

**KNOWLEDGE MANAGEMENT AND NEW TECHNOLOGIES AS TOOL FOR
EFFECTIVE SERVICE DELIVERY IN ACADEMIC LIBRARIES.**

By

MMADU, GODWIN

Abstract.

This study examines knowledge management and new technologies as tools for effective service delivery in academic libraries in Nigeria. The study is an opinion based research, and relevant literatures on the subject matter were reviewed. Findings from the study showed that knowledge management as a newly structured concept in the past few decades has become essential tool for strategic cross fertilization of ideas, skills, and expertise knowledge amongst members of organization for effective delivery of organizational goals; whereas, new technologies are the processing system that facilitate knowledge creation, coding storage, dissemination, transmission and retrieval for use and reuse which are at the core of knowledge management practices. Despite claims about librarians often being engaged in KM as their practice core, the study concluded that librarians have to reconsider their knowledge management perspectives to include; Result-oriented Perspective, Process Perspective, and Technology Perspective in order to achieve effective service delivery. Recommendations were also made.

Key words; Academic library service, knowledge management and new technologies.

Paper: seminar

Introduction

Academic library is established in institution of higher learning like universities, polytechnics and colleges of education, to build collection and provide services that will support curricula and research needs of its academic community. It is a knowledge reservoir which functions as a dynamic instrument of education that feeds the students' intellect, encourage faculty researchers and invite all who enter its house to partake fully in its intellectual and cultural contexts by providing access to various knowledge hidden in a variety of forms (Parthasarathy, 2019). It has often been seen as a fountain source of all, devoid of any replacement should the goal of all education be learning. It satisfies the intellectual curiosity of

students and scholars by making information resources available in variety of forms in such away that reading for pleasures and self discovery is encouraged.

Academic library services are key actors in providing unhindered access to essential resources for enhancing cultural and academic prosperity of the institution it supports. They are perceived to be the key elements in the process of education and training, and central in the development of knowledge base scholars from universities. However, since the beginning of the new millennium, academic library users have continually shown little or no interest for the services of academic library. The increasing availability of other sources of information in this digital dispensation has led to users' development of greater preference to find materials for learning and other research needs from their laptops and phones. Kemboi, Kenga, Obuezie and Abdullahi, (2021) states that faculty members and students from the developing countries are giving less value to library services and merely treats the place of library as a space for shelving books, and meeting point for out of class relaxation. Technology, globalisation, and competition have also caused the entire ground of academic institutions to shift, defying national borders and calling into scrutiny respected traditions, scared myths, and previously unquestioned assumptions (Vikus and Metsar, 2004).

As an integral part of academic institution, there is a growing view for librarians to explain the effort making to mitigate the gap created by the recent change. The prevailing transformation in paradigm of use, preference and source of information, require that, librarians as information mangers need to rethink their approach of providing library services to meet the new learning reality if academic library want to maintain its grip as centre of academic activities

in academic institution. There are also the new students-centred approach, and new teaching and learning process in higher education, which are also exacerbating the need for re-conceptualization of librarians' roles in service delivery. It is on this ground that the researcher examines 'Knowledge Management (KM) and New Technologies (NT) as tools for effective service delivery in academic library'.

Knowledge management is an organizational asset/technique aimed at identifying, creating, sharing, and reuse of knowledge to archive organizational goals. Skyrme (2011) defines KM as a detailed and systematic management of vital knowledge and its associated methods of creation, organization, distribution, use, and exploitation in pursuit of business objectives. Rastogi (2000), says that it is a systematic and integrative method of organizing organizational wide activities of acquiring, creating, storing, sharing, diffusing, developing, and deploying knowledge to individuals and groups in pursuit of major organizational goals. The creation and transmission of knowledge has been an age-long practice but KM became a newly structured concept in the past few decades as a formal and informal interactions between members of an organisation to facilitate knowledge creation, sharing, use and re-use for organisational benefits. KM became a household name for many discipline since information assumed the status as a utilitarian commodity. Knowledge here simply mean accumulated understanding derived from learning which can be either tacit; personal and undocumented knowledge, or explicit; which is gained from a transcribed or documented resources. Whereas management is the ability to harness, and package for reuse of these knowledge in other to achieve organizational goal seamlessly.

Academic Libraries with rich personal, professional and material resources in addition to better information management skills have great opportunities in KM. Understandably, academic library in Nigeria and other developing countries lack the means of capturing all the tacit knowledge of its professional competencies that are useful to its users, its organization, and to the internal operation of the library (Usman, and Aminu, 2017). The statuesque needs to be changed and efforts to capture and harness the knowledge embedded in library resources and those accumulated experiences of its staff, to form the new intellectual assets of academic library should be encouraged, valued and shared internally amongst library staff and externally; to users, as knowledge management through the prevailing principles using new technological tools.

Technology is defined as the application of scientific knowledge to the practical goals of human life. New technologies are therefore, sets of productive tools or techniques whose use or application in process bring significance improvements in terms of increased performance and operational cost savings in an organization. The term new technologies embodies all recent development in information communication technology whose practical applications have caused radical changes in the entire education system. Such development as Internet, digitization, and access to office and research documents from remote areas; others are expert systems, wireless networks, virtual groups, interactive Web interfaces, virtual reference services and personal web portals, which are bringing important changes in libraries since the beginning of the new millennium (Sahabi and Otobo, 2021). They are drivers of efficiency and productivity in which competitiveness are brought in for institutional performance. There

emergence are destined to have tremendous effects on academic libraries, and librarians need to consistently audit the degree of adherence, and assess, so as to fine-tune, and improve their uses to achieve effective service delivery (Mittal 2017).

Library services involves all activities and programs geared towards enabling patrons meet their information needs with shortest time possible. Many libraries in Nigeria have embraced application of technologies in their operational activities sadly, the outcome has never been interesting in terms of increasing the academic library services' patronage. Librarians have also engaged in knowledge management since the earliest days of libraries, maintaining the scrolls at the library of Alexandria and even creating the catalogue for the House of Wisdom (a Ninth Century Islamic Library (Lastres, 2011) because, knowledge has been the strongest suit of library since its inception. However, academic librarians in Nigeria have had a difficult time meeting the roles of the library as the primary access points by which students and staff acquire information/knowledge towards teaching, learning and research, relying on the Orthodox processes and integral funding available (Ufuoma, 2014).

Interestingly, with the utilitarian status of information and knowledge, KM practice in library has to involve three perspectives namely; *result oriented perspective*, which seek KM to provide the right knowledge at the right place, at the right time in the right format.' *process perspective*; that sees KM as a systematic management of processes by which knowledge is identified, created, gathered, shared and applied', and lastly the *technology Perspective*; that treats KM as 'business intelligence, Collaboration, search engines, and other intelligent agents' (Onifade, and Akinwade, 2019). While KM comprises a deliberate and strategic cross-

fertilization of ideas, intuitions, skills, expertise, information, and knowledge for effective personal, collective professional development and efficiency (Ayanbode and Nwagwu 2020), Technologies are the processing systems that promote creation, coding, storage, retrieval, manipulation, dissemination and transmission of the knowledge for effective service delivery (Zulu, 2011). Therefore, development of a knowledge management system (KMS) and its application using KM tools will enable decision-makers in academic library come together to share ideas, make contributions, and reach collective decisions promptly (Arinola, 2019), with technological support to improve the operations and delivery of services effectively

Tools for knowledge management and new technologies

KM tools are devices that enable organizations engaging in KM practice to create, process and share knowledge. The two category of tools that needs to be provided in order to implement and derive maximum benefit on KM are; Information technological tools, consisting of a technological infrastructure composed of computers, networks and databases; and Web-based tools, consisting of software applications installed in distributed environments. They are both usually referred to as knowledge management tools, because they are designed and composed to facilitate susceptible and rapid use of important functionalities, such as document management, collaborative on-line workshops, superior search engines and the likes, which are vital for the management, safeguarding and harnessing of knowledge (Onifade, and Akinwade, 2019).

Table below shows the new technological Tools commonly associated with knowledge management

Technology	Description/examples
AI technology	Expert systems, learning systems
Communication and collaboration systems group	E-mail, teleconference, video conference, chat, IM, forum, Listserv, group-ware calendar, log, shared information spaces work-flow management system, group decision support system
Intranet	A network contained within the enterprise. It is used to share information and computing resources among employee as well as to facilitate group working.
Search engine	Tool that searches the contents of a web
Infor. database and lessons learning system	Distance learning, e-learning and computer-based training.
Knowledge mapping and skills management	Any resource that locates people by their knowledge; human resources skill set inventory system.
Content management system	Management of electronic content including multimedia files.
Documents management system	Management of electronic documents, a system to search, edit, distribute, retrieve, archive and otherwise manage the complete life-cycle of documents

Source; DESIDOC J. Lib. Inf. Technol., 2009, 29(6)

Nevertheless, new technological development have produced many successful Enterprise Resources Planning (ERP-type systems) to Manage processes; creation of a well defined

organizational processes to manage sharing of knowledge in library is much importance because KM is a focus on value as a function of user satisfaction rather than the efficiency of the technology that houses and delivers the information. Put in another form, While new technological tools help KM practitioners to create, codify and share knowledge, an ill defined process and poor management of intensive knowledge, will hardly be successful. The tools only enable librarians involved in KM to create, organise and share tangible knowledge of the library i.e., recorded knowledge in document, project report and otherwise. Ideally, the tools should be flexible and mobile enough to allow steady interactions with the system from any place by the users.

Strategies for Enhancing the Use of KM AND NTs for Effective Service Delivery in Academic Library.

As a non profit making organization, academic libraries need to innovate and create new capabilities by increasing the contribution of staff, in other to eliminate deficits incurred by careless repetition of mistake in other to prevent reinventing the wheel and lower costs. With this, Stan Garfield, (2018), suggested ten categories of KM strategy which librarians engaging in KM must follow to include; motivation, network, supply, analyse, codify, disseminate, demand, act, invent, and augment. Other strategies as identified by Enakrire and Onyancha (2020) to support successful KM practices in academic libraries includes; codification strategies, deepening research and learning processes, maintenance of decision-making policy, providing efficient and effective KM entities, managing people's intellect and ensuring that ICT facilities are available/accessible to meet user/staff needs. Importantly, the authors maintained that these

strategies could work better, depending on the nature of the KM practices librarians adopt at their respective universities.

The environment of academic libraries as store house of recorded knowledge has changed significantly and also their services and products. Library workers as managers of knowledge are being pressed high to deliver at all costs as a result of the new wave of technologies (Anyanwu, Uche & Ossai-Onah, 2014). There is a growing consensus among scholars such as Kumar, (2013), Kumarjit, & Mohan (2014), Onuoha, Anyanwu, Ossai-Onah, & Amaechi, (2015); Amaechi, Enweani & Eke (2018), for academic library workers in Nigeria to adopt formulation of workable information and communication technology strategies, provision and acquisition of relevant information and communication technology facilities, and other most recent new technologies as strategies to foster services delivery in libraries.

Converging opinion are that new technological systems such as intra-nets, web portals, group-ware, video-conferencing, wikis, and blogs should be used to facilitate the sharing of knowledge due to their potential in extending the reach as well as enhancing the speed of knowledge transfer. The assumption has been that knowledge has been the strongest suit of library beginning from its inception, and that librarians as managers of the knowledge have always engaged in KM practice. They only need to move out from their comfort zone and integrate new technological tools to achieve effective delivery of services. Garland (2018) opines that service delivery in academic libraries are always about information/knowledge, and cultural and skill sharing. In addition to knowledge identification and creation in library,

librarians should synthesis, and codify knowledge, if possible according to needs and relevance, and disseminate via the various technological tools to users.

Academic libraries in Nigeria can extend their services through Web-based services such as access to e-materials, like books, journals, projects, thesis, and important speeches, as is being implemented in modern libraries. Similarly, Ayamode (2022), envisioned an academic library where users access the library website using their identification numbers and passwords issued by the library to make queries, receive and see new notifications from the library, chat with the librarian, and so on using Web 2.0 services. Moreover, Garland (2018), Kowalczyk (2018), and Mittal, (2017) identified Web OPAC, (On-line Public Access Catalogue), RFID (Radio Frequency Identification), Virtual reality, Open Libraries, Cloud printing, copying, and scanning, Free WiFi, Robots, Kinetic bikes in the library, Streaming services, Micro bits, Block-chain technology, Drones and so on , as other technologies available for use to improve service delivery in academic libraries.

Recommendation

Consequent upon the above discussion, a well defined knowledge management practice integrated with new technological tools will be valuable assets in achieving effective service delivery in library.

1. Academic Library staff in Nigeria should be motivated and encouraged to take up the challenges and tasks of creating a successful knowledge management policy that will lead to effective service delivery.

2. Academic librarians need to harness and share information that could improve their work and bring growth in service delivery, through the KM strategies discussed here.
3. There should be a recognized functional technological tools to match some written strategic goals of KM involving users.
4. There should be an established organizational culture of cooperation, sharing and innovation on KM practices and tools to groom a sense of leadership and commitment amongst library staff.
5. Awareness about the importance of KM practices in academic libraries in Nigeria through research, writings and other forums like seminars, workshops and conferences should be on acendency.

Conclusion.

Effective service delivery in academic library is no more a matter of choice but of necessity should academic library want to maintain its apex position in academic institution. Knowledge management and new technologies have been identified as tools to enable academic library deliver effective services in this age of knowledge economy. while KM comprises a deliberate and strategic cross-fertilization of ideas, intuitions, skills, expertise, information, and knowledge for effective personal, collective professional development and efficiency, new technologies are the processing systems that promote creation, coding, storage, retrieval, manipulation, dissemination and transmission of the knowledge for effective service delivery.

Library services involves all activities and programs geared towards enabling patrons meet their information needs with shortest time possible. While there are claims about librarians often being engaged in KM as their practice core, and other claims about many libraries in Nigeria having embraced application of technologies in their operational activities sadly, the outcome has never been interesting in terms of increasing the academic library services' patronage.

The study observed that KM practice in library should involve the following three perspectives namely; *result oriented perspective*, *process perspective*, and *technology Perspective*. Librarians should use the vast talents of skilled staff as KM tools and other NT tools such as the internet, wikis, video-conferencing and group-wares to develop a website to serve as a portal and manage all relevant knowledge and information of various types both tacit and explicit and analyse carefully, the needs of users and develop co-operative acquisition plans that meet these needs.

References

- Gandhi, S. (2004). Knowledge management and reference services. *Journal of Academic Librarianship*. 30 (5), 368–381.
- Ayanbode, O. F. (2022). Optimizing new technologies, knowledge management and service delivery to public libraries. *Information Matters*, Vol. 2, Issue 2. <https://r7q.22f.myftpupload.com/2022/02/optimizing-new-technologies-knowledge-management-and-service-delivery-in-public-libraries/>
- Garland, J. (2018). Current technology trends in libraries. Retrieved from https://princh.com/current-technology-trends-in-libraries/#.XjwcByMo_IU
- Kowalczyk, P. (2018). Library of the future: 8 technologies we would love to see. Retrieved from <https://ebookfriendly.com/library-future-technologies/>
- Mittal, A. (2017). Emerging technologies and their impact on libraries. *Indian Journal of Science and Technology*, 10(31), DOI: 10.17485/ijust2017/v10i31/113915

- Mohammed, Nazim and Bhaskar Mukherjee (2016). Knowledge Management in Libraries. Elsevier, Chandos; AMSTERDAM.
- Townley, C.T. (2001). Knowledge management and academic libraries. *Coll. Res. Libr.* 62 (1), 44–55.
- Gladys, Kemboi, MaureenKenga, Adaora Obuezie and Adamu Abdullahi (2021). Understanding Issues Prospects and Opportunities in Knowledge Management and Library and Information Science. *REALKM Evidence based. Practical result.* <https://realkm.com/2021/10/30/understanding-issues-prospects-and-opportunities-in-knowledge-management-and-library-and-information-science-lis/>
- MOHAMMAD NAZIM and BHASKAR MUKHERJEE(2016). Knowledge Management in Libraries, Elsevier Ltd.<http://dx.doi.org/10.1016/B978-0-08-100564-4.00001-6>
- Amaechi, N. M, Enweani, U. V., & C. C. Eke. (2018). Challenges to Library and Information Services (LIS) Delivery in the 21st Century: the Situation in three Academic Libraries in Imo State, Nigeria. *Library Philosophy and Practice* (e-journal). 2075. <http://digitalcommons.unl.edu/libphilprac/2075>
- Anyanwu, E.U, Uche, A.C., & Ossai-Onah. O. V. (2014). The challenges of transforming Nigerian libraries in preparation for the knowledge society. *Paper presented at the d National Conference of the Nigerian Library Association*, held at Golden Royal Hotel, Independent layout, Enugu, Enugu State, June 20th – 26th, 2014.
- Ayanbode, O. F., & Nwagwu. W. E. (2020). Collaborative technologies and knowledge management in psychiatric hospitals in South west Nigeria. *Information Development* 37(1): 136-157
- Kumarjit, P., & Mohan. L. V. (2014). Tools and techniques for marketing of information products and services of libraries in ICT environment. *E-Library Science Research Journal* (6):1–7.
- Kumar, P. K. S. (2013). University Library web sites in Kerala as marketing tools: an Evaluation. *Library Philosophy and Practice* (E-Journal), Paper 968. Retrieved from <http://digitalcommons.unl.edu/libphilprac/968>
- Rastogi, P., 2000. Knowledge management and intellectual capital: the new virtuous reality of competitiveness. *Hum. Syst. Manag.* 19, 39–49.
- Skyrme, D., (2011). Definition. Available at: <http://www.skyrme.com/kmbasics/definition.htm> (accessed 08.12.).
- Zulu, S.F.C (2011). Communication technology policy framework for Africa. In: Adomi E.E (ed) *Framworks for ICT policy: government, social and legal issues.* Hershey P.A: IGI-Global.

- Ufuoma A. Omsor (2014). Effect of Technology on Librarians in Academic Libraries in Nigeria. *Journal of Information and Knowledge Management*. ISSN: 2360-994X, (5)2 electronic. Retrieved from <https://www.ajol.info › article › view on 25/12/2022>.
- Osagie Oseghale Kutu Jacob (2013). Extended Library Hours in Nigerian University Libraries: a Framework. *Journal of the Northwest Pacific Library Association*. PNLA Quarterly 78:1 (Fall 2013). Retrieved from https://www.academia.edu/22943334/Use_of_Resources_by_Students_of_the_Kwara_State_University_Library&ved=2ahUKEwi2iaWA_Mv8AhWGXqQEHQ95AyUQFnoECCcQAQ&usg=AOvVaw2AILo0eKHHKZF-XRmZdNIZ
- <https://www.britannica.com/technology/technology>
- VIRKUS, S. & METSAR, S. (2004). General Introduction to the Role of the Library for University Education. *LIBER QUARTERLY*, ISSN 1435-5205. Doi: 10.18352/lq.7780
- Stan Garfield, (2018). 10 Types of Knowledge Management Strategies. *Knowledge management author and speaker, SIKML Leaders Community*. Retrieved from <https://sites.google.com/site/stangarfield/>
- Onifade, Abdurrahman Bello & Akinwade, Kazeem Abiodun (2019). "Knowledge Management System and Tools Required for Effective KM Take-up and Activities in Organisations in Nigeria" (2019). *Library Philosophy and Practice* (e-journal). 4271. <https://digitalcommons.unl.edu/libphilprac/4271>
- Enakrire, T. Rexwhite & Onyancha, B. Omwoyo (2020). Strategies and tools for knowledge management practices in selected academic libraries in Nigeria and South Africa. *South African Journal of Information Management*. ISSN: (Online) 1560-683X, SAJIM (Online) vol.22 n.1 <http://dx.doi.org/10.4102/sajim.v22i1.1159>
- Usman Muhammed Song, Aminu Ahmed Buba, & Hussaini Gindau (2017). The Role of Librarians in Knowledge Management Practices for Effective User Service Delivery in Academic Libraries in NorthEastern Nigeria. *Information and Knowledge Management*, ISSN 2224-5758 (Paper) ISSN 2224-896X (Online) Vol.7, No.12, 2017 retrieved from https://www.researchgate.net/publication/352550553_The_Role_of_Librarians_in
- Sahabi, M. K. & Ootobo, E.E (2021). Academic library and Challenges of Service Delivery in Nigerian Universities in the Digital Era. *Information Impact: Journal of Information and Knowledge Management*, 12:2,51-61, DOI<http://dx.doi.org/10.4314/ijjkm.v12i2.4>