



KNOWLEDGE MANAGEMENT ON INFORMATION ACCESS AND UTILIZATION IN UNIVERSITY LIBRARIES IN RIVERS STATE

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Abstract

This paper examined knowledge management on information access and utilization in university libraries in Rivers State. Four objectives in line with four research questions guided the study. Descriptive research design was adopted for the study. Literature was reviewed based on the study variables. The population was 47 librarians from the three public university libraries in Rivers State. The total number of 47 population of the librarians was adopted; hence, census sampling technique was utilized for the study. Self-structured instrument titled "Influence of Knowledge Management on Information Access and Utilization Questionnaire (IKMIAUQ) was used for data collection. The instrument was three experts. The reliability of the instrument was determined through test-retest method in which the initial and retest scores were correlated using Pearson's Product Moment Correlation which yielded reliability coefficient of 0.80. Mean and Standard Deviation were used to answer the research questions. The findings revealed that information storage, knowledge management tools, Information and communication technology had a positive influence on information access and utilization in university libraries in Rivers State; as it provides access to resources, helps users locate both print and electronic resources, improve users' ability to access and utilize information effectively. The study recommended amongst others that university libraries should adopt more advanced digital storage and indexing systems to ensure proper organization and quick retrieval of resources. The concluded that effective information storage, the use of knowledge management tools, and the application of information and communication technology (ICT) significantly influence how library users' access and utilize information resources for academic and research purposes.

Key Words: Knowledge Management, Information Access, Utilization, University Libraries



Introduction

Academic libraries have inculcated emerging trends of the 21st century in rendering information services to users. Amid this innovation, knowledge management has emerged as a further significant influence on library practice. Academic libraries serve the needs of faculty, staff, researchers, and students in colleges, universities, and other academic institutions. These libraries are specifically designed to support the academic community by providing resources and services tailored to the institution's needs. The library collections include a wide range of sources such as books, journals, e-books, online journals, e-databases, maps, and official government publications. Students and researchers can access these resources both on-campus and remotely, enabling convenient access to the information as required.

In addition to resources, academic libraries offer a variety of services to support users. These include teaching information literacy, offering research assistance, enhancing research skills, and providing technological support. Other essential services include readers' services, reference services, circulation services, indexing and abstracting services, internet services, and instruction in information literacy. University libraries not only provide tools and services but also employ highly qualified and experienced librarians who specialize in sourcing, organizing, and disseminating information (George et al., 2022). The information explosion in various areas and its management is considered important for providing quality information services, making effective decisions, improving their overall performance and becoming more relevant to their parent organizations. Knowledge is the most important asset in the knowledge economy because information is coming out every day, translating it into knowledge is important. Dalkir (2022) noted that knowledge management is the creation and subsequent management of an environment which encourages knowledge to be created, shared, learnt, enhanced and organized for the benefit of the organization and its customers. Knowledge helps users to gain understanding and become well informed portent asset in the knowledge economy because information is coming out every day translating it into knowledge is important. Knowledge helps users to gain understanding and become well informed. There is a paradigm shift in library services which is changing from the traditional to technology, also the information professional's roles are changing too.

Information professionals play vital roles in collecting, storing, organizing, and disseminating knowledge to organizations and society. Professionals play major role in knowledge management programmes by connecting people to the information needed from printed to electronic and digital resources. The resources of the academic libraries are to serve



the need of the university community more efficiently and effectively. The 21st century academic library is technologically based, to meet users, need timely and accurately. It will also support teaching and learning appropriately. This means information professionals are to be armed with competent skills that will enhance one's performance in effective library service delivery to meet user's changing information needs (Emezie & Nwaohiri 2023). Hence knowledge management is very vital and is needed to support the overall activities of 21st century academic libraries by combining indexing, searching and technology to help academic libraries in organizing data stored in multiple sources and deliver only relevant information to users. It is a force that cannot be ignored in 21st century academic libraries. To address these changing dynamics, libraries have transformed their service delivery models. Traditional roles of librarians have also expanded to encompass diverse responsibilities, such as information curation, knowledge management, data analysis, and technological integration (Jain, 2023).

Libraries now employ sophisticated information systems, data analytics, and artificial intelligence tools to enhance the user experience and deliver personalized services. The modern-day user expects the library to be not just a repository of information but a dynamic hub that fosters collaboration, interactivity, and knowledge exchange (Kim, 2024).

Statement of the Problem

The library exists for the benefit of the mind. Its operations cover any activity that supports its functions such as information access and services; resources collection maintenance and support; users and staff safety and security; facilities management; sustainability and space planning and analysis; and information/ knowledge management among others. Organizations use the existing and anticipated knowledge and knowledge assets to plan, analyze and strategize its present and future systems, operations and services. The library as a centre of information resources and knowledge management has a great role to play in facilitating access, use and reuse of the needed information and knowledge, which may be in tangible and intangible format such as printed and non-printed. Information management plays a critical role in ensuring the efficient delivery of services in university libraries in Rivers State, which are dedicated to serving its users. These libraries heavily rely on effective information management to meet the unique needs and requirements of their patrons.

However, the significance of knowledge management and information access and utilization in enhancing service delivery often goes unnoticed, resulting in potential challenges and limitations such as insufficient organization and retrieval systems, inadequate metadata and cataloguing, and lack of standardized processes could lead to the misplacement or loss of



valuable information resources. This, in turn, could result in delays, errors, and inefficiencies that impede the library's ability to meet the unique demands of its users (Ibrahim & Barkindo, 2021). Without proper knowledge management, libraries may struggle to provide accurate and up-to-date information, diminishing their value and negatively impacting the overall user experience. To address these pressing issues, this study is carried out to examine knowledge management on information access and utilization in university libraries in Rivers State.

Research Questions

The following research questions guided the study:

- 1 How does information storage influence information access and utilization in university libraries in Rivers State?
- 2 How do knowledge management tools influence information access and utilization in university libraries in Rivers State?
- 3 What is the influence of information and communication technology on information access and utilization in university libraries in Rivers State?

Literature Review

This concept of knowledge management, however, emerged from business sector. Its practice is now in other organizations like academic institutions. Library practitioners are also acknowledging the importance of knowledge management for libraries. Knowledge management according to Suliman (2024) means obtaining and using resources to create an environment in which individuals have access to information and in which individuals obtain, share and use this information to raise the level of their knowledge. Al-Hawamdeh (2022) defined Knowledge Management as an organizational process for gathering, organizing, analyzing and sharing both the tacit and explicit knowledge of the employee so that other employees may make use of this knowledge to be more effective and productive. It can also be seen as an organizational process of capturing, organizing, analysing and sharing of knowledge to create an environment in which the library staff are able to raise the level of their knowledge and may make use of this knowledge to be more effective and productive in operations and services.

Information Storage on information Access and Utilization

These are simple mechanisms or apparatus that aid the library users to locate, retrieve, and use the needed documents from the library of information from a book or document (Osaniyi, 2019). The effectiveness of a library as an instrument of learning is determined by success with which it can provide the users with the necessary tools capable of accessing and



retrieving the information they seek. Aina (2013) asserted that a list showing records of all information carriers in a collection through the access points of author, title and subject and how such materials can be located must be provided. Some of the information retrieval tools include:

- i. Index
- ii. Catalogue
- iii. Bibliography
- iv. Classification
- v. Finding aide
- vi. Registers
- vii. Search engine

To identify the information (sources) relevant to the areas of interest of the target users' community; this is a challenging job especially in the web environment where virtually everybody in the world can be the potential user of a web-based information retrieval system. To analyze the contents of the sources (documents); this is becoming increasingly challenging as the size, volume and variety of information sources (documents) is increasing rapidly; web information retrieval is carried out automatically using specially designed programs called spiders.

Knowledge Tools on Information Access and Utilization

Knowledge management tools play a useful facilitating role in learning organizations/institutions, especially the library that deals with the "info-glut" or information overload. Knowledge management tools do not manage knowledge by themselves but rather facilitate the implementation of knowledge processes. They promote and enable knowledge processing by identifying, creating, structuring, and sharing knowledge using techniques and information technology to improve decision-making (Vacik, et al., 2023). Knowledge management tools useful in facilitating role in learning organizations/institutions are as follows:

Professional Training Courses and Workshops: Library management should conduct regular training and workshops for professionals. These activities play a vital role in implementing knowledge management in academic libraries (Sanchez, 2023). They also help libraries meet the information needs of users through up-to-date products and services.

Knowledge Sharing: It is essential for academic libraries to identify who holds specific knowledge within the organization and how that knowledge can be effectively shared. According to Skyrme (2023), knowledge sharing involves converting personal knowledge into



institutional knowledge that is accessible and applicable throughout the organization. This approach fosters consistency, encourages the transfer of best practices, and enhances service quality. Knowledge sharing through mentorship also increases the confidence and motivation of librarians, aiding in their career development (David-West & Nmecha, 2019). Furthermore, effective knowledge management strengthens the relationship between libraries and their users, promotes innovation, and accelerates knowledge flow.

Communities of Practice: The concept of communities of practice refers to the transfer of practical knowledge through social interaction in environments where that knowledge is applied (Wenger, 2010). Communities of practice enable members to improve their performance, enhance services, and foster a sense of belonging within a knowledge-sharing network. One key strategy for managing knowledge for competitive advantage is through these communities. Communities provide greater access to expertise, foster innovation, and support ongoing professional development.

Knowledge management tools can be divided into four groups based on their functions. These groups are also relevant with social media tools. The four categories of KMTs can be divided into: knowledge capturing tools, knowledge evaluating tools, knowledge sharing tools and tools that can be used to store and present knowledge (Jashapara, 2024). Organizations like libraries need the tools to be able to manage knowledge effectively. Many social media tools belong to more than one category of Knowledge Management tools. Blogs, wikis or discussion forums can, for example, be easily used to capture knowledge. At the same time, they can be used to sharing knowledge. Information and discussions are saved for further use in those tools, so they belong to the category of storing and presenting knowledge.

The Role of Information Communication Technology on Information Access and Utilization

Information communication technology plays an important role in developing many knowledge management applications. This serves as powerful enabler and provides effective and efficient tools for facets of knowledge management including capturing, sharing and applying knowledge (Ganhi 2024). Emerging technologies have transformed the way libraries and information services are being delivered to users. For the 21st century academic library to remain relevant in this digital era, it must involve the use of new technologies. ICT provides efficient and effective ways in executing information related activities. It provides convenience



in terms of usage for the users, speed, accuracy and preciseness of information. The effectiveness of library services in this century largely depends upon Information and Communication Technology (ICT), such that libraries with necessary infrastructural capabilities can tap the ICT skills of their staff for development.

Methodology

The study adopted descriptive research design. Fayolle and Linan (2023) noted that descriptive survey is a study where researchers collect data from a given population and describe certain features of the sample as they are at the time of the study and which are of interest to the researcher, however, without manipulating any independent variables of the study. This design was adopted for the study because it enables the researcher to examine influence of knowledge management on information access and utilization in university libraries in Rivers State.

The population for this study consisted of 47 librarians, in three public university libraries in Rivers State. The total population was 15 professionals from University of Port Harcourt, 23 professionals from Rivers State University and 9 professionals from Ignatius Ajuru University of Education. see Table 1.

Table 1: Breakdown of the Population of the Study According to the Universities

S/N	Public Universities in Rivers State	Population
1.	University of Port Harcourt	15
2.	Rivers State University	23
3.	Ignatius Ajuru University of Education	9
	Total	47

Source: The Librarian Office of the University Libraries

The sample size of the study was 47 library staff. Census sampling technique was utilized for the study which includes the members of the population as the sample size; hence the population is not large enough. Self-structured instrument titled "Influence of Knowledge Management on Information Access and Utilization Questionnaire (IKMIAUQ) was used for data collection. This instrument contained two sections (A and B). Section A contained personal information on the bio data of the respondents. Section B elicited information on influence of knowledge management on information access and utilization in university libraries in Rivers State University. The instrument was designed on modified four-point Likert rating scale, the numerical rating of responses in the questionnaire was scored as follows; Strongly Agree (SA) = 4, Agree (A) = 3, Disagree (D) = 2, and Strongly Disagree (SD) = 1.



The instrument was validated by three experts. The experts assessed the face and content validity of the instrument. The corrections and suggested modifications were effected which made the instrument valid for the study. The reliability of the instrument was determined through test-retest method. Copies of the questionnaire were administered to a randomly selected sample of 10 respondents that were not part of the study from other libraries in Rivers State. The exercise was repeated after two weeks on the same respondents. The initial and retest scores were correlated using Pearson Product Moment Correlation, which reliability coefficient of 0.80, thereby making the instrument reliable for the data collection. Copies of the questionnaire were administered to the respondents of public university libraries in Rivers State. The administration of the questionnaire was done with the help of two research assistants. The copies of the questionnaires were retrieved from the respondents immediately for data analysis. Forty-Seven (47) copies were distributed, while 43 copies were properly filled, representing 91% returned for data analysis. Mean and standard deviation were used to answer the research questions. In analyzing the data obtained from the questionnaire, the frequencies of responses for each questionnaire were calculated. The scores of responses were converted to frequency counts, and the mean scores were computed based on the values assigned to the four response categories: Strongly Agree (SA) = 4, Agree (A) = 3, Disagree (D) = 2, and Strongly Disagree (SD) = 1.

Result and Discussion

The data and result of research questions were presented in different tables with mean and standard deviation



Research Question One: How does information storage influence information access and utilization in university libraries in Rivers State?

Table 2: Mean and Standard Deviation of Influence of Information Storage on Information Access and Utilization in University Libraries in Rivers State
N= 43

S/N	Items	4 SA	3 A	2 D	1 SD	$\bar{x}$	Std	Remark
1	Effective storage and organization of information enables users to discover relevant resources, promote utilization and research.	25	14	3	1	3.47	1.40	Accepted
2	University Libraries can provide storage solutions that support research activities	20	15	5	3	3.21	1.14	Accepted
3	Digital storage and sharing information can facilitate knowledge sharing	28	10	3	2	3.49	1.42	Accepted
4	Orderly arrangement of information resources result in easily access of materials	24	12	4	3	3.33	1.26	Accepted
5	Search engines provide a list of results that best match what a user is trying to find	25	12	3	3	3.37	1.30	Accepted
Average Mean						3.37	1.31	Accepted

Table 2 revealed how information storage influences information access and utilization in university libraries in Rivers State. The table revealed that items (1, 2, 3, 4 and 5) were accepted because their criterion mean was above 2.5. The table also revealed that item (3) has the highest mean score of 3.49, while the item (2) has the lowest mean score of 3.21. Again, an average mean score of 3.37 was gotten, which indicates that information storage influences information access and utilization in university libraries in Rivers State



Research Question Two: How do knowledge management tools influence information access and utilization in university libraries in Rivers State?

Table 3: Mean and Standard Deviation of Influence of Knowledge Management Tools on Information Access and Utilization in University Libraries in Rivers State

S/N	Items	4 SA	3 A	2 D	1 SD	$\bar{x}$	Std	Remark
6.	The library uses an integrated Library Management System to organize and provide access to resources	21	14	5	3	3.23	1.16	Accepted
7.	An Online Public Access Catalog or discovery tool helps users locate both print and electronic resources	23	16	2	2	3.44	1.37	Accepted
8.	The library maintains an institutional repository to store and provide access to research outputs	22	17	3	1	3.40	1.33	Accepted
9.	Electronic Resource Management tools support the efficient access and use of e-books, e-journals, and databases	20	19	3	1	3.35	1.28	Accepted
10.	Virtual reference tools (such as chat services or Ask-a-Librarian) improve users' ability to access and utilize information effectively	14	16	8	5	2.90	0.83	Accepted
Average Mean						3.26	1.19	Accepted

Table 3 revealed how knowledge management tools influences information access and utilization in university libraries in Rivers State. The table revealed that items (6, 7, 8, 9 and 10) were accepted because their criterion mean was above 2.5. The table also revealed that item (7) has the highest mean score of 3.44, while the item (14) has the lowest mean score of 2.90. Again, an average mean score of 3.26 was gotten, which indicates that knowledge management tools influence information access and utilization in university libraries in Rivers State.



Research Question Three: What is the influence of information and communication technology on information access and utilization in university libraries in Rivers State?

Table 4: Mean and Standard Deviation of Influence of Information and Communication Technology on Information Access and Utilization in University Libraries in Rivers State N = 43

S/N	Items	4 SA	3 A	2 D	1 SD	$\bar{x}$	Std	Remark
11.	ICT enhances Knowledge sharing	23	17	2	1	3.44	1.37	Accepted
12.	ICT helps in Information capturing	24	14	4	1	3.42	1.35	Accepted
13.	Provide convenience in term of usage for the users, speedy, and accuracy	22	15	4	2	3.33	1.26	Accepted
14.	ICT is Use for management operations such as documents delivery and emails	21	13	6	3	3.21	1.14	Accepted
15.	Help in knowledge management process	22	17	2	2	3.37	1.30	Accepted
Average Mean						3.35	1.28	Accepted

Table 4 revealed how information and communication technology influences information access and utilization in university libraries in Rivers State. The table revealed that items (11, 12, 13, 14 and 15) were accepted because their criterion mean was above 2.5. The table also revealed that item (11) has the highest mean score of 3.44, while the item (14) has the lowest mean score of 3.21. Again, an average mean score of 3.35 was gotten, which indicates that information and communication technology influences information access and utilization in university libraries in Rivers State.

Discussion of Findings

Influence of Information Storage on Information Access and Utilization in University Libraries

Table 2.2 revealed that effective storage and organization of information enable users to discover relevant resources, promote utilization and research. University Libraries provides storage solutions that support research activities. Digital storage and sharing information facilitate knowledge sharing. Orderly arrangement of information resources result in easily access of materials. Search engines provide a list of results that best match what a user is trying to find. The table also revealed that information storage influences information access and



utilization in university libraries in Rivers State. This finding is in line with the study of Aina (2013) who found that information storage influences information access and utilization in university libraries as effective storage and organization of information enables users to discover relevant resources and promote utilization for academic purposes. Osaniyi (2019) supported that effective storage and organization of information enable users to discover relevant resources, as digital storage and information sharing facilitates knowledge among universities library users.

Influence of Knowledge Management Tools on Information Access and Utilization in University Libraries

Table 3 revealed that library uses an integrated Library Management Tools to organize and provide access to resources. The tools help users locate both print and electronic resources, as library maintains an institutional repository to store and provide access to research outputs. Library management tools support the efficient access and use of e-books, e-journals, and databases, improve users' ability to access and utilize information effectively. The table also revealed that knowledge management tools influences information access and utilization in university libraries in Rivers State. This finding agrees with the study of Dalkir (2022) revealed that knowledge management tools help to encourage knowledge shared and improve users' ability to access and utilize information effectively Suliman (2024) supported that knowledge management tools help individuals obtain, share and use this information to raise the level of their knowledge.

Influence of Information and Communication Technology on Information Access and Utilization in University Libraries

Table 4 revealed that ICT enhances knowledge sharing, helps in information capturing, provide speedy and accuracy for users. ICT assists in documents delivery and also enhances knowledge management process. The study also revealed that ICT influence information access and utilization in university libraries in Rivers State. This study is in affirmation with the study of Ganhi (2024) who revealed that information and communication technology serves as powerful enabler as it provides effective and efficient tools for facets of knowledge management including capturing, sharing and applying knowledge. Onuoha et al. (2019) also corroborated that ICT allows easy integration of various library activities, increases efficiency in acquisition, access to data, cataloguing, classification, retrieval and dissemination of information. Babangida et al. (2024) also supported that ICT enhances knowledge sharing, provide speedy, and accuracy for users, and provides effective services for university libraries.



Conclusion

Effective information storage, the use of knowledge management tools, and the application of information and communication technology (ICT) significantly influence how library users' access and utilize information resources for academic and research purposes. Proper storage and organization of information were found to aid discovery, retrieval, and sharing of resources, thereby enhancing research productivity and utilization of library services. The deployment of knowledge management tools, including library management systems and institutional repositories, improve users' ability to locate, access, and use both print and electronic resources effectively.

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