libraries in Qatar: An empirical study. *Library and Information Science Research*, 37 (4), 363–369. <https://doi.org/10.1016/J.Lisr.2015.11.002>.
- Chierici, R., Mazzucchelli, A., Garcia-Perez, A., & Vrontis, D. (2019). Transforming big data into knowledge: The role of knowledge management practice. *Management Decision*, 57 (8), 1902-1922.
- Chiu, C. N., & Chen, H. H. (2016). The study of knowledge management capability and organisational effectiveness in Taiwanese public utility: The mediator role of organisational commitment. *Springerplus*, 5(1), 1–34. <https://doi.org/10.1186/S40064-016-3173-6>.
- Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage publications.
- Daland, H. (2016). Managing knowledge in academic libraries, are we? Should we? *Liber Quarterly*, 26(1), 28–41. <https://doi.org/10.18352/Lq.10154>.
- Dalkir, K. (2017). *Knowledge management in theory and practice* (3rd ed.). MIT Press.
- Dei, D. G. J., & Van der Walt, T. B. (2020). Knowledge management practices in universities: The role of communities of practice. *Social Sciences & Humanities Open*, 2(1), 100025. <https://doi.org/10.1016/J.Ssaho.2020.100025>.
- Deja, M., & Rak, D. (2019). Knowledge management and academic information behaviour: A preliminary study of meta literacy among junior faculty staff in the digital environment. *Aslib Journal of Information Management*, 71(4), 480-499. <https://doi.org/10.1108/ajim-09-2018-0219>
- Dobrica, L. (2021). Knowledge in action towards better knowledge management in organisations. *Management Research and Practice*, 13(2), 26–35.
- Enakrire, R. T., & Onyancha, O. B. (2020). Strategies and tools for knowledge management practices in selected academic libraries in Nigeria and South Africa. *South African Journal of Information Management*, 22(1), 1-8. <https://doi.org/10.4102/sajim.v22i1.1159>
- Ferraris, A., Mazzoleni, A., Devalle, A., & Couturier, J. (2019). Big data analytics capabilities and knowledge management: Impact on firm performance. *Management Decision*, 57(8), 1923-1936. <https://doi.org/10.1108/md-07-2018-0825>
- Fombad, M. C., & Sirorei, E. C. (2019). Knowledge management processes at St Paul's University Library in Kenya. *South African Journal of Information Management*, 21(1), 1-8. <http://dx.doi.org/10.4102/sajim.v21i1.946>
- Galgotia, D., & Lakshmi, N. (2022). Implementation of knowledge management in higher education: A comparative study of private and government universities in India and abroad. *Frontiers in Psychology*, 13:1–10. <https://doi.org/10.3389/fpsyg.2022.944153>.
- Gough, D., Davies, P., Jamtvedt, G., Langlois, E., Littell, J., Lotfi, T., Masset, E., Merlin, T., Pullin, A. S., Ritskes-Hoitinga, M., Rottingen, J. A., Sena, E., Stewart, R., Tovey, D., White, H., Yost, J., Lund, H., & Grimshaw, J. (2020). Evidence synthesis international: A position statement. *Systematic Reviews*, 9: p. 155. <https://doi.org/10.1186/s13643-020-01415-5>.
- Harandi, A. A. H., Nia, M. B., & Valmohammadi, C. (2019). The impact of social technologies on knowledge management processes: The moderator effect of e-literacy. *Kybernetes*, 48(8), 1731-1756.
- Hislop, D. (2013). *Knowledge management in organisations: A critical introduction* (3rd ed.). Oxford University Press.
- Holsapple, C. W., & Joshi, K. D. (2000). An investigation of factors that influence the management of knowledge in organisations. *The Journal of Strategic Information Systems*, 9 (2), 235–261. [https://doi.org/10.1016/S0963-8687\(00\)00046-9](https://doi.org/10.1016/S0963-8687(00)00046-9).
- International Federation of Library Associations and Institutions [IFLA]. (2016). IFLA Knowledge Management Section Action Plan 2014-2016. <https://www.ifla.org/wp-content/uploads/2019/05/assets/km/strategic-plan/files/2014-2016.pdf/>
- Islam, M. A., Agarwal, N. K. K., & Ikeda, M. (2015). Knowledge management for service innovation in academic libraries: A qualitative study. *Library Management*, 36(1/2), 40–57. <https://doi.org/10.1108/lm-08-2014-0098>
- Islam, M. A., Agarwal, N. K., & Ikeda, M. (2014). Library adoption of knowledge management using web 2.0: A new paradigm for libraries. *IFLA Journal*, 40(4), 317-330. <https://doi.org/10.1177/0340035214552054>.
- Islam, M. A., Ikeda, M., & Islam, M. M. (2013). Knowledge sharing behaviour influences: A study of information science and library management faculties in Bangladesh. *IFLA Journal*, 39(3), 221-234. <https://doi.org/10.1177/0340035213497674>
- Islam, M. N., Islam, M. S., & Razzak, A. (2020). Problems of knowledge management practices in libraries and information centres of Bangladesh. *IFLA Journal*, 46(1), 34-51. <https://doi.org/10.1177/0340035219894359>.

- Jain, P. (2012). An empirical study of knowledge management in university libraries in SADC countries. *New research on knowledge management applications and lesson learned* 137-154. Intech.
- Jain, P. (2013). Knowledge management in academic libraries and information centres: A case of university libraries. *Journal of Information & Knowledge Management*, 12(04), 1350034. <https://doi.org/10.1142/S0219649213500342>.
- Jain, P. (2015, August). Knowledge management, leadership and decision making: A case of academic libraries. Paper presentation 81st International Federation of Library Associations and Institutions (IFLA) - World Library and Information Conference (WLIC), Cape Town, South Africa.
- James, D. E., Schraw, G., & Kuch, F. (2015). Using the sampling margin of error to assess the interpretative validity of student evaluations of teaching. *Assessment & Evaluation in Higher Education*, 40(8), 1123-1141. <https://doi.org/10.1080/02602938.2014.972338>
- Jennex, M. E. (Ed.). (2006). *Knowledge management in modern organisations*. IGI Global.
- Jennex, M. E. (2017). Big data, the Internet of things, and the revised knowledge pyramid. *ACM Sigmis Database: The Database for Advances in Information Systems*, 48(4), 69-79. <https://doi.org/10.1145/3158421.3158427>
- Jennex, M. E. (Ed.). (2018). *Effective knowledge management systems in modern society*. IGI Global.
- Kaffashan Kakhki, M., Modiramani, P., Aminpour, F., Sadeghi-Gourji, S., & Ebrahimzadeh, E. (2021). The dance of knowledge management strategies in libraries: The case of the libraries of the Iranian universities of medical science. *Journal of Librarianship and Information Science*, 53(1), 181-202. <https://doi.org/10.1177/0961000620919789>
- Kanwal, S., Nunes, M. B., & Arif, M. (2019). Knowledge management practice in South Asian higher education institutions. *IFLA Journal*, 45(4), 309-321. <https://doi.org/10.1177/0340035219876958>.
- Koloniari, M., & Fassoulis, K. (2017). Knowledge management perceptions in academic libraries. *The Journal of Academic Librarianship*, 43(2), 135-142. <https://doi.org/10.1016/j.acalib.2016.11.006>
- Koloniari, M., Vraimaki, E., Fassoulis, K., Zenelaj, I., & Kourniotis, X. S. (2015). A study of KM critical success factors in Greek academic libraries. *International Journal on Integrated Information Management*, 2(2), 1-12. <http://doi.org/10.5281/zenodo.1135376>
- Krishnamurthy, V., & Balasubramani, R. (2012). Awareness of knowledge management among librarians of engineering colleges affiliated to Anna University of Technology, Coimbatore: A study. *Journal of Advances in Library and Information Science*, 1(2), 84-87.
- Kwanya, T. (2023). 20 from collections to connections: Transforming libraries to knowledge centres. In M. Fombad, C. Chisita, O. Onyancha & M. Minishi-Majanja (Eds.), *Information services for a sustainable society* (pp. 320-341). De Gruyter Saur. <http://dx.doi.org/10.1515/9783110772753-022>
- Lee, H., & Choi, B. (2003). Knowledge management enablers, processes, and organisational performance: An integrative view and empirical examination. *Journal of Management Information Systems*, 20(1), 179-228.
- Mabunda, T. T., & Du Plessis, T. (2022). Knowledge management as a change enabler in academic libraries in the digital age. *South African Journal of Information Management*, 24(1), 1-10. <https://doi.org/10.4102/sajim.v24i1.1450>
- Mavodza, J., & Ngulube, P. (2012). Knowledge management practices at an institution of higher learning. *South African Journal of Information Management*, 15(1), 1-8. <https://doi.org/10.4102/sajim.v14i1.496>
- Memon, K. R., Ghani, B., Hyder, S. I., Han, H., Zada, M., Ariza-Montes, A., & Arraño-Muñoz, M. (2022). Management of knowledge and competence through human resource information system: A structured review. *Frontiers in Psychology*, 13, 944276. <https://doi.org/10.3389/fpsyg.2022.944276>
- Mohajan, H. K. (2016). Knowledge is an essential element in the present world. *International Journal of Publications and Social Studies*, 1(1): 31-53.
- Mohammed, A. A. (2022). Assessing the success of the perceived usefulness for knowledge management systems: A case study of Iraqi higher education. *International Journal of Knowledge Management (IJKM)*, 18(1), 1-24. <https://doi.org/10.4018/ijkm.291098>
- Mosha, N. F. (2017). Application of web 2.0 tools to enhance knowledge management. *University of South Africa*.
- Mosha, N. F., Holmner, M., & Penzhorn, C. (2015, August). The role of social media tools to enhance knowledge sharing among knowledge workers in higher learning institutions: A case of Nelson Mandela African Institution of Science and Technology, Arusha, Tanzania. Paper presented at the 81st International Federation of Library Associations and Institutions (IFLA) - World Library and Information Conference (WLIC), Cape Town, South Africa.
- Mostofa, S. M., & Mezbah-ul-Islam, M. (2015). Challenges and opportunities of knowledge management in university library : A case study of Dhaka University Library in Bangladesh. *Journal of Information Science Theory and Practice*, 3 (4), 49-61.

- Mubuyaeta, M., & Ngulube, P. (2024). KMS infrastructure for KM practice in two mobile telecommunication companies in Namibia. *International Journal of Knowledge Management (IJKM)*, 20(1), 1-27. <http://doi.org/10.4018/IJKM.339555>
- Ndiege, J. R. A., & Wamuyu, P. K. (2019). Knowledge management practices and systems in county governments in developing countries: Perspectives from selected counties in Kenya. *Vine Journal of Information and Knowledge Management Systems*, 49(3), 420-43.
- Newell, S., Scarbrough, H., & Swan, J. (2009). *Managing knowledge work and innovation*. Bloomsbury Publishing.
- Oliva, F. L., Couto, M. H. G., Santos, R. F., & Bresciani, S. (2019). The integration between knowledge management and dynamic capabilities in agile organisations. *Management Decision*, 57(8), 1960-1979. <https://doi.org/10.1108/MD-06-2018-0670>
- Osabutey, E. L., & Jin, Z. (2016). Factors influencing technology and knowledge transfer: Configurational recipes for Sub-Saharan Africa. *Journal of Business Research*, 69(11), 5390-5395. <https://doi.org/10.1016/j.jbusres.2016.04.143>
- Pathak, R. K. (2014). Knowledge management in an academic library: A need-based approach. *IOSR Journal of Humanities and Social Science*, 19(1), 17-23. <https://doi.org/10.9790/0837-19171723>.
- Poonkothai, R. (2016). Knowledge management is an important tool in library management. *International Journal of Information Technology and Library Science*, 5(1), 9-14.
- Quarchioni, S., Paternostro, S., & Trovarelli, F. (2022). Knowledge management in higher education: A literature review and further research avenues. *Knowledge Management. Research & Practice*, 20(2), 304-319. <https://doi.org/10.1080/14778238.2020.1730717>
- Rao, M. K. (2018, September). Application of knowledge management in libraries. Paper presented at the National Conference of Agricultural Libraries and User Community (NCALUC- 2012), Hyderabad, India.
- Roy, H. (2015). Knowledge management and the role of academic libraries. *International Journal of Research in Library Science*, 1(1), 20-25.
- Shropshire, S., Semenza, J. L., & Koury, R. (2020). Knowledge management in practice in academic libraries. *IFLA Journal*, 46(1), 25-33. <https://doi.org/10.1177/0340035219878865>.
- Sinha, A. (2014). Knowledge management in academic libraries. *Journal of Indian Research*, 2(1), 123-125.
- Tahleho, T. E., & Ngulube, P. (2022). Knowledge sharing and the improvement of service delivery in an academic library. *International Journal of Knowledge Management (IJKM)*, 18(1), 1-13. <https://doi.org/10.4018/ijkm.291704>
- Wang, M. H., & Yang, T. Y. (2016). Investigating the success of knowledge management: An empirical study of small and medium-sized enterprises. *Asia Pacific Management Review*, 21(2), 79-91. <https://doi.org/10.1016/j.apmr.2015.12.003>.
- Yeboah, A. (2023). Knowledge sharing in organisation: A systematic review. *Cogent Business & Management*, 10(1), 2195027. <https://doi.org/10.1080/23311975.2023.2195027>