

## **Knowledge management practices in Nigerian university libraries**

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### **Abstract**

**Purpose:** The purpose of this study is to examine the state of knowledge management practices in Nigerian university libraries, using the knowledge management processes of creation, capturing, organisation, sharing, use and storage.

**Methodology:** Survey research design was used for the study with a population consisting of Nigerian university librarians who were harvested from various library online platforms. Data was elicited using questionnaire, which was an adaptation of the Knowledge Management Assessment Instrument (KMAI) developed by Chin-Loy (2007) that divides knowledge management practices into six dimensions with construct reliability of 0.89 Alpha. The questionnaire was converted to an online survey, elicited data for a period of three weeks, after which 78 responses were retrieved and subjected to descriptive analysis.

**Findings:** All the six dimensions of knowledge management practices showed a high level, with knowledge organisation having the highest mean score, while knowledge creation had the least mean score. Of the 30 items across all six dimensions, the result showed that the item with the highest mean was from the knowledge organisation dimension which states that the university libraries use standard rules in cataloguing and classifying information materials. In general, the knowledge management practices in Nigerian University libraries were found to be high with a grand mean of 3.02.

**Research limitations:** Investigating knowledge management practices using the knowledge management processes without examining the knowledge systems and the people as part of the knowledge management poses as a limitation to this present study. Also, social desirability bias due to the nature of the measuring instrument and convenience sampling type of non-probability sampling technique adopted for the study, are all limitations which should be taken into consideration in future research.

**Originality/value:** The study contributes to the scarce empirical investigation of the state of knowledge management practices in libraries generally, and Nigerian university libraries in particular.



**Keywords:** Knowledge management practices, knowledge creation, knowledge capturing, knowledge organisation, knowledge sharing, knowledge use, knowledge storage, Nigerian university libraries.

## 1. Introduction

Universities as an advanced citadel of learning with robust research activities continuously produce knowledge for internal and external consumptions. They also require external knowledge in a bid to achieve their objectives of teaching, learning and research. Consequently, universities focus centrally on knowledge and their libraries are primarily charged with the management of such knowledge. In the light of this, University libraries have served as the knowledgehub of their parent institutions and have now embraced knowledge management practices for optimal functionality. Knowledge management is no longer a new concept as it has received a sizeable amount of scholarly attention.

Nonaka and Takeuchi define knowledge management (KM) as an organization's ability to develop new information, distribute it across organizations, and incorporate it into goods, services, and systems (Ugwu & Ekere, 2018). Therefore, KM is considered as the effective management of knowledge for organisational gain. This management of knowledge cuts across knowledge creation, capturing, organisation, sharing, storage and use, which are referred to as knowledge management practices or processes (KMP). Knowledge creation and capturing are the first two activities in the KMP which focus on the development of new skills, new products, better ideas and efficient processes. Both knowledge acquisition (bringing in already existing knowledge from external sources into the organisation's knowledge stream) and knowledge creation (developing knowledge that hitherto does not exist) are the first stage of every KMP in an organisation including a university library.

When knowledge has been created or captured, there is need for the organisation which examines knowledge for reliability according to organisation's needs and implement classification through filtering and indexing (Supyuenyong & Islam in Mansor, Alhawari, Talet& Al-Jarrah, 2011). Thus, knowledge organisation cuts across various activities such as categorising, classifying, indexing and mapping knowledge for easy identification, storage and retrieval. The next stage in the KMP is knowledge sharing, also known as knowledge dissemination or knowledge transfer, which is the act of disseminating or transferring information that has a positive effect on the organisation. The purpose of knowledge sharing is use or consumption by organisational members which is the next stage of the KMP. The importance of this step is demonstrated by the fact that KMP will not succeed without the use of existing knowledge.

Knowledge management practices in libraries are required to accomplish high quality service delivery and generation of new and innovative services. Therefore, proper knowledge management practices reflected in

knowledge creation, capturing, organisation, sharing, use and storage has become a critical area of scholarly investigation in librarianship.

### **1.2 *Statement of Problem***

Preliminary observation revealed that most of the university libraries in Nigeria do not consider external sources of knowledge acquisition particularly the library users in their quest to improve service delivery and no feedback mechanism from users on their satisfaction with services received. Also, there seem to be poor knowledge sharing culture among personnel as established by relevant literature. Moreover, Information and Communication Technologies (ICTs) are poorly integrated into the university libraries for knowledge storage; and knowledge (especially tacit), is not adequately infused into service delivery systems and processes. Consequently, this research sets out to examine the knowledge management practices in Nigerian university libraries.

### **1.3 *Objectives of the Study***

The specific objectives of this study are to:

- i. Ascertain the level of knowledge creation in Nigerian university libraries;
- ii. Ascertain the level of knowledge capturing in Nigerian university libraries;
- iii. Ascertain the level of knowledge organisation in Nigerian university libraries;
- iv. Ascertain the level of knowledge sharing in Nigerian university libraries;
- v. Ascertain the level of knowledge use in Nigerian university libraries;
- vi. Ascertain the level of knowledge storage in Nigerian university libraries;
- vii. Ascertain the level of knowledge management practices in Nigerian university libraries

## **2. Literature Review**

This section is a review of theoretical and empirical literature on knowledge management practices, structured along the specific objectives of the study. Literature was reviewed on knowledge management practices generally; thereafter the various “nodes” were discussed in the context of this current study.

### **2.1 *Knowledge management practices in university libraries***

University libraries are established to support the mission of their parent universities to generate knowledge, and equip personnel with knowledge in order to serve the university community and society (Raja, Ahmad, Sinha, 2009). However, libraries do not manage knowledge as well as they manage information (Daland, 2016), yet Alegbeleye (2010) noted that for university libraries to perform its functions effectively, they must engage in knowledge

management practices. Thus, knowledge management has become vital to university libraries of the 21<sup>st</sup> century in order to provide them with competitive edge. This corroborates Wen (2005) when he asserted that university libraries must adopt knowledge management in order to show their importance and value, cope with dwindling budget and increase their operational efficiency. It is therefore pertinent to consider the concept of knowledge management and its practices in university libraries.

Ugwu and Ekere (2018) submitted that the need for libraries to engage in innovative services in the present competitive information environment brought about knowledge management. Knowledge management, according to Rowley in Ugwu and Ekere (2017), is focused with the exploitation and development of an organisation's knowledge assets in order to promote the organisation's objectives. Knowledge management, according to Kaba and Ramaiah (2017), is the appropriate application and implementation of the knowledge development process. It's about ensuring that an organization has all of the resources it requires to create, preserve, disseminate, and use knowledge as needed. For effective service delivery, it is consequently critical to manage the creation, organisation, and exchange of knowledge in university libraries. University libraries, according to Poonkothai (2016), are an integral element of the university and its organisational culture, and anything that affects universities has an impact on university libraries.

The ability of university libraries to use the knowledge of their employees to better serve the requirements of the university community is thus critical to their success. Knowledge management is regarded as one of the most beneficial solutions that university libraries may implement in order to improve their services and become more relevant to their parent institutions in the current tough competitive climate (Thanuskodi, 2010).

Knowledge Management (KM) from its introduction into the body of knowledge, has been described in numerous ways by scholars from diverse disciplines. Sarrafzadeh, Martin and Hazeri (2006, p.624) defined KM as "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 management, according to Edem and Ani (2010), spreads and/or distributes the knowledge within individual, community, society and institution in order to positively influence their productivity, efficiency, and effectiveness. Harineeswaran, Nithyanandam and Muthu (2015) stated some implications of knowledge management in academic libraries to include dealing with larger information resources and services, creating a culture that stimulates active learning and information sharing, as well as greater collaboration with other libraries, technologies and people. They further gave examples of KM practice in academic libraries to include managing print and digital collections, and creating institutional repositories for collecting, storing and sharing digital assets of the library.

According to Bello (2018), the goal of knowledge management in academic libraries, where university libraries are included, is to ensure that correct and relevant knowledge is supplied to information users at the

appropriate time so that they may make the best decision possible. Raja, Ahmad, and Sinha in Bello (2018) highlighted the goals of knowledge management in university libraries, which include promoting knowledge collecting, processing, storage, and distribution; faster and easier data retrieval and dissemination; and retrieving skills. Marouf (2004) explored the function and contribution of libraries and information centers in corporate libraries in the United States. The findings indicated that knowledge repositories and databases of best practices and lessons learned were being developed widely. Intranets, portals, and sharing technologies were also widely used. However, many of the knowledge projects described got no further than typical information management.

Contributing to the betterment of the knowledge environment, which has traditionally been a key emphasis of libraries, would appear to be the most beneficial area of prospective involvement by the Library and Information Science (LIS) professions, but it is not an opportunity that has been frequently exploited. Treating people as knowledge resources, aligning with business goals, developing a culture of information sharing, and capturing internal explicit knowledge are all examples of relevant approaches to improve the knowledge environment in businesses. Sarrafzadeh (2008) agreed with Ferguson and Hider (2006) that certain skills are required of library personnel in carrying out effective knowledge management and such competencies include: understanding the value, context, and dynamics of knowledge and information; knowledge mapping and flows; change management; utilising ICT to construct KM enablers; an awareness of community and team support and facilitation; project management; information structuring and architecture; information management and workflows; information management principles, and information technology opportunities.

CheRusuli, et al. (2013) examined the relationships between knowledge management practices and library users' satisfaction in Malaysian university libraries. The study discovered that libraries conducted knowledge creation, knowledge acquisition, knowledge capture, knowledge sharing, knowledge record, and knowledge preservation. Users found that information acquisition was the most highly ranked practice, meaning that libraries have become treasure homes that have attracted numerous individuals for the sake of attaining their personal learning and knowledge acquisition goals.

Personal expectations and incentives are significant variables that encourage academics to engage in information exchange, according to Ramayah, Ignatius, and Aileen (2009) in their research of knowledge management among academics. Furthermore, Gichuhi (2009) conducted an empirical study on knowledge management in Kenyan university libraries. Based on the findings of the study, the researcher concluded that KM in university libraries was poor because it was not properly understood and supported. Furthermore, the findings revealed that tacit knowledge was identified, captured, and acquired in a non-systematic and informal manner.

## **2.2 Knowledge creation in knowledge management practices**

On the one hand, knowledge acquisition or creation is the process of gathering data or information and absorbing, digesting, or analyzing it for the purposes of idea formulation, clarification, creating questions, or understanding the problem to be solved, or reaching conclusions (Mathew in Kaba and Ramaihan 2017). Hong, Suh and Koo (2011) noted that knowledge creation is considered as a process through which the knowledge of employees is increased and integrated into the organisation's knowledge base. Koloniari, Vraimaki and Fassoulis (2019) investigated factors affecting knowledge creation in academic libraries in Greece. According to the findings, libraries should create and implement a knowledge-centered strategy that is supported by the right social and technological framework in order to achieve the development of new knowledge. On knowledge acquisition as a knowledge management practice in university libraries, the study carried out by Gichuhi (2009 p.106) empirically showed some of the methods of acquiring knowledge as "searching online databases was the most common method (71%), followed closely by buying knowledge products or resources (60%), establishing links or networking with other libraries and institutions (57%) and attending training programmes, conferences, seminars and workshops (53%). Subscription to litserve and online COPs were the least used acquisition methods". In The Metropolitan College of New York (MCNY), knowledge management practices in the academic library were explored by Mavodza and Ngulube (2011). On the issue of knowledge creation, majority of the study's respondents constituting 68% affirmed that reward system can be implemented to create reusable knowledge resources.

## **2.3 Knowledge capturing in knowledge management practices**

Knowledge capture is one of the knowledge management process and that the sub process of externalisation and internalisation enables knowledge capturing (Zamir, 2019). It is defined by Gupta, Iyer and Aronson (2000) as the conversion of tacit to explicit knowledge for organisational gains. The reason for knowledge capturing in an organisation is because much so much knowledge profitable to the organisation exist in individual's head and would be lost if not captured. As such, the best method to avoid a collective loss of individual memory is to identify and capture employee knowledge (CheRusuli, et. al., 2013).

Knowledge management in academic libraries, according to Asogwa (2012), includes collecting the tacit and explicit knowledge that library workers possess but that the library and its users require in the library's knowledge repository. The author added that the ability of library to capture part of the experience of older personnel through knowledge management, there would be a strong relationship between employees and employers, as no knowledge will be lost upon retirement of personnel. Thus, Aggestam, Durst and Persson (2014) opined that the ability to capture the right knowledge is essential to actualizing

knowledge management objectives. They went on to say that knowledge capture entails two key activities: identifying critical knowledge for the organization's operations and evaluating that critical knowledge to determine whether or not it should be packaged and disseminated. Denner and Diaz (2013) listed narrative (or storytelling), interviews, audio and video recordings, and best practices as examples of ways to capture knowledge. Meanwhile, the online systems include digital libraries, online catalogues and portals. However, their overall impression is that knowledge capture of tacit knowledge is not fully developed. The study at MCNY carried out by Mavodza and Ngulube (2011) revealed that knowledge is retained or captured in procedural manuals and job descriptions. In these documents, 71% of the respondents affirmed that they always find sufficient knowledge to discharge their duties. 46% of the respondents find such captured knowledge to be precise, while the same percentage said such captured knowledge are readily available for use.

#### ***2.4 Knowledge organisation in knowledge management practices***

Knowledge organisation is one of the core responsibilities of university libraries. Chowdhury (2004) noted that libraries and information services have a long history of organizing information resources with diverse technologies. These they do using different cataloguing and classification schemes and tools. For instance the Library of Congress Classification Scheme is predominantly used by Nigerian university libraries. Bhat (2010) submitted that a knowledge organisation system serves as a bridge between the user's information need and the material in the collection. With it, the user should be able to identify an object of interest without prior knowledge of its existence.

#### ***2.5 Knowledge sharing in knowledge management practices***

The concept of knowledge sharing is discussed extensively in the knowledge management literature. Sharing or transfer, according to Lin, Wu, and Lu (2012), is the process by which staff members communicate and discuss about knowledge internally or externally through various mediums such as discussions, conferences, both formal and informal networks, databases, and practices, with the goal of improving the value of knowledge usage during the dissemination and sharing of knowledge. According to Wang and Wang (2012), knowledge sharing is the most important way for employees to collectively exchange their knowledge, allowing them to contribute to knowledge application, innovation, and, ultimately, an organization's competitive advantage. Knowledge sharing, according to Asogwa (2012), is based on librarians' internal and external experiences, expertise, and know-how, and should be valued and shared through formal and informal platforms to eliminate or reduce duplication of efforts and form the basis for problem-solving and decision-making. Knowledge sharing practices among librarians in Malaysia were investigated by Ahmed et al. (2022). The study which adopted a quantitative research method to examine library staffs' perception towards

knowledge sharing practices revealed that the librarians share knowledge to a great degree and this practice improves their library services delivery.

### **2.6 *Knowledge use in knowledge management practices***

Knowledge use is an important component of knowledge management practices which university libraries facilitate. Mavodza (2010) upheld that KM is about enhancing the use of organizational knowledge through sound practices of KM and organizational learning. University libraries as noted earlier gathers information, organize and provide access to its use by their clients. Mavodza (2010) and Daneshgar and Bosanquet (2010) state that knowledge networking or system must be put in place by libraries in order to facilitate the capturing and use of both formal and informal knowledge. SiddikeMunshi, and Sayeed(2011) opined that knowledge use in university libraries can be facilitated through the adoption of technology as seen in electronic cataloguing, OPACs (Online Public Access Catalogues), electronic acquisition and serials control, electronic delivery of information, management of electronic books, among others. The aim of every knowledge management process is the consumption of information in order to bring about an expected end or a desire result and this is made possible when knowledge is adequately used. According to Jantz in Singh and Nazim (2015), if libraries use knowledge effectively and efficiently, it will invariably improve their service delivery which is the ultimate goal of knowledge management practices in libraries of all types. Thus, the use of knowledge, as a knowledge management practice, is essential to the overall actualisation of knowledge management objective in university libraries.

### **2.7 *Knowledge storage in knowledge management practices***

Knowledge storage is a process in knowledge management that involves the transcription and codification of captured knowledge (Alavi and Leidner in Igbinovia and Ikenwe, 2017). From a different perspective, Alegbeleye (2010) opined that the concept of knowledge storage is synonymous to knowledge repository which in the parlance of knowledge management connotes the storing of documents which has knowledge embedded in them. According to Gonzalez and Martins (2017), the central objectives of knowledge storage is to retain the knowledge generated by individuals and groups, and create an organisational memory. In addition, technological devices have served as critical means to storing knowledge in organisations, including university libraries. Jasimuddin (2005) averred that computers are employed to store explicit knowledge which also might have been elicited via computer-based technology. The author mentioned that shared online databases and electronic bulletin boards could serve the purpose of collecting, storing and making explicit knowledge accessible. In the study of Islam et al. (2020), the problems library and information centers face in Bangladesh, with regards knowledge management practices were examined. The authors stated that the knowledge storage into repository, with multiple accesses to the repository has made the library more dynamic, through the introduction of information and communication technologies.



### **3. Methods**

Survey research design was used for the study with a population consisting of librarians in Nigerian university libraries who were harvested from Library Online platforms (virtual community of librarians in Nigeria). This sample frame was deemed fit in line with the study of Igbini (2017) where it was noted that this approach allows for sample spread across demographics, geographical locations and career levels. However, contrary to the study of Igbini (2017) who deployed this approach across all library types, this present study restricted participation to librarians in university libraries since this category of libraries is expected to have a better structure that promotes knowledge management practices. This approach of data elicitation gives the librarians optimal liberty to decide whether or not to participate in the survey without any form of coercion, in line with the principle of voluntary participation as an ethical research practice.

The instrument used for data elicitation was a structured questionnaire. The questionnaire is an adaptation of the Knowledge Management Assessment Instrument (KMAI) developed by Chin-Loy (2007) which was an adoption of Lawson (2002) KMAI. The Chin-Loy (2007) KMAI divides knowledge management practices into six dimensions (creating knowledge, capturing knowledge, organizing knowledge, storing knowledge, disseminating knowledge and applying knowledge) with each dimension having four items or descriptive statements. The KMAI thus has a total number of 24 items with combined construct reliability of 0.89 CronbachAlpha. The KMAI uses a five-point Likert-type scale of strongly agree, agree, neither agree nor disagree, disagree and strongly disagree.

For the purpose of this study, an adjustment to the KMAI was made to develop the Knowledge Management Practice Scale (KMPS). The study used the six dimensions of knowledge creation, capturing, organisation, sharing, use and storage. However, each of the dimensions was measured using five descriptive statements (giving all dimensions equal number of measuring items) that suit the context of university libraries, which gave a total of 30 items on the KMPS. Responses to these items were on four-point Likert-type scale ranging from strongly agree (4) to strongly disagree (1). The four point Likert scale was adopted to remove the 'neutral' response. This produces higher variance in the answers and eliminates the tendencies of respondents taking a comfortable or neutral position. The adjusted questionnaire was given face validity by three (3) researchers from knowledge management and library science. Their corrections were effected for which a clean and revised copy of the questionnaire was made.

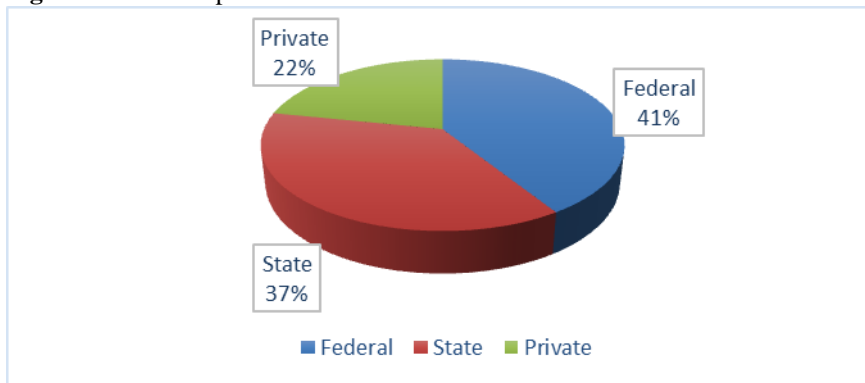
The questionnaire was converted to an online survey using Google Forms (<https://forms.gle/nyoMXeQsiTYckyAy9>) which was posted in various library WhatsApp groups for an initial period of two weeks. Thereafter reminder messages were sent out for another week. After a cumulative period of three weeks, the survey was closed from accepting responses and the 78 responses

retrieved were subjected to analysis. This sample size is fit for use based on the nature of the study's population and convenience sampling type of the non-probability sampling (Galloway, 2005; Frey, 2018). The method employed in analyzing the retrieved data was descriptive statistics of percentage, mean and standard deviation.

#### 4. Presentation of Results

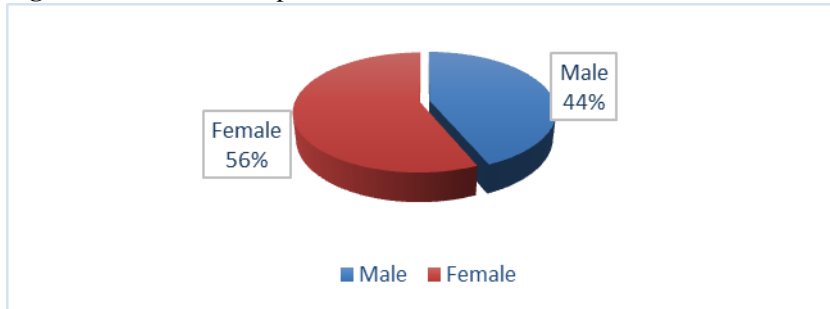
##### 4.1 Demographic Profile of Respondents

**Figure I:** Ownership status of institutions



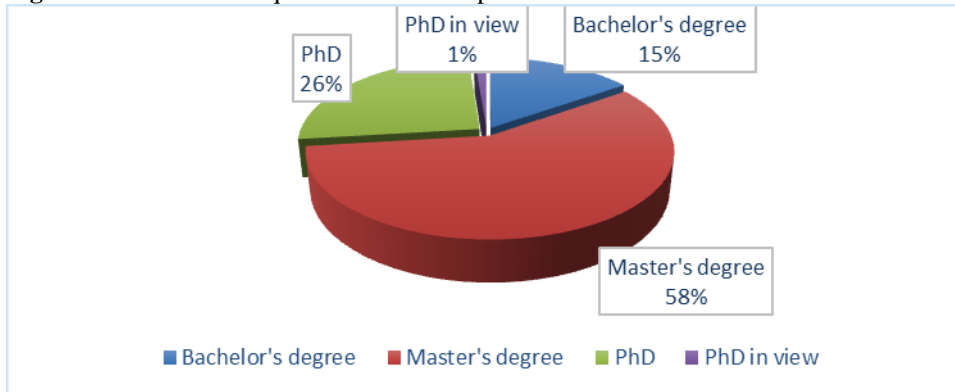
The result showed that there were more respondents from Federal owned universities, followed by State owned while privately owned universities had the least respondents. This implies that Federal university libraries either have more personnel or have more personnel willing to participate in research.

**Figure II:** Gender of Respondents



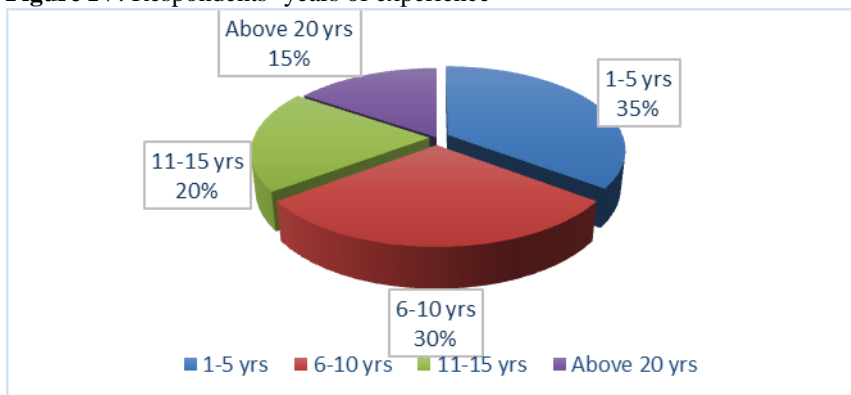
Majority of the respondents were female which depicts that more females participated in the research, though with a difference of 12% compare to their male counterparts. This suggests that females have a bigger share in the workforce of university librarianship.

**Figure III:** Educational qualification of Respondents



Majority of the respondents had Master’s degree, which shows they occupy academic status in their respective universities. This is followed by those with a doctoral degree and then Bachelor’s degree. This reinforces the emphasis university libraries are placing on their staff for continuous educational development.

**Figure IV:** Respondents’ years of experience



Majority of the respondents are in their early career which is between one to five years. The least responses were from respondents with experience above 20years. This among other things could imply that early career librarians are eager to participate in online research.

#### 4.2 Results on the Study’s Objectives

**Objective 1:** Level of knowledge creation in Nigerian university libraries

Table I: Knowledge creation in Nigerian University Libraries

| S/N               | Knowledge Creation  | SA |      | A  |      | D  |      | SD |     | X           |
|-------------------|---|----|------|----|------|----|------|----|-----|-------------|
|                   |   | F  | (%)  | F  | (%)  | F  | (%)  | F  | (%) |             |
| 1                 | <i>“My library has mechanisms for creating and acquiring knowledge from different sources such as staff, users, best practices and competitors.</i>                         | 33 | 42.3 | 34 | 43.6 | 9  | 11.5 | 2  | 2.6 | 3.26        |
| 2                 | <i>My library encourages and has processes for the exchange of ideas and knowledge between individuals and groups.</i>  | 21 | 26.9 | 45 | 57.7 | 11 | 14.1 | 1  | 1.3 | 3.10        |
| 3                 | <i>My library rewards employees for new ideas and knowledge</i>   | 13 | 16.7 | 24 | 30.8 | 38 | 48.7 | 3  | 3.8 | 2.60        |
| 4                 | <i>My library has mechanisms for creating new knowledge from existing knowledge and uses lessons learnt and best practices from projects to improve successive projects</i> | 14 | 17.9 | 40 | 51.3 | 22 | 28.2 | 2  | 2.6 | 2.85        |
| 5                 | <i>My library intentionally converts processes and procedures to knowledge”</i>   | 13 | 16.7 | 39 | 50.0 | 24 | 30.8 | 2  | 2.6 | 2.81        |
| <b>Grand Mean</b> |   |    |      |    |      |    |      |    |     | <b>2.92</b> |

Source: Measuring items are adapted from Chin-Loy (2007)

Table I shows that most of the respondents noted that their libraries have mechanisms for creating and acquiring knowledge from different sources such as staff, users, best practices and competitors (X=3.26) and that their library encourages and has processes for the exchange of ideas and knowledge between individuals and groups (3.10). The librarians' perception of their library rewarding employees for new ideas and knowledge had the least mean (2.60). The grand mean of 2.92 is higher than the criterion mean of 2.50 on a four-point Likert scale, indicating high level of knowledge creation in Nigerian university libraries.

#### Objective Two: Level of knowledge capturing in Nigerian university libraries

Table II: Knowledge capturing in Nigerian University Libraries

| S/N | Knowledge Capturing  | SA |      | A  |      | D  |      | SD |     | X    |
|-----|--|----|------|----|------|----|------|----|-----|------|
|     |  | F  | (%)  | F  | (%)  | F  | (%)  | F  | (%) |      |
| 1   | <i>“My library responds to staff ideas and documents them for further development.</i>                                   | 19 | 24.4 | 42 | 53.8 | 16 | 20.5 | 1  | 1.3 | 3.01 |
| 2   | <i>My library has policies in place to allow employees to present new ideas and knowledge without fear and ridicule</i>  | 20 | 25.6 | 40 | 51.3 | 18 | 23.1 | 0  | 0.0 | 3.03 |
| 3   | <i>My library has mechanisms for converting knowledge into action plans and the design of new products and services.</i> | 13 | 16.7 | 41 | 52.6 | 24 | 30.8 | 0  | 0.0 | 2.86 |
| 4   | <i>My library encourages mentoring of young library professionals</i>  | 21 | 26.9 | 48 | 61.5 | 8  | 10.3 | 1  | 1.3 | 3.14 |

|                   |   |    |      |    |      |    |      |   |     |             |
|-------------------|---|----|------|----|------|----|------|---|-----|-------------|
| 5                 | <i>My library has mechanisms for converting knowledge into action plans and the design of new products and services ideas from employees to other staff”.</i> | 18 | 23.1 | 41 | 52.6 | 19 | 24.4 | 0 | 0.0 | 2.99        |
| <b>Grand Mean</b> |   |    |      |    |      |    |      |   |     | <b>3.01</b> |

*Source: Measuring items are adapted from Chin-Loy (2007)*

Table II on the librarians' knowledge capturing shows that most of the respondents feel their library as encouraging of young library professionals (3.14) and has policies that stimulate idea presentation without fear and ridicule (3.03) with the least mean (2.86) showing the libraries have systems that convert ideas into actionable plans, products and services. The grand mean of 3.01 shows high level of knowledge capturing in the libraries.

**Objective Three:** Level of knowledge organisation in Nigerian university libraries

**Table 3:** Knowledge organization in Nigerian University Libraries

| S/N               | Knowledge organization   | SA |      | A  |      | D  |      | SD |     | X           |
|-------------------|--|----|------|----|------|----|------|----|-----|-------------|
|                   |  | F  | (%)  | F  | (%)  | F  | (%)  | F  | (%) |             |
| 1                 | <i>“My library has a policy to review knowledge on a regular basis. Persons are specially tasked to keep knowledge current and up to date.</i> | 22 | 28.2 | 29 | 37.2 | 26 | 33.3 | 1  | 1.3 | 2.92        |
| 2                 | <i>My library has mechanisms for filtering, cross listing and integrating different sources and types of knowledge.</i>                        | 13 | 16.7 | 40 | 51.3 | 24 | 30.8 | 1  | 1.3 | 2.83        |
| 3                 | <i>My library gives feedback to employees on their ideas and knowledge</i>   | 19 | 24.4 | 42 | 53.8 | 16 | 20.5 | 1  | 1.3 | 3.01        |
| 4                 | <i>My library uses standard rules in cataloguing and classifying materials</i>   | 39 | 50.0 | 37 | 47.4 | 2  | 2.6  | 0  | 0.0 | 3.47        |
| 5                 | <i>My library has processes for applying knowledge learned from experiences and matches sources of knowledge to problems and challenges”.</i>  | 18 | 23.1 | 49 | 62.8 | 11 | 14.1 | 0  | 0.0 | 3.09        |
| <b>Grand Mean</b> |  |    |      |    |      |    |      |    |     | <b>3.07</b> |

*Source: Measuring items are adapted from Chin-Loy (2007)*

Table III shows that most of the university libraries use standard rules in cataloguing and classifying materials (3.47). Also these libraries have processes for applying knowledge learned from experiences and matches sources of knowledge to problems and challenges (3.09). The least mean (2.83) was on the availability of filtering, cross listing and integrating different sources and types of knowledge. With a grand mean of 3.07, the knowledge organisation in these libraries is considered to be high.

**Objective Four:** Level of knowledge sharing in Nigerian university libraries

**Table IV:** Knowledge sharing in Nigerian University Libraries

| S/N               | Knowledge Sharing  | SA |      | A  |      | D  |      | SD |     | X           |
|-------------------|--|----|------|----|------|----|------|----|-----|-------------|
|                   |  | F  | (%)  | F  | (%)  | F  | (%)  | F  | (%) |             |
| 1                 | <i>“My library has knowledge in the form that is readily accessible to employees who need it.</i>                      | 24 | 30.8 | 47 | 60.3 | 7  | 9.0  | 0  | 0.0 | 3.22        |
| 2                 | <i>My library sends out timely reports with appropriate information to employees, users and other relevant bodies.</i> | 18 | 23.1 | 42 | 53.8 | 18 | 23.1 | 0  | 0.0 | 3.00        |
| 3                 | <i>My library uses notice boards, bulletin, WhatsApp group and other forums to display and disseminate knowledge</i>   | 32 | 41.0 | 37 | 47.4 | 9  | 11.5 | 0  | 0.0 | 3.29        |
| 4                 | <i>My library has regular symposiums, lectures, conferences, and training sessions to share knowledge.</i>             | 20 | 25.6 | 36 | 46.2 | 21 | 26.9 | 1  | 1.3 | 2.96        |
| 5                 | <i>My library rewards knowledge sharing culture among personnel”.</i>  | 18 | 23.1 | 28 | 35.9 | 31 | 39.7 | 1  | 1.3 | 2.81        |
| <b>Grand Mean</b> |  |    |      |    |      |    |      |    |     | <b>3.06</b> |

Source: Measuring items are adapted from Chin-Loy (2007)

Table IV reveals that most of the university libraries use notice boards, bulletin, WhatsApp group and other forums to share knowledge (3.29) and has accessible knowledge (3.22). The least mean score (2.81) is on reward for knowledge sharing culture. The grand mean of 3.06 reveals that there is high level of knowledge sharing in Nigerian universities libraries.

#### **Objective Five:** Level of knowledge use in Nigerian university libraries

**Table V:** Knowledge use in Nigerian University Libraries

| S/N               | Knowledge Use   | SA |      | A  |      | D  |      | SD |     | X           |
|-------------------|---|----|------|----|------|----|------|----|-----|-------------|
|                   |   | F  | (%)  | F  | (%)  | F  | (%)  | F  | (%) |             |
| 1                 | <i>“My library has different methods by which personnel further develop their knowledge and apply them to new situations.</i>     | 25 | 32.1 | 38 | 48.7 | 15 | 19.2 | 0  | 0.0 | 3.13        |
| 2                 | <i>My library has mechanisms to protect knowledge from inappropriate or illegal use inside and outside of the library.</i>        | 16 | 20.5 | 41 | 52.6 | 21 | 26.9 | 0  | 0.0 | 2.94        |
| 3                 | <i>My library applies knowledge to critical competitive needs and quickly links sources of knowledge in problem solving</i>       | 15 | 19.2 | 46 | 59.0 | 16 | 20.5 | 1  | 1.3 | 2.96        |
| 4                 | <i>My library has methods to analyse and critically evaluate knowledge to generate new patterns and knowledge for future use.</i> | 15 | 19.2 | 44 | 56.4 | 19 | 24.4 | 0  | 0.0 | 2.95        |
| 5                 | <i>My library infuses knowledge into the service delivery processes to produce better services”.</i>                              | 24 | 30.8 | 45 | 57.7 | 9  | 11.5 | 0  | 0.0 | 3.19        |
| <b>Grand Mean</b> |   |    |      |    |      |    |      |    |     | <b>3.03</b> |

Source: Measuring items are adapted from Chin-Loy (2007)

Table V shows that the university libraries infuse knowledge into the service delivery processes to produce better services (3.19) and their library has different methods by which personnel further develop their knowledge and apply them to new situations (3.13). The protection of knowledge from inappropriate or illegal use inside and outside of the library had the least mean (2.94). With a grand mean of 3.03, the study revealed a high level of knowledge use in Nigerian universities libraries.

**Objective Six:** Level of knowledge storage in Nigerian university libraries

**Table VI:** Knowledge storage in Nigerian University Libraries

| S/N               | Knowledge Storage  | SA |      | A  |      | D  |      | SD |     | X           |
|-------------------|--|----|------|----|------|----|------|----|-----|-------------|
|                   |  | F  | (%)  | F  | (%)  | F  | (%)  | F  | (%) |             |
| 1                 | “My library utilises databases, repositories and information technology applications to store knowledge for easy access by all employees | 33 | 42.3 | 37 | 47.4 | 7  | 9.0  | 1  | 1.3 | 3.31        |
| 2                 | My library utilises various written devices such as newsletter, manuals to store the knowledge they capture from employees               | 24 | 30.8 | 40 | 51.3 | 12 | 15.4 | 2  | 2.6 | 3.10        |
| 3                 | My library has different publications to display the captured knowledge.   | 18 | 23.1 | 34 | 43.6 | 24 | 30.8 | 2  | 2.6 | 2.87        |
| 4                 | My library has mechanisms to patent and copyright new knowledge.   | 14 | 17.9 | 23 | 29.5 | 34 | 43.6 | 7  | 9.0 | 2.56        |
| 5                 | My library uses feedback mechanisms to document ideas, information and knowledge”.   | 12 | 15.4 | 43 | 55.1 | 20 | 25.6 | 3  | 3.8 | 2.82        |
| <b>Grand Mean</b> |  |    |      |    |      |    |      |    |     | <b>2.93</b> |

Source: Measuring items are adapted from Chin-Loy (2007)

Table VI shows that most of the respondents said their library utilises databases, repositories and information technology applications to store knowledge for easy access by all employees (3.31) and that the library utilises various written devices to store the knowledge they capture from employees (3.10). The mean score (2.56) was on available mechanisms to patent and copyright new knowledge. The result showed high level of knowledge storage with grand mean of 2.93.

**Objective seven:** Level of knowledge management practices in Nigerian university libraries

**Table 7:** Knowledge management practices in Nigerian University Libraries

| S/N | Indicators             | Mean | SD   |
|-----|------------------------|------|------|
| 1   | Knowledge creation     | 2.92 | 0.26 |
| 2   | Knowledge capturing    | 3.01 | 0.10 |
| 3   | Knowledge organization | 3.07 | 0.25 |
| 4   | Knowledge sharing      | 3.06 | 0.20 |
| 5.  | Knowledge use          | 3.03 | 0.12 |

|    |                   |             |             |
|----|-------------------|-------------|-------------|
| 6. | Knowledge storage | 2.93        | 0.28        |
|    | <b>Grand Mean</b> | <b>3.02</b> | <b>0.06</b> |

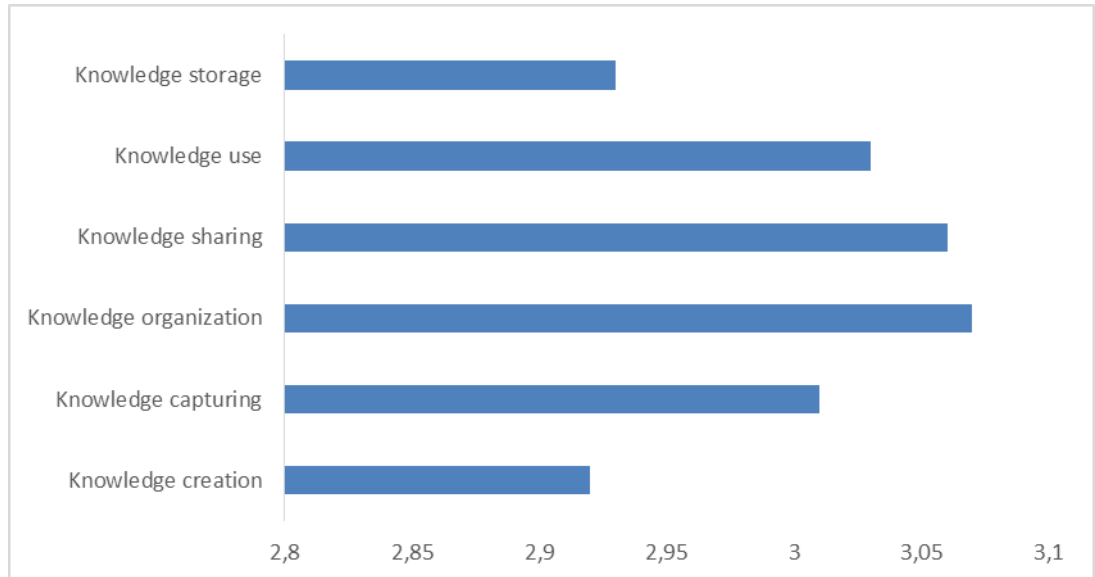


Table VII shows the level of knowledge management practices in the university libraries, with a mean score of 3.02 is considered high. All the six nodes of knowledge management practices had high individual mean scores with varying level of contribution to the total mean value. Knowledge organisation (with mean score of 3.07) had the highest level of contribution, followed by knowledge sharing (3.06), knowledge use (3.03), knowledge capturing (3.01), knowledge storage (2.93) and knowledge creation (2.92).

### 5. Discussion of Findings

The study revealed a high level of knowledge creation contributed majorly by the availability of structures to create and acquire knowledge, and knowledge exchange among personnel in the university libraries understudy. University libraries thus create knowledge through exchange among personnel induced by both financial and non-financial approaches (Lwanga & Ngulube, 2019). Such inducement should be in the form of rewarding employees for new ideas and knowledge, which will invariably address the item with the least mean score in the knowledge creation dimension of this study. This further gives credence to the study of Lwanga and Ngulube (2019) when they established a nexus between reward culture and knowledge creation.

Knowledge is highly captured in the respondents' university libraries majorly because these university libraries encourage mentoring of their young library professionals. In the study of Aming'a (2015), 39.5% of the respondents indicated mentoring as one of the mechanisms for capturing knowledge at Kisii



University. This makes mentoring a key component of knowledge management strategy (Akpotohwo, Iyoha, Emezie, 2020). The least mean score is on mechanism for converting knowledge into new library products and services. This situates itself in the Bukowitz and Williams Cycle of knowledge management which emphasizes the need for university libraries to focus on converting its knowledge into valuable products and services (Alosaimi, 2016). Consequently, the expected outcome of capturing knowledge in university libraries is for improved and value-added library products and services.

There are standard rules in cataloguing and classifying information materials as a stride towards organising knowledge which among other factors accounted for the perceived high level of knowledge organisation in the university libraries. Effective techniques and principles of cataloguing knowledge resources stimulate the creation and use of knowledge (Husain & Nazim, 2013). The authors further opined that cataloguing and classification skills among librarians equip them to integrate knowledge management practices into academic libraries. Moreover, the study showed a high level of knowledge sharing in the university libraries. This corroborates the findings of Onifade (2015) where the librarians in the Nigerian Federal university libraries had positive perception of knowledge sharing in the library.

The study also revealed a high level of knowledge use, inasmuch as the majority of the respondents agreed that their university libraries incorporate knowledge into the service delivery operations to generate better services. Thus, knowledge use which is a key aspect of the KMP supports the delivery of quality library services in agreement with the studies of Chebet and Njuguna (2020) and Awaja, Awaja and Raju (2018). Consequently, the usefulness of knowledge in libraries is reflected in their ability to produce quality service. Meanwhile, on knowledge storage, the study revealed a high level of knowledge storage practice majorly through technology-based approaches like databases and repositories, as well as print-based media like newsletter and manuals. This implies that the university libraries are utilizing trending technologies to store knowledge for future purposes. This correlates with the assertion of Igbino and Ikenwe (2017) that hardware technologies provide a medium for knowledge storage.

In general, the study found the level of knowledge management practices to be high as influenced by knowledge organisation, sharing, use, capturing, storage and creation respectively. Thus, knowledge organisation contributed most to the overall mean score, while knowledge creation contributed least. In response to factors affecting the creation of knowledge in academic libraries, Koloniari, Vraimaki and Fassoulis (2019) avowed the need for these libraries to deliberately design and execute a knowledge-centric approach in order to create new knowledge. However, the item with the highest mean score across all dimensions was from the knowledge organisation dimension, which revealed that the university libraries use standard rules in cataloguing and classifying information materials. This finding strengthens the previous assertion of Fakandu (2014), that knowledge organisation as one of the key functions of

university libraries is carried out using classification schemes, which drives knowledge management practices.

## 6. Conclusion and Recommendations

University libraries are high-level knowledge centers and over the years have embraced the idea of knowledge management both in theory and practice. In a bid to meet their core objectives, they have set up structures that capture knowledge majorly through mentoring and make such knowledge available and accessible to library personnel, with the propensity to deliver quality service. From inception, organising knowledge has been at the forefront of libraries' mandate, which has contributed to their practice of knowledge management. That same mandate by which these libraries were established gave less emphasis to the creation of knowledge which now requires deliberate improvement. Based on the findings of the study, the following are recommended:

- i. There is need for university libraries to create structures that elicit and rewards new ideas and knowledge emanating from personnel.
- ii. University libraries should set up feedback mechanisms that systematically archive ideas and knowledge.
- iii. The processes, procedures and best practices of libraries should be converted into knowledge and infused into the knowledge-streams of university libraries.
- iv. University libraries should constantly strive to translate their organisational knowledge into innovative service delivery.
- v. The management of university libraries are required to instil a knowledge sharing culture among personnel.

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