

**ADOPTION OF KNOWLEDGE MANAGEMENT PRACTICES FOR
SERVICE DELIVERY IN SELECTED NORTH-WEST NIGERIA FEDERAL
UNIVERSITY LIBRARIES**

BY

MUHAMMED ALI FAKANDU

E83F/29902/2014

**A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE AWARD OF THE DEGREE OF DOCTOR OF
PHILOSOPHY (INFORMATION SCIENCE) IN THE SCHOOL OF
EDUCATION, KENYATTA UNIVERSITY**

OCTOBER, 2019

DECLARATION

I certify that this thesis is carried out, written and compiled by myself. I have not submitted some part of the work elsewhere (universities/institution) for the purpose of the award of any degree or for publication. This thesis has been complimented in the way of citations. The data, tables and graphics that are borrowed from other sources are specifically accredited and references cited in accordance with anti-plagiarism.

.....

Signature

Muhammed Ali Fakandu - E83F/29902/2014
Department of Library and Information Science

.....

Date

SUPERVISORS

We confirmed that the work reported in this thesis was carried out by this candidate under our supervision.

.....

Signature

Dr. Charles Kamau Maina
Department of Library and Information Science
Kenya University

.....

Date

.....

Signature

Dr. Peter Wamae
Department of Library and Information Science
Kenya University

.....

Date

DEDICATION

This work is dedicated to Almighty Allah for blessing me with good health, my father Alhaji Muhammad Fakandu for his continued support and encouragement, my late mother Hajiya Fatimah Fakandu and my late brother Haruna Muhammed Fakandu.

ACKNOWLEDGEMENT

I want to acknowledge the effort of my supervisors, Dr. Charles K. Maina and Dr. Peter Wamae, for their tireless guidance throughout the study. My appreciation also goes to Dr. Gichuhi Zipporah the Chairperson of the Department for the administrative role she played in processing and submission of the thesis. Am also thankful to all faculty members and the departmental secretary for their support during the study. My special acknowledgement also goes to my beloved wife Hajiya Jummai Abdulsalam Suleiman for moral support and encouragement.

TABLE OF CONTENTS

DECLARATION	ii
DEDICATION	iii
ACKNOWLEDGEMENT	iv
TABLE OF CONTENTS	v
LIST OF TABLES.....	ix
LIST OF FIGURES.....	x
ABBREVIATIONS.....	xi
ABSTRACT	xii
CHAPTER ONE: INTRODUCTION AND BACKGROUND TO THE STUDY.....	1
1.1 Introduction	1
1.2 Background to the Study	1
1.3 Statement of the Problem	10
1.4. Purpose of Study.....	11
1.5. Research Objectives	11
1.6. Research Questions	12
1.7. Significance of the study	12
1.8. Limitations and Delimitation.....	13
1.9. Assumptions	14
1.10. Theoretical Framework	14
1.11. Conceptual Framework	16
1.12. Operational Definition of Terms	19
CHAPTER TWO: REVIEW OF RELATED LITERATURE	21
2.1 Introduction	21
2.2 Knowledge.....	21
2.2.1 Types of Knowledge.....	23
2.3 Knowledge Management Practices (KMP)	26
2.4 Knowledge Acquisition	32
2.5 Knowledge Organization.....	38
2.6 Knowledge Sharing	42
2.6.1 Challenges in Knowledge Sharing Practices.....	49
2.7 ICT Application in Knowledge Management	50

2.8 Summary of the Research Gap	57
CHAPTER THREE: RESEARCH DESIGN AND METHODOLOGY	60
3.1 Introduction	60
3.2 Research Design and Locale	60
3.3. Study Variables	61
3.2. 1. Independent Variables	61
3.2.2 Dependent Variable	62
3.2.3 Intervening Variables	62
3.4. Location of the study	63
3.3 Population.....	63
3.4.Sampling Techniques and Sample size	64
3.4.1 Sample Techniques.....	64
3. 4.2 Sample Size	65
3.5. Research Instruments.....	66
3.5.1 Questionnaire.....	67
3.5.2 Interview Schedule	67
3.6. Piloting	68
3.6. Validity and Reliability	69
3.6.1. Validity	69
3.6.2. Reliability	70
3.7. Data Collection Techniques	72
3.8. Data Analysis.....	72
3.9. Logistical and Ethical Considerations	73
CHAPTER FOUR: PRESENTATION OF FINDINGS, INTERPRETATION AND DISCUSSION	75
4.1. Introduction	75
4.2. General and Demographic Information.....	75
4.2.1. Response Rate	75
4.2.2. Demographic Information	76
4.2.3. Education qualification.....	77
4.2.4. Years of Working Experience	78
4.3. Knowledge Acquisition	80
4.3.1. Understanding of Knowledge Management	80

4.3.2. Level of Knowledge Management Practice	83
4.3.3. Types of Knowledge Acquired.....	84
4.3.4. Years of Working Experience and Acquisition of Knowledge in Libraries	86
4.3.5. Source of Acquiring Knowledge	89
4.3.6. Mechanism/Technique used to Acquire Tacit Knowledge	90
4.3.7. Mechanism/Technique used to Acquire Explicit Knowledge	94
4.3.8. Importance of Tacit and Explicit Knowledge Acquisition.....	96
4.4. Knowledge Organization.....	98
4.4.1. Frequent Organization of Knowledge	99
4.4.2. Methods of Knowledge Organization	101
4.4.3. Accessibility of Knowledge	103
4.5. Knowledge Sharing	105
4.5.1. Methods for Knowledge Sharing.....	105
4.5.2. Knowledge Sharing Challenges	111
4.5.3. Level of Satisfaction on Knowledge Sharing	117
4.6. ICT Application in Knowledge Management Practices.....	118
4.6.1. Extent of ICT application for Enhancing Knowledge Management.....	119
4.6.2. Use of ICT facilities for Knowledge Management Practices in the Library	125
4.6.3. Relevance of ICT Facilities in Knowledge Management Practices	127
4.7. Benefits of Knowledge Management	129
CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS	130
5.1 Introduction	130
5.2. Summary of the Findings	130
5.2.1. Knowledge Acquisition.....	130
5.2.2. Knowledge Organization.....	131
5.2.4. ICT Application in Knowledge Management	133
5.3. Conclusions	133
5.4. Recommendations	134
5.5. Recommendations for Further Research	135
5.5.1.Challenges in the Acquisition of Tacit knowledge in Libraries.....	135

5.5.2. Impacts of Knowledge Based Experts in libraries	136
5.5.3. Problems and Prospects of Knowledge Management Practices in Other types of Libraries	136
REFERENCE	137
APPENDICES.....	149
Appendix I: Consent Letter for Librarians	149
Appendix II: Questionnaire for Librarians	150
Appendix III: Consent Letter for Interview.....	157
Appendix IV: Interview Schedule for University Librarians	158
Appendix V: Sample size Table	160
Appendix VI Approval for Data Collection	161
Appendix VII Acknowledgement Letter UDUS	162
Appendix VIII: Acknowledgement Letter ABU Zaria.....	163
Appendix IX: Acknowledgement Letter BUK.....	164
Appendix X: Acknowledgement Letter Fed. University Dutsin-Ma	165
Appendix XI: Map of Nigeria showing North-West Geo-Political Zone	166

LIST OF TABLES

Table 3.1: Population Breakdown	64
Table 3.2: Sample size.....	66
Table 3.3 Cronbach’s Alpha Reliability	70
Table 3.4: Cronbach Alpha.....	71
Table 4.1: Response Rate by University Library	76
Table 4.2: Educational Qualification.....	78
Table 4.3: Years of Working Experience	79
Table 4.4: Understanding Knowledge Management Practices.....	81
Table 4.5 Types of Knowledge Acquired.....	85
Table 4.6: Years of working experience and acquisition of knowledge for competence and development.....	88
Table 4.7: Technique/Mechanism for Acquiring Tacit Knowledge.....	93
Table 4.8: Techniques/Mechanism for Acquiring Explicit Knowledge.....	95
Table 4.9: Importance of Acquisition of Tacit and Explicit Knowledge	97
Table 4.10 Methods of Organizing Knowledge	102
Table 4.11: Methods of Knowledge Sharing.....	110
Table 4.12: Challenges encountered in Knowledge Sharing.....	116
Table 4.13: Extent of ICT application in enhancing knowledge management practices,	124

LIST OF FIGURES

Figure 1.1: Conceptual Framework	18
Figure 4.1: Level of Knowledge Management Practices	84
Figure 4.2: Sources of Knowledge	90
Figure 4.3: Knowledge Organization Frequency rating	100
Figure 4.4: Accessibility of Knowledge	104
Figure 4.5: Knowledge Sharing Satisfaction Rating	118
Figure 4.6: Use of ICT facilities.....	126
Figure 4.7: Relevance of ICT facilities in Knowledge Management Practices	128

ABBREVIATIONS

ABU	Ahmadu Bello University
BUK	Bayero University, Kano
AULNU	Association of University Librarians of Nigeria Universities
HEI	Higher Education Institution
ICT	Information and Communication Technology
IFLA	International Federation of Library Associations and Institutions
IM	Information Management
IT	Information Technology
KA	Knowledge Acquisition
KM	Knowledge Management
KMP	Knowledge Management Practices
KO	Knowledge Organisation
KS	Knowledge Sharing
LIS	Library and Information Sciences
NLA	National Library of Nigeria
OULS	Oxford University Library Services
SMEs	Small and Medium Enterprises
SPSS	Statistical Package for Social Science
UDUS	Usmanu Danfodiyo University, Sokoto
NLA	Nigerian Library Association

ABSTRACT

Knowledge management practices entail generation, acquisition, organization, sharing, preservation, applying and re-use of knowledge. In libraries, the practice aims at improving services and administration. Evidence indicates that university libraries in Nigeria are facing a series of challenges ranging from lack of mentorship, reluctant to share knowledge, lack of research collaboration, inadequate training, seminars among others and the cause of these challenges is not known. The purpose of this study was to establish whether North-West Nigeria Federal university libraries have adopted knowledge management practices (KMP) in acquisition, organization, and sharing and also evaluate the role of information and communication technology (ICT) in the whole process. The objectives of the study was to assess the knowledge acquisition, to determine the knowledge organization, to establish the knowledge sharing and assess the role of ICT in enhancing KM practices. This study reviewed literature in the area of knowledge acquisition, organization, sharing and ICT application. It applied descriptive research design and had a target population of three hundred and ninety-three (393) respondents from the selected north-west Nigeria university libraries. The sample size of the study was 191 which was calculated using Krejcie and Morgan. Questionnaires and interview schedules were used for data collection from different categories of librarians in university libraries. A pilot study was conducted in Gusau University Library and data analyzed to ensure the validity and reliability of the instruments. Descriptive statistic methods were used in analyzing the data into tables, frequencies, percentages, and charts were used for tabulation and presentation. Among the key findings, were practices amenable to knowledge management were in place in all the selected university libraries. The acquisition of knowledge was in place, though a lot were still inclined to explicit knowledge while tacit knowledge was limited. Knowledge organization was mostly done using classification scheme while expert based knowledge was not adequately used. A variety of methods were used for knowledge sharing. Information and communication technology (ICT) were available and used to support library services. Lack of mentorship service, lack of management support and research collaboration were major challenges in knowledge sharing. The study concludes that the adoption of knowledge management practices in the selected university libraries would not be a challenge as practices amenable to knowledge management are in place. The study also recommends the acquisition of tacit knowledge among librarians, the use of expert-based knowledge to organize knowledge in the library and to improve knowledge sharing through mentoring services and research collaboration as methods of sharing knowledge.

CHAPTER ONE

INTRODUCTION AND BACKGROUND TO THE STUDY

1.1 Introduction

This chapter covers the concept of knowledge, knowledge management and provides trends in adoption of knowledge management practices in various parts of the world. A statement of the problem, the purpose of the study, research objectives and questions, significance of the study, delimitation, and limitations, assumptions, theoretical, conceptual framework and operational definition of terms are also presented.

1.2 Background to the Study

The term knowledge means different things to different people, and each definition is from a different angle. Knowledge is that information that is relevant and contextual having evolved from experience gained over some time (Nnadozie, 2015). Knowledge can mean cognizance, experience, skills, competence, insight, information, know-how, capability, practical ability, and wisdom among others (Unegbu, Aina and Soyemi, 2015). Knowledge can be classified as procedural, declarative, general, specific, technical, contextual, tacit, and explicit knowledge. The two major types of knowledge are tacit and explicit knowledge.

Tacit knowledge is found in the mind of human beings. It includes informed guesses, hunches, cultural beliefs, values, attitudes, imaginations, feelings, mental models, skills, capabilities, as well as expertise (Nnadozie, 2015). Tacit knowledge is also regarded as the most valuable source of knowledge, and it is most likely to

lead to a breakthrough in an organization. Tacit knowledge is acquired through seminars, conferences, mentorship, training, and interactions. Tacit knowledge can be shared through meetings, personal and group interactions, and research collaboration.

Explicit knowledge is the knowledge that is codified. It is easy to identify, store and retrieve. This type of knowledge is mostly handled by knowledge management systems, which makes it very effective at facilitating the storage, retrieval, and modification of documents and texts (Nnadozie, 2015). Explicit knowledge is acquired through documents, regulations, reports, manuals, books, journals among others. This knowledge can be organized using conventional classification schemes and can be shared through research collaborations, meetings, training, forums among others (Nnadozie, 2015). These two types of knowledge are managed by libraries. Aliyu (2016) reported that the primary aim of adopting knowledge management in libraries is to ensure that knowledge is provided to the right user at the right time to enable librarians to provide effective services. Aliyu (2016) reviewed knowledge management in libraries has been portrayed as a mandatory task and a major function that libraries should adopt for supporting the objectives of their parent organizations in this knowledge economy.

Knowledge management (KM) as a concept was recognized in the business sector because of its importance in the “global economy” of the “knowledge age” (Kommey, 2011). Knowledge management has received significant attention from various disciplines including library and information science, business management, sciences, education, and social sciences among others (Jain, 2009). Knowledge

management has contributed to the business sector in the area of improving services and customer satisfaction, an increase in the visibility of the business organization and decision making.

Knowledge management (KM) practice is the systematic management of an organization's knowledge asset which consists of processes, strategies, and initiatives to enhance the creation, acquisition, organization, sharing, and storage of the knowledge to meet tactical and strategic requirements (Odetta, 2015). Wong (2005) view knowledge management as a critical success factor for business organizations. Carrion (2016) asserts that knowledge management in business and institutions has gained more attention due to the value attached to it in the area of customer service delivery and high-quality products.

One of the bases of knowledge management practice is knowledge acquisition practices. According to Uriarte (2008), knowledge acquisition involve acquiring different types of knowledge in an organization through various sources such as documents, training, mentoring, conferences, interactions, experts and the use of information and communication technology facilities among others.

Knowledge organization deals with organizing knowledge in an organisation using methods such as classification schemes, online public access catalogue and institutional repositories among others. Nnadozie (2006) knowledge acquisition is achieved through social interaction and networking in the workplace and the knowledge acquired can lasts for over a period in the form of experience while other

parts of the knowledge remain formalized as code of conduct, rules, job specification or description, flow chart among others.

Knowledge sharing practice is another basic practice in knowledge management which entails the sharing of knowledge through interactions (meetings), research collaboration, mentorship, and forums among others. Connelly and Kelloway (2003), knowledge sharing practices are set of behaviour that involve the exchange of knowledge or assistance to others through a variety of methods such as coordinating, directing and exchanging ideas among individuals.

Knowledge management (KM) has no one single concept owing to its multidiscipline nature. Knowledge management entails generation, identification, acquisition, organization, sharing, preservation, and application for service delivery in an organization (Debowski, 2006). Rigby (2009) defines knowledge management as the acquisition and sharing of intellectual assets to improve services. It is the practice of generating, organizing, sharing and application of knowledge which enables individuals to improve skills to provide better services. Knowledge is an intellectual asset that serves as a driving force that gives an organization a competitive advantage. Mortimer (2015) asserts that knowledge management involves the systematic coordination of organizational structure that includes people, technologies and processes that add value to the individual and an organization as a whole.

White (2004) acknowledged that knowledge management in the 21st century is increasingly becoming a vital tool in assisting to improve the dynamic and service

delivery to users. Shanhong (2000) identified some of the benefits of KM to include the promotion of the relationship between libraries and their users and strengthening resources sharing and networking and improve the pace of knowledge flow.

The potential of knowledge management in transforming business has led to its adoption in the public, private and governmental organizations. A study by Maingi (2007) in Kenya established that international organizations in the energy sector such as Cheron and Shell were using knowledge management to leverage their competitive advantage in providing quality services. Townley (2001) in his study on knowledge management in academic libraries and higher education stressed that organizations with large knowledge assets such as Microsoft and IBM were practicing knowledge management for improved service delivery. He further stressed that knowledge management was identified as the major solution to gain a competitive advantage in the knowledge edge era by organizations.

Maingi (2007) also acknowledged that many of the United Nations bodies had taken up knowledge management as a method of streamlining their worldwide operations. Ever since the 1990s, the transformative value of knowledge management has motivated the business world to invest heavily in human development and infrastructure. A study by Carrion (2016) in Spain on critical processes of knowledge management practices revealed that knowledge management practices have transformed organizations in the area of absorptive capacity, knowledge application and knowledge transfer which resulted in the creation of superior customer value. The study suggests that Spanish organizations should invest in

knowledge management and ensure acquisition, organization, sharing, and dissemination for better service to the clients.

A study Wallace (2002) on knowledge management practices at the Canada Institute for Scientific and Technical Information (CISTI) revealed that knowledge management practices have great impacts on the research institute. Wallace noted that the knowledge acquisition was successful through staff interaction, mobility of labour, team projects and report writing. Knowledge management practices are well established in most developed countries. Within the new knowledge economy, knowledge management has become necessary in institutions of higher learning in a bid to help make relevant knowledge identified, acquired and used so that learning can occur (Flynn, 2004).

One other consideration for the successful adoption of knowledge management in the business world is organisational factors. Holsapple (2005) in a study on the inseparability of modern knowledge and computer-based technology and the study identified eight organisation factors that influence the adoption of knowledge management practice in any organisation which include technology, employee motivation, culture, organisation adjustments, leadership, external factors and evaluation of knowledge management activities/resources. In support of this assertion, Wallace (2002) in a study on knowledge management practices at Canada Institute for scientific and technical information recommended other key factors to successful knowledge management practices in the organisation which includes, staff collaboration, human resources, top management and compensation for staff.

In the library world, proponents of the adoption of knowledge management practices in libraries are many. Knowledge management as an emerging field has created opportunities for academic libraries to improve their service delivery (Townley, 2001). In a study by Jain (2009) on knowledge management in academic libraries in East and South Africa, she was of the view that adoption of knowledge management should be a mandatory discipline for all types of the library if they are to remain relevant and survive the digital era. She further stressed that KM was no longer an optional luxury of the 21st-century librarian. On his part, Kumar (2010) that the growing need for the adoption of knowledge management has changed the operations of libraries and their services. He added that the adoption of KM in libraries was a major part of libraries' knowledge strategies in providing effective service delivery.

According to the International Federation of Library Association (IFLA) (2003), the rationale for knowledge management in libraries and information communities is to provide support and improve the understanding of all information professionals on the benefits of knowledge management in their respective organizations. To achieve its objectives, IFLA developed a programme of activities geared towards supporting professional librarians facilitating the application of knowledge management in their organizations.

The IFLA activities include: working collaboratively with other sections on various aspects of knowledge management; sharing best practices; investigating how professional associations' influence and support knowledge management practices; and to support a knowledge management section website as a repository of

knowledge management in libraries. These activities would go a long way in improving library services.

However, in the developing world, knowledge management practice in university libraries has not been well adopted. Yaacob, Jamaluddin and Jusoff (2010) in a study on knowledge management and challenging roles of academic libraries in developing countries observed that academic libraries have not relinquished their role and interest as information providers, which pose challenges of KM practices to the information professionals. In a case study by Jain (2007) that aimed at establishing whether academic librarians in East and South Africa were practicing information management (IM) or knowledge management revealed that most of the participating librarians 65% considered themselves as information managers. Jain (2012) identified some of the impediments towards successful knowledge management in university libraries to include: lack of sharing culture, insufficient budget, lack of central knowledge management policy, lack of define guidelines for knowledge management, lack of incentive, and staff training among others.

In Kenya, a study by Gichuhi (2014) on determinants of effective knowledge management practices in selected university libraries in Kenya established that knowledge management has not been officially practiced as a function in university libraries. Her study established that university libraries in Kenya did not champion knowledge management, had no budget, no knowledge management policies, and strategies for capturing tacit knowledge. The study also noted that capturing tacit knowledge and its transfer was ad hoc. The study sadly established that some university librarians did not ever fully understand the benefits of knowledge

management to adopt it in their libraries. One deputy librarian who understood knowledge management perfectly lacked administrative support for knowledge management implementation. The current study sought to establish the adoption of knowledge management practices in university libraries.

In Nigeria, the literature on knowledge management practices is scanty. Ugwu and Ifeanyi (2010) for example, focused on competencies needed for successful knowledge management (KM) application in Nigeria academic libraries and the study revealed that the competencies needed for successful knowledge management include knowledge management culture, leadership, strategic and restructuring skills. They suggested that for successful application of KM in Nigeria university libraries, librarians need more training on knowledge acquisition through staff research collaboration, group interactions, and staff training. While Nnadozie (2015) focused on knowledge management variables and users satisfaction with information delivery in south-East Nigeria university libraries and the study established that reluctant of librarians to share knowledge among themselves and lack of mentorship was identified as the major challenges in knowledge sharing.

A study by Kassim (2011) on knowledge management strategies implementation in academic libraries in Nigeria established that ineffective knowledge acquisition by librarians through poor mobility of labour, lack of research collaboration and lack of mentorship affected knowledge management implementation in academic libraries. The study recommended adequate sponsorship by library management in research and the introduction of incentives to librarians as methods to encourage knowledge acquisition practices. While Cyprian (2016) examined the implications for perceived

factors of knowledge management (KM) in Nigeria Federal university libraries and the study revealed that the success of KM implementation depended on certain organizational dimensions. These organizational dimensions were cited as top management leadership support, human resource policy, compensation schemes, and collaboration.

1.3 Statement of the Problem

University libraries in Nigeria are facing a series of challenges ranging from lack mentorship, reluctance to share knowledge, lack of research collaboration, inadequate training, conferences and seminars among others as shown in the background which is likely to impact on librarians professional development and henceforth affecting their performance.

However, the cause of these challenges in North-West Nigeria Federal university libraries is not known. Considering that Nigerian government established the federal universities with an aim of contributing to national economic expansion by producing knowledgeable and competent workforce needed for national development as Ololube, Dudafa, Uriah and Abgor (2013) put it, there is need to probe knowledge management in libraries as this is one of the key resources in training of man power.

Developed countries that had adopted knowledge management in their university libraries have enjoyed service delivery through identification/acquisition of resources, organization, sharing as well as dissemination and development of new knowledge. With the adoption of knowledge management that enhances the

performance of such functions, libraries will remain relevant in the provision of services for the support of their parent organizations. This study aimed at establishing the adoption of knowledge management practices in selected North-West Nigeria federal university libraries in the area of knowledge acquisition, organization, sharing and the use of ICTs to enhance knowledge services delivery.

1.4. Purpose of Study

The need for knowledge management in university libraries to enhance services has been recognized globally, nationally and locally. The purpose of this study was to establish whether North-West Nigeria Federal university libraries have adopted knowledge management practices (KMP) in acquisition, organization, and sharing and also evaluate the role of information and communication technology (ICT) in the whole process.

1.5. Research Objectives

- i. To assess the knowledge acquisition practices for services delivery in North-West Nigeria Federal University Libraries;
- ii. To determine the knowledge organization practices for services delivery in North- West Nigeria Federal University Libraries;
- iii. To establish the knowledge sharing practices for service delivery in North-West Nigeria Federal University Libraries;

- iv. To assess the role of ICT facilities in enhancing the adoption of knowledge management practices for service delivery in North-West Nigeria Federal University Libraries

1.6. Research Questions

- i. What are the types of knowledge acquired in North-West Nigeria Federal University Libraries?
- ii. How is knowledge organization in North-West Nigeria Federal University Libraries?
- iii. What are the methods of knowledge sharing in North-West Nigeria Federal University Libraries?
- iv. What is the extent to which ICT facilities is used in enhancing knowledge management practice in North-West Nigeria Federal University Libraries?

1.7. Significance of the study

This study is an eye-opener to librarians on the adoption of knowledge management practices that may need review in the subject institutions and missing practices that are supposed to be introduced. The research provides new knowledge in the area of knowledge management practices. The study will, therefore, be of significance to academic libraries.

This study sought to demonstrate that university libraries with successful adoption of knowledge management can withstand the competitive industry in information services. University libraries practicing knowledge management will understand the information needs of their users better than those that do not.

The study may also be of importance to both staff of the respective libraries. University library users can use it as a source of literature for different purposes. The study may be of significance to the management and other stakeholders with regards to understanding the benefits of knowledge management practices in libraries.

1.8. Limitations and Delimitation

Limitation: Due to the wide geographical scope in which federal universities are found, only four (4) university libraries were selected due to the geographical location of the libraries in different states in the North-West zone. The major limitation in this study was the challenge of obtaining data from librarians in the libraries because all the university libraries have branches from one campus to another making the processes so stressful. Other limitations experienced during the study included: tedious protocols to follow in order to get access to expertise and specialized services, approval from authorities to carry out research in the respective libraries. Non-return of the questionnaire by some respondents also restricted the researcher's capacity in the study.

To overcome some of these limitations, the researcher extra days in the each of the library to enable him collect the administered questionnaires and also to formal adhere to protocol to get access to expertise and specialized services, approval from authorities to carry out research in the respective libraries. However, the researcher could not afford to retrieve few questionnaires from the respondents administered under this study.

Delimitation: This study was delimited to Federal University Libraries in the North-West Geo-Political Zone of Nigeria. North-West Geo-Political Zone comprises seven (7) Federal University Libraries. The study was restricted to four (4) selected university libraries. These selected libraries have adequate professional librarians for knowledge management practices and have been in existence for many years. The other three (3) university libraries were newly established in 2015 and practice knowledge management with a smaller number of professional librarians compared to the four university libraries selected for the study.

1.9. Assumptions

The following assumptions were made:

- i. That the effort to adopt knowledge management at the selected university libraries is faced with different challenges.
- ii. That there is a high potential for knowledge management adoption in university libraries.

1.10. Theoretical Framework

This study applied the knowledge creation theory by Nonaka and Takeuchi (1995). The theory specifically focuses on basic steps of knowledge management (KM) practices involving knowledge acquisition (through interaction, documents, and training), knowledge organization (through classification, repositories, and databases) and knowledge sharing (interaction, mentoring, seminars/conferences, and research). The theory explains two types of knowledge called tacit and explicit knowledge. Tacit knowledge is based on experience, skills, and beliefs while explicit knowledge is codified knowledge that is found in documents and databases.

The knowledge creation theory espouses two dimensions of knowledge creation: the epistemological and ontological dimensions. The epistemological dimension deals with the four modes of knowledge conversion, namely socialization (tacit to tacit) that creates synthesized knowledge; externalization (tacit to explicit) that creates conceptual knowledge; combination (explicit to explicit) that creates systematic knowledge; and internalization (explicit to tacit) that creates working knowledge.

These modes of knowledge creation are dependent and interact to create a knowledge spiral to create new products and innovations. The ontological dimension of knowledge creation deals with the level at which knowledge conversion processes of identification, acquisition, development, sharing, preservation, and application of knowledge take place. The theory covers all the variables of this present study and provides a broad explanation and a robust theoretical perspective as much as possible. The theory, in particular, emphasizes on tacit knowledge, explicit knowledge, knowledge management practices, knowledge spiral, knowledge conversion, KM strategies, KM infrastructure, and knowledge adoption.

This theory encompassing wide-applicability and provides a broad explanation and theoretical perspective on knowledge management practices involving creation, acquisition, development, sharing, preservation, and application of knowledge. The theory is an application to various organizations such as institutions, libraries, business sectors, and other governmental organizations

The rationale for applying the theory of Nonaka and Takeuchi (1995) includes; the theory is widely used in various research works similar to the present one. For

instance Chun Ming et al. (2012) in a study of factors affecting KM success: the fit perspectives based on an aerospace manufacturing company in Taiwan, the study of Gregorio et al. (2008) on processes of knowledge creation in knowledge-intensive firms: empirical evidence from Boston's route 128 and Spain, the study of Choi and Lee (2002) on knowledge management strategy and its link to the knowledge creation process, the study of Aybuke et al. (2008) that investigated KM practices in software development organizations: an Australian experience, the study of Mellor (2011) on knowledge management and information systems: strategies for growing organizations, the study of Boisot (1998) on knowledge assets: securing competitive advantage in the information economy, the study of Gourlay (2006) of the SECI model of knowledge creation: some empirical shortcomings, the study of Lwoga (2011) on knowledge management approaches in managing agricultural indigenous and exogenous knowledge in Tanzania, and the study of Lwoga et al.(2010) on managing indigenous knowledge for sustainable agricultural development in developing countries: a case study of Tanzania.

This study adopted the Nonaka and Takeuchi knowledge-creation theory because it was suitable for this research due to its focus on the adoption of knowledge management practices (KMP). See table 1.1 below for the summary of the Nonaka Takeuchi (1995) knowledge creation theory.

1.11. Conceptual Framework

The conceptual framework provides the dependent variable, independent variables and intervening variables on the adoption of knowledge management practices in

university libraries. The conceptual framework in figure 1.1, shows the interactions between many variables (independent, dependent and intervening).

The independent variables include knowledge acquisition (Documents, training, interaction), knowledge organization (Classification, repositories, databases) and knowledge sharing (mentoring, meetings, conference/seminars, knowledge application and creation of knowledge). The impacts of the independent variables depend on the intervening variables. The intervening variables are the organizational factors that influence effective service delivery. They include management support, human resources, motivation scheme, and ICT facilities application. Successful adoption of knowledge management in the university libraries would lead to effective service delivery.

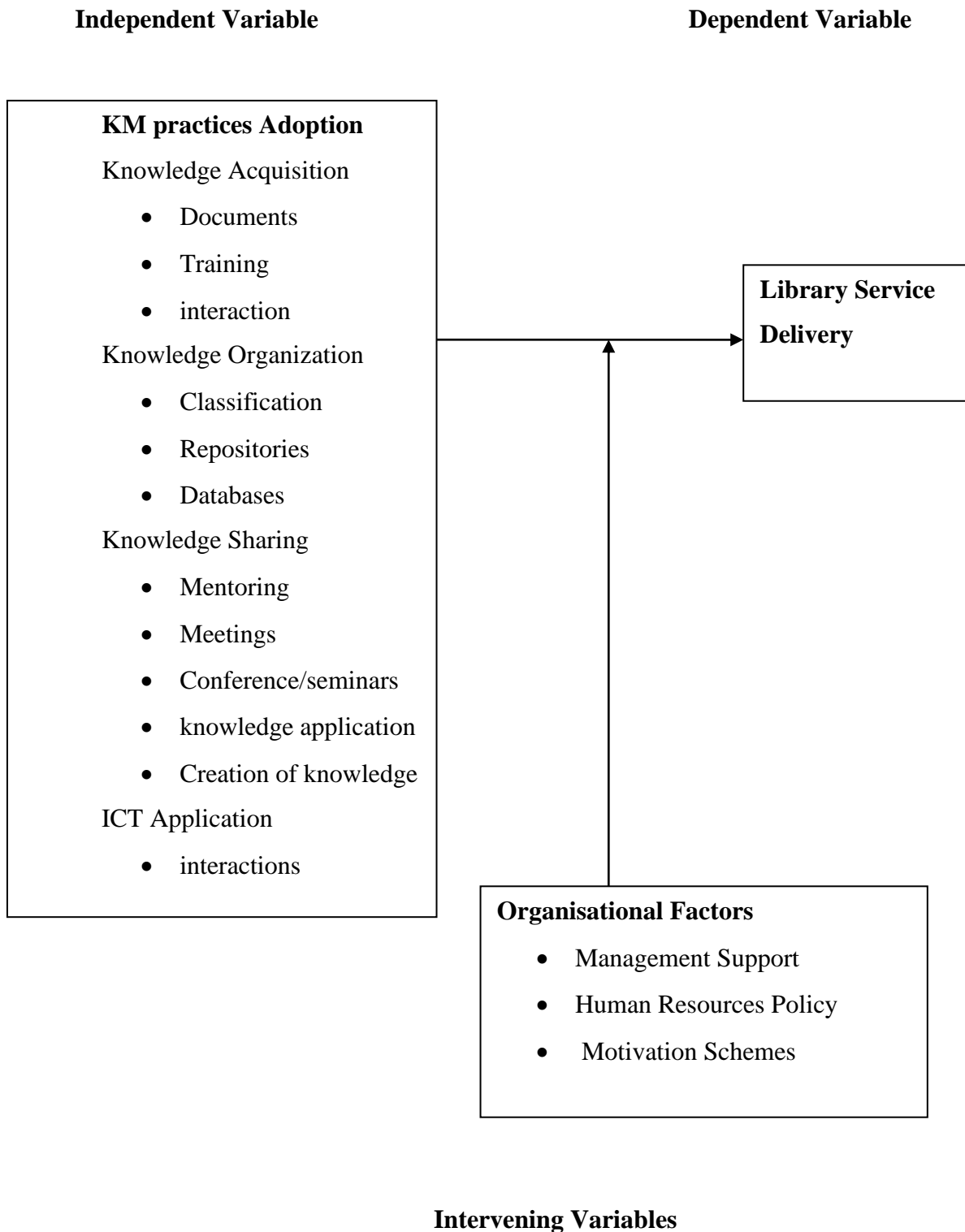


Figure 1.1: Conceptual Framework

Source: Research data 2018

1.12. Operational Definition of Terms

Explicit Knowledge: Knowledge that is codified, accessed, verbalized and is easily transmitted to others.

Information Management: a cycle of organizational activities entailing the acquisition of information from one or more sources, the custody and the distribution of that information to those who need it, and its final disposition through archiving or deletion.

Knowledge: The experience, skills or understandings that a person has acquired which enhances one's ability of making decisions.

Knowledge Acquisition: the extent to which organizations acquire and leverage their knowledge assets to support organizational performance.

Knowledge Manager: The professional who performs the day-to-day management of knowledge by ensuring that all processes in knowledge management practices are effectively applied.

Knowledge Management Practices: The practices of knowledge creation, acquisition, organization, transfer, sharing and application to improve job performance self-development and meet organization goals.

Knowledge Organization: organization of knowledge through activities such description, indexing, cataloguing and classification.

Knowledge Sharing. An activity through which knowledge is exchanged among people, friends, or members of a family, a community, or an organization or library

Librarian. Is a person who works in a library and usually holds a graduate degree in library science or library and information science

Nigerian Library Association (NLA): Association that unites persons interested in Libraries, Librarianship and Information services. Its safeguard and promote the

professional interests of librarians; promote the establishment and development of libraries and information centers; watch legislation affecting libraries and assist in the promotion of such legislation as may be considered necessary for the establishment, regulation and management of libraries within Nigeria.

Tacit Knowledge: Knowledge that is held in peoples' heads and that is difficult to transfer to another by means of writing or verbalizing.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 Introduction

This chapter presents literature on knowledge management practices. It is organized by themes that were guided by the objectives of the research and covered areas such as concept of and types of knowledge; knowledge management practices, knowledge acquisition; knowledge organization; knowledge sharing; information and communication technology (ICT) application in knowledge management practice: and knowledge management adoption in academic libraries. It ends with a summary of the literature gaps.

2.2 Knowledge

Knowledge within social discourse and various fields often take on a variety of meaning. Igwe, Nnadodie and Unagha (2015) defined knowledge as people's beliefs and values on the basis of meaningful accumulation of information through communication, reference and experience. They further stressed that knowledge is intangible in nature and is perceived as justified personal belief that increases an individual's organization capability to take effective action. This therefore means that knowledge is linked to doing an action and it also implies know-how and understanding. The concept emphasizes on believing from the human point of view, and it fails to recognize that knowledge is beyond people's believes. Knowledge also encompasses creativities, innovation, skills, experience acquired during interaction or on the job.

Knowledge as an integral part of the social intellectual heritage is characterized by skills, ideas and experiences all of which build up progressively overtime. Maponya

(2004) described knowledge as purposely, transferable, flexible, useful yet portable and has economic value attached to it. Knowledge according to World Bank (2012) is a valuable asset for nations which provide potential for social and economic development by providing affordable cost of effective methods of service delivery while leading to globalization and competitiveness internationally. That the above definitions have characterized knowledge based from a management perspective. However, apart from economic value, knowledge has educational, social, religions, political, cultural and historical value. So much value can be attached to knowledge; it all depends on the individual and organizational structure using the knowledge.

Knowledge according to Kalu and Ugocha (2015) is defined as stored information that a person or society draws upon to make sense of a given situation. This can be either in the form of personal or collective memories or externalized in the form of books or other media found in libraries. In the contemporary information and knowledge society, knowledge is recognized as an important resource to organizations due to its source of economic rent and development (Assudani, 2005). Mutuala and Mooko (2008) view knowledge as information that is relevant, actionable and based on experience.

Effective use of knowledge by individuals and organizations could bring transformations to many societies and nations. Without knowledge, organizations can lose their competitive advantage. Although knowledge is more or less personal as it is acquired largely through experience, it remains an important asset to organizations when used properly. Knowledge is categorized into two major types namely: tacit and explicit knowledge and are discussed in the section that follows.

2.2.1 Types of Knowledge

According to Igwe, Nnadodie and Unagha (2015), there are many types of knowledge, such as declarative knowledge, procedural knowledge, general knowledge, specific knowledge, technical-specific knowledge contextual-specific knowledge among others.

Understanding the concept of knowledge and its taxonomies is of high importance due to the fact that all theoretical developments in knowledge management are highly influenced by the differentiation of these distinct types of knowledge (Alavi and Leidner, 2001)

According to Odeta (2015), knowledge is classified as follows: Commonsense Knowledge: Expected from all individuals in a society, involves the acquaintance with the laws that govern the physical world and the world itself, as well as procedures necessary for common day to day tasks. Contextual Knowledge: Knowledge within the context of task performing in organizations. Depending on the task, the knowledge could be just internal to the organization or involving some external contexts as well, such as markets or legal contexts.

Declarative Knowledge, is the basic knowledge such as the number of items in storage room, the name of a person or the address of a customer. Expert Knowledge: The knowledge that is obtained by an individual through experience and training in a particular field. Examples are the knowledge of a doctor, an architect or an engineer.

Explicit Knowledge: All knowledge which can be recorded and verbalized externally. An example would be the information in a library or the Internet.

Individual Knowledge: The knowledge which is owned by an individual, rather than a group. It is usually “tacit” in nature, and thus, it is completely personal. When tacit knowledge is turned explicit, individual knowledge turns into social knowledge.

Procedural Knowledge: Knowledge required performing a certain task.

Social Knowledge: Knowledge that belongs to or can be accessed to members of an entity or organization.

Tacit Knowledge: It is the knowledge owned by a particular individual, and it is usually knowledge which is hard to articulate or communicate in a verbal manner. It is usually knowledge product of emotions, feelings, impressions and memories.

Task Knowledge: Knowledge required for performing a certain task within or outside an organizational context such as delivering goods or updating accounts (Ein-Dor, 2006). The major two types of knowledge are classified as either tacit or explicit.

Tacit knowledge is difficult to share because it is undocumented and under the control of individual custodians (Uriarte, 2008). Tacit knowledge is highly personal in people’s minds and hard to formalize. Tacit knowledge as intuitive knowledge is difficult to articulate and communicate.

The degree by which tacit knowledge is shared depends on the ability of the person possessing it to make it accessible or available. According to Dalkir (2005), tacit knowledge includes informed guesses, cultural beliefs, imagination, hunches, value, mental models, skills, feelings, expertise, etc. This therefore means that predisposition of knowledge hoarding by individual and organization make the sharing of tacit knowledge a great challenge.

As such, tacit knowledge can be shared using different methods such as mentoring services, through mobility of labour, through professional or social forums, staff regular meetings, personal discussions and through formal gathering such conferences among others. Identification of tacit knowledge, the most useful for any organization is an important step in knowledge management. Due to the value of tacit knowledge in organizations, Wellman (2009) emphasized that it is a mandatory requirement for improvement of organization performance. However, Gamble and Blackwell (2001) on the other hand observed that lack of priority to tacit knowledge can directly reduce capability for sustained competitiveness, innovation and prove service delivery. Such situations are witnessed when employees retire with their tacit knowledge. It is one of the reasons why most employees are recalled to continue working on contract basis. To alleviate these problems, mentoring services and continuous sharing of tacit knowledge among employees is recommended.

Explicit knowledge is expressed in numbers and words which can be communicated by people easily; it exists in form of codified procedure, hard data or universal principle (Uriarta, 2008). Botha, Kourie and Snyman (2008) described explicit knowledge as codified in books, documents, reports, memo, etc. Due to the nature of explicit knowledge, it can be captured and stored for reuse. This type of knowledge is easily manageable through use of automated systems

Explicit knowledge includes assets such as business plans, memo, reports patents, trademarks, drawing, methodologies and customers lists (Uriarta, 2008). Uriarta added that knowledge assets in many organizations are stored with the help of computer information technology tools. Milton (2012) stressed that knowledge management initiatives driven by technology have often had the flaw in focusing

almost exclusively on explicit knowledge. Explicit knowledge is found in data bases, reference sources, journals and electronic information sources. Documented knowledge in books, journals, manuals, reference sources, electronic printed materials among others.

Tacit knowledge is used to explain explicit knowledge for people to understand. The processes that are involved in identification, acquisition, organization, uses, and preservation of explicit knowledge are done using tacit knowledge. The understanding of explicit knowledge depends on the explanation of the custodian (tacit knowledge). The two types of knowledge complement each other. This study established the types of knowledge available in university libraries for effective service delivery.

2.3 Knowledge Management Practices (KMP)

Knowledge management practice involves creating, capturing, representing, updating, dissemination and validating knowledge (Rufai and Seliaman, 2004). They further stressed that knowledge management practice involves the understanding of how knowledge is created, shared, and making it available at the right time. Petrides and Zhang and Kim (2011) defined knowledge management in the context of education as the set practices that assist institution to perform perfectly in teaching, administration and research with encouragement in sharing of information for decision making processes. This therefore means that both scholars viewed knowledge management practices as practice of managing an organization or institutions assets for the purpose of achieving organization mission and objectives. They emphasized on sharing aspect of the knowledge for decision making.

Ugwu, Charles and Ekere (2012) advised that knowledge management practices should encompass the knowledge conversion processes. The conversion process is used to convert one form of knowledge to another (explicit and tacit). A good example is conversion of explicit to tacit knowledge and tacit to explicit knowledge. This means people have determined new methods of doing things (develop know how.) because knowledge is not only created but also shared and preserved. Galagan (1997) proposed that knowledge management practices should consist of gathering new knowledge, accessing, and representing, embedding, transferring, using and facilitating knowledge in any society. The practices are processes ranging from one stage or level to another. It starts from knowledge creation, acquisition, organization, sharing or dissemination, preservation and reuse.

In the global circles, organizations are adopting knowledge management practices to suit their day to day operation. Their rationale for adopting knowledge management varies depending on the problems and decision making (Skyrme and Amildon, 2003). Other rationales for the adoption of knowledge management practices in business organizations include: competition, downsizing, globalization, restricting, sharing of the best practices, and good innovation. Adoption of knowledge management practices have become the order of the day in organizations and this has brought many degrees of success as a result of successful KMP.

A study by Louise (2003) on knowledge management practices in Canada revealed that adoption of knowledge management practices are very effective in improving knowledge and skills of workers for service delivery. The study also revealed that client's relation and services were rated high due to successful adoption of knowledge management (KM) practices. It also indicated that knowledge creation,

generation, sharing, and maintenance are vital to employee's efficiency. This therefore implies that adoption of knowledge management practices were a successful one in some developed countries.

Yang and Wang (2004) study in Taiwan on examining the extent to which the four International five-star hotels in Taiwan implement knowledge management practices revealed that knowledge management practice had positive impacts on the programme that support knowledge acquisition and sharing. The study also shows that the hotels benefits from knowledge management financially and in terms of welfare of the staff and general functions of the hotels. In another study, Zack, Mc Keen and Singh (2009) on the organizational impact of knowledge management in terms of performance revealed that twelve knowledge managements ^{functions} that were identified and explored in terms of their impacts on organization service delivery in the context of business in North America and Australia. These include: knowledge capturing, acquisition, knowledge organization, knowledge transfer, preservation among others. The findings show that knowledge management practices have direct related impacts on organization performance in providing good service delivery to clients.

In most developing continents such as Africa, the adoption of knowledge management is young and immature in most organizations. Organizations and institutions are struggling with the adoption of knowledge management practices, and this is as a result of their lack of success in the KM practices.

For instance, Rigby and Bilodeau (2011) study on management tools and trends revealed that knowledge management practices are significantly below average

satisfaction. However, knowledge management remains top ten most used management tools in the survey. This according to the research, the findings were too general to conclude that adoption of knowledge management practice is below average, and it also failed to specify the reasons for the failure of KM practice. This is because the adoption of knowledge management practices in developing countries has a lot of impacts to organizations and institutions. Investing in KM can not only transform organizations, but also the societies popularly known as knowledge societies. However, the adoption of knowledge management practice in developing countries is one thing and the implementation is another.

The adoption of knowledge management practice (KMP) can be viewed from the benefits of KM practices to organizations and individuals. In support of this, Ugwu, Charles and Ekere (2012) acknowledged that the practice of knowledge management represents the awareness that knowledge is an important organizational resource that needs to be effectively managed. Ohiorenoya and Eborreime (2014) study on knowledge management practices and performance in Nigerian universities revealed that the adoption of knowledge management practice was very successful in some universities while the practice in other university remains very low. The finding revealed that variation in the knowledge management practice was what leads to the differences in organization service delivery.

Jose, Saima and Muhammad (2017) study on knowledge management practices in Higher Education Institutions (HEIs') discovered that limited research on knowledge management in the HEIs' context was conducted in empirical and theoretical implementation. This, according to the study, was a similar situation in North-West Nigeria Federal University libraries, where little research was conducted on KM

practices. Based on the above assertions, there is the need to conduct more research on adoption of knowledge management practices in organizations and institutions. The benefit attached to knowledge management in institutions like libraries was a good basis for this study.

Daud and Wan (2008) empirical study on knowledge management processes in small and medium enterprises established that knowledge management processes are part of the organization business processes and these processes are essential for successful knowledge management practice. The study also found out that the processes require turning personal knowledge into corporate knowledge that can be widely shared throughout an organization and appropriately applied. The above study showed that the ability to share personal knowledge in order to achieve organization objective remains the top priority. When available knowledge is effectively shared in any organization, knowledge management practice can become successful.

Another study conducted by Alsalim and Mohamed (2013) on the impacts of knowledge management processes on organization performance showed that knowledge management has brought tremendous improvement in the organization. They advised that the organization should introduce a system to improve on research and development. This therefore implies that the above studies concentrated more on how knowledge management improves individual job performance in organization rather than the service delivery in general.

Che-rusuli (2012) study on knowledge management processes in Malaysian university libraries established that knowledge management relied on knowledge processes that exist in a library and information sciences (LIS) revealed that knowledge recorded and knowledge preserving in knowledge management practice framework are the missing links found. Their suggestion was that the novel two processes of knowledge gaps would provide a direction for future studies and contribute to enrich literature in knowledge management.

The studies above indicated that adoption of knowledge management is a key strategic in improving organizational performance. This serves as an encouragement to other organization willing to adopt knowledge management. Individuals and organizations not only understand knowledge management but also were aware of the benefits attached to it in improving service delivery. However, the organizational structure of university library is different from other organization which the above studies failed to differentiate. In the light of above, the study sought to establish the understanding on knowledge management in university libraries.

Roberta (2013) study on application of knowledge management in the area of librarianship and information science found out that that libraries usually adopted knowledge management activities through knowledge sharing and the web 2.0 features. The study suggested that libraries should adopt KM as part of their routines in a systematic method for effective services delivery. Ugwu (2012) conducted a study titled "Implications for the perceived factors for knowledge management implementation in Nigerian libraries. The study showed that successful adoption of knowledge management practice depends on certain organization dimensions. These include: human resource policy, top management leadership support, collaboration

and compensation schemes. The above cited studies only emphasized on the application of KM but failed to show how knowledge management is adopted in academic libraries. This therefore means that organizational dimension is a good intervening factor that can determine the successful adoption of knowledge management practices which is a basis for this study.

Chioma and Japhet (2016) study on knowledge management competencies required for Library and Information Science (LIS) in Nigeria divulged that Nigerian libraries should make adequate preparation to meet the needs of their patrons, identify and develop relevant websites with knowledge-based sources for their users. This is because of the exponential growth of human knowledge in the knowledge society. Knowledge management practice is the combination of the human, processes and technology which is generally known as components of knowledge management. Libraries adopt KM using knowledge management elements to perform their functions for service delivery.

These functions include knowledge acquisition, organization, sharing, preservation, application, repackaging among others. This study established the adoption of some knowledge management practice on knowledge acquisition, organization and sharing for effective service delivery.

2.4 Knowledge Acquisition

knowledge acquisition involve acquiring different types of knowledge in an organisation through various sources such as documents, training, mentoring, conferences, interactions, experts and the use of information and communication technology facilities among others (Uriarte, 2008). Knowledge acquisition is an

important aspect of knowledge management practices. Ofori-Duamfuo and Kommey (2013) observed that knowledge identification, capturing, or acquisition includes writing and recording knowledge while refining it has to do with verifying, correcting, updating, augmenting, clarifying and generalizing knowledge. Knowledge acquisition is a common practice in libraries and other organizations. This practice is considered as the starting point of knowledge management practice.

Organizations are established with cardinal aim and objectives that guides their operations. According to Probst, Raub, and Romhardt, (2000), institutionalization of knowledge management practices by the management team of the organizations is a necessity. Knowledge management in organizations such as information agencies, tourism, manufacturing companies, business corporations, telecommunication giants, research institutes among others is now a priority due to the benefits attached in it. These benefits include: staff development, effective service delivery, users satisfaction, organizational growth and global visibility among others (Rigby and Bilodeau, 2011). Acquisition of knowledge and utilizing it effectively enable the personnel of the organization improve self-development and provide good quality services.

According to Nnadozie (2006), research and publication remain one way of acquiring knowledge within an establishment. Adopting knowledge acquisition is an important component of knowledge management. In organizations, acquisition can be achieved through social interaction and networking in the workplace. This knowledge lasts for a certain period in the form of experience while other parts of the knowledge remain formalized as code of conduct, rules, job specification or

description, flow chart among others. Knowledge of this nature serves as the institutional memory over time.

A study by Fadia and Kamel (2014) on the influence of knowledge management on organization business processes and employees' benefits indicated that knowledge acquisition had positive association with business processes efficiency and innovation. Jiank and Lia (2008) study on an empirical investigation of knowledge management and innovative performance revealed that knowledge acquisition practice significantly improved performance and services. This therefore means that the above studies show that knowledge acquisition played a significant role in organizations. However, the above studies only produced an outcome from the business point of view while other aspects such as education, research and information services and libraries among others were not covered.

Knowledge acquisition plays vital role in actualization of adoption of knowledge management. William, John and Peter (2011) developed a theory of knowledge identification effectiveness in knowledge management. The study established that four factors (knowledge needs identification; knowledge recording, knowledge identification methods effectiveness and knowledge identification operationalization are responsible for the knowledge identification effectiveness. They observed that knowledge acquisition practice was successful in situations where knowledge identification (KI) was appropriately initiated. However, their findings show that while organizations do perceive knowledge identification to be important, the practice of knowledge identification has not reached mainstream adoption yet.

Knowledge acquisition is a critical stage of the knowledge management processes as it enables an organization to procure knowledge held within and outside the organization. It is the first stage where knowledge is properly acquired for further processing such as organization, sharing repacking and preserving knowledge.

A study by Lee and Lee (2007) on capabilities, process and performance of knowledge management found out that there is a significant relationship among knowledge management capabilities, processes and performance. This is as a result of analyzing the hypothesized structural relationship with the identifying and acquiring data. Kolawole (2015) stressed that knowledge acquisition presupposed that knowledge already exist and that there is a desire to capture that knowledge because of some perceived benefits for the acquisition. This therefore justifies the institutions perspectives on acquisition.

In another study by Maponya (2004) opines that KM focuses on people and urges libraries to develop mechanisms of acquiring the experts' knowledge to avoid collective loss of organization memory held by the professionals. He further advised university libraries on the need to come out with strategic method of sharing knowledge among individuals. Umoh and Amah (2013) observed that knowledge acquisition is the act of developing or creating of skills and relationships in an organization. Gichuhi (2014) described that formal processes of acquiring/capturing knowledge to include collating internal profiles of academic librarians, data mining, text mining and standardizing routine information update report, bulletin, discussion forum and feedback tools among others. This therefore, serves as an encouragement because the above scholars established positive facts about knowledge acquisition. As such, knowledge can be acquired using various methods or strategies and

depending on the parent organization. The rationale for acquiring knowledge is gaining more experience and skills to enable employees provide better services to the customer.

A study by Muhamad (2014) on linkage between knowledge management practices and library users' satisfaction at Malaysian university libraries showed that adoption of knowledge management practices at the six (6) Malaysian university libraries are in the high level. The findings also revealed that knowledge acquisition and creation are not supported in terms of the knowledge management practices in the Malaysian university libraries compared to knowledge recording, sharing and preserving. This therefore is a worrying situation. Some organizations and institutions are yet to know the impacts of adopting knowledge acquisition practice. This prompted the need to assess importance of acquiring both tacit and explicit knowledge in university libraries.

One of the key strategic organizational resources for enhancing organizational service delivery is effective knowledge acquisition. However, the methods of acquiring knowledge in industries and other organizations are quite different from research institutes and libraries. Wamundila and Ngulube (2011) posited that brainstorming, training and development, recruitment, subject matter experts among others are knowledge acquisition mechanism for tacit knowledge. They serve as tools to speed up knowledge acquisition for employees. Wagner and Zubey (2005) in their study observed that protocol analysis, card sorting and even interviews were among the many knowledge acquisition mechanisms in various organizations. This means that there are various sources of acquiring knowledge. Sources of knowledge

acquisition depend on the types of knowledge to be acquired, organizational structure and strategies/methods applied in acquiring.

A study by Aming'a (2015) on knowledge capturing and acquisition mechanisms at Kisii University revealed that knowledge acquisition mechanism was identified in area of research collaboration, teaching, conference and seminars among others in the university. The study established that knowledge capturing faced some challenges such lack of encouragement from the management on training, lack of interest by staff among others and as such the study proposed a guideline that may be adopted by the university to enhance memory and performance. Resource constrain is one of the challenges in higher education institutions in developing countries. They do not have adequate resource to funding knowledge acquisition mechanism due to cost.

In support to this assertion, Mohammad and Al Saiyd (2012) were of the view that retrieving knowledge (tacit knowledge) from human minds is an expensive method that is time consuming and involves skilled people. This means that the studies from above failed to clearly identify the mechanism and technique for knowledge acquisition. This study embarked on shedding light on the mechanism/technique's libraries put in place to acquire knowledge.

According to (Maponya, 2004), the use of ICT is gaining popularity in knowledge management and is mainly used in linking workers to knowledge sources. Information and communication technology (ICT) enable the adoption of knowledge management practices. Gandhi (2004) identified information technology (IT) as a powerful enabler that provides effective tools for the practices of KM including

acquisition, sharing, organizing and application of knowledge. Roknuzzaman et al. (2009) concurred that new technology that can transform the library world today and support knowledge acquisition by facilitating people to locate and communicate with each other is information and communication technology (ICT). This therefore means that information, and communication technology (ICT) is a reliable source for organizations to acquire knowledge. The above studies have shown that the application and use of ICT facilities in the adoption of knowledge management practice is paramount important in providing effective library services. Accuracy, efficiency, effectiveness and time saving are among some of the advantages of ICT facilities application in libraries.

2.5 Knowledge Organization

According to Kassim (2011), knowledge organisation (KO) deal with organizing knowledge in an organization using methods such as classification schemes, online public access catalogue and institutional repositories among others. Knowledge organisation (KO) is a part of knowledge management practices that involves obtaining knowledge from the identified sources and arranging it in a manner for easy retrieval. This means explicit knowledge can be identified, acquired and organized in repositories or knowledge centers within and outside organization. Alegbeleye (2010) used the term knowledge organization instead of knowledge taxonomy, knowledge storage, knowledge recording and explained that it consists a number of activities, including identification of messages, identification of texts, description of document in which texts are represented.

According to Argote (2003), knowledge organization is the organizational memory formation process. He further stressed that knowledge is formally organized in

physical memory systems and informally retained as values and beliefs that are associated to organizational structure. This therefore means that knowledge organization (KO) is the retention, storage and conservation of available knowledge. Knowledge organization is the major key in knowledge accessibility. Knowledge cannot be easily accessed without effective and systematic organization. Daud and Wan (2008) described knowledge organization as the step involved in organizing and applying knowledge acquired for easy access and service delivery.

Knowledge organization according to the Council of Library and Information Resources (2014) include: the use of classification schemes that organize materials at a general level, subject headings that provide more detailed access. According to Hjørland (2007), knowledge organization (KO) is the arrangement of information materials so as to make accessible to persons seeking them. He further stated that KO involved every method of indexing, abstracting, cataloguing, classification, records management, bibliography, among others. This implies that the essence of knowledge organization is to serve as a bridge between the user and information, ensure that there are easy access and retrieval of information and easy to identify an object of interest and improved service delivery.

The role of knowledge organization cannot be overemphasized in knowledge management (KM) practices. Neumann and Tomé (2011) were of the view that knowledge organization should be available at the right time; it should be reported and written in a language that is understood by people working in the organization. They stressed that organization of knowledge is paramount to knowledge management because it allowed easy and fast retrieval of knowledge in organizations and making the services more efficient. Organization of knowledge

assist users to identify, retrieve and access knowledge created and stored in the past as well as in the present.

Alhawary, Irtaimah and Hamdan (2011) study on building a knowledge repository in Jordan University which aimed at assessing how effective the university repository in knowledge organization was for easy access by users revealed that students and researchers find it difficult in searching information even with the emergence of e-library. The study further revealed that libraries can win the heart of their users through building of the repository and making it accessible. Wong and Aspin wall (2004) study on characterizing knowledge management in the small business environment ascertained that there was less knowledge asset in the small organization, and that makes the small business organizing knowledge easier. The study equally provided a suggestion that it is easier for small business to organize the types of knowledge available. The above study succeeded in pointing out that the accessibility of knowledge was a worrying situation; meaning that even with the present information technology facilities, some organization experience challenges in organizing their knowledge. The present study was interested in finding out how accessible is the available knowledge organized in university libraries.

Sajjad (2005) researched on integration of knowledge transfer and knowledge storage: A Holistic Approach used different models approach to assess knowledge transfer and storage. The result of the research showed that Web based technology is a powerful method that allows individuals and organization used to organized knowledge from different areas. This therefore, means that the finding of the above study cannot be generalized because the outcome of the study was based on organization and the study only recognized the web-based technology as a method

of organizing knowledge while other methods are ignored. This indicates organization used various methods and strategies to organize knowledge, the university libraries have systematic methods of organizing knowledge. As such, this study sought to find out what methods libraries used to organize the available knowledge.

A study by Bharadwaj, Chauhan and Raman (2015) on the impacts of knowledge management capabilities on knowledge management effectiveness in Indian organizations observed that it is important for organizations to organize knowledge in a user friendly and easily accessible form. Explicit knowledge can be stored or organized as best practices or lessons learned databases. While the conversion process of tacit knowledge makes available corporate portals for accessing the expertise locator system. The above assertion means individuals apply their tacit knowledge to organized explicit knowledge.

Almaadida (2005) identified three major ways organization can organized the available knowledge. The approaches include: selection of valuable knowledge for conservation, documentation, archiving and reloading the memory from time to time. Methods of organizing knowledge differ with institutions just like in libraries that have systematic methods of organizing knowledge know as classification schemes. The application of classification scheme in institutional libraries also differs from type of library to another.

Usoro and Effiong (2015) study on knowledge management in 47 academic libraries in Akwa-Ibom state revealed that the major activities adopted in academic libraries were knowledge organization. The study equally revealed that the major method of

organizing explicit knowledge was through library of congress classification scheme. Financial pressure was identified as the major challenges of knowledge management practices among academic libraries in the state. This equally affects knowledge organization as a method of arranging knowledge for easy access.

However, Nemati (2002) observed that; knowledge organization is not only important for the effective use of knowledge but also very vital in reusing it when needed. From the above study, it is observed that knowledge was easier to organize in business sector due to the organization structure. This might not be the same in university libraries. The ideal way of organizing knowledge in any types of library is the use of classification schemes.

2.6 Knowledge Sharing

Knowledge sharing practice is another basic practice in knowledge management which entails the sharing of knowledge through interactions (meetings), research collaboration, mentorship, seminars/conference and professional forums among others (Cyprian, 2016). Knowledge Management (KM) is an important concept that describes how to transform personal, group and organizational information into individual, group and collective knowledge (Johnson, 2008). Knowledge sharing is one aspect of knowledge management that involves exchange of knowledge from person to another depending on the method used to share. According to Lin, Lee, and Wang (2010), knowledge sharing is a social interaction culture that involve the exchange of staff knowledge, skills and experiences. Knowledge sharing is viewed as a concept through which institution and organization can help transform into a more efficient, knowledge sharing organization through knowledge application and innovation when utilized properly (Wang and Noe, 2010). Knowledge sharing can

be viewed as a process through which individuals or organizations mutually exchange knowledge or transfer knowledge from one person to another or from one point to another.

Knowledge sharing is a human attribute that is deemed critical to the success of an organization. According to Connelly and Kelloway (2003), knowledge sharing practices is a set of behaviors that involve the exchange of information or assistance to others. Management in any organization is responsible for the effective knowledge sharing. Park and Holloway (2003) acknowledged that the process of transferring knowledge from one person to another is referred to as knowledge sharing. This therefore means that sharing knowledge is an important part of building knowledge based competitive advantage. This is because knowledge is a mutual exchange among people which involves sending and receiving knowledge.

Sajjad (2005) research on integration of knowledge sharing and knowledge storage: a holistic approach showed that Web based technology is a powerful method that members in an organization use to communicate in order to share knowledge from different areas. In addition, this study supports that technologies are not only used as a powerful method for sharing but equally used to enhance knowledge management processes as a whole for service delivery.

Knowledge sharing is a relational act based on sending and receiving relationship that incorporates communications. Hermans and Castiaux (2007), observed that the participatory knowledge creation approach is a means for obtaining desired results in the learning process and it is a factor facilitating the process of sharing and distributing knowledge within an organization. This therefore means that knowledge

sharing has positive effects on organization development and individual performance for service delivery.

Study by Fadia and Kamel (2014) on the influence of knowledge management on organization business processes and employees' benefits revealed that the highest effective processes in business is knowledge sharing. The study also showed that the provision of sharing tools in supporting knowledge management in organization has significant positive effect. Therefore, it means that knowledge sharing played a key role in KM processes in any organization as shown in the above study. This research observed that university libraries as custodian of knowledge equally played vital role in sharing of knowledge for service delivery.

A study by Kabiru (2015) on knowledge management strategies and practices in Nigerian Agricultural research institutes to find out KM strategies use in knowledge management, revealed that generation of tacit knowledge was enhanced by knowledge sharing through formal and informal commitment such as community practices, meetings, cropping scheme meetings knowledge network among others. This means that institutions such as libraries adopt various methods through which knowledge sharing take place and brainstorming is one method through which people share knowledge. Brainstorming provides a free and open environment that encourages everyone to participate. Ideas are welcomed and build upon, and all participants are encouraged to contribute fully, helping them to develop a rich array of creative solutions. Through meetings and in-house training in organizations, members can brainstorm with each other to share knowledge. In the library environment, knowledge sharing can equally be realized through creation of

professional forum such as Nigerian Library Association Forum (NLAF) to serve as a platform for knowledge sharing among staff for service delivery.

In a study by Nove and Dyah (2013) on knowledge sharing strategies in Indonesia university libraries to assess knowledge sharing activities observed that university libraries had different knowledge sharing strategies as they understood knowledge sharing differently. It was also found out that social media was mostly used for knowledge sharing in university libraries, while other libraries have specific time for knowledge sharing. The study also identified ineffective knowledge sharing practice as one of the major challenges. The study recommended that library staff should be encouraged to share knowledge. Tsui (2006) identified some alternatives for determining a perfect knowledge sharing method. According to him, choosing the best knowledge strategy from a variety of strategies, defining the rationale for knowledge sharing, concentrate on the broker and leader in the knowledge sharing and determining the best knowledge sharing strategy. Mechanism on knowledge sharing also defers from one organization to another and from one institution to another. The missing gap here was that there were no specific standard methods for knowledge sharing.

In a study by Aliyu (2016) on the use of ICT in information sharing among academic scientists in federal universities in North-west Nigeria, revealed that majority of the respondents indicated not using web pages to share knowledge among staff. This means most of the academic scientists do not have web pages, nor belong to any online organization. Inadequate knowledge sharing among colleagues as a result of poor mentoring, lack research collaboration and lack staff training was among the problems identified.

The above study only concentrated on academic scientists and failed to adequately examine the use of ICT facilities by other academics' staff. Thus, there is need for enlightenment on the use of web pages for knowledge sharing. Information and communication technology (ICT) tools can be used to share both tacit and explicit knowledge from one person to another and from one place to another.

Knowledge sharing as Ndakasharwa (2015) reports in his research titled knowledge sharing strategy in university libraries in Kwazulu-Natal Province of South Africa indicates that knowledge generated and acquired was not subsequently shared. Secondly, the university libraries do not have knowledge management strategies and policies to facilitate service delivery by staff. The results also indicated that organizational structure in university libraries were protocol based which is not conducive for knowledge sharing. In order to engage staff in knowledge sharing activities, there is the need to formulate strategies that would encourage knowledge sharing and equally train staff. The current study aimed to establish if North-West Nigeria Federal University Libraries had established strategies for knowledge sharing.

In a study by Nozibele (2013) on knowledge sharing practices in academic libraries in Unisa library, revealed that knowledge sharing culture occurs in academic libraries but in an informal method. It was found out that there were challenges militating against the effective knowledge sharing practices in academic libraries. Among the challenges include the inability of libraries to clearly define knowledge sharing; therefore, the practice of knowledge management is an emerging field that needs more time to be perfectly practiced in institutions like libraries.

Knowledge management practice in many developing countries still remains a challenge as observed by Yaacob, Jamaluddin and Jusoff (2010) in their study on knowledge management and challenging roles of academic libraries. Their study revealed that libraries had not relinquished their role and interest as information and knowledge providers which are challenges of KM practices to the profession.

In a study by Gichuhi (2014) in Kenya on determinants of effective knowledge management practices in selected university libraries in Kenya established that Knowledge sharing was encouraged and facilitated in all libraries and that some tacit knowledge sharing forums were in place although largely unplanned, uncoordinated and not supported by a policy or strategy and were organized as need arose. She reported that private university libraries were doing extremely well in encouraging and facilitating knowledge sharing. KU led the public university library category followed by UON and JKUAT respectively. The rationale for encouraging and facilitating knowledge sharing in university libraries is for service delivery.

Onifade (2015) in his research on knowledge sharing among librarians in university libraries it was revealed that most university staff had positive perception about knowledge sharing in KM practices. The study equally revealed that library staff mostly shared their knowledge through meetings, face to face discussion and community practices. The study however revealed that despite the positive perception about knowledge sharing, knowledge sharing was very low among staff. Lack or inadequate knowledge sharing is one of the challenges in knowledge management. This further means that knowledge sharing challenges differed from one library to another. The organizational structure equally differs from one institution to another.

There are many techniques for sharing knowledge in organizations. In sharing tacit knowledge for instance, mechanism such as mentoring, narratives story-telling, brainstorming, transfer of staff and face to face conversation/interactions by personnel are employed among others. When sharing explicit knowledge, document, patents, intranet, ICT and communication mediated apparatus are considered as mechanism to use for sharing (Park and Holloway (2003).

In a study by Berends, et. al. (2003) on knowledge sharing mechanisms in industrial research, it was observed that three dimensions for differentiating origination mechanisms for knowledge sharing need to be introduced in order to integrate and extend knowledge sharing in industrial research organization. These include: selection of existing content/development of new content, determining actor and orientation. Wang and Noe (2010) conducted a study on knowledge sharing. They developed a framework for understanding knowledge sharing research through literature review. The study identified areas to be given emphasis on knowledge sharing mechanism such as organizational context, interpersonal and team characteristics, cultural characteristics, individual characteristics, and motivational factors. This therefore means that different sharing strategies can be employed in managing knowledge of the individual and organization. Successful adoption of knowledge management practices depend on the ability to effectively share available knowledge among staff to be competent enough to provide services.

Study by Kolawale (2015) on knowledge acquisition and transfer mechanism for contemporary organizations in the knowledge economy identified some knowledge sharing mechanism as knowledge management training and education, mentoring, brainstorming and storytelling. Through training and education, organizations can

engage their staff in academic education such as studying higher degrees like, diploma, first degree, masters and doctor of philosophy. Through such studies, the acquired knowledge by staff would be organized, shared and applied in organization after graduation.

Mentoring is another method through which knowledge can be shared from personal expertise, familiarity with the organization: its procedure, culture, and desire to guide and teach commitments: time, resources, persistence, skilled communicator and ability to remain professional (Kolawale, 2015). Channel and technique for knowledge sharing equally differed. This shows that limited studies have been conducted in university libraries which were a focus for this study. In view of the above, this research sought to establish the channel university libraries use to share knowledge for service delivery.

2.6.1 Challenges in Knowledge Sharing Practices

Raja and Sinha (2009) study on knowledge management and academic libraries in IT era in India revealed that one of the challenges of adoption of KM is lack of knowledge sharing by the junior staff and there is no co-operation between the senior and junior staff. The study revealed lack of motivation through incentive and promotion lead to the barriers in knowledge sharing culture.

Manpoya (2004) study in South Africa on knowledge management practices in academic libraries revealed that inadequate utilization and sharing of knowledge is a great challenge to academic libraries. This requires academic librarians to reappraise their functions, and to expand their roles and responsibilities to effectively contribute and meet the needs of a large and diverse university

community. Knowledge management is a viable means by which academic libraries may improve their services in the present knowledge era. This is a report of the results of a case study conducted to establish the ways in which the academic librarians of the University of Natal, Pietermaritzburg Libraries could add value to their services by engaging with KM. Agarwal and Islam (2014) study on knowledge management implementation in library revealed that at the moment technology is an enabler for KM and the technology tools are not adequate, knowledge sharing culture become challenge in terms of long distance, efficiency, accuracy and time saving which ICT has advantages.

The review of related literature shows that there are many challenges for academic libraries in the adoption of knowledge management practices. The major challenges are lack of skills and competencies, reluctance of library professionals to accept the change, misunderstanding of KM concepts, lack of a knowledge sharing culture and top management commitment, and lack of collaboration (Mostafa and Muhammad (2015). The review of literature indicates that there is a gap of literature on challenges of knowledge sharing culture in libraries. Thus, the current study sought to establish the challenges of knowledge sharing in university libraries.

2.7 ICT Application in Knowledge Management

Information and communication technologies (ICT's) are an important element that is required to promote social capital in the creation of new knowledge. The emergence of repository today enables mass organization and storage of knowledge due to advance in technology (Chua, 2004). Chua further stressed that ICT infrastructure is tangible, and it acts as enabler in enhancing the adoption of

knowledge management activities in organizations. Therefore the use of ICTs in organization institutions, libraries and information services enhance realization of knowledge management.

Today, information and communication technology (ICT) plays a key role in the successful knowledge management practices. Daneshgar and Parirokh (2012) observed that advancement in ICT and its application in university libraries has facilitated and changed the operation and services of libraries. In support of this assertion, Mavodza and Nguebe (2011) recommended the use of information technology (IT) based identification mechanism with techniques for the adoption of knowledge management practices in libraries. They stressed that ICT facilities are often used to facilitate knowledge generation, organization, dissemination, sharing and preservation in providing effective and efficient library services. From this citation, knowledge management should be a success story in libraries and other organizations.

Subashini, Rita and Vivek (2012) study on the role of ICTs in knowledge management for organizational effectiveness asserted that Information and Communication Technologies (ICT's) which consist of enormous diversity of heterogeneous technologies were used to facilitate the organizational knowledge. Majchrzak et. al. (2013) confirmed that these technologies (ICT) facilitate KM and equally involve more people to collaborate in knowledge creation when identifying knowledge. Information and communication technology (ICT) facilitate KM processes (knowledge acquisition, organization, sharing, application, and re-using). It also facilitates knowledge mapping, knowledge repackaging among others.

Gandhi (2004) identified information technology (IT) as a powerful enabler that provides effective tools for the practices of knowledge management including acquiring, sharing, organizing and applying knowledge. Roknuzzaman and Umemoto (2009) corroborated that the new technology can transform the library world today and support knowledge sharing by facilitating people to locate and communicated with each other which is information and communication technology (ICT). Thus, the ICT facilities are a reliable enabler for the adoption of knowledge management activities in organizations. The use of ICT gadgets such as flash drive, CD Rom, hand-set (mobile phones), laptops, palmtops, signifies that people can store and equally share vast amount of information and documented knowledge.

Subashini, Rita and Vivek (2012) study on the significant role of ICTs in knowledge management initiatives that lead to organizational effectiveness established that ICTs play a significant role in knowledge management practices that pave the way for achieving organizational effectiveness. Sajjad (2005) on integration of knowledge transfer and knowledge storage: a holistic approach shows that Web based technology is a powerful method that members in an organization used to communicate in order to transfer knowledge from different areas. The finding also revealed that the same technology is used to store knowledge from various locations. In the light of the above this studies, it becomes clear that the current ICT platform can be applied to good use in enabling successful adoption of knowledge management in academic libraries and other organizations.

Knowledge sharing is facilitated through information and communication technologies (ICT) such as computers, e-mails, databases telephones, search engines, data-mining systems, video-conferencing equipment among others (Nnadi,

2012). This is an encouraging situation because ICT helps employees make the effective use of organizational resources by strengthening their actions. The importance of knowledge management is more when made available to the right beneficiaries at the right time. From the study above, application of ICT is very important in knowledge management practices. In light of the above, this study sought to investigate the extent to which ICT facilities were applied to enhance the adoption of KM practices in university libraries.

The application of ICT is found to be a very vital tool that facilitates the creation of knowledge that transforms innovation in any organization. Lamporoulis (2007) is of the view that IT enhances the efforts of the employees to create knowledge that leads to innovation. The study equally showed that the relevance of ICT made staff to see technology in a positive way which can benefit them when productizing knowledge in their daily routines. The scholar concluded that employees consider ICT relevant when facilitating knowledge processes. These findings show the value of ICT in supporting KM practices.

Charles and Katherine (2002) on information technology for knowledge management: their usage and effectiveness revealed that information technologies were essential consideration for knowledge management practices in business organizations highlighted some of its strengths specifically for the adoption of knowledge management which includes accuracy, time saving, efficiency, save space and large storage capacity. The study also established that technologies such as telephone are used to manage knowledge frequently compare to other technologies like groupware and video conference. They suggested for adequate training and education for organizational staff. However, this study argues that the

above study failed to establish how often ICT facilities were used which was one of the interested parts in this study. It is in view of the above that this research study sought to shed more light on how often ICTs facilities are used in performing duties at the university libraries.

Despite the positive role played by information and communication technology (ICT) in the adoption of knowledge management practices, other authors are of the view that ICT has no impacts in knowledge management practices. Holsapple (2005) study on inseparability of modern knowledge management and computer-based technology argued that knowledge management is all about human relationships, processes, interpretation and culture. He stressed that knowledge management had nothing or little to do with ICT. He based his argument on the facts that ICT is only concerned with information data. Similarly, Newell (2003) in his study reported that ICT is not recognized in the area of knowledge generation, storage and application. This is contrary to other scholars' views (Nnadi, 2012; Charles and Katherine, 2002; Lamporoulis, 2007), who acknowledged that ICT enhances the activities involved in the adoption of successful knowledge management practices.

In a study by Karoline (2014) on information and communication technology (ICT) and knowledge management at World Agro-forestry center (ICRAF) in Kenya, the study revealed that ICT had a positive influence on the adoption of KM practices in any well integrated organizational system. The study revealed some challenges militating against KM such as insufficient training for staff, ineffective use of IT facilities, a lack of awareness, poor organization structure, inadequate organization learning and poor incentive for staff compensation among others. The current study

established the extent of using Information and communication technology (ICT) in enhancing library activities.

Ujunju and Wanyembi (2012) on the role of ICT support towards knowledge management process in institutions of higher learning showed that the use of ICT in the adoption of knowledge management is embraced which enhance knowledge management practices. Furthermore, ICT was positively accepted by staff in performing their duties

Study by Gichuhi (2014) in Kenya on determinants of effective knowledge management practices in selected university libraries in Kenya established libraries had adequate computers which were networked and different ICT tools were available for online conversation. The study conclude that the university libraries were well endowed in as far as ICT infrastructure was concerned. With such a good ICT infrastructure the identification, capture, acquisition, storage and dissemination of both tacit and explicit knowledge could be enhanced and appropriately utilized. Coupled with an appropriate budget, an implementation plan and adequate job training in appropriate knowledge management systems, the libraries could easily incorporate KM practices as part and parcel of their normal day to day operations for service delivery.

Study by Odongo (2013) on comparing knowledge management practice in the rural agricultural setting in Kenya revealed that face to face interactions was used more than using telephone or radio to transfer or shared knowledge. The study identified information needs and infrastructure as vital elements in enhancing the use of ICT for KM practices for small-scale farmers. This therefore means that both

employees and employers confirmed the positive impacts of ICT in their job performance. Although the above studies failed to show how ICT positively affect the customers, users and their immediate community. This research adds that the use of ICT facilities like the internet enables communities and individuals from rural and urban area to freely access information and knowledge. This was possible today due to the fundamental human right and freedom of information/access globally.

Choy (2005) study on addressing critical success factors for knowledge management implementation identified information technology (IT) as one factor and observed that scholars and researchers have supported the notion that effective and efficient implementation of KM is unthinkable without information systems infrastructure which provides an edge in harvesting knowledge. In the same vein, Debowski (2006) advocates that efficient and effective communication is key to encouraging and enabling knowledge sharing across the knowledge society whether electronic based, personal or written communication.

The preceding paragraph indicates that various organizations have knowledge on the importance of ICT in the adoption of knowledge management practices. Perception on the use of ICT by organizations in this 21st century cannot be overemphasized as stated by Debowski (2006). Today, libraries are part of the beneficiary of ICT facilities application in information services delivery.

According to Kolawale (2015), the benefits of institutional repository in organizations and libraries were as a result of information and communication technology (ICT) advancement. He further stressed that researchers found it easy to carry out studies with the use of ICT facilities and their findings can easily be shared

globally. According to this study, it is an encouraging situation; as such, there is the need to also establish the relevance of ICT facilities in enhancing the adoption of knowledge management (KM) practices in university libraries.

2.8 Summary of the Research Gap

The reviewed literature indicates that in the area of knowledge acquisition practices, the key issues to note were; that knowledge acquisition had positive association with business processes in efficiency and innovation. In libraries, knowledge acquisition improves performance, innovation, library services and administration. However, types of knowledge acquired in the literature review were not clear. This study established the types of knowledge acquired in university libraries.

Despite the positive effect of knowledge acquisition in the business processes, the reviewed literature indicated that sources of acquiring knowledge differ from one organisation to another. Libraries also acquired knowledge from different sources and using different techniques/mechanism. This study established the various sources and techniques/mechanism for acquiring knowledge in university libraries which is the missing link in the literature.

In knowledge organization practices, reviewed literature noted that organizations and libraries had different methods of organizing knowledge. These include: experts knowledge based, repositories and information and communication technology facilities. Knowledge organization also play vital role in accessing knowledge by users. It was discovered that explicit knowledge was easily organized in business sector due to the organization structure as shown in the literature. This study focused

was to establish the methods of organizing explicit knowledge in university libraries which was the missing gap in the literature.

The reviewed indicates that effective organization of knowledge lead to easy accessibility and utilization. However, the reviewed failed to show how frequent organisation and libraries organized explicit knowledge for easy accessibility which is the focused of the study.

Knowledge sharing practices play a key role in the adoption of knowledge management in any organization as shown in the above reviewed literature. The review of literature further indicates that interaction, mobility of labor, training and web-based technology were used as channel for sharing knowledge in the business sector. The reviewed literature was silent on the methods used by university Libraries to share knowledge.

The reviewed literature also identified challenges in knowledge sharing practice. These challenges differ from one organisation to another. Academic libraries faced challenges in knowledge sharing activities which in not clearly indicated in the reviewed. This study established the types of challenges faced in knowledge sharing in university libraries.

The reviewed literature outlines impacts of information and communication technology (ICT) application in enhancing knowledge management. ICT facilities were applied in libraries to improve service delivery. The reviewed literature does not show the relevance of information and communication technology tools in performing library services. Another missing link is the extent of applying ICT in

enhancing knowledge management activities in university libraries is missing in the reviewed.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

This chapter presents the research design, sampling techniques, sample size, research instruments, pre-testing/piloting and the validity and reliability of data collection instruments. Other areas covered include: data collection technique, data analysis, and logistical and ethical considerations.

3.2 Research Design and Locale

According to Uzoagulu (2011), a research design is a blueprint that specifies how data on a given problem is collected and analyzed. Descriptive research design was adopted for this study. Descriptive design was suitable for this study because it allows for the description of a situation or scenario and hence was found suitable for describing the current knowledge management practices in the selected university libraries.

Considering that the study aimed to establish the adoption of knowledge management practices in selected North-West Nigerian federal university libraries, descriptive design was found appropriate as it allowed easy collection of data and reports. Descriptive design was suitable for this study because it describes the knowledge acquisition, organization, sharing and the use of information and communication technology (ICT) facilities to enhance knowledge management practices in university libraries.

3.3. Study Variables

To establish the adoption of knowledge management practices in selected North-West Nigerian federal university libraries, the study formulated some variables. These variables were categorized into three namely: intervening, dependent, and independent variables. In this study, the interaction between the dependent variable, independent variables, and the intervening variable was demonstrated in the conceptual framework in figure 1.1.

3.2. 1. Independent Variables

The independent variables in this study were knowledge acquisition, knowledge organization, and knowledge sharing and ICT application.

To establish the adoption of knowledge management practices, knowledge acquisition was measured in terms of what are the types of knowledge acquired, what are sources of knowledge acquired, what mechanism/techniques does your library used to acquire knowledge and how important is the acquisition of tacit and explicit knowledge. Knowledge organization was measured with regards to how frequently does your library organized of knowledge, what methods does your library use to organize explicit knowledge, and how accessible is the organized knowledge in your library. Knowledge sharing was measured in terms of rate each statement among the options that best describes your opinion on methods for knowledge sharing in the libraries, indicated the challenges your library encountered in knowledge sharing, how effectiveness, and level of satisfaction of knowledge sharing.

ICT application in knowledge management was measured in terms of how often do you use the computer in performing your duties in the library, indicating the extent to which ICT application is used to enhance knowledge management practices in the library. According to Kothari (2004), these are antecedents to the dependent variables the effect service delivery.

3.2.2 Dependent Variable

The depended variable in this study is service delivery. To establish the adoption of knowledge management practices, service delivery was measure in terms of what type of knowledge do you acquired during the years of working experience in your library for competence and development. According to Kothari (2004), the dependent variable is the variable that relies on the independent variable. The variables that influence service delivery (independent and intervening variables) can be used to make decisions on how to adapt and improve the adoption of knowledge management practices in university libraries.

3.2.3 Intervening Variables

The intervening variables in this study were management support, human resource policy, and motivation scheme. The organization factors that affect the adoption of knowledge management practices include management support, human resource policy and implementing motivational schemes. The intervening variables focused on organization factors that influence the success of the adoption of knowledge management practices in selected university libraries such as management support, human resource policy and motivation schemes.

3.4. Location of the study

North-West Nigeria Geo-Political Zone has seven (7) federal university libraries in Kaduna, Kano, Jigawa, Katsina, Zamfara, Sokoto and Kebbi states respectively (See Appendix XI). This study was carried out in four (4) selected federal universities' libraries in the afore-mentioned regions. These libraries were selected because they have knowledge management systems, and have been in existence for over 20 years. The selected universities also had, a good number of librarians with several years of working experience making them suitable informants for this study.

3.3 Population

Graziano and Raulin (2007) described the population as the larger group to which all the people of interest belong. A research population is the complete set of individuals, cases or objects with some common observable characteristics.

The population for this study was 393 librarians from the selected university libraries. These librarians comprised of professional and para-professional librarians in the selected university libraries. The population constituted four (4) university librarians and three hundred and eighty-nine librarians (389). See table 3.1 for details.

Table 3.1: Population Breakdown

University library	University Librarian	Librarians	Total
Ahmadu Bello University Library, Zaria	1	189	190
Bayero University Library, Kano	1	112	113
Federal University Dutsima Library, Katsina	1	19	20
Usmanu Danfodiyo University Library, Sokoto	1	69	70
Total	4	389	393

Sources: Research data (2018)

3.4. Sampling Techniques and Sample size

3.4.1 Sample Techniques

Purposive sampling technique was applied for this study. Purposive sampling was considered suitable for this study because the researcher wanted to collect information from librarians who work in the respective libraries. This technique was appropriate because as Statistic Canada (2013) notes, purposive sampling is used when a sample is taken based on certain judgments about the overall population. The underlying assumption in purposive sampling is that the investigator selects units that are characteristic of the population.

Indeed, as Denscombe (2003) acknowledges, in purposive sampling, the sample is ‘handpicked’ for the research. It is applicable in the situation where the researcher already has the knowledge or knows something about the specific people or events

and deliberately selects particular ones because they are seen as likely to produce the most valuable data.

The advantage of purposive sampling is that it reduced the cost and time involved in acquiring the sample. The study applied a purposive sampling technique to choose four (4) university libraries from the seven (7) Federal University libraries in the North-West geo-political Zone of Nigeria. These four (4) university libraries were the only libraries with elements of knowledge management practices at the time of this study. After picking the four (4) university libraries, the proportionate distribution of the total sample was applied to determine the number of respondents from each university library. This was because the selected libraries did not have equal numbers of staff. See table 3.2.

3. 4.2 Sample Size

The determination of the sample size was based on Krejcie and Morgan Sample Size Determination Table for $\pm 5\%$ precision level and 95% confidence level. (Krejcie and Morgan (1970) and Israel, (2013). The target population for this study was 393. Krejcie and Morgan (1970) stated that when the population is 389 at $\pm 5\%$ precision, 191 should be the sample at 95% confidence level. This means each university library sample was calculated proportionately by using a formula recommended by Krejcie and Morgan. See appendix V. The calculation was as follows:

$N \times S$

TP

This means:

The letter N means population of each institute library

The letter S means total sample size = 191

While, letter TP means target Population = 389

The distribution of samples across the four (4) university libraries was worked out as follows:

I.A.B.U. Zaria Library (KIL)	$\frac{189}{389} \times 191$	=	$\frac{36099}{389}$	= 93
II.B.U.K, Library	$\frac{112}{389} \times 191$	=	$\frac{21392}{389}$	= 55
III.F.U.D. Library	$\frac{19}{389} \times 191$	=	$\frac{3629}{389}$	= 9
IV.U.D.U.S. Library	$\frac{69}{389} \times 191$	=	$\frac{13179}{389}$	= 34

Table 3.2: Sample size

Target Population	Study Population	Sample size
Ahmadu Bello University Library, Zaria	189	93
Bayero University Library, Kano	112	55
Federal University Dutsima Library, Katsina	19	9
Usmanu Danfodiyo University Library, Sokoto	69	34
Total	389	191

Source: Krejcie and Morgan (1970)

3.5. Research Instruments

This study used interview schedules to collect qualitative data from the four university librarians and questionnaires were distributed to the rest of the sampled 191 librarians.

3.5.1 Questionnaire

Due to the geographical distribution of the university libraries understudy, questionnaires were used to gather data from librarians. The questionnaire was structured in sections with each section aiming at capturing data for the respective objectives of the study.

Questionnaires with open-ended and closed-ended questions were used for this study because the respondents were located in different geographical zones of North-West Nigeria (see Appendix XI for the zoning). Questionnaires were therefore used easily to collect data from the 191 selected librarians scattered in the four (4) states.

3.5.2 Interview Schedule

Due to the nature of the work and knowledge of the university librarians, interviews based on the objectives of the study were used to collect.

An interview schedule was used to guide the face-to-face interviews; The interview was face to face characterized by an interpersonal role situation in which the interviewer asked questions to the respondent being interviewed. The questions were designed for the respondent to answer the research problem (Bichi, 2004). As Leedy and Ellis (2005) noted in survey research, the interview is fairly structured. Using the interview schedule, the study asked a standard set of questions and nothing more and followed the standard questions with one or more individually tailored questions to get clarification or probe an interviewee's reasoning or opinion.

Interview schedule with standardized open-ended questions on knowledge management practices, knowledge acquisition, organization, sharing and ICT application in knowledge management was used to allow university librarians to

provide their own opinions. The face to face interviews was important for purposes of clarification on questions that respondents did not understand.

The interviews in this study were found to be appropriate as they enhanced interpersonal contacts. They equally allowed the researcher to make follow up on interesting observations, corrections, and comments on knowledge management practices. The researcher, through the interview, was able to establish rapport with the respondents as well as listen to complex questions that were asked on knowledge management practices in university libraries. Interviews were used to obtain information on knowledge acquisition, organization, sharing and use of ICTs to enhance the knowledge management practices in university libraries.

3.6. Piloting

Piloting is carried out in research to identify loopholes in the instruments, variables and respondents' dynamics which may have a bearing on the validity and reliability of data. The piloting as an investigation is designed to test the feasibility of techniques, methods, and procedures for use on large scale or to search for possible effects that may be worth following up in the subsequent study (Thabane et al, 2010). The questionnaire was also given to senior professional colleagues at the National Library of Nigeria (NLA), Abuja. Piloting was conducted in one university library (Federal University Gusau Library, Zamfara State) which was not among the selected institutions. Ten (10) questionnaire was distributed and the piloting was analyzed using statistical package for social science (SPSS).

The results of the piloting indicated that the instrument used for collecting quantitative data was effective and the respondents have no problem in answering the questions and then there would be no problem in recording the data. The qualitative instrument used was equally effective indicating that the instrument was well refined and suitable for the study.

3.6. Validity and Reliability

3.6.1. Validity

According to Cooper and Schindler (2003), validity in research is the degree to which a research study measures what it intends to measure. To establish the validity, the researcher structured simple clear questions for better understanding (Cooper and Schindler, 2003). This, therefore, means that validity is to establish the real facts of results in researches methods for the whole study.

To achieve validity, the study ensured that the data collection instrument covered the areas under study. The questionnaire was given to senior staff in the department of library and information science in the department of library and information science at Bayero University, Kano, Nigeria to ensure the content validity is correct. The essence of this exercise was to ensure that the questions were clear, simple and appropriate to the study. Based on their suggestions and modifications, some of the items in the questionnaire were adjusted to suit the objectives of the study.

3.6.2. Reliability

Reliability, on the other hand, is the extent to which the research data collection techniques or analysis procedures revealed a consistent finding (Saunders, Lewis and Thomhill (2009). Leddy and Effis (2001) confirmed that the reliability of a measurement instrument is the extent to which the capability of yielding consistent results when characteristics being measured have not changed.

The Cronbach alpha reliability estimate was used to measure the internal consistency of data collected. The minimum acceptable value for Cronbach's alpha is 0.70; below this value the internal consistency of the common range is low. The maximum expected value is 0.90. Above 0.90 is perceived as redundancy or duplication. The table below shows that the Cronbach's Alpha is 0.867 indicating a high level of internal consistency. Therefore, variables used in this investigation were deemed to have adequate reliability.

Table 3.3 Cronbach's Alpha Reliability

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.867	.861	4

Source: Researcher 2017 Field Work.

Table 3.4: Cronbach Alpha

Cronbach's alpha	Internal consistency
$\alpha \geq 0.9$	Excellent
$0.9 > \alpha \geq 0.8$	Good
$0.8 > \alpha \geq 0.7$	Acceptable
$0.7 > \alpha \geq 0.6$	Questionable
$0.6 > \alpha \geq 0.5$	Poor
$0.5 > \alpha$	Unacceptable

Cronbach (1951) stated that satisfactory value of alpha is required to be 0.7 above for the scale to be reliable. As shown above.

$$\alpha = \frac{K}{K-1} \left(1 - \frac{\sum S^2_i}{S^2} \right)$$

α = Cronbach Coefficient alpha

K = the total number of items in the test

$\sum S^2_i$ = sum of items variances

S^2 = the variance of the total test

This, therefore, means that, the alpha value depends on the number of items in the test or instrument as well as on the average inter-item correlation. When the average correlation among items increases, the alpha value also increases and if the number of items in the test increases, the value of also increases. This means that the longer the test, the higher the reliability. In other words, the internal consistency appreciates with increase in the number of items in the test.

3.7. Data Collection Techniques

The researcher requested a permit from relevant authorities before embarking on the data collection (See appendix VI, VII, VIII, IX, and X). The first phase involved the administration of the questionnaires to the sampled librarians which were later collected on the agreed dates. The designed questionnaires were distributed to librarians and few of the respondents were able to fill the questionnaire and returned within a few minutes. While other respondents couldn't fill the questionnaires due to their tight schedule in the libraries. The researcher was able to collect the filled questionnaires from respondents after three days. Only respondents from the federal university Dutsima library were able to fill and returned the questionnaires within a few hours.

The selected interviewees were reached through bookings and interviewed on the agreed dates and times. The researcher also booked interview dates with the interview participants a week in advance as a technique for data collection. The interviews were conducted in the study participants' offices at the time scheduled, and the researcher noted down the interview in writing. All interviewed university librarians responded to the questions designed for them on the same day of the interview.

3.8. Data Analysis

Kombo and Tromp (2006) describe data analysis as the examination of the data that has been collected in a survey or experiment and making deductions and inferences. Data analysis in this study involved organizing and interpreting data that were collected from all the respondents. To assess knowledge management practices in

the selected university libraries, a descriptive statistical analysis method was adopted to describe the results that were obtained in knowledge acquisition, knowledge organization, knowledge sharing and ICT application in enhancing KM practices.

This study focused on the meaning and sensitivity of context where the qualitative data collected was organized in themes and patterns pertinent to the research study. Data were analyzed along with the identified codes in the qualitative approach. Data collected was described effectively using each participant's own original subjective frames and expressions before moving onto interpretation. Every opinion from the interview was reported verbatim and inferences from the analysis allowed the researcher to make conclusions and recommendations from the analysis. This is because qualitative data analysis is oriented to an in-depth and comprehensive understanding in which the analyst is an active participant (Patton, 2002). The statistical package for social science (SPSS) was used to analyze the quantitative data collected from the set of questionnaires. To describe the knowledge capture patterns, data was organized in frequency tables, figures, and charts.

3.9. Logistical and Ethical Considerations

Ethical consideration was made to avoid encroaching on the respondents' privacy and freedom and to maintain confidentiality of information that was given. Credit was given to authors for works used to avoid plagiarism. Written requests were sent to all the university libraries under study in line with the principle of self-determination which means that participants had the right to decide voluntarily if they want to participate in the study or to terminate their participation. The

researcher attached a consent letter to the copy of the questionnaire which the participant signed before participating in the research (See appendix I).

The participants in this study were informed verbally about the nature of the study and what would become of the findings once the study had been completed. The researcher also verbally informed participants that their time and willingness to fill in the questionnaires were voluntary. The confidentiality procedures were ensured by the researcher and were implemented as indicated in the consent letter and by not providing a column for names or telephone numbers (See appendix I).

To fully authenticate this, an approval letter for data collection which was issued by Graduate school at Kenyatta University was also attached to the request (See appendix VI). All other articles used as a source for secondary data was also acknowledged through references using APA style 6th edition to avoid plagiarism. This research study was given acknowledgement letters for conducting research from the institutions under study (See appendix VII, VIII, IX and X). Reports on these findings was done in honesty and justified way by the research study. This study reported without misrepresenting any outcome from the research or fabricated any data.

CHAPTER FOUR

PRESENTATION OF FINDINGS, INTERPRETATION AND DISCUSSION

4.1. Introduction

This chapter presents the findings, interpretation and discussion of the study. It is organized according to the objectives and research questions which were; assessing the knowledge acquisition, determining how knowledge acquired is organized, establishing knowledge sharing and assessing ICT application in enhancing the adoption of knowledge management practices.

4.2. General and Demographic Information

4.2.1. Response Rate

The study sampled a total of 191 respondents from the selected university libraries. A total of 175 (91.6%) out of 191 questionnaires were filled and returned. This comprised 85 questionnaires out of 93 distributed from Ahmadu Bello University Library, Zaria reflecting 91.4% response rate, 51 questionnaires out of 55 distributed from Bayero University Library, Kano reflecting 91.0% response rate, 30 questionnaires out 34 distributed from Usmanu Danfodiyo University Library, Sokoto reflecting 88.2% response rate and 9 questionnaires out of 9 distributed from Federal University Dutsima Library, Katsina reflecting 100% response rate respectively. According to Baruch and Holtom (2008), the recommended rate is 52.7% and the rate of 92% is by far acceptable. A total of 16 (8.4%) questionnaires were not returned by the respondents and therefore not used. The response rate for each of the selected university is shown in table 4.1 below.

Table 4.1: Response Rate by University Library

University Library	Number of questionnaires distributed	Number of questionnaires not returned	Number of questionnaires returned	Percent (%) of total
A. B. U. Zaria Library	93	8	85	91.4%
B.U.K., Kano Library	55	4	51	93.0%
U. D. U. Sokoto Library	34	4	30	88.2%
Federal University Dutsima Library.	9	0	9	100%
Total	191	16	175	91.6%

Source: Research data 2018

All four (4) University Librarians from the selected North-West Nigeria Federal University libraries were interviewed. The four university librarians participated in the interview reflecting 100% response rate. The four university librarians who were interviewed have been assigned code UL1, UL2, UL3 and UL4 respectively.

4.2.2. Demographic Information

According to Lim and Klobas (2000), demographic characteristics such as educational qualification, age and years of experience are very important in knowledge management. The study sought to identify characteristics such as

educational qualifications and years of working experiences for respondents of the study.

4.2.3. Education qualification

Education qualification is important in knowledge management because it is a key requirement for professional librarians and the minimum requirements for an academic librarian is a bachelor's degree (Bachelor of library and information science) while paraprofessionals librarian required diploma certificate as a qualification to be engaged in library activities. Librarians with such qualifications such as Ph.D. and Masters can assume the role of leadership in various library sections and be able to manage knowledge effectively. Professional librarians with a higher educational background may perform better in the management of knowledge. A question seeking to determine the academic qualification of library staff was included in the question.

Table 4.2 contains findings on respondents' educational qualifications. The information shows that out of a total of 17) respondents, 28(16.0%) respondents have a diploma; 74(42.3%) respondents have bachelor's degrees; 62(35.4%) respondents have master's degree. While 11(6.3%) respondents have a Ph.D. From the findings, the results reflect a scenario where the majority of the respondents have the appropriate educational qualifications that could be used in the adoption of knowledge management practice in their university libraries. The findings are reflected in table 4.2 below.

Table 4.2: Educational Qualification

Educational qualification	Percentage of respondents confirming their educational qualification	
	No. of Respondents	Percent (%) of total
Diploma	28	16.0%
Bachelor's Degree	74	42.3%
Master's degree	62	35.4%
PhD	11	6.3%
Total	175	100%

Source: Research data 2018

The adoption of knowledge management practice in the selected university libraries should not be a problem as a majority of the respondents have the required educational qualification.

4.2.4. Years of Working Experience

Working experience in libraries is very vital and can play a great role in effective knowledge management practice. Librarians with many years of working experience may perform better than librarians with no or little working experience. The study sought to assess the years of working experience of librarians. This was done to assess the number of respondents working experience.

The information shows that 48(27.4%) respondents had 1 – 5 years working experience; 59(33.7%) respondents had 6 – 10 years working experience; 27(15.4%) respondents had 11 – 15 working experience; 20(11.4%) respondents had 16 – 20

years working experience; and 21(12.1%) respondents had 21 years and above working experience in the library. See details in table 4.3.

Table 4.3: Years of Working Experience

Years of working experience	Percentage of respondents confirming their years of working experience in the library	
	No. of Respondents	Percent (%) of total
1 – 5 years	48	27.4%
6 – 10 years	59	33.7%
11 – 15 years	27	15.4%
16 – 20 years	20	11.4%
21 years above	21	12.1%
Total	175	100%

Source: Research data 2018

This, therefore, means that the adoption of knowledge management practice in the selected university libraries should not be difficult since the majority of the respondents have the required working experience. Besides, the majority of the respondents have more years of experience to be competent enough to contribute to the effective service in the library. The finding coincides with what Kassim (2011) established about knowledge management strategies implementation in academic libraries in Nigeria; that implementing knowledge management strategies required librarians with more years of experience and a higher degree in librarianship.

4.3. Knowledge Acquisition

Objective one of the study sought to assess the knowledge acquisition practices in selected university libraries. As a starting point, librarians were asked on the understanding of knowledge management practice, types of knowledge acquired, sources of knowledge acquired, the mechanism used to acquire the available tacit and explicit knowledge and the importance of acquiring knowledge in the libraries under study. Understanding knowledge management by librarians is necessary for university libraries because it leads to effective library services. Such an understanding entails having basic knowledge on managing of available knowledge.

4.3.1. Understanding of Knowledge Management

In order to understand the measure the understanding of knowledge management practices, respondents were asked to indicate their opinion in terms of knowledge management is another form of information management; knowledge management is a process of identifying, organizing, sharing, applying and reuse of knowledge in libraries; knowledge management is an extension of library services; knowledge management is managing explicit knowledge and knowledge management is managing of tacit knowledge. Respondents were asked to indicate their understanding through strongly agree, agree, disagree and strongly disagree

The findings show that the majority of the respondents understand what knowledge management practices mean in libraries. From Table 4.4, it was observed that knowledge management is understood to be another form of information management by 22% respondents; 66% respondents understand knowledge management as the process of acquiring, organizing, sharing, applying and reuse of

knowledge in libraries; 2% respondents understand knowledge as the extension of library services; 6% respondents understand knowledge management as the managing of tacit knowledge while 4% respondents understand knowledge management as the managing of explicit knowledge. Overall, it was evident that the understanding of knowledge management is not new among librarians. See table 4.4 for details.

Table 4.4: Understanding Knowledge Management Practices

Understanding of knowledge management practices	Percentage (%) of respondents confirming their understanding of knowledge management practices in the library
Process of identifying, organizing, sharing, applying and reuse of knowledge in libraries	66(%)
Another form of information management	22(%)
The extension of library services	2(%)
Managing of tacit knowledge only	6(%)
Managing explicit knowledge only	4(%)
Total	100(%)

Source: Research data 2018

The study also focused on the understanding of knowledge management by the university librarians. The university librarians understand what knowledge

management practices entail in university libraries. Indeed one of them confirmed this and said that: *"knowledge management practices are the acquisition, organization, sharing, applying and use of both explicit and tacit knowledge in an organization for enhancing job performance"* (University librarian 1, personal communication, March 23rd, 2018). Another librarian confirmed that *"Knowledge management is the techniques and strategies deployed by libraries for effective exploitation by users and effective preservation of those resources"* (University librarian 2, personal communication, March 7th, 2018). Another university library was quoted saying *"Knowledge management is the ability and capability of individuals or organisation to capture knowledge and then share that knowledge with the appropriate people in the organisation"*(University librarian 3, personal communication, March 12th, 2018). While university librarian 4 confirmed that *"knowledge management is the identification, acquisition, organization, and sharing of information and knowledge asset in libraries"* (University librarian 4, personal communication, March 14th, 2018).

The adoption of knowledge management in university libraries can be a success because the majority of the respondents understand management practices. This can be linked to Rufai and Seliamama (2004) who defined knowledge management practice as the understanding of how knowledge is created, shared, and making it available at the right time. This, therefore, mean that knowledge management involves creating, capturing, representing, updating, dissemination and validating knowledge.

4.3.2. Level of Knowledge Management Practice

To establish the level of knowledge management practice in selected university libraries, respondents were asked to rate the level of knowledge management practices in terms of very high, high, low and very low. The findings show that the majority of the respondents with 120 (68%) respondents indicated that the level of knowledge management practices in their university libraries is high. 45(26%) respondents also indicated that KM practices are very high in their libraries. While only 10 (6%) respondents agreed that the level of KM practices is low.

This means that the level of knowledge management practices in selected Nigeria federal university libraries is high as indicated by the majority with 94%. Figure 4.1 summarizes the findings on the level of knowledge management in selected university libraries.

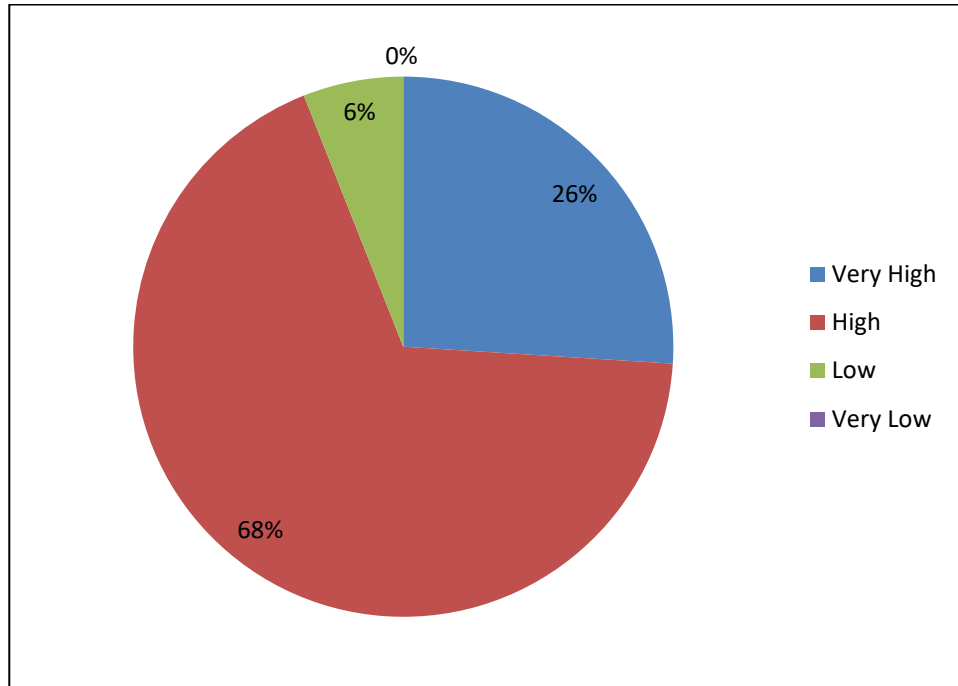


Figure 4.1: Level of Knowledge Management Practices

Source: Research data 2018

Knowledge management is said to be effective when the level of the practice is high. The above study finding indicated that the adoption of knowledge management practice can be achieved because the level of practice is high. As such, the types of knowledge services can be successful with the above results.

This can be seen in Ohiorenoya and Eborreime (2014) findings that the practice of knowledge management practice was very high and effective in all the universities which lead to the differences in organisation performance.

4.3.3. Types of Knowledge Acquired

To establish the types of knowledge acquired by librarians, respondents were asked to indicate the type of knowledge acquired for their libraries. The overall results show that the majority of the respondents indicated that both tacit and explicit knowledge are acquired in their libraries. The findings indicate that 22(13%)

respondents indicated that the library acquires tacit knowledge. Respondents with 41(23%) indicated that the library acquires explicit knowledge while 17(10%) respondents indicated that their libraries did not acquire either tacit or explicit knowledge. The total of 95(54%) respondents indicated that they acquired both tacit and explicit knowledge.

Table 4.5 Types of Knowledge Acquired

University Library	Percentage of respondents confirming types of knowledge acquired in the library.				
	Tacit knowledge	Explicit knowledge	Tacit and Explicit knowledge	None of the above	Total percentage %
	Freq. %	Freq. %	Freq. %	Freq. %	
ABU	12 (14%)	20 (24%)	44 (51%)	9 (11%)	85 (100%)
BUK	6 (11%)	10 (20%)	31 (61%)	4 (8%)	51(100%)
FUD	0 (0%)	5 (56%)	3 (33%)	1 (11%)	9 (100%)
UDUS	4 (13%)	6 (20%)	17 (57%)	3 (10%)	30 (100%)
Total	22 (13%)	41 (23%)	95 (54%)	17(10%)	158(100%)

Source: Research data 2018

ABU library acquired tacit and explicit knowledge more than other selected university libraries with a majority of respondents while the federal university library does not acquire tacit knowledge in the library as indicated in the table.

The implication of acquiring one type of knowledge (tacit knowledge) in libraries might lead to providing poor service by librarian.

As shown in Table 4.5, the majority of the respondents indicated that their libraries acquired both tacit and explicit knowledge. However, explicit knowledge was more acquired while acquisition of tacit knowledge is low. The low acquisition of tacit knowledge by librarians may pose a challenge in providing effective services in the library. This is because both tacit and explicit knowledge is needed in the library for librarian competence. This result corroborates Igwe, Nnadodie, and Unagha (2015) research findings that established that tacit and explicit are two major types of knowledge that are usually acquired and used in organizations namely for improve job performance.

The university librarians during their interview and in response to similar question asserted that they acquire tacit and explicit knowledge in their respective libraries. Indeed, one of them confirmed that: "*The university library was only restricted in acquiring both tacit and explicit knowledge for effective knowledge management in the university library*" (University librarian 3, personal communication, March12th, 2018). However, another university librarian confirmed that "*explicit knowledge is given more priority in the library than tacit and this is because documented knowledge is easily acquired compared to tacit knowledge*" (University librarians 2, personal communication, March7th, 2018).

4.3.4. Years of Working Experience and Acquisition of Knowledge in Libraries

In order to measure the years of working experience and acquisition of knowledge for competence and development in the library, respondents were asked to indicated the type of knowledge acquired during the years of working experience through tacit or explicit knowledge. The finding show that acquisition of tacit knowledge by years

of experience indicated that those who had more than 11 years and above had acquired more tacit knowledge as indicated by respondents between 59% to 86%. The low acquisition of explicit knowledge by respondents with 11-21 years above means that this group might be missing relevant knowledge shared through seminars, conference, research findings which may lead to poor technology based skills. This finding also show that respondents with working experience between 1 to 10 years acquired more explicit knowledge with 58%-75% respondents. This means that the young employees shared explicit knowledge among themselves.

Table 4.6 shows that 18(86%) respondents with 21 years working experience indicated they acquired tacit knowledge while only 3(14%) respondents indicated they acquired explicit knowledge. Respondents with 14(70%) and having 16-20 years of working experience indicated they acquired tacit knowledge while only 6(30%) respondents indicated they acquired explicit knowledge. Respondents with 16(59%) and having 11-15 years working experience indicated that they acquired tacit knowledge while 11(41%) respondents indicated they acquired explicit knowledge. Respondents with 34(58%) and having 6-10 years working experience indicated they acquired explicit knowledge while 25(42%) respondents indicated they acquired tacit knowledge. Respondents with 36(75%) and having 1-5 years working experience indicated they acquired explicit knowledge while only 12(25%) respondents indicated they acquired tacit knowledge. Table 4.6 summarizes the findings on years of working experience acquiring knowledge for competence and development.

Table 4.6: Years of working experience and acquisition of knowledge for competence and development

Years of working experience	Percentage of respondents confirming their years of working experience and acquisition of knowledge for competence and development in the library		
	No. of Respondents	Tacit knowledge	Explicit knowledge
		Freq %	Freq %
1 – 5 years	48	12(25%)	36(75%)
6 – 10 years	59	25(42%)	34(58%)
11 – 15 years	27	16(59%)	11(41%)
16 – 20 years	20	14(70%)	6(30%)
21 years above	21	18(86%)	3(14%)

Source: Research data 2018

This therefore means that adoption of knowledge management in university libraries can be achieved considering that respondents with many years of working experience and who can participate in knowledge management practice have acquired more tacit knowledge in the library. As observed by Aliyu (2016), librarians with many years of working experience have better chance to be more competent than librarians with less years of working experience. He further stressed that effective services delivery is determined by the competence and performance of professional librarians in library.

4.3.5. Source of Acquiring Knowledge

In order to measure the sources of acquiring knowledge in the university libraries, respondents were asked to indicate from which source does your library acquiring knowledge and the finding show that different sources are used to acquire knowledge in the libraries. Documents was the popular source of acquiring knowledge in the university libraries as indicated by majority of the respondents while library users and experts are the lowest sources of acquiring knowledge in the university libraries.

Figure 4.2 below shows that 71% of respondents indicated that documents is the source of acquiring knowledge in the libraries. Respondents with 14% indicated competitors as a source of acquiring knowledge. Respondents with 9% indicated suppliers as a source of acquiring knowledge. Respondents with 4% indicated experts as a source of acquiring knowledge while only 2% of respondents indicated users as a source of acquiring knowledge. See figure 4.2 below for details analysis on the sources of acquiring knowledge in university libraries.

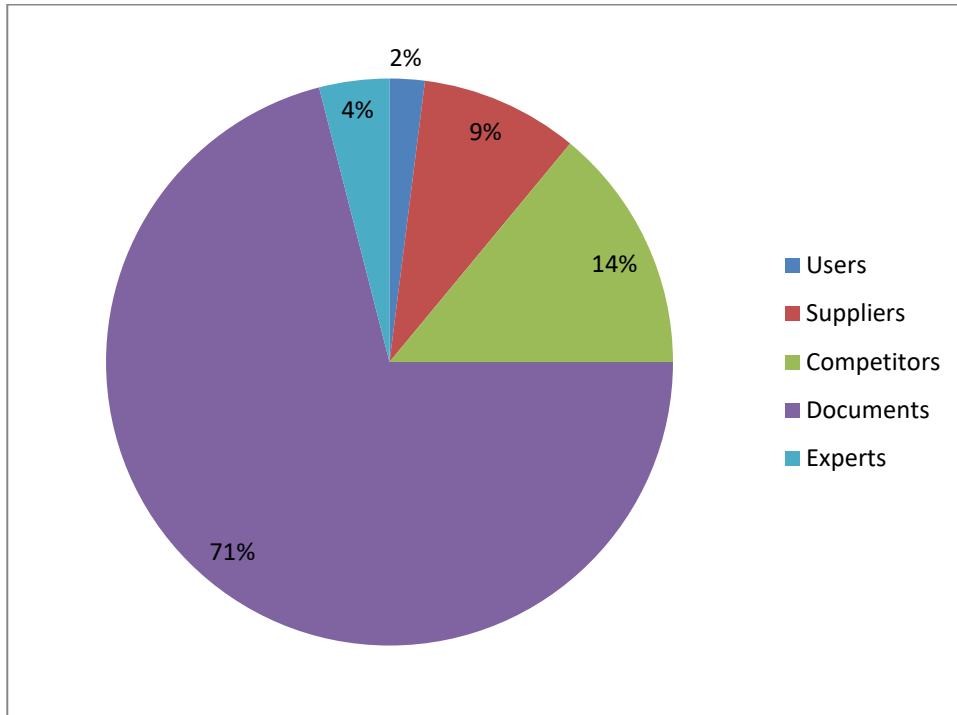


Figure 4.2: Sources of Knowledge

Source: Research data 2018

From the findings, it becomes obvious that knowledge can be acquired using different sources. However, acquiring knowledge through documents as indicated by majority means that explicit knowledge is the most access knowledge by librarians. This is because documented knowledge (explicit) can be acquire, organize and access easily for staff development as reported by Kassim (2011) in a study on knowledge management strategies implementation in academic libraries.

4.3.6. Mechanism/Technique used to Acquire Tacit Knowledge

In order to measure the mechanism/technique used to acquire tacit knowledge, respondents were asked to indicate the techniques/mechanism they used to acquire tacit knowledge and the finding show various techniques are used to acquire tacit knowledge by the libraries. Conference, seminars, and workshops are the most

popular technique used in acquiring tacit knowledge while mentorship was the least popular technique.

Table below 4.7 shows that 31(20%) respondents indicated that meetings are used; 40(25%) respondents indicated that formal training and education are used; 54(34%) respondents indicated that conferences, seminars/workshops are used to acquired tacit knowledge; 14(9%) respondents indicated that personal face – to – face is used; 4(3%) respondents indicated that mentoring is used to acquire tacit knowledge; 7(4%) respondents indicated that brainstorming is used to acquire tacit knowledge; 8(5%) respondents indicated that staff transfer is used to acquired knowledge; while only 4(3%) respondents indicated that mentoring is used to acquired knowledge. Table 4.7 below shows that only 158 out 175 respondents participated in answering the above question on technique/mechanism for acquiring tacit knowledge. The remaining 17 respondents do not participated because they earlier indicated not to acquired knowledge in their libraries as shown in table 4.5.

Overall, all libraries acquire tacit knowledge and used a variety of techniques/mechanisms such as conferences, seminar/workshop interactions, brainstorming, mentoring among others to acquired tacit knowledge in the selected university libraries. From the findings, it becomes obvious that knowledge can be acquired using different techniques/mechanisms.

However, acquiring tacit knowledge through mentoring is low as shown in the findings and this means there is poor mentoring service in the libraries. This can affect the performance of librarians in providing effective knowledge services. Table

4.7 summarizes the findings on technique/mechanism for acquiring tacit knowledge in the library.

Table 4.7: Technique/Mechanism for Acquiring Tacit Knowledge

University Library	Percentage of respondents confirming the techniques/mechanism for acquiring tacit knowledge							
	Conference, seminars and workshops	Formal training & Education	Meetings	Personal interactions	Brain storming	Staff transfer	Mentoring	Total percentage %
	Freq. %	Freq. %	Freq. %	Freq. %	Freq. %	Freq. %	Freq. %	
ABU	28 (37%)	21 (27%)	12 (16%)	6 (8%)	3 (4%)	4 (5%)	2 (3%)	85 (100%)
BUK	14(30%)	14 (30%)	9 (19%)	4 (9%)	3 (6%)	1 (2%)	2 (4%)	51(100%)
FUD	3 (38%)	1 (12%)	3 (38%)	1 (12%)	0(0%)	(0%)	0(0%)	9 (100%)
UDUS	9 (33%)	4 (15%)	7 (26%)	3 (11%)	1 (4%)	3 (11%)	0(0%)	30 (100%)
Total	54 (34%)	40 (25%)	31(20%)	14 (9%)	7(4%)	8 (5%)	4 (3%)	158 (100%)

Source : Research data 2018

The above findings corroborate what Umoh and Amah (2013) established on knowledge acquisition and organizational resilience in Nigerian manufacturing organizations which revealed that the major methods used to acquire knowledge by employees were seminars, conferences, and training. Adoption of knowledge management practice in the said libraries will be easy as it requires staff with competence and skills to be able to provide quality service in the library. These can be achieved through attending staff training, conferences, workshops, and seminars. A similar question was asked to the university librarians during the interview and one of them asserted by saying that *"job training, workshop, seminars, and meetings constitute the methods used in acquiring knowledge in the library"* (University librarian 4, personal communication, March 14th, 2018).

4.3.7. Mechanism/Technique used to Acquire Explicit Knowledge

To establish the mechanism/technique used in acquiring explicit knowledge, respondents were asked to indicate the type of techniques/mechanisms used in terms of documents, patents, intranet, social media, and ICT mediated apparatus. Findings on techniques/mechanism library used to acquire explicit knowledge as shown in Table 4.7 is 51 (32.0%) respondents indicated that documents are used as the techniques/mechanism to acquire explicit knowledge; 7(4.0%) respondents indicated that patents are used as the techniques/mechanism to acquire explicit knowledge; 26(17%) respondents indicated that internet is used as the techniques/mechanism to acquire explicit knowledge; 15(10%) respondents indicated that social media are used as the techniques/mechanism to acquire explicit knowledge; while 59(37%) respondents indicated that ICT mediated apparatus is used as the techniques/mechanism to acquire explicit knowledge.

This shows respondents with 59 (37%) respondents indicated that ICT mediated apparatus was used as a technique/mechanism to acquire explicit knowledge in university libraries. There is no specific method or mechanism for acquiring explicit knowledge. Knowledge can be acquired using different techniques/mechanisms depending on the capability of the parent organization, organizational structure, and internal arrangement. However, acquisition of explicit knowledge through patent is low. See table 4.8 for a summary of techniques/mechanism used for acquiring explicit knowledge.

Table 4.8: Techniques/Mechanism for Acquiring Explicit Knowledge

University Library	Percentage of respondents confirming the techniques/mechanism for acquiring explicit knowledge					
	ICT mediated apparatus	Documents	Intranet	Social media	Patent	Total percentage %
	Freq. %	Freq. %	Freq. %	Freq. %	Freq. %	
ABU	34 (40%)	18(21%)	12(14%)	8(9%)	6(7%)	85 (100%)
BUK	14 (27%)	21(41%)	8(15%)	2(4%)	1(2%)	51(100%)
FUD	3(33%)	2(22%)	2(22%)	1(11%)	0(%)	9 (100%)
UDUS	8(27%)	10(33%)	4(13%)	4(13%)	0(%)	30 (100%)
Total	59 (37%)	51 (32%)	26(17%)	15 (10%)	7 (4%)	158 (100%)

Source: Research data 2018

Table 4.8 shows that only 158 out 175 respondents participated in answering the above question on technique/mechanism for acquiring explicit knowledge. The

remaining 17 respondents do not participated because they earlier indicated not to acquired knowledge in their libraries as shown in table 4.5.

Information and communication technology tools facilitate knowledge acquisition as recognized globally. The result presented in table 4.6 collaborates Wamundila and Ngulube (2011) findings from a study on enhancing knowledge retention in higher education in Zambia universities. The findings had established that ICT apparatus, ICT facilities, subject matter experts among others are knowledge acquisition mechanisms that served as tools to speed up knowledge acquisition for employees. Under the interview conducted, a similar question was asked and one of the university librarians maintained that:

Information and communication technology facilities enhance the acquisition of explicit knowledge in the library. He further stressed that with ICT facilities, the adoption of knowledge management in university libraries will be effective, efficient, time-saving and quality service delivery (university librarian 2, personal communication, March 7th, 2018).

4.3.8. Importance of Tacit and Explicit Knowledge Acquisition

To establish the importance of tacit and explicit knowledge acquisition, respondents were asked to indicate the importance of acquiring tacit and explicit knowledge in terms of very important, important, fairly important and not important.

All the respondents agreed that the acquisition of tacit and explicit knowledge was very important and only 1% of respondents felt it was not important. Table 4.9 finding clearly shows that 100(57.1%) respondents indicated that acquisition of tacit and explicit knowledge is very important; 73 (42.7%) respondents indicated that

acquisition of tacit and explicit knowledge is important; 1(0.6%) respondents indicated that acquiring tacit and explicit knowledge is fairly important; while 1(0.6%) respondents indicated that acquiring tacit and explicit knowledge is not important. Table 4.9 summarizes the finding on the importance of acquiring tacit and explicit knowledge in selected university libraries.

Table 4.9: Importance of Acquisition of Tacit and Explicit Knowledge

University library	Percentage of respondents confirming the importance of acquiring tacit and explicit knowledge				
	Very Important	Important	Fairly important	Not important	Total percentage %
	Freq. %	Freq. %	Freq. %		
ABU	50 (59%)	33 (39%)	1 (1%)	1 (1%)	85 (100%)
BUK	30 (59%)	21 (41%)	0(0%)	0(0%)	51(100%)
FUD	4 (44%)	5 (55%)	0(0%)	0(0%)	9 (100%)
UDUS	16 (53%)	14 (47%)	0(0%)	0(0%)	30 (100%)
Total	100 (57.1%)	73 (42.7%)	1 (0.6%)	1 (0.6%)	175 (100%)

Source: Research data 2018

This means that the adoption of knowledge management practices in university libraries is very important considering that respondents are very much aware of the importance attached to it. This finding corroborates Jiank and Lia's (2008) result study on knowledge management and innovative performance which revealed that knowledge acquisition was very important in improving performance and service delivery. The finding further collaborates those of Nnadozie (2015) who established

that the importance of implementing knowledge management in libraries is to ensure the provision of knowledge to the right person (user) at the right time through effective knowledge acquisition. Skyrme and Amildon (2003) identified the importance of knowledge management system acquisition in business organizations which include effective knowledge acquisition among others.

This means that the adoption of knowledge management practices in university libraries should not be a problem. This is because university librarians are aware of the benefits and importance of the acquisition of knowledge for improved service delivery. The importance of the acquisition of knowledge was also revealed by many scholars in their studies (Jain, 2007, 2016, Nnadozie, 2015 and Skyrme and Amildon, 2003) on adoption, implementation, innovation, and performance in knowledge management practices for effective service delivery.

4.4. Knowledge Organization

Objective two of the study sought to determine the knowledge acquisition practices in selected university libraries. In order to determine the knowledge organization in libraries the following question were administered: how frequent does your organized knowledge, what methods does your library used to organized knowledge, and how accessible is the organized knowledge in your library. Knowledge organization is a KM practice that is concerned with the systematic organization of knowledge for easy accessibility. The role of knowledge organization cannot be overemphasized because when knowledge is systematically organized, it assists users to identify, retrieve and access knowledge created.

4.4.1. Frequent Organization of Knowledge

This study sought to establish how frequently knowledge was organized. To establish how frequent the library organized knowledge, respondents were asked to indicate how frequently libraries organized knowledge. The responses show that knowledge is frequently organized in the selected university libraries with 163 (93%). Out of a total of 175 respondents, 61(35%) respondents indicated that libraries organized knowledge very frequently. 102 (58%) respondents indicated that libraries organized knowledge frequently. 8(5%) respondents indicated that libraries organized knowledge fairly frequently while only 4(2%) respondents indicated that libraries do not organize knowledge frequently. See figure 4.3 for summary on frequent organization of explicit knowledge.

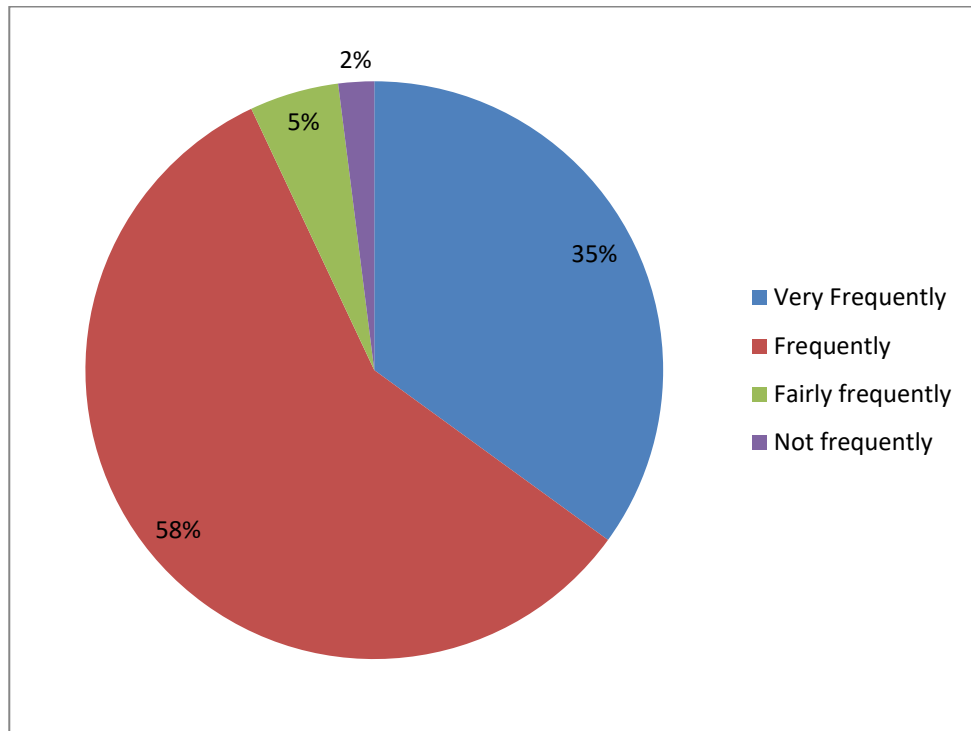


Figure 4.3: Knowledge Organization Frequency rating

Source: Research data 2018

The adoption of knowledge management practices in university libraries will be easy considering that available knowledge acquired in the selected libraries are well organized. This finding coincides with Bharadwaj, Chauhan and Raman's (2015) study on the impact of knowledge management capabilities on knowledge management effectiveness in Indian organizations which revealed that knowledge was frequently organized in Indian organization libraries. These findings further corroborate with Usoro and Effiong (2015) findings on knowledge management in academic libraries in Akwa-Ibom state which revealed that the major knowledge management activities in academic libraries were knowledge organization.

Nemati (2002) observed the frequent organization of knowledge in the library is not only important for the effective use of knowledge but library statistic today was

becoming easy to compile and analyze due to frequent organization of information resources and explicit knowledge.

A similar question was asked to the university librarians during the interview and one of them asserted that *"library staff are frequently engaged in shelve management on daily bases and the essence was to provide a platform for library staff and users to have easy access of available explicit knowledge and other information resources organized"* (University librarian 2, personal communication, March 7th, 2018). Another university librarian reported that *"organizing library materials for easy accessibility was the mandatory service provided in the library"*(University librarian 4, personal communication March 14th, 2018).

The adoption of knowledge management practices in university libraries for enhancing successful service delivery will be easier as practice amenable to knowledge management is in place.

4.4.2. Methods of Knowledge Organization

As a strategy to probe further on how libraries organized their knowledge, a question was asked with multiple options for respondents to indicate the methods of organizing knowledge in their libraries. The finding confirmed that libraries still managed information not knowledge as 108(53%) of the total respondents' classification and only 11(5%) indicated expert knowledge. Table 4.10 vividly shows that 108(53%) respondents indicated that classification scheme is the methods used in organizing knowledge in their libraries; 47(23%) respondents indicated that OPAC was used as another method of organizing knowledge; 38(19%) respondents indicated institutional repository as method of organizing knowledge 11(5%)

respondents indicated that experts knowledge base is used as the method of organizing knowledge. See table 4.10 for a summary of findings on methods of organizing knowledge.

Table 4.10 Methods of Organizing Knowledge

University library	Percentage of respondents confirming methods of organizing knowledge				
	Classification schemes	OPAC	Institutional repository	Expert knowledge based	Total percentage %
	Freq. %	Freq. %	Freq. %	Freq. %	Freq. %
ABU	46(49%)	22(24%)	19(20%)	6(7%)	85 (100%)
BUK	36(64%)	9(16%)	8(14%)	3(6%)	51(100%)
FUD	6(46%)	4(31%)	2(15%)	1(8%)	9 (100%)
UDUS	20(48%)	12(29%)	9(21%)	1(2%)	30 (100%)
Total	108 (53%)	47 (23%)	38 (19%)	11 (5%)	204 (100%)

Source: Research data 2018

A total of 204 respondents answered this question because the question contained multiple answers. This gave each respondents the chance to indicate more than one option from the multiple of options. This above finding shows that the majority of the university libraries used classification schemes to organize knowledge. The adoption of knowledge management in university libraries will be faced with challenges considering that expert-based knowledge is not given more attention as a method of organizing knowledge. Low used of expert based knowledge in the university libraries can affect decision making, competence of staff and service delivery. This finding corroborates Kolawale (2015) study on knowledge acquisition

and transfer mechanism which revealed that academic libraries identified lack of expert knowledge as one of the major problem in knowledge organized.

To further probe, a similar question was asked to the university librarians during the interview and one of them asserted that *“classification scheme is used for organizing knowledge and the library also used ICT equipment to facilitate the process”*(University librarian 3. personal communication, March 12th, 2018).

Another one of the respondents reported that *"classification schemes are widely used in university libraries to organized information resources". He stressed that "the library avoided online classification exercise and preferred the manual method of classifying knowledge in the library" (University librarian 4, personal communication, March 14th, 2018).*

This was clear evidence that classification schemes are mostly used in the university libraries under study. This collaborates Jain (2007) whose finding established that most academic libraries in East and South Africa were practicing information management and the librarians considered themselves as information managers.

4.4.3. Accessibility of Knowledge

Knowledge stored must be accessible by library users. In this connection, respondents were asked about knowledge accessibility and the findings revealed that 89(51%) respondents indicated that knowledge was very accessible; 78(44%) respondents indicated that the organized knowledge is accessible; 7(4%) respondents indicated that organized knowledge is fairly accessible while only 1(1%) respondents indicated that organized knowledge was not accessible. This

finding shows that knowledge in selected federal universities' libraries is accessible as indicated by majority respondents with 95% response. Figure 4.3 summarizes the finding on the accessibility of knowledge organized.

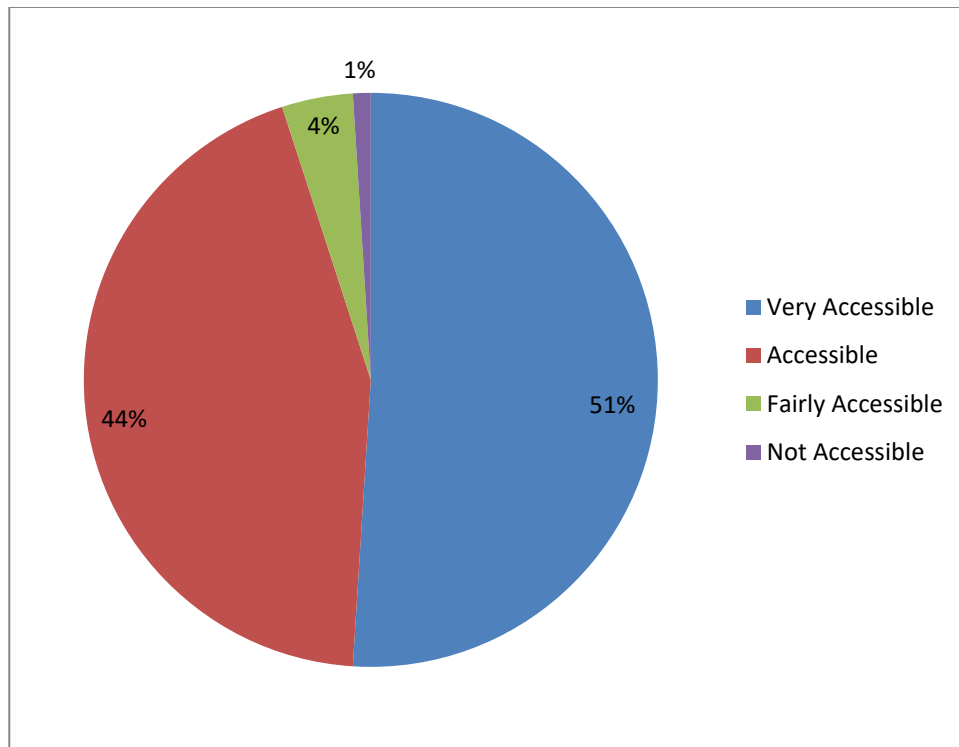


Figure 4.4: Accessibility of Knowledge

Source: Research data 2018

This finding shows that the majority of the university libraries organize knowledge for easy accessibility by users. These findings corroborate Alhawary, Irtaimeh and Hamdan (2011) study on building a knowledge repository which revealed that university libraries win the heart of their users through the building of repositories and making organized knowledge accessible. This, therefore, means, adoption of knowledge management practice as a function of knowledge organization in university libraries can be successful.

4.5. Knowledge Sharing

Objective three of the study sought to establish the knowledge sharing practices in selected university libraries. In order to establish knowledge sharing practices in the university libraries, respondents were asked to rate among the options that best describe their opinion on methods of knowledge sharing in the library, indicate the challenges the library encountered in knowledge sharing. and what is level of Satisfaction on knowledge sharing in your library.

Knowledge sharing is a key component of knowledge management. It is concerned with an exchange or transfer of knowledge from one person to another or one place to another. Knowledge sharing (KS) is a key aspect of knowledge management practice. Participating in knowledge management practices requires the active sharing of knowledge among colleagues in university libraries. As such, the researcher intended to establish why libraries shared knowledge.

4.5.1. Methods for Knowledge Sharing

To establish the methods for knowledge sharing, a question was asked as follows: rate each statement among the option that best describes your opinion on methods of knowledge sharing in the library. The findings established that libraries share knowledge as 113(65%) respondents indicated they strongly agree that through involving staff in project within and outside library is a method of sharing knowledge.; 49(28%) respondents indicated agree: 8(5%) respondents indicated disagree while only 5(2%) respondents indicated that they strongly disagree on the fact that involving staff in project within and outside library as a methods for sharing

knowledge. This shows that involving staff in a project within and outside the library is a method of knowledge sharing in university libraries.

Adoption of knowledge management practice in the university library can therefore be effective considering that involving staff in a project is a method and knowledge that can be shared among staff. This finding corroborates Bhatt (2001) on knowledge management in an organization that examined the interaction between technologies, techniques and people and the study revealed that involving staff in project activities improves organizational performance and service delivery. This means the adoption of knowledge management in libraries that engage their staff in a project inside and outside libraries can be a successful one. However, only one library disagreed as indicated in the table and that could be a result of lack of involving their staff to participate in library projects. Kasim (20011) stated that knowledge sharing takes place during interaction and participation in different activities.

Findings on through Nigeria Library Association (NLA) knowledge-sharing forum show that 76(44%) respondents indicated they strongly agree; 88(50%) respondents indicated agree; 9(5%) respondents indicated disagree while only 2(1%) respondent indicated they disagree that knowledge can be shared through NLA forum. This shows that federal universities' libraries used NLA forum as a method of knowledge sharing as indicated by 93.7% of the respondents.

Adoption of knowledge management practices in the university libraries can therefore be effective considering that knowledge sharing through NLA forums is a

method of sharing knowledge among librarians. This finding corroborated Onifade (2015) study on knowledge sharing among librarians in federal University which revealed that employees shared knowledge and interact through the professional forums. The study also revealed that the use of ICT tools enhance the knowledge sharing among employees in the forum. This is vital in the adoption of KM where knowledge sharing can improve librarians' competence in providing effective service delivery.

Findings on through regular staff meeting in the library as a methods of knowledge sharing show that 92(53%) respondents indicated they strongly agree; 75(41%) respondents indicated agree; 5(5%) respondents indicated disagree while 3(1%) respondents indicated strongly disagree with through regular staff meeting as a methods for knowledge sharing in the university libraries. This shows that the majority of the federal universities' libraries used through regular staff meetings in the library as a method of knowledge sharing as indicated by 95.4% of the respondents.

Adoption of knowledge management practice in the university library can therefore be effective considering that through a regular staff meeting is a method of knowledge sharing. This finding corroborates Onifade's (2015) study on knowledge sharing among librarians in university libraries which revealed that most university staff shared knowledge during staff meetings.

Findings on knowledge sharing through the use of ICT facilities (the internet, Facebook, WhatsApp, Twitter, etc.) show that 127(73%) respondents indicated

strongly agree; 38(22%) respondents indicated agree; 6(3%) respondents indicated disagree while only 4(2%) respondents indicated strongly disagree that through ICT facilities as methods for knowledge sharing. This shows that the majority of the federal university's libraries use ICT facilities as methods of knowledge sharing as indicated by 94.3% of the respondents.

Adoption of knowledge management practice in the university library can therefore be effective considering that ICT facilities as a method to share knowledge. This finding coincides with Jalaladeen (2008) finding on organizational readiness and contributing factors for adoption of knowledge management processes which revealed that majority people agreed that ICT tools/facilities contribute immensely in enhancing the adoption of knowledge management. Information and communication technology facilities enhance or facilitate knowledge management activities. ICT facilities with facilitates the adoption of KM practices in libraries. ICT is used to generate, acquire, organize, share, transfer, preserve, re-used and apply knowledge in libraries. With ICT facilities, accuracy, effectiveness, sufficiency, time-saving among others will be visible in the adoption of knowledge management practices in university libraries.

Findings on through research collaborations among staff as methods of knowledge sharing in federal universities' libraries show that 116(66%) respondents indicated strongly agree; 48(28%) respondents indicated agree; 9(5%) respondents indicated disagree while 2(1%) respondent indicated strongly disagree with research collaboration as methods for knowledge sharing. This shows that the majority of the

federal universities' libraries used research collaborations among staff as the method of knowledge sharing as indicated by 93.7% of the respondents.

Adoption of knowledge management practice in the university library can therefore be achieved because research collaborations among staff is a method of knowledge sharing. The above findings concur with Kolawale (2015) finding on knowledge acquisition and transfer mechanism for contemporary organizations in the knowledge economy which revealed that knowledge is easily shared through research collaborations. Through research collaboration, library staff can share both tacit and explicit knowledge to improve their competence and service delivery. Table 4.11 summarizes the finding on methods of knowledge sharing practices in university libraries.

Table 4.11: Methods of Knowledge Sharing

Variable	Percentage of respondents confirming methods of sharing knowledge in selected university libraries				
	Strongly Agree	Agree	Disagree	Strongly disagree	Total percentage
	Freq. %	Freq. %	Freq. %	Freq. %	%
Through involving staff in project within & outside library	113(65%)	49(28%)	8(5%)	5(2%)	175 (100%)
Through knowledge sharing forum (NLA forum)	76(44%)	88(50%)	9(5%)	2(1%)	175 (100%)
Through regular staff meetings in the library	92(53%)	75(41%)	5(5%)	3(1%)	175 (100%)
Through the use of ICT facilities (Internet, Facebook, WhatsApp, tweeter	127(73%)	38(22%)	6(3%)	4(2%)	175 (100%)
Through research collaborations among staff	116(66%)	48(28%)	9(5%)	2(1%)	175 (100%)

Source: Research data 2018

A similar question was asked during the interview with the university librarians and one of them has this to say: *"methods for knowledge sharing in the university library include that of staff meetings within the library, reports and paper presentations in seminars and conferences"* (University librarian 1, personal communication March 23rd, 2018). Another one reported that *"sponsorship for higher education, regular staff meetings, in-house training research collaboration, seminars/conferences, and formal training exhibitions within the university community constitutes the methods measures used for knowledge sharing in the library"*(University librarian 2, personal communication, March 7th, 2018). University librarian 3 mentioned that *"through inter-library cooperation with sister library and the used of internet facilities to communicate with members such as email, facebook and blogs, etc. constitute methods for knowledge sharing"*(University librarian 3, personal communication, March 12th, 2018). while UL4 reports that *"measures for knowledge sharing in the university libraries include that of regular meetings with staff, attending seminars/conferences, formal training and research collaboration among staff"* (University librarian 4, personal communication, March 14th, 2018).

4.5.2. Knowledge Sharing Challenges

To establish whether university libraries face challenges in knowledge sharing, respondents were asked to indicate the challenges the library encounter in knowledge sharing.

The study revealed that a lack of support from management and mentorship services was the major challenge in knowledge sharing. The finding show that 74(42%) respondents strongly agreed that lack of support by management serve as knowledge sharing challenge; 63(36%) respondents indicated agree; 29(16%) respondents indicated disagree while only 9(6%) respondents indicated strongly disagreed that lack of support by management was not knowledge sharing challenge; This show that lack of support by management is one of the major knowledge's sharing.

Adoption of knowledge management practices will be difficult if management cannot give in maximum support. Top management support is a factor to be considered when adopting knowledge management in university libraries. This finding confirms Mostafa and Muhammad's (2015) finding on challenges of knowledge management in university library in Bangladesh which revealed that that lack of top management commitment is a challenge for the adoption of knowledge management. To be successful in knowledge management practices, the university management should give a full commitment and support for the actualization of the KM activities.

Findings on reluctance of staff to share knowledge as a knowledge-sharing challenge show that 62(35%) respondents indicated strongly agreed that reluctance of staff to share knowledge as knowledge sharing challenge; 52(30%) respondents indicated agree; 46(26%) respondents indicated disagree while only 15(9%) respondents indicated strongly disagree that reluctance of staff to share knowledge as knowledge sharing challenge. This shows that the majority of federal universities'

libraries' knowledge sharing drive is confronted by the reluctance of staff to share knowledge as indicated by 65.2% of the respondents.

This is a challenge in the adoption of knowledge management. For university library to adopt knowledge management practices, the staff in library should have knowledge sharing culture among themselves. This finding corroborates Raja and Sinha (2009) study on knowledge management and academic libraries in IT era in India which revealed that one of the challenges of adoption of knowledge management is lack of knowledge sharing by the junior staff and there is no co-operation between the senior and junior staff. The study revealed a lack of motivation through incentive and promotion leads to the barriers in knowledge sharing culture. This means that adopting knowledge management in university libraries should put into consideration as a factor that would motivate librarians to share both tacit and explicit knowledge for service delivery.

The finding show that 52(30%) respondents indicated strongly agree that inadequate staff meetings in the library as knowledge sharing challenges; 80(46%) respondents indicated agree; 25(14%) respondents indicated disagree while only 18(10%) respondents indicated strongly disagree that inadequate staff meeting in the library as knowledge sharing challenges. The inadequate staff meetings in the library also serve as knowledge sharing challenges in federal universities' libraries in Nigeria as shown by 75.5% of the respondents.

Adoption of knowledge can be affected if staff meeting in the library is not adequate. Through staff meeting, librarians can interact, acquire and share bot tacit

and explicit knowledge. This finding coincides with Mostafa and Muhammad's (2015) finding on challenges of knowledge management in university library in Bangladesh which revealed that lack of formal and informal interaction among staff as one of the challenges for the adoption of knowledge management practices. Formal interaction such as meeting and educational gathering is the platform through which librarians share knowledge and lack or inadequate formal interaction (meetings) affects staff competencies which in turn affect service delivery. Similarly, Kabiru (2015) finding on knowledge management strategies and practices in Nigeria Agricultural research institutes revealed that lack of frequent meetings with employees in the research institutions constitutes the challenges in effective knowledge sharing.

Findings on inadequate ICT facilities as knowledge sharing challenge show 54(31%) respondents indicated strongly agree that inadequate ICT facilities as knowledge sharing challenges; 66(38%) respondents indicated agree; 38(22%) respondents indicated disagree while only 17(9%) respondents indicated strongly disagree that inadequate ICT facilities as knowledge sharing challenges. This shows that the majority of the federal universities' libraries are faced with inadequate ICT facilities bedeviling knowledge sharing in federal university libraries as indicated by the majority of respondents with 68.6%.

The adoption of knowledge management practices would be affected by a lack of ICT facilities in place. ICT facilities enhance knowledge management activities. ICT facilities can be used to acquire, organize, share, preserve and apply knowledge for effective service delivery. This finding corroborates with Aliyu (2016) finding on

the use of ICT in information sharing among academic scientists in federal universities in North-West Nigeria which revealed that majority of the respondents indicated that they do not share knowledge using ICT tools. This may result to inadequate ICT facilities and tools used in the libraries to enhance the adoption of knowledge management.

The finding on lack of mentoring services as a knowledge-sharing challenge in federal universities' libraries show that 64(37%) respondents indicated strongly agree that lack of mentoring services is a knowledge sharing challenge; 75(43%) respondents indicated agree; 27(15%) respondents indicated disagree while only 9(5%) respondents indicated strongly disagree that lack of mentoring services is a knowledge sharing challenge. This finding show that the majority of the federal universities' libraries are faced with a lack of mentoring services which serve as a knowledge-sharing challenge as shown by 79.5% of the respondents.

Adoption of knowledge management practices will be affected by a lack of mentorship as a challenge in the university libraries. This finding corroborated Gamble and Blackwell's (2001) report on knowledge management as a guide identified lack of mentorship and priority to tacit knowledge can directly reduce the capability for sustained competitiveness, innovation and service delivery. For successful adoption of knowledge management practice in the university library, there should be mentorship culture among librarians.

The finding on lack of research collaborations among staff as a knowledge-sharing challenge to federal universities' libraries show that 73(42%) respondents indicated

strongly agree that lack of research collaborations among staff is a knowledge sharing challenge; 54(31%) respondents indicated agree; 36(21%) respondents indicated disagree while only 12(6%) respondents indicated strongly disagree that lack of research collaborations among staff is a knowledge sharing challenge. This show that the majority of the federal universities' libraries are confronted by a lack of research collaborations among staff as indicated by 72.6% of the respondents. Table 4.12 summaries the finding of challenges encountered in knowledge sharing.

Table 4.12: Challenges encountered in Knowledge Sharing

Percentage of respondents confirming the challenges encountered in knowledge sharing					
Variable	Strongly Agree	Agree	Disagree	Strongly disagree	Total percentage
	Freq. %	Freq. %	Freq. %	Freq. %	%
Lack of support by management	74(42%)	63(36%)	29(16%)	9(6%)	175 (100%)
Reluctant of staff to share knowledge	62(35%)	52(30%)	46(26%)	15(9%)	175 (100%)
Inadequate of staff meetings	52(30%)	80(46%)	25(14%)	18(10%)	175 (100%)
Inadequate ICT facilities	54(31%)	66(38%)	38(22%)	17(9%)	175 (100%)
Lack of mentorship	64(37%)	75(43%)	27(15%)	9(5%)	175 (100%)
Lack of research collaboration among staff	73(42%)	54(31%)	36(21%)	12(6%)	175 (100%)

Source: Research data 2018

The findings show that the major challenges in knowledge sharing were lack of mentoring services in the university libraries with 79.5% as indicated by the respondents. This was followed by a lack of support by management with 78.3%.

Adoption of knowledge management would be affected by these challenges because lack of management support and lack of mentorship play a significant role in the adoption of knowledge management practices. As such, this may also lead to low service delivery in the university libraries.

The findings corroborated Onifade, (2015) study on knowledge sharing among librarians in Nigeria university libraries which revealed that most university staff had a positive perception of knowledge sharing in KM practices. However, knowledge sharing was very low among staff. Lack of or inadequate knowledge sharing through meetings, research, and lack of mentoring were identified as the major challenges in knowledge management practice in the libraries.

4.5.3. Level of Satisfaction on Knowledge Sharing

To establish the level of satisfaction on knowledge sharing, respondents were asked to indicate the level of satisfaction on knowledge sharing in terms of very high, high, fairly and not at all. The finding show that 37 (21%) respondents indicated that there is a very high level of satisfaction on knowledge sharing; 97(55%) respondents indicated that there is high level of satisfaction on knowledge sharing; 38(22%) respondents indicated that the level of satisfaction on knowledge sharing is fair; while only 3(2%) respondents indicated that there is no satisfaction on knowledge sharing.

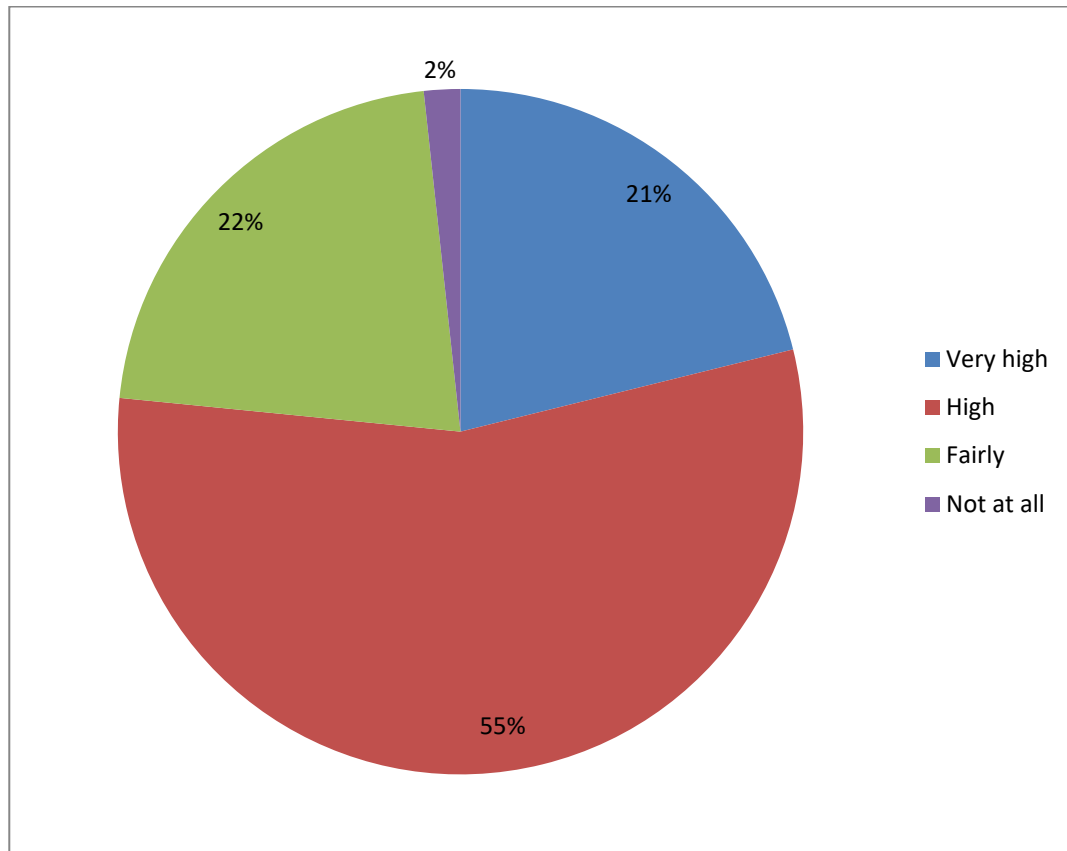


Figure 4.5: Knowledge Sharing Satisfaction Rating

Source: Research data 2018

The figure above shows that majority of the federal universities' librarians are satisfied with level of knowledge sharing as indicated by the majority of the respondents with 134 (76.6%).

4.6. ICT Application in Knowledge Management Practices

Objective four of the study sought to assess the extent to which ICT application is used to enhance knowledge management practices in selected university libraries. In order to assess the ICT application in knowledge management, respondents were asked to indicate the extent to which ICT application is used to enhanced knowledge management practices, how often they use the computer in performing your duties

in the library and how relevance is the use of ICT facilities for knowledge management practices in the library.

4.6.1. Extent of ICT application for Enhancing Knowledge Management

To establish the extent of ICT application in enhancing knowledge management practices, respondents were asked to indicate their opinions on the extent of ICT application in terms of strongly agree, agree, disagree and strongly disagree. Findings on knowledge outcomes communication among librarians through ICT show that 68(39%) respondents indicated strongly agree that knowledge outcomes are communicated among librarians through ICT facilities; 92(53%) respondents indicated agree; 9(5%) respondents indicated disagree while fifteen 6(3%) respondents indicated strongly disagree that knowledge outcomes are communicated among librarians through ICT.

This, therefore, mean that the adoption of knowledge management practice in the university library can facilitate using ICT facilities to communicate knowledge outcome. This finding corroborated Sajjad (2005) study on the integration of knowledge transfer and knowledge storage: a Holistic Approach which revealed that Web-based technology is a powerful method that members in an organization used to communicate to transfer knowledge from different areas. The same technology is used to stored knowledge from various locations, the adoption of KM practice can be achieved when ICT is to communicate knowledge that among library staff.

Findings on whether library has a knowledge repository where librarians can access appropriate sources of knowledge with ICT shows that 79(45%) respondents

indicated strongly agree that libraries have a knowledge repository where librarians can access appropriate sources of knowledge with ICT; 81(46%) respondents indicated agree; 11(6%) respondents indicated disagree while only 4(2%) respondents indicated strongly disagree that libraries have a knowledge repository where librarians can access appropriate sources of knowledge with ICT.

Adoption of knowledge management practice can fit in the selected university libraries because the finding shows that libraries have a knowledge repository where librarians can access appropriate sources of knowledge with ICT. This findings correspond to Kommey (2011) study on the utilization of ICTs in knowledge management in Volta River Authority which revealed that information and communication technology (ICT) tools are very vital in acquiring and accessing knowledge for easy use. The institutional repository is visible in libraries as a result of ICT. The same ICT facilitates the organization and retrieval of knowledge in the repository. ICT needs in the adoption of knowledge management in the university libraries.

Findings on whether the library invested greatly in IT literacy for library show that 47(27%) respondents indicated strongly agree that the libraries invested greatly in IT literacy for the libraries; 99(57%) respondents indicated agree; 17(10%) respondents indicated disagree while only 12(6%) respondents indicated strongly disagree that the libraries invested greatly in IT literacy for the libraries.

This indicates that the majority of the libraries invested greatly in IT literacy for the libraries in federal university libraries as indicated by the majority of the respondents. This is a good encouragement for the adoption of knowledge

management in university libraries. This finding show that the adoption of knowledge management practices is successful when libraries invest in information technology. The IT facilities and human training on IT is needed to be able to facilitate knowledge management practice in the library.

Findings on whether ICT's enables knowledge capture, acquisition, organization, sharing and dissemination and utilization achieved show that 67(38%) respondents indicated strongly agree that ICT's enables knowledge capture, acquisition, organization, sharing and dissemination and utilization achieved; 102(58%) respondents indicated agree; 5(3%) respondents indicated disagree while only 1(0.6%) respondents indicated strongly disagree that ICT's enables knowledge capture, acquisition, organization, sharing and dissemination and utilization achieved. Overall, this shows that the majority of the federal universities' libraries used ICT to enable knowledge acquisition, organization, sharing and dissemination and utilization achieved as shown by 96.5% of the respondents.

Adoption of knowledge management is possible and can be facilitated considering that the majority agreed that ICT is an enabler for successful knowledge management. The finding corroborates Subashini, Rita and Vivek (2012) study on the role of ICT in knowledge management for organizational effectiveness which revealed that ICT played a significant role in knowledge management practices.

They stressed that IT facilitates knowledge acquisition, organization, storage, dissemination, and preservation. With the availability and utilization of ICT tools and facilities, the adoption of knowledge management practices university libraries

will be successful. ICT in libraries remains a very vital aspect that librarians used to transform their services. Karoline (2014) study on information and communication technology (ICT) and knowledge management at the World Agro-forestry Center (ICRAF) in Kenya revealed that ICT had a positive influence on KM practices in any well-integrated organizational system. The study recommended more staff training on IT and introducing incentives to organization learning to enhance a successful knowledge management practice.

A similar question was asked to the university librarians during the interview. One of the university librarians noted that:

The extent of ICT application is very high, and ICT facilities do not only facilitate knowledge management practices in the library, but it equally transforms each process in knowledge management and other library routines such as photocopy services, readers' services, internet, intranet services, security services, circulation services among others (university librarian 1, personal communication, March 23rd, 2018).

All the university librarians reported that the application of ICT is very effective in their libraries except University librarian 3 who reported that "the extent of ICT application was not effective due to inadequate ICT skills by the library staff and poor ICT maintenance culture in the library.

The above reports corroborated Charles and Katherine's (2002) study on information technology for knowledge management: their usage and effectiveness which established that information technologies were an essential consideration for knowledge management practices in any company and highlighted some of its strengths specifically for knowledge management. The study equally found out that that technology such as telephone is used to manage knowledge frequently compare

to other technologies like groupware and video conference on daily routines by staff. ICT facilities are used on a daily bases to improve staff performance. They suggested sufficient training and education for organizational staff on the use of ICT gadgets. Table 4.13 summarizes the finding on the extent of ICT application in enhancing knowledge management practices in university libraries.

Table 4.13: Extent of ICT application in enhancing knowledge management practices,

Variable	Percentage of respondents confirming extent of ICT application in knowledge management				
	Strongly Agree	Agree	Disagree	Strongly disagree	Total percentage
	Freq. %	Freq. %	Freq. %	Freq. %	%
knowledge outcomes communication among librarians through ICT	68(39%)	92(53%)	9(5%)	6(3%)	175 (100%)
The library has a knowledge repository where librarians can access appropriate sources of knowledge with ICT	79(45%)	81(46%)	11(6%)	4(2%)	175 (100%)
The library has invested greatly in IT literacy for library	47(27%)	99(57%)	17(10%)	12(6%)	175 (100%)
ICT's enables knowledge capture, acquisition, organization, sharing and dissemination and utilization achieved	67(38%)	102(58%)	5(3%)	1(0.6%)	175 (100%)

Source: Research data 2018

This, therefore, mean that adoption of knowledge management practice in the university library can be effective considering that ICT facilities were used on daily activities in the libraries. ICT facilities and tools are used to acquire, organize, disseminate, share and use knowledge. One of the key driving forces for the adoption of knowledge management practice in this 21st century is the use of information and communication technologies to enhance the knowledge management activities Nnadi (2012). He further argued that ICT equally facilitates the knowledge management process.

Despite the use of ICT facilities, university libraries have not invested greatly in IT literacy. This means that libraries in future can face challenge in the adoption of knowledge management considering that they do not put emphases in investing on IT literacy. This will have serious effect in competitive advantages over other information providers and ^{poor} library services.

4.6.2. Use of ICT facilities for Knowledge Management Practices in the Library

To establish the use of ICT facilities for knowledge management practices in the library, respondents were asked to indicate how often you use ICT facilities for sharing knowledge among your library colleagues in terms of very often, often, occasionally and not often. The findings show that 71(40%) respondents indicated very often that ICT facilities are used for sharing knowledge among colleagues in the libraries; 94(54%) respondents indicated often; 9(5%) respondents indicate occasionally while 1(1%) respondent indicated not often. This information shows that the majority of federal universities' libraries used ICT facilities for sharing

knowledge among colleagues in their libraries. Figure 4.6 summarizes the finding on the use ICT facilities for sharing knowledge among colleagues in the libraries.

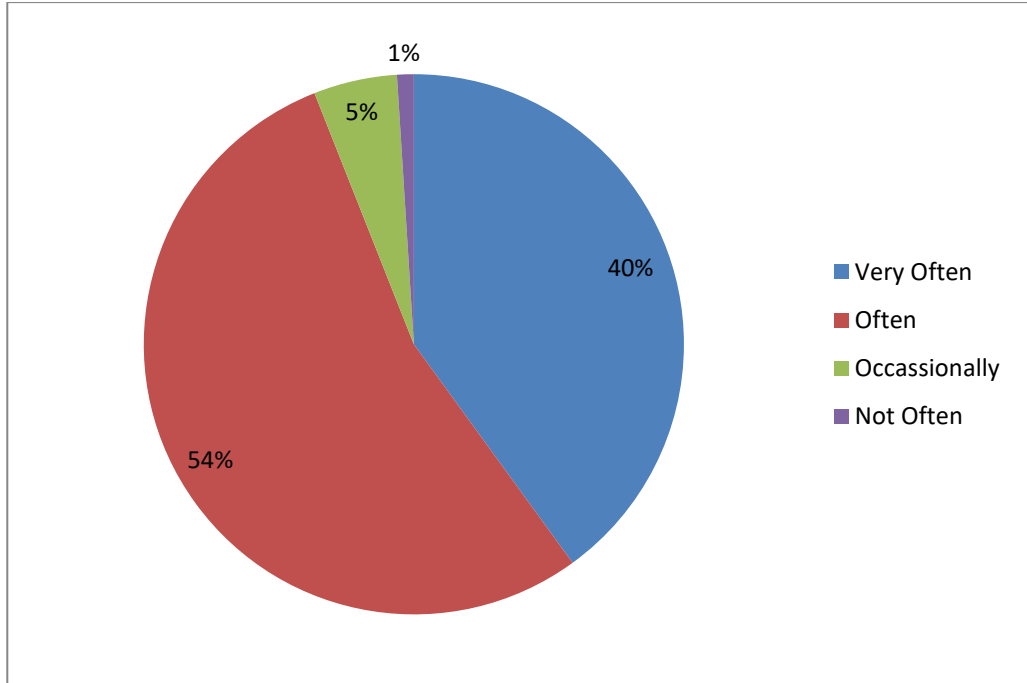


Figure 4.6: Use of ICT facilities

Source: Research data 2018

Adopting knowledge management in university libraries would not be a problem because librarians used the ICT facilities to perform library routine which indicated that knowledge sharing can be facilitated using the available ICT system. This finding corroborated Lamporouli (2007) findings that every field of knowledge today complements its activities with ICT and IT enhances the efforts of the employees to create knowledge that leads to innovation. The findings revealed that the use of ICT made the staff see technology in a positive way which can benefit them when applied in knowledge activities.

4.6.3. Relevance of ICT Facilities in Knowledge Management Practices

Findings on the relevance of ICT facilities in knowledge management practices in federal university libraries show that 88(50%) respondents indicated that the ICT facilities are very relevant in knowledge management practices; 80(46%) respondents indicated relevantly; 6(3%) respondents indicated fairly relevant while 1(0.6%) respondents indicated that ICT facilities are not relevant in knowledge management practices in the library.

Adoption of knowledge management in the university library would be effective since librarians are aware of the relevance of ICT in knowledge management practices. This finding is in line with Nnadi's (2012) findings on ICT for agriculture management in Nigeria: Lessons and strategies for improvement whose findings similarly showed that the use of ICT facilities such as computers, e-mails, databases telephones, search engines, data-mining systems, and video-conferencing equipment remains are very relevant in facilitating knowledge management activities.

See figure 4.7 for summary details on the relevance of ICT facilities in Knowledge management practices.

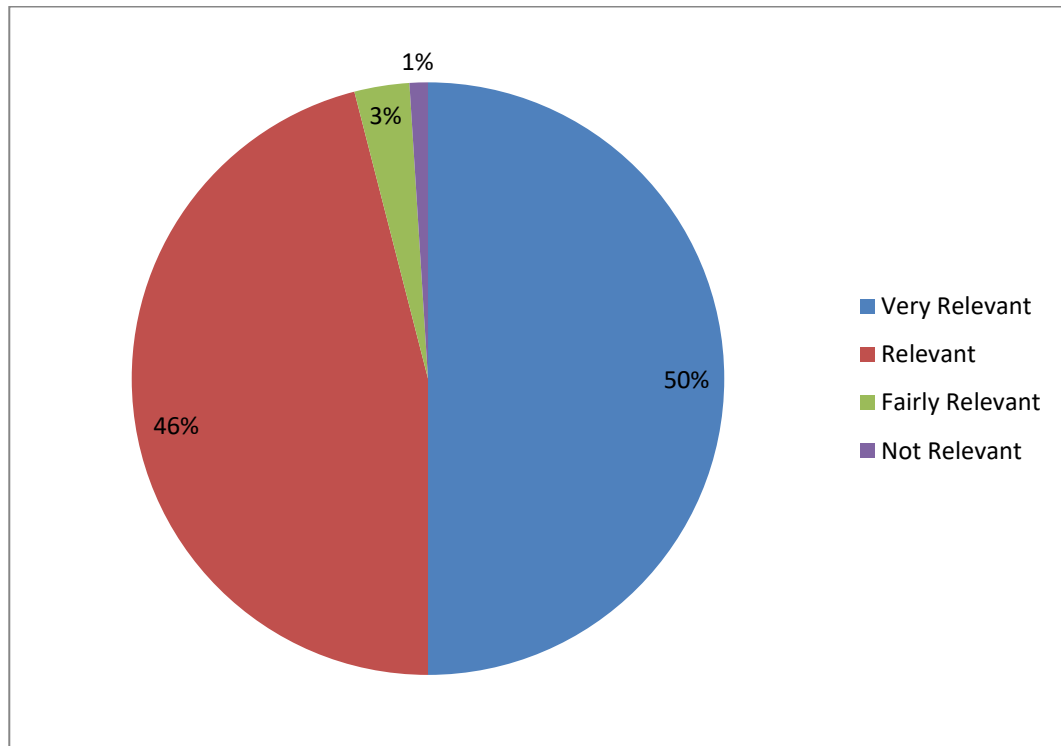


Figure 4.7: Relevance of ICT facilities in Knowledge Management Practices

Source: Research data 2018

Three of the university librarians interviewed agreed that the use of ICT in facilities library service is relevant in the adoption of knowledge management. However, one UL reported that ICT facilities are insufficient in the library.

UL1 summarized, *"the used of ICT is very relevant in the university library to enhance knowledge management"*(University librarian 1, 23rd March, 2018). UL2 noted that *"ICT facilities are relevant because it's very efficient, effective, fast, and it saves time when providing library services"* (7th March, 2018). UL3 reported that *"ICT facilities were insufficient, but ICT facilities are relevant in enhancing knowledge management practices in the university library"* (University librarian 3, 12th March, 2018). While UL4 summarized that *"the used of ICT facilities in*

knowledge management is very relevant in the university library" (University librarian 4. 14th March, 2018).

The above results coincide with Karoline's (2014) study on information and communication technology (ICT) and knowledge management at the World Agroforestry Center (ICRAF) in Kenya which revealed that ICT had a positive influence on knowledge management practices in any well-integrated organizational system. It equally revealed the relevance of applying ICT facilities in KM processes and recommended for IT staff training and incentives to enhance successful knowledge management practices.

4.7. Benefits of Knowledge Management

Opinion on the benefits of knowledge management was gathered. UL1 is of the view that *"adoption of knowledge management in university libraries is very beneficial to the users, library staff, researchers, university management and the academic community at large" (university librarian 1, 23rd March, 2018).* UL2 noted that *"adoption of knowledge management practices will enhance the quality of service delivery; knowledge management easy staff work and promotes the role of the library in the university" (university librarian 2, 7th March, 2018).* UL3 summarized, *"adoption of knowledge management will facilitate the building of relevant resources and enhances sharing of knowledge among staff" (university librarian 3, 12th March, 2018).* UL4 said *"knowledge management is used to facilitate mobility of workers in the library. It equally enhances staff and organization development. Knowledge management brings about social networks in the library where staff establishes a platform such as WhatsApp, Twitter, integral, forum, etc. to share knowledge" (University librarian 4. 14th March, 2018).*

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter summarizes issues that were established in the study. The conclusion of the study is discussed and recommendations for further research and policy recommendations are made.

5.2. Summary of the Findings

5.2.1. Knowledge Acquisition

The study established that a good number of the library staff and university librarians in the respective university libraries understand the term knowledge management (KM) as the process of identifying, organizing, sharing, applying and reuse of knowledge in libraries. The findings established that the majority of the librarians understand the term knowledge management as practiced in their libraries. Understanding the term knowledge management by librarians means that they are aware of KM practices in libraries and the importance attached to it in performing library functions. Generally, the respondents rated the level of knowledge management as high. Based on this understanding, the adoption of knowledge management in university libraries for service delivery can be achievable.

The findings of the study confirmed that university libraries acquire both tacit and explicit knowledge. However, explicit knowledge was more acquired while acquisition of tacit knowledge was low. The low acquisition of tacit knowledge by

librarians may pose a challenge in the adoption of knowledge management and in providing effective services in the library.

The mechanism of acquiring tacit knowledge in the university libraries include seminars, conference, workshops, staff meetings, brainstorming, training, and mentoring among others. However, acquiring tacit knowledge through mentoring is low as shown in the findings and this means there is poor mentoring service in the university libraries. Poor mentoring services in the library can affect librarians experience, skills, and performance in providing effective knowledge services. The study also established that the mechanism of acquiring explicit knowledge in the university libraries include the use of documents, internet, the paten, and generally ICT mediated apparatus. Although, the patent remains the least acquired mechanism for acquiring explicit knowledge.

5.2.2. Knowledge Organization

The organization of knowledge is one of the key functions of libraries. This study established that the acquired knowledge is very well organized in the university libraries. The study confirmed that the university libraries used classification schemes to effectively organize the acquired knowledge more than any other method while the used of expert based knowledge to organize knowledge was low. The university librarians interviewed equally attested that libraries used classification schemes to organized knowledge.

However, the adoption of knowledge management in university libraries would not be effective considering that expert-based knowledge is not given more attention as

a method of organizing knowledge. Low used of expert based knowledge in the university libraries would affect decision making, staff competence and service delivery.

5.2.3. Knowledge Sharing

The study established that university libraries share knowledge through a variety of methods such as regular staff meetings, the use of ICT facilities, a knowledge sharing forum, research collaboration among staff, and through involving staff in the project within and outside the library. This finding confirmed that university libraries were doing well in their mandate of disseminating information which if exploited would help in the adoption of knowledge management and knowledge sharing.

Despite the existence of methods of knowledge sharing in university libraries, the study established some challenges militating against effective knowledge sharing which include among others, lack of mentoring services among staff, inadequate ICT facilities, inadequate staff meetings, the reluctance of staff to share knowledge and lack of support by management. The adoption of knowledge management would be affected by these challenges because the lack of management support and lack of mentorship play a significant role in the adoption of knowledge management practices. As such, this challenges may also lead to low service delivery in the university libraries.

5.2.4. ICT Application in Knowledge Management

Information and communication technology (ICT) facilities were found in university libraries under study. This study revealed that university libraries often applied information and communication technology (ICT) in performing library routines (activities). The study also established that ICT was used to share knowledge among librarians. Libraries also have repositories where librarians access appropriate sources of knowledge.

The findings revealed that the available ICT facilities were used to provide different services in the university libraries. As ICT act as enablers of knowledge management, their existence in the selected university libraries is an idea for the adoption of knowledge management. Despite the use of ICT facilities, university libraries have not invested greatly in IT literacy. This means that libraries in future can face challenge in the adoption of knowledge management considering that they do not put emphases in investing on IT literacy. This will have serious effect in competitive advantages over other information providers and poor library services.

5.3. Conclusions

This study sought to assess the adoption of knowledge management practices in selected federal university libraries in North-West Nigeria as a tool for service delivery. Findings from the study have revealed that the university libraries are familiar and understand knowledge management which is a good starting point of knowledge management adoption.

In assessing knowledge acquisition practices, university libraries were found to be acquiring the two major types of knowledge (tacit and explicit). However, explicit knowledge was more acquired while the acquisition of tacit knowledge was low. The low acquisition of tacit knowledge by librarians may pose a challenge in the adoption of knowledge management and in providing effective services in the university libraries.

The organization of knowledge was geared using a classification scheme while expert-based knowledge is not given more attention. The adoption of knowledge management in university libraries will not be effective considering that expert based knowledge is not given more attention as a method of organizing knowledge. Low used of expert based knowledge in the university libraries can affect decision making, the competence of staff and service delivery. The findings conclude that university libraries used different methods to share knowledge. However, lack of management support and lack of mentorship are major challenges in knowledge sharing and can lead to low service delivery in the university libraries. University libraries have invested little in IT literacy which can pose a challenge in the adoption of knowledge management practices and it will affect library services.

5.4. Recommendations

Based on the findings of the study, the following recommendations found appropriate:

- i. In order to improve on the low acquisition of tacit knowledge, the university libraries should introduce a motivational scheme that would improve the acquisition of tacit knowledge in order to improve on staff experience, skills,

and to provide effective service delivery. For instance, presentation of incentives, promotion, and letter of appreciation to librarians that acquired and apply tacit knowledge.

- ii. For university libraries to ensure proper organization of knowledge, the use of expert-based knowledge should be introduced for effective decision making and service delivery.
- iii. To overcome the knowledge sharing challenges in the university libraries, mentoring services and research collaboration as methods of sharing knowledge should be given more priority in order to improve librarian's competence and enhancing library service delivery.
- iv. In order to improve on IT literacy, the university and library management should invest greatly by improving the budget of library to enable the library to install relevant facilities and materials for IT literacy. This can be done through sponsorship on conferences, attending seminars and other trainings on IT literacy for librarians.

5.5. Recommendations for Further Research

5.5.1. Challenges in the Acquisition of Tacit knowledge in Libraries

The study established that explicit knowledge is the most acquired, organized and shared knowledge in the university libraries while the acquisition of tacit knowledge was given limited consideration. Acquiring tacit is a difficult thing in any organization because tacit knowledge resides in people's heads. Tacit knowledge can acquire through a variety of sources such as mentorship, interaction in seminars, conference and training among others. A study on the challenges in the acquisition of tacit knowledge in libraries would be necessary as the study revealed that

librarians need tacit knowledge to improve their competence to enable them to provide services to the university library community.

5.5.2. Impacts of Knowledge Based Experts in libraries

It is evident from the study that the fact the use of expert based knowledge in libraries for decision making performing other library functions is still not clear.

A study on knowledge based experts in libraries would safeguard, develop and distribute knowledge effectively. It would improve the professional librarians with the necessary knowledge for understanding, formulating, applying and solving problems. Enormous sums of money are spent on training individuals, yet all their knowledge and expertise is lost when they die or leave the library. Expert based personnel's can offer a way of capturing this expertise knowledge and at the same time making it available to other people through proper mentorship and research collaboration. Libraries and libraries would benefits very well from the outcome of this study.

5.5.3. Problems and Prospects of Knowledge Management Practices in Other types of Libraries

A knowledge management practice is getting more recognition not only in the business sector and other organisations but also in libraries in specific. Evidence from the literature showed that there are challenges attached to the adoption of knowledge management in libraries. This study specification revealed challenges in knowledge sharing in university libraries while other types of libraries were not identified. Research on the problems and prospects would help libraries to prepare adequately in the implementation and adoption of knowledge management practices. The benefits of the research would not only be on the libraries but would serve as a reference point to other organisations willing to invest in knowledge management.

REFERENCE

- Agarwal, N. K., & Islam, M. A. (2014). Knowledge management implementation in a library: Mapping tools and technologies to phases of the KM cycle. *VINE*, 44(3), 322-324
- Alavi, M. & Leidner, D. E. (2001). Review: knowledge management and knowledge management systems: Conceptual Foundations and Research Issues. *MIS Quarterly*, 25(1), 107-136.
- Alegbeleye, B. (2010). Old wine in new bottle: A critical analysis of the relationship between knowledge management and library and information science. *Knowledge Management for National Development* (pp. 1-11). Ibadan: Nigerian Library Association (NLA).
- Alhawary, F. A., Irtaimah, H. J. & Hmadan, K. B. (2011). Building a Knowledge Repository: Linking Jordanian Universities E-library in an Integrated Database System. *International Journal of Business and Management*, 6(4), 24-33.
- Aliyu, M. (2016). Use of ICTs in collaboration and information sharing among academic scientists in Federal Universities in North East Nigeria. *Journal of Information Resource Management*, 4(2), 37-49.
- Almaadida, M. (2005). *The Impacts of Work Ethic in the Promotion of Knowledge Management: A study of the Sample of Faculty Members, Mosul University*. University of Mosul, Businee and Economics. Mosul: Unpublished thesis.
- Alsalam, M. S. & Mohamed, N. Y. (2013). Impact of knowledge management processes on organizational performance: An empirical study in institute of technical learning –Iraq. *Information and Knowledge Management*, 3(11), 74-86.
- Aming'a, N. N. (2015). Knowledge capture and acquisition mechanisms at Kisii University. *Interdisciplinary Journal of Information, Knowledge, and Management*, 10, 105-116.
- Argote, L. (2003). Knowledge transfer: A basis for competitive advantage in firms. *Organizational Behavior and Human Decision Processes*, 82(1), 150-169.
- Assudani, H. R. (2005). Catching the chameleon: Understanding the elusive term “knowledge”. *Journal of Knowledge Management*, 9(2), 31-44.
- AULNU (2015). A compendium of the Association of University Librarians of Nigeria Universities (AULNU) and Nigerian University Libraries. Zaria: ABU publishing press.
- Aybuke, A. D. (2008). Investigating knowledge management practices in software development organisations: an Australian experience. *Information and Software Technology*, 50(6), 511-533.

- Berends, J. J., Van Der Bij, J. D., Ebackere, K. & Weggeman, M. C. D. O P. (2003). *Knowledge sharing mechanisms in industrial research*. Netherland: Eindhoven Center for Innovation Studies.
- Bharadwaj, S. S., Chauhan, S. & Raman, A. (2015). Impact of knowledge management capabilities on knowledge management effectiveness in Indian organizations . *The Journal for Decision Makers*, 40(4), 421–434.
- Bichi, M.Y (2004). *Introduction to Research Methods and Statistics*. Kano: Debis-Co Press & Publishing Company
- Botha, A. Kourie, D. & Snyman, R.(2008). *Coing wth contiuous change in the business environment, knowledge management and knowledge management technology*. South Africa: Chandice Publishing.
- Carrion, C. S. (2016).Criticalprocesses of knowledge management practices: An approach toward the creation of customer value. Spain: Elsevier publishing.
- Charles, O. E. & Katherine, B. (2002). Information technologies for knowledge management: Their usage and effectiveness . *Tcon*, Vol.7, 125-137.
- Che-rusuli, M. T. (2012). Knowledge management process at Malaysian university libraries: A review. *The international Journal of Social Science*, 1(1), 14-24.
- Chioma, E. U. & Japheth, A. Y. (2016). Knowledge management competencies required for library and information professionals in 21st century Nigerian libraries. *American Journal of Business and Society* , 1(3), 90-97.
- Choi, B. , & Lee, H. (2002). Knowledge management enablers, porcesse, and organisatinal performance: An intergration and empirical examination. http://www.ceri,msu.edu/publications/pdf/T-Shaped_Skills_2.pdf
- Choy, C. S. (2005). Critical success factors to knowledge management implementation: A holistic approach: [www. Kmice.cms.net.my/prockmice /kmice 2006 /pdf /132 pd](http://www.kmice.cms.net.my/prockmice/kmice%202006/pdf/132%20pd). Retrieved April 9, 2017.
- Chua, A. (2004). Knowledge management system architecture: A bridge between KM consultants and technologists. *International Journal of Information Management*, 24(1), 87–98.
- Cooper, D.R. and Schindler, P.S. (2003). *Business Research Methods*. 8th ed, New Delhi: Tata McGraw-Hill.
- Connelly, C.E. & Kelloway, E.K, (2003).Predictors of employees' perceptions of knowledge sharing cultures. *Leadership & Organization Development Journal*.24(5/6).p 294-301.

- Council of Library and Information Resources (2014). *Taxonomy of Knowledge Organisation Sources / System*. Retrieved at http://nkos.slis.kent.edu/KOS_taxonomy.htm
- Cyprian, I. U. (2016). implications of the perceived factors for knowledge management implementation in federal university libraries in Nigeria. *Library Philosophy and Practice*, 4(2)14-26.
- Dalkir, K. (2005). *Knowledge management in theory and practice*. Boston: Elsevier.
- Daneshgar, F. & Parirokh, M. (2012). A knowledge schema for organisational learning in academic libraries. *Knowledge Management Research & Practice* 5(1), 22–33.
- Daud, S. & Wan, F. Y. (2008). An empirical study of knowledge management processes in small and medium enterprise. *Communications of the IBIMA, Vol. 4*, 10-21.
- Debowski, S. (2006). *Knowledge management*. Melbourne: John Wiley and Sons Australia, Ltd.
- Edem, B. & Ani G. (2010). Knowledge management in academic libraries in Nigeria. *Annual General Meeting* (pp. 102-109). Abuja: Nigerian Library Association.
- Fadia, M. H. & Kamel, E. G. (2014). The influence of knowledge management on organisation business processes and employees' benefits. *International Journal of Business and Social Science*, 5(1), 148-172.
- Flynn, A.E. (2004). Knowledge management process: The care and feeding of Knowledge workers. 89th Annual International Conference, April 2004.
- Galagan, P (1997). Smart Companies Knowledge Management, *Training and development*. 51(12): 20 – 5.
- Gamble, P. R. & Blackwell, J. (2001). *Knowledge Management: A state of the art guide*. London: Kogan Page Ltd.
- Gandhi, S. (2004). Knowledge management and reference services. *The Journal of Academic Librarianshi*, 30(5), 368-381.
- Gichuhi, Z. W. (2014). *Determinants of effective knowledge management practices in selected university libraries in Nairobi and Kiambu Counties*. Kenyatta University , Library and Information Science . Nairobi: Unpublished PhD Thesis .

- Gourlay, S. (2003). *The SECI model of knowledge creation: Some empirical shortcomings*. Fourth European Conference on Knowledge Management. England: Oxford.
- Gourlay, S. (2006). Conceptualizing knowledge creation: A critique of Nonaka's Theory. *Journal of Management Studies*, 43(7), 1415-1436.
- Gregorio, M. P. (2008). Processes of knowledge creation in knowledge-intensive firms: Empirical evidence from Boston's Route 128 and Spain. *Technovation*, 28, 222-230.
- Graziano, A.M and Raulin, M.L (2007). (6thed.) *Research Methods: A Process of inquiring*. Boston: U.S.A
- Hermans, J. & Castiaux, A. (2007). Knowledge Creation through University-Industry Collaborative Research Projects. *The Electronic Journal of Knowledge Management*, 5(1), 43-54.
- Hjorland, B. (2007). *Semantics and organization of Knowledge* . Copenhagen: Royal School of Library and Information Science.
- Holsapple, C. W. (2005). The inseparability of modern knowledge management and computer-based technology. *Journal of Knowledge Management*, 3(1), 42-52
- IFLA. (2003). About the knowledge management section. Retrieved on 19th June, 2017. Available at <http://www.ifla.org/about-the-km-section>
- IFLA. (2009). Knowledge management section. *Newsletter.4*, 28-37. Sweden : IFLA News letter.
- Igwe, K. N., Nnadozie, C. O. & Unagha, A. O. (2015). *Nature of knowledge and the knowledge economy: Fundamentals of knowledge management for the knowledge economy*. Lagos: Zeh Communications.
- Jain, P. (2007). An empirical study of knowledge management in academic libraries in East and Southern Africa. *Library Review*, 56(5), 377 – 392.
- Jain, P. (2009) Knowledge management for the C21st information professional. *Journal of knowledge management practice*. 10(2). Retrieved 6th may 2017 from; <http://www.tlinc.com/artic1193.htm>
- Jain, P. (2012). An empirical study of knowledge maagement in university libraries in SADC countries. IN H - T. HOU, New ressearch on knowledge application and lesson laerned. (pp.137-154) Croatia: In Tech
- Jiang, X. & Lia, Y. (2008). An empirical investigation of knowledge management and innovative performance. *Research Policy*, 38(2), 358-368.
- Johnson, A. (2008). A transnational perspective on knowledge sharing: Lessons learned from IKEA's entry into Russia, China and Japan. *The International Review of Retails, Distribution and Customer Research*, 18(1), 17-44.

- Jose, M. B. N., Saima, K. & Muhammad, A. (2017). Knowledge management practices in higher education institutions: A systematic literature review. *IFLA WLIC 2017 WROCLAW* (pp. 19-27). Wroclaw, Poland: IFLA .
- Kabiru, A. D. (2015). *Knowledge management strategies and practices in Nigerian*. College of Humanities . Pietermaritzburg: University of Kwazulu Natal .
- Kalu, A. U. & Ugocha, O. (2015). *Components of knowledge management for organisations in the Knowledge economy. In fundamentals of knowledge management for the knowledge economy*. Lagos: Zeh Communications.
- Kankanhalli, A., Tanudidjaja, F., Sutanto, J., & Tan, B.C.Y. (2003). Role of IT in successful knowledge management, Vol.46.No. 9, pp 69-73. Retrieved March 19,2014, from:[http://www.knowledgebusiness.com/uploads/2002Global MAKE summary.pdf](http://www.knowledgebusiness.com/uploads/2002Global%20MAKE%20summary.pdf))
- Karoline, C. N. (2014). *Information and communication technology and knowledge management at World Agro-Forestry Center (ICRAF) in Kenya. Unpublished Master Thesis*. Department of Business Administration. University of Nairobi, School of Business. Nairobi: Unpublished Thesis.
- Kassim, M. (2011). Assessing Knowledge Management Strategies for Effective Implementation in Selected North-East Academic libraries. *Jewel Journal of Librarianship*. 3 (3), pp.67-74
- Kebede, G. (2010). Knowledge management: An information science perspective. *International Journal of Information Management*, 11(2), 416-424.
- Kolawale, A. (2015). *Knowledge acquisition and transfer mechanisms for contemporary organisations in the knowledge economy: In fundamentals of knowledge management for the knowledge Economy*. Lagos: Zeh Communication.
- Kombo, D.K. and Tromp, D.L.A, (2006). *Proposal and Thesis Writing - An Introduction*. Nairobi: Pauline Publications.
- Kommei, R. (2011). *Utilization of ICTs in knowledge management in Volta River Authority*. University of Ghana, Information Studies. Legon: Unpublished MA thesis.
- Kothari, C. R. (2004). *Research methodology: Methods and techniques* (2nded.). New Delhi: New Age International.
- Krejcie & Morgan (1970). Sample size determination. Retrieved on 14/11/2017. Available at <http://www.kenpro.org/sample-size-determination-using-krejcie-and-morgan-table/>
- Kumar, R. (2010) Knowledge management and new generation of libraries information services. A concept. *International Journal of Librarianship and Information Science*. 1(2). 24-30.

- Lamproulis, D. (2007). Cultural space and technology enhance the knowledge process. *Journal of Knowledge Management*, 11(4), 30-44.
- Leddy, P. D. & Effis, J.O. (2001). *Practical Research: Planning and Design* (7th ed.). Upper Saddle River, NJ: Merrill Prentice-Hall.
- Leedy, P.D. & Ellis, J.O (2005). *Practical Research: Planning and Design* (8thed.). New Jersey: `Person Education International.P.183-185
- Lee, C. K. (2005). *Knowledge management and the role of libraries*. [Online]. Available at: . Retrieved May 2nd , 2017, from nlc.gov.nc: <http://www.nlc.gov.cn/culc/en/index.htm>
- Lee, Y. & Lee, S. (2007). Capabilities, processes, and performance of knowledge management: A structural approach. *Human Factors and Ergonomics in Manufacturing*, 17(1), 21–41.
- Lin, H. , Lee, C, and Wang H. F. (2010). Evaluation of factors influencing knowledge sharing based on a fuzzy AHP approach. *Journal of Information Science*, 35(1), 25-44.
- Louise, E. (2003). *Knowledge management in practice in Canada, 2001*. Sciences . Canada : Science, Innovation and Electronic Information Division.
- Lwoga, E. T. (2011). Knowledge management approaches in managing agricultural indigenous and exogenous knowledge in Tanzania. *Journal of Documentation*, 67(3), 407-430.
- Maingi , N. N. (2007) . *KM in a competitive economy: The Knowledge Management Readiness Score (KMRS)*.Retrieved September 14, 2017, from :(<http://www.strathmore.edu/news/knowledge-mngt.php>).
- Majchrzak, A., Wagner, C. & Yates, D. (2013). The impact of shaping on knowledge reuse for organizational improvement with Wikis. *IS Q* , 37(2), 455–469.
- Maponya, P. M. (2004). *Knowledge management practices in academic libraries: A case study of the University of Natal, Pietermaritzburg Libraries*. Pietermaritzbu: University of Natal.
- Mavodza, J., & Nguebe, P. (2011). The Use of Technology-Based Mechanism & Knowledge Management techniques in libraries practices in an Academic Libraries. A case study, *Mousain* 29(2). 95-116
- Mellor, R. B. (2011). *Knowledge management and information systems: strategy for growing*. Malmo: Palgrave.
- Milton, N. (2012). *What is a knowledge asset*: KKnowledge management frontline <http://www.nickmilton.com/2012/01/what-is-knowledge-asset.htm>

- Mohamad, S. R. (2014). Linkage between knowledge management practices and library users' satisfaction at Malaysian University libraries. Universiti Tun Hussein Onn. Library and information Science. Malaysia: Unpublished PhD Thesis.
- Mohammad, H. A. & Al Saiyd, N. (2012). Guidelines for tacit knowledge acquisition. *Journal of Theoretical and Applied Information Technology*, 38(1), 51-65.
- Mortimer, H. (2015). Knowledge and Knowledge Management in the Social Age. *Journal of organizational and computing commerce* 22(1) 46-53
- Mostafa, M.S. & Muhamma, M. (2015) Challenges and Opportunities of Knowledge Management in University Library: A Case Study of Dhaka University Library in Bangladesh. *Journal of Information Science Theory and Practice*. 3(4): 49-61,
- Muhamad, S. R. (2014). *Linkage between knowledge management practices and library users' satisfaction at Malaysian University Libraries*. Universiti Tun Hussein Onn, Library and Information Science . Malaysia: Unpublished PhD Thesis.
- Mutula, S. M. & Mooko, N. P. (2008). *Knowledge management: In L.O. Aina, S.M. Mutuala and M.A. Tiamiyu (Eds), Information and knowledge management in digital age: Concepts, technologies and african perspectives*. Ibadan: Third world Information Services.
- Ndakasharwa, M. (2015). *Knowledge sharing strategies in university libraries in Kwazulu-Natal Province of South Africa*. Unpublished Phd Thesis. Pietermaritzburg: College of Humanities, University of KwaZulu-Nata.
- Nemati, H. (2002). Global knowledge management: Exploring a framework for research. *Journal of Global Information Technology Management*, 5(3), 1-11.
- Neumann, G. & tome, E. (2011). The changing role of knowledge in companies: How to improve business performance through knowledge. *The Electronic Journal of Knowledge Management*, 9(1), 57- 72.
- Newell, C. (2003). A knowledge-focused perspective on the diffusion and adoption of complex information technologies: The BPR example. *Journal of Knowledge Management Practice*, 16(4) 43-56.
- Newell, S. R. (2002). *Managing knowledge work*. Basingstoke Hampshire: Palgrave.
- Nnadi, F. C. (2012). ICT for agriculture knowledge management in Nigeria: Lessons and strategies for improvement. *The World of Knowledge Management*, 5(1) 25-34.

- Nnadozie, C. O. (2006). Research and publishing activities among academic librarians in Imo State. A pilot report . *African Journal of Education and Information Management*, 8(2), 145-155.
- Nnadozie, C. O. (2015). *Knowledge management variables and user satisfaction with information delivery in university libraries in South-East Nigeria*. Imo State University, Owerri, Faculty of Education. Owerri: Unpublished PhD Dissertation
- Nonaka, I. & Takeuchi, H. (1995). *The knowledge creating - company: How Japanese companies create the dynamics of innovation*. New York: Oxford University Press.
- Nove, E. V., & Dyah, P. (2013). Knowledge sharing in libraries: A case study of knowledge sharing strategies in Indonesian university libraries: <http://creativecommons.org/licenses/by/3.0/>
- Ometa, K. (2015) Knowledge management course handbook. Academic board of SMK. Malaysia: University of Applied Social Science
- Odongo, D. (2013). *Comparative study of peri-urban and rural agricultural knowledge management*. University of Nairobi, MBA project. Nairobi: Unpublished Project.
- Ofori-Duamfuo, G. O. & Eboreime, O. E. (2013). Utilization of ICT in knowledge management at the Ghana Volta River Authority. *Current Research Journal of Social Science*, 5(3), 91-102.
- Ohiorenoya, J. O. & Eboreime, O. F. (2014). Knowledge management practices and performance in Nigerian Universities. *European Scientific Journal (ESJ)*, 10(16), 24-33.
- Ololube, N. P., Dudafa, U. J., Uriah, O. A., & Agbor, C. N. (2013). Education for development: Impediments to the globalization of higher education in Nigeria. *International Journal of Educational Foundations & Management*, 1(2), 109–130.
- Onifade, F. (2015). Knowledge sharing among librarians in Federal University, Libraries in Nigeria. *Information and Knowledge Management*, 5(3), 91-99.
- Park, J. & Holloway, B. (2003). Adaptive selling behaviour revisited: An empirical examination of learning orientation, sales performance and job satisfaction. *Journal of Personal Selling & Sales Management*, 23(3), 239-251.
- Patton, M.Q. (2002). *Qualitative Evaluation and research Methods* (3rded.). thousand Oaks, CA: Sage.
- Petrides, L. A. & Nodine, T. R. (2003). *Knowledge management in education: defining the landscape*. London: Blackwell Ltd.

- Probst, G., Raub, S. & Romhardt, K. (2000). *Managing knowledge –building blocks for success*. U.K: John Wiley and Son.
- Raja, W., Ahmad, Z., & Sinha, A.K. (2009). Knowledge management and academic libraries in IT era: Problems and positions. http://crl.du.ac.in/ical09/papers/index_files/ical-124_198_418_2_RV.pdf.
- Right, D. & Bilodeu, B. (2011). Management tools and trends. http://www.bain.com/images/BAIN_BRIEF_Management_Tools.pdf
Retrieved october, 30 2017.
- Rigby, D. (2009). *Management Tools 2009: An executive's guide*. Retrieved November 4th, 2017, from Management Tools: http://www.bain.com/management_tools/home.asp.
- Roberta B.B.C. (2013). Applications of Knowledge Management in the area of Librarianship and Information Science: A Systematic Review. *Brazil Journal of Information Science*. 7(1) p.67-93
- Roknuzzaman, M. & Umemoto, K. (2009). How library professionals view knowledge management in libraries: A qualitative study. *Library Management*, 30(8/9), 643-656.
- Rufai, R. & Seliaman, M. E. (2004). *Towards a knowledge management model for universities*. Kano: Triumph Publishing Ltd.
- Sarrafzadeh, M., Martin.& Hazen, A. (2006). LIS professionals and knowledge management: Some recent perspectives. *Library management*, Vol.27, No, 9.pp.621-635.Retrieved March 30,2018, from: (<http://www.knowledgebusiness.com/uploaded/2002GlobalMAKEsummary.pdf>)
- Sajjad, M. J. (2005). An integration of knowledge transfer and knowledge storage: An holistic approach. *Computer Science and Engeenering* , 18(1), 37-48.
- Saunders, M., Lewis, P. & Thormhill, A. (2009). Research methods for business students. 5th Ed. Pearson Education: Retrieved 3 11, 2018. <http://doha.ac.mu/ebooks/Research%20Methods/ResearchMethodsForBusinessStudentsSaunders.pdf>
- Shanghon, T. (2000).Knowledge management in libraries in the 21st century. 66th IFLA Council and General Conference, Jerusalem, Israel, August 13th – 18th. Retrieved September 7, 2011, from: (<http://www.ifla.org./Tv/ifla66/papers/057-11oe.htm>)
- Skyrme, O. J. & Amildon, D. M. (2003). *The knowledge agenda: The knowledge management year book*. (J. D. Woods, Ed.) New Jercey: Butterworth.
- Statistic Canada, (2003).*Non-probability Sampling Technique*. Available at

<http://www.statcan.gc.ca/edu/power-pouvoir/ch13/nonprob/5214898-eng.htm>

- Subashini. R., Rita, S. & Vivek, M. (2012). *The role of ICTs in knowledge management (KM) for organizational effectiveness*. India: Business School, VIT University.
- Thabane et al (2010). A tutorial on pilot studies: The what, why and how. *BMC Medical Research Methodology*, 10, Article 1. Doi: 10.1186/1471-2288-10-1
- Townley, C. T. (2001). Knowledge management and academic libraries. *College and Research Libraries* , 62(1), 44-56.
- Tsui, L. (2006). *Tsui, L. (2006). A hand book on knowledge sharing: strategies and recommendations for researchers, policymakers, and service providers* . Alberta: Community University Partnership.
- Ugwu, C. I. & Ifeanyi, J. E. (2010). Competencies for successful knowledge management applications in Nigerian academic libraries. *International Journal of Library and Information Science*, 2(9), 184-189.
- Ugwu, C. I., Omekwu, C. O. & Ekere, J. N (2016). Implications of the perceived factors for knowledge management implementation in university libraries in Nigeria. *Library Philosophy and Practice (e-journal)*, 9(1) 52-67.
- Ugwu, C. O. (2012). Processes, enablers and roles for knowledge management applications in libraries. *International Journal of Research in Arts and Social Sciences* , 4, 1-18.
- Ujunju, M. & Wanyembi, G. (2012). Evaluating the role of information and communication technology (ICT) support towards processes of management in institutions of higher learning. *International Journal of Advanced Computer Science and Applications*, 2(2), 7-33.
- Umoh, G. I. & Amah, E. (2013). Knowledge acquisition and organisational Resilience in Nigerian manufacturing organisations. *Information and Knowledge management*, 3(9), 56-63.
- Unegbu, V.E., Aina, R.F. & Soyemi, O. (2015). Organisational Culture and knowledge management in the knowledge economy. *Fundamentals of knowledge management for the knowledge economy*. Lagos: Zeh Communications.
- Uriarte, F. A. (2008). *Introduction to knowledge management*. Jakarta, Indonesia: ASEAN Foundatio.
- Usoro, I. P. & Effiong, A. E. (2015). *Knowledge management in academic libraries in Akwa-Ibom state* . Department of Library and Information Science . Akwa-Ibom: University of Uyu.

- Uzoagulu, A.E. (2011). *Practical Guide to Writing Research Project reports in Tertiary Institutions*. Enugu: Cheston Ltd.
- Wagner, W. & Zubey, M. (2005). Knowledge acquisition for marketing expert systems based upon marketing problem domain characteristics. *Marketing Intelligence and Planning*, 23(4), 403-416.
- Wallace, K. (2002). Knowledge management practices at Canada Institute for Scientific and Technical Information (CISTI), National Research Council of Canada. *Quarterly Newsletter of the International Council for Scientific and Technical Information*, 11(2) 2-10.
- Wamundila, S. & Ngulube, P. (2011). Enhancing knowledge retention in higher education: A case of the University of Zambia. *SA Journal of Information Management*, 13(1), 82-94.
- Wang, S. & Noe, R. A. (2010). Knowledge sharing: A review and directions for future research. *Human Resources Management Review*, 20(2), 115-131.
- Wen, S. (2005). Implementing KM in academic libraries: A Pragmatic approach. Retrieved September 26, 2018, from: (http://www.whiteclouds.com/ick/lief/c119_wen.htm)
- White, T. (2004). *Knowledge management in an academic library: Based on a case study of KM within Oxford University Library Services (OULS)*. Retrieved February 4th, 2016, from ifla.org: <http://www.ifla.org/iv/ifla70/papers/089e-white.paf>.
- William, N. H., John, R. V. & Peter, D. (2011). *Developing a theory of knowledge management identification effectiveness in knowledge management*. Retrieved 01 10, 2018, from [semanticscholar.org: http://pdfs.semanticscholar.org/7dbb/8e7ebc72d2af53ded061ae13d7bdf73125b4](http://pdfs.semanticscholar.org/7dbb/8e7ebc72d2af53ded061ae13d7bdf73125b4).
- Williams, R. S. (2002). *Managing employee performance: Design and implementation in organizations*. Australia: Thomson Learning.
- Wong, K. Y. & Aspinwall, E. (2004). Characterizing knowledge management in the small business environment. *Journal of Knowledge Management*, 8(3), 44-61.
- Wong, K. Y. (2005). “ Critical success factors for implementing KM in small and medium enterprises” , *Industrial management and Data systems*, Vol. 105 Issue 3, pp 261 – 279. Retrieved March 30, 2014 from: (www.emeraldinsight.com/0263.5577.html)
- World Bank (2012). Knowledge for Development Program (K4D). Available at: <http://go.worldbank.org/8DG6O1F0I0> (Accessed 28 July 2017).

- Yaacob, R. A., Jamaluddin, A. & Jusoff, K. (2010). Knowledge management and challenging roles of academic librarians. *Management Science and Engineering*, 4(4), 14- 23.
- Yang, J. & Wang, C. (2004). Advancing organisational effectiveness and knowledge management implementation . *Tourism Management*, 25(5), 593–601.
- Zack, M., Mckeen, J. & Singh, S. (2009). Knowledge management and organizational performance: An exploratory analysis. *Journal of Knowledge Management*, 13(6), 392-409.
- Zhang, W. & Kim, M. (2011). Harnessing explicit knowledge. *Journal of Economics and Behavioural Studies*, 2(3), 97-107.

APPENDICES

Appendix I: Consent Letter for Librarians

Department of Library and Information Science
Kenyatta University,
Nairobi, Kenya.

Dear Respondent,

Re: Request for Participation in Questionnaire

I'm a PhD student at the above-named University conducting a study entitled **"Knowledge Management Practices in Selected North-West Nigeria Federal University Libraries"**.

I have selected you as one of my respondents in the study to facilitate data gathering, I am therefore, requesting you to kindly participate in filling the attached questionnaire that will take you few minutes. The data gathered will be used only for the purpose of this study and will be treated with utmost confidentiality.

Completion of the study will help the library assess its knowledge management practices and thus improve its overall performance.

Thank you for participating in this research project.

Ali Muhammed Fakandu
+2348038142173 or +254786946025
aliyufakandu@gmail.com

NB: If you agree to participate in this study kindly sign here in the space provided

.....

Signature

Appendix II: Questionnaire for Librarians

INSTRUCTION: Please tick (√) the appropriate box or provide written answer where space is provided

SECTION A: BACKGROUND INFORMATION

1. Name of your University
.....
2. Name of the Library (If any)
.....
3. Please, indicate your gender
 - a) Male []
 - b) Female []
4. Please, indicate your highest educational qualification
 - a) Diploma []
 - b) Bachelor's Degree []
 - c) Master's Degree []
 - d) PhD []
 - e) Others (Please specify)
5. Please, indicate your years of working experience in the library
 - a) 1 - 5 years []
 - b) 6 - 10 years []
 - c) 11 - 15 years []
 - d) 16 - 20 years []
 - e) 21 and above []

SECTION B: KNOWLEDGE ACQUISITION

6. What is your understanding on knowledge management?
 - a) Another form of information management []
 - b) Process of identifying, organizing, sharing, applying and reuse of knowledge in libraries []
 - c) The extension of library services []
 - d) Managing explicit knowledge only []
 - e) Managing tacit knowledge only []
7. How would you rate the level of Knowledge management (KM) practice in your library?
 - a) Very high []
 - b) High []
 - c) Low []
 - d) Very Low []

8. What types of knowledge does your library acquire?

- a) Tacit knowledge []
- b) Explicit knowledge []
- c) None of the above []
- d) Both A & B []

9. What type of knowledge do you acquired during the years of working experience in your library for competence and development?

tacit knowledge

explicit knowledge

- | | | |
|------------------|--------|--------|
| a) 1 - 5 years | [] | [] |
| b) 6 - 10 years | [] | [] |
| c) 11 - 15 years | [] | [] |
| d) 16 - 20 years | [] | [] |
| e) 21 and above | [] | [] |

10. From which sources does your library acquire knowledge?

- a) Users []
- b) Suppliers []
- c) Competitors []
- d) Documents []
- e) Experts []

11. What techniques/mechanism does your library use to acquire tacit knowledge?

- a) Meetings []
- b) Formal training and education []
- c) Conference, seminar/workshop []
- d) Personal interaction face-to-face []
- e) Mentoring []
- f) brainstorming []
- g) Staff transfer []

12. Which techniques/mechanism does your library use to acquire explicit knowledge?

- a) Documents []
- b) Patents []

- c) Intranet []
- d) Social media []
- e) Information and Communication
Technology (ICT) mediated apparatus []

13. How important is the acquisition of tacit and explicit knowledge in the library?

- a) Very important []
- b) Important []
- c) Fairly important []
- d) Not important []

SECTION C: KNOWLEDGE ORGANISATION

14. How frequently does your library organize knowledge?

- a) Very frequently []
- b) Frequently []
- c) Fairly frequently []
- d) Not frequently []

15. What methods does your library use to organize knowledge for easy accessibility?

- a) Classification schemes []
- b) OPAC []
- c) Institutional Repository []
- d) Expert knowledge bases []

16. How accessible is the organized knowledge in your library?

- a) Very accessible []
- b) Accessible []
- c) Fairly accessible []
- d) Not accessible []

SECTION D: KNOWLEDGE SHARING

17. Rate each statement among the option that best describes your opinion on methods for knowledge sharing in the library.

The following are represented as: **SA= Strongly Agree, A= Agree, D= Disagree, SD= Strongly Disagree:**

Methods for Knowledge sharing	SA	A	D	SD
Through involving staff in project within and outside library				
Through knowledge sharing forum (NLA Forum)				
Through regular staff meetings in the library				
Through the use of ICT facilities (Internet, facebook, whatsapp tweeter etc)				
Through research collaborations among staff				

18. Indicate the challenges your library encountered in knowledge sharing

The following are represented as: **SA= Strongly Agree, A= Agree, D= Disagree, SD= Strongly Disagree:**

Knowledge sharing challenges	SA	A	D	SD
Lack of support by management				
Reluctant of staff to share knowledge				
inadequate of staff meetings in the library				
Inadequate ICT facilities				
Lack of mentoring services				
Lack of research collaborations among staff				
Other, please specify				

19. How supportive are the management in regard to knowledge sharing in your library?

- a) Very supportive []
- b) Supportive []

- c) Fairly []
- d) Not supportive []

20. How effective is knowledge sharing among librarians in your Library?

- a) Very effective []
- b) Effective []
- c) Fairly effective []
- d) Not effective []

21. What is the level of satisfaction on knowledge sharing in your library?

- a) Very high []
- b) High []
- c) Fairly []
- d) Not at all []

22. How regularly do you communicate changes in your library?

- a) Very regularly []
- b) Regularly []
- c) Fairly regular []
- d) Not regularly []

SECTION E: ICT APPLICATION IN KNOWLEDGE MANAGEMENT

23. How often do you use computer in performing your duties in the library?

- a) Very often []
- b) Often []
- c) Occasionally []
- d) Not often []

24. Indicate the extent to which ICT's application is use to enhanced KM practices in the library.

The following are represented as: **SA= Strongly Agree, A= Agree, D= Disagree, SD= Strongly Disagree:**

ICT's	SA	A	D	SD
Knowledge outcomes are communicated among librarians through ICT				
The library has a knowledge repository where librarians can access appropriate sources of knowledge with ICT				
The library has invested greatly in IT literacy for library				
ICT's enables knowledge identification, capture, organization, sharing and dissemination and utilization achieved				
The use of ICT has created an institutional memory accessible to the entire university.				
Others, specify				

25. How relevant is the available ICT's facilities in enhancing knowledge management practices in the library?

- a) Very relevant []
- b) Relevant []
- c) Fairly relevant []
- d) Not relevant []

26. How often do you use ICT facilities sharing knowledge among your library colleagues?

- a) Very often []
- b) Often []
- c) Occasionally []
- d) Not often []

27. How relevance is the use of ICT facilities for knowledge management practices in the library?

- a) Very relevant []
- b) Relevant []
- c) Fairly relevant []
- d) Not relevant []

28. How effective is the use of ICT facilities to organize knowledge in your library?

- a) Very effective []
- b) effective []
- c) Fairly effective []
- d) Not effective []

29. How satisfied are you with the use of ICT facilities in providing library services?

- a) Very satisfied []
- b) Satisfied []
- c) Fairly satisfied []
- d) Not satisfied []

30. In your own opinion, what do you think should be done to enhance knowledge management practices in your library?

Thank you immensely for taking time to complete this questionnaire

Appendix III: Consent Letter for Interview

Department of Library and Information Science
Kenyatta University,
Nairobi, Kenya.

Dear Librarian,

Re: Request for Participation in Interview

I'm a PhD student at the above-named University conducting a study entitled **“Knowledge Management Practices in Selected North-West Nigeria Federal University Libraries”**.

I have selected you as one of my respondents in the study to facilitate in data gathering, I am therefore, kindly requesting you to participate in an interview that will take you few minutes. The data gathered during the interview will be used only for the purpose of this study and will be treated with utmost confidentiality.

Completion of the study will help the library assess its knowledge management practices and thus improve its overall performance.

Thank you for participating in this research project.

Ali Muhammed Fakandu

+2348038142173 or +254786946025

aliyufakandu@gmail.com

Appendix IV: Interview Schedule for University Librarians**Knowledge Management Practices****SECTION A: Biographical Data**

Name of University: _____

Name of Library: _____

Gender: _____

Highest Qualification: _____

Working experience: _____

SECTION B: Knowledge Management Practices

1. What is your understanding on knowledge management practices in libraries?
2. How effective is the knowledge management practice in the library?

SECTION C: Knowledge Acquisition

3. What methods does your library apply to acquire knowledge?
4. What are the types of knowledge acquired in your library?

SECTION D: Knowledge Organization

5. How is the acquired knowledge organized in your library?
6. How frequent does your library organize knowledge for easy access?

SECTION E: Knowledge Sharing

7. What approaches has your library put in place to enhance knowledge sharing?
8. What are the channels/techniques used for knowledge sharing in your library?

SECTION F: ICT Application

9. What is the extent of Information and Communication Technology (ICT) application to enhance KM in the library?

10. How relevant is the use of Information and Communication Technology (ICT) facilities in your library?

11. In your own opinion, what do you think are the benefits of knowledge management practices in library?

Thank you immensely for taking time to participate in the interview

Appendix V: Sample size Table

TABLE 1
Table for Determining Sample Size from a Given Population

<i>N</i>	<i>S</i>	<i>N</i>	<i>S</i>	<i>N</i>	<i>S</i>
10	10	220	140	1200	291
15	14	230	144	1300	297
20	19	240	148	1400	302
25	24	250	152	1500	306
30	28	260	155	1600	310
35	32	270	159	1700	313
40	36	280	162	1800	317
45	40	290	165	1900	320
50	44	300	169	2000	322
55	48	320	175	2200	327
60	52	340	181	2400	331
65	56	360	186	2600	335
70	59	380	191	2800	338
75	63	400	196	3000	341
80	66	420	201	3500	346
85	70	440	205	4000	351
90	73	460	210	4500	354
95	76	480	214	5000	357
100	80	500	217	6000	361
110	86	550	226	7000	364
120	92	600	234	8000	367
130	97	650	242	9000	368
140	103	700	248	10000	370
150	108	750	254	15000	375
160	113	800	260	20000	377
170	118	850	265	30000	379
180	123	900	269	40000	380
190	127	950	274	50000	381
200	132	1000	278	75000	382
210	136	1100	285	1000000	384

Note.—*N* is population size.

S is sample size.

Appendix VI Approval for Data Collection



KENYATTA UNIVERSITY GRADUATE SCHOOL

E-mail: kubps@yahoo.com
dean-graduate@ku.ac.ke
 Website: www.ku.ac.ke

P.O. Box 43844, 00100
 NAIROBI, KENYA
 Tel. 810901 Ext. 57530

Internal Memo

FROM:	Dean, Graduate School	DATE: 16 th February, 2018
TO:	Mr. Muhammed A. Fakanadu C/o Department of Library & Information Science Kenyatta University	REF: ES3F/29902/14
SUBJECT:	APPROVAL OF RESEARCH PROPOSAL	

We acknowledge the receipt of your revised Research Proposal entitled "Knowledge Management Practices in Selected North-West Nigerian Federal University Libraries" as per recommendations raised by the Graduate School Board of 31st January, 2018.

You may now proceed with your Data collection, subject to clearance with the Director General, National Commission for Science, Technology & Innovation.

As you embark on your data collection, please note that you will be required to submit to Graduate School completed supervision Tracking Forms per semester. The form has been developed to replace the progress Report Forms. The Supervision Tracking Forms are available at the University's Website under Graduate School webpage downloads.

By copy of this letter, the Registrar (Academic) is hereby requested to grant you substantive registration for your Ph.D. studies.

Thank you.


 REUBEN MURIUKI
 FOR: DEAN, GRADUATE SCHOOL

c.c. Registrar (Academic) Att; Mr. Likam
 Chairman, Department of Library & Information Science

Supervisor

1. Dr. Charles K. Maina
C/o Dept of Library & Information Science
Kenyatta University
2. Dr. Peter Wamae
C/o Dept of Library & Information Science
Kenyatta University


RM/cao

Committed to Creativity, Excellence & Self-Reliance

Appendix VII Acknowledgement Letter UDUS

USMANU DANFODIYO UNIVERSITY, SOKOTO
 OFFICE OF THE UNIVERSITY LIBRARIAN
 P.M.B. 2346, SOKOTO-NIGERIA
 Ag. University Librarian: **Dr. Ahmed K. Nuhu** BLS(Lib. Sci/Hist) BUK, M.S(ABU), Ph.D (History) UDUS, CLN

GSM: 08030707012
 E-mail: ahmedknuhu@gmail.com



14th March, 2018

The Dean
 Graduate School
 Kenyatta University
 P.O. Box 43844-00100 Nairobi, Kenya


Dear Sir,

RE: APPROVAL FOR RESEARCH


I wish to certify that Mr. Ali Muhammed Fakandu with registration number E83F/29902/2014 has conducted data collection on his PhD research thesis titled "**Knowledge Management Practices in Selected North-West Nigerian Federal University Libraries**".

All necessary assistance was given to him during the data collection as requested.

Thank you



Dr. Ahmed K. Nuhu
 Ag. University librarian

Appendix VIII: Acknowledgement Letter ABU Zaria


KASHIM IBRAHIM LIBRARY
AHMADU BELLO UNIVERSITY, ZARIA, NIGERIA
OFFICE OF THE UNIVERSITY LIBRARIAN

Vice-Chancellor: Professor Ibrahim Garba, B.Sc. (Hons) Geology, M.Sc. (Mineral Exploration) ABU, Ph.D. Geology (London), D.I.C., FNMGS
 University Librarian: Professor Umar Ibrahim, B.L.S. M.L.S. Ph.D (ABU), Irb, et

KIL/R.2 23rd March, 2018.

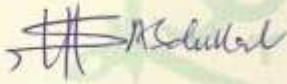
The Dean
 Graduate School
 Kenyatta University
 P.O. Box 43844, 00100,
 Nairobi, Kenya.

RE: APPROVAL FOR RESEARCH

This is to notify you that Mr. Ali Muhammed Fakandu with registration number E83F/29902/2014 has conducted data collection on his research thesis titled: "Knowledge Management Practices in Selected North-West Nigerian Federal University Libraries".

All necessary assistance was given to him during the data collection as requested.


Thank you.



Prof. Umar Ibrahim
 University Librarian

Kashim Ibrahim Library
 A, B, U, Zaria

Appendix IX: Acknowledgement Letter BUK

	BAYERO UNIVERSITY, KANO (Office of the University Librarian)
<small>VICE-CHANCELLOR: Prof. Muhammad Yahusa Bello, B. Sc., M. Sc (BUK), Ph. D (Arkansas)</small> <small>UNIVERSITY LIBRARIAN: Dr. Musa A. Auyo, CLN, DLS, BA LS (BUK), MLS (ABU), Ph. D (BUK)</small>	<small>P.M.B. 8011, Kano, Nigeria</small> <small>Telephone: 08037803663</small> <small>E-mail: buklibrarian@yahoo.com</small>

8th March, 2018

The Dean
 Graduate School,
 Kenyatta University,
 P.O. Box 43844, Nairobi, Kenya

Dear Sir/Ma,

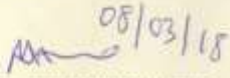
RE: APPROVAL FOR RESEARCH

This is to notify you that **Mr. Ali Muhamed Fakandu** with registration number E83F/29902/2014 has conducted data collection on his research thesis titled "**Knowledge Management Practices in Selected North-West Nigerian Federal University Libraries**", in Bayero University Library, Kano, Nigeria during the first week of March 2018.

All necessary assistance was given to him during the data collection as requested.

Thank you,

Faithfully,



08/03/18

Dr. Musa A. Auyo, CLN
 University Librarian

Appendix X: Acknowledgement Letter Fed. University Dutsin-Ma

FEDERAL UNIVERSITY DUTSIN-MA

Ag. Vice Chancellor
 Prof. Armaya'u H. Bichi
 B.Sc. App. Bio, M.Sc Fisheries
 Ph.D. Fisheries (BUK)

University Librarian
 Dr. Babangida Umar Dangani
 NCE, BSc, Msc, Ph.D (ABU)
 MNLA, CLN, MIMIM, MSTAN



P.M.B 5001, Dutsin-Ma
 Katsina State, Nigeria.

E-Mail: nodangani064dts@yahoo.com
 GSM: 08032965114, 08080355527

OFFICE OF THE UNIVERSITY LIBRARIAN

Our Ref: _____

Your Ref: _____

Date: 13th April, 2018

The Dean
 Graduate School
 Kenyatta University
 P.O.Box 83844,00100
 Nairobi, Kenya.

Sir,

RE: APPROVAL FOR RESEARCH FOR ALI MUHAMMED FAKANDU

This is to notify you that Mr. Ali Muhammed Fakandu with registration number E83F/29902/2014 has conducted data collection on his research thesis titled "Knowledge Management Practices In Selected North-West Nigerian federal university Libraries".

All necessary assistance was given to him during the data collection as requested.

Yours faithfully,



Dr. Babangida Umar Dangani
 University Librarian.

Appendix XI: Map of Nigeria showing North-West Geo-Political Zone

