



Title Page

AVAILABILITY AND UTILISATION OF INFORMATION RESOURCES BY ACADEMIC  
LIBRARIANS FOR JOB PERFORMANCE ENHANCEMENT IN SELECTED UNIVERSITY  
LIBRARIES IN NORTH-CENTRAL NIGERIA.

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(Information Studies) in the School of Social Sciences, College of Humanities, University of  
KwaZulu-Natal, Pietermaritzburg, South Africa.**

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**Submitted: August 2020**

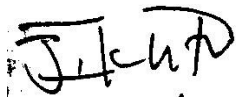
## DECLARATION

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## **ABSTRACT**

The study examined availability and utilisation of information resources by academic librarians for job performance enhancement in selected university libraries in North-Central Nigeria. Five research questions and four hypotheses were tested at 0.05 level of significance. Maslow's Hierarchy of Needs and Task-Technology Fit were the theoretical frameworks underpinning the study. Research questions were matched to the theories while post-positivism research paradigm with survey research design was employed. The extant literature reviewed showed that job performance of academic librarians in African university libraries, particularly Nigerian university libraries was low, when compared with that of their counterparts from the developed parts of the world. The literature also revealed that little or no attention has been paid to examine the importance of information resources use in achieving academic librarians' job performance. The study used explanatory design as a choice of mixed method research. Both qualitative and quantitative data were gathered from the academic librarians from seven selected universities in the north-central geopolitical zone of Nigeria.

The data arising from the study were analysed with the aid of Statistical Package for the Social Sciences (SPSS version 24.0). For the research questions, descriptive statistics (frequency counts, percentages, mean and standard deviation) were employed to describe the variables and their occurrences among the respondents. Inferential statistics were used to test the hypotheses. The qualitative data were analysed using thematic analysis. The results of the evaluation contributed immensely to enhancing the researcher's confidence in the reliability of the instruments and the data emanating from such procedures. The ethical aspect of this study was achieved by adhering to the ethical protocol of the University of KwaZulu-Natal.

The reliability coefficient of the instrument was computed using Cronbach's alpha ( $\alpha$ ) through a pre-test reliability method. A Cronbach's alpha ( $\alpha$ ) value of  $r = 0.876$  was obtained. The total enumeration technique was thereafter used to select academic librarians in the seven selected federal universities in the north-central region of Nigeria. One hundred and twenty-eight (128)

copies of a questionnaire were administered across the seven university libraries. Out of this total, 103 copies were duly completed and returned for quantitative analysis, giving a response rate of 81%. However, a response rate of 100% was achieved for the qualitative data. In addition, the census method was used, in line with Israel (1992). Copies of the survey questionnaire were used mainly to collect quantitative data from the academic librarians, while interviews were used to collect qualitative data from university librarians (heads of library).

The findings indicated that 90% of the respondents noted that there is high availability of information resources for their job performance. A relationship between level of information resources utilisation and academic librarians job performance was established in the selected university libraries at ( $\beta = 0.591$ ;  $p < 0.05$ ). The hypotheses tested revealed that job performance was significantly related to information accessibility and information utilisation. Though, information availability was found to be positively related to job performance, the relationship was not statistically significant ( $\beta = 0.081$ ;  $p > 0.05$ ). Theoretically, the study contributed to validating Maslow's Hierarchy of Needs and Task-Technology Fit.

The need for university libraries to sustain awareness among library staff on the importance of engaging in the use of cataloguing services for effective job performance, maintenance of acquisition policy on selection of print and non-print information resources, provision of regular electricity supply, improved Internet connectivity, attendance of periodic ICT-based training and improved library budgetary allocation were recommended as strategies for effective job performance among the academic librarians in the selected university libraries in North-central, Nigeria.

## **DEDICATION**

This thesis is dedicated to the Almighty God; my amiable wife, Bolanle Olubunmi Kutu; my beloved son, King-David Akorede Kutu; my mother; and my late father, Chief Obamorin Odugbe Owoleke.

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## **LIST OF ABBREVIATIONS AND ACRONYMS**

AAAE:	American Association for Agricultural Education
AAU:	Association of African Universities
ACM:	Association for Computing Machinery
AGORA:	Access to Global Online Research on Agriculture Program
ANOVA:	Analysis of Variance
ARCOM:	Association of Researchers in Construction Management
ASUU:	Academic Staff Union of Universities
CAZRI:	Central Arid Zone Research Institute
CD:	Compact Disk
CD-ROM:	Compact Disk- Read Only Memory
CIA:	Central Intelligence Agency
COREVIP:	Conference of Rectors, Vice Chancellors and Presidents of African Universities
CVI:	Content Validity Index
DAI:	Dissertation Abstracts International
DPM:	Data Protection Manager
DVD:	Digital Versatile Disc
E-book:	Electronic Book
EBSCOhost:	Elton B. Stephens Company
EIRs:	Electronic Information Resources
E-journal:	Electronic Journal
FCT:	Federal Capital Territory
FUT:	Federal University of Technology
HINARI:	Health Inter-network Access to Research Initiative
IBB:	Ibrahim Badamosi Babangida
ICT:	Information Communication Technology
IDT:	Innovation Diffusion Theory



IEEE:	Institute of Electrical and Electronics Engineers
IFAS:	Institute of Food and Agricultural Sciences
IFLA:	International Federation of Library Associations and Institutions
IIC:	Integrated Information Centre
IRS:	Internal Revenue Services
IT:	Information Technology
JSTOR:	Journal Storage
LIS:	Library and Information Science
MDG:	Millennium Development Goal
MIS:	Management Information Systems
MMR:	Mixed Method Research
MoA:	Memorandum of Action
MPCU:	Model of Personal Computer Utilization
N.D:	No Date
NLAOF:	Nigerian Library Association Online Forum
NUC:	National Universities Commission
OARE:	Online Access to Research in the Environment
OPAC :	Online Public Access Catalogue
PCs :	Personal Computer
PDF :	Portable Document File
PNLA:	The Pacific Northwest Library Association
RFID:	Radio Frequency Identification
SD:	Standard Deviation
SDI:	Selective Dissemination of Information
SPSS:	Statistical Package for the Social Sciences
SRELS:	Sarada Ranganathan Endowment for Library Science
TAM:	Technology Acceptance Model
TEEAL:	The Essential Electronic Agricultural Library
TPC:	Technology-to-Perform Chain
TSA:	Treasure Single Account

TTF:	Task-Technology Fit
UENR:	University of Energy and Natural Resources
UHAS:	University of Health and Allied Sciences
UKZN:	University of KwaZulu-Natal
UN:	United Nations
UNESCO:	United Nations Educational, Scientific and Cultural Organization
UNDP:	United Nations Development Programme
USA:	United States of America
UTAUT:	Unified Theory of Acceptance and Use of Technology
VIF:	Variance Inflation Factor

# CHAPTER ONE

## INTRODUCTION

### 1.1 Introduction

Today's academic libraries are multifaceted institutions with different roles and a host of related operations and services developed over a long period of time. Nevertheless, the main purpose of the academic library is to provide access to all sources of information for varying needs. Academic libraries and other types of libraries stood unchallenged throughout the world especially in the developing countries as the primary providers of historical record. When librarians needed reliable information for their job performance, most especially within the framework of tertiary institution, they often turned to academic libraries. This study intends to investigate availability and utilisation of information resources by academic librarians for job performance enhancement in selected university libraries in North-Central Nigeria. The chapter presents the background to the study, brief historical development of Nigerian educational system, the study site, definitions of key terms, statement of the problem, objectives of the study, research questions, research hypothesis, significance of the study and originality of the study. The theoretical framework and preliminary literature review used in the study are also provided. In this study, the research methodology employed for data collection and population determinant are explained. Lastly, ethical considerations, delimitation of the study and a short discussion of the structure of the study, are discussed. The next section reviews the background to the study.

### 1.2 Background to the study

Availability and utilisation of information resources are variables that determine job performance of academic librarians. Adomi (2012:17) noted that information resources are media from which an individual or a group of people receive concepts, messages and direction that enable them to accomplish a given task such as taking a vital decision, as well as solving a problem. Performance is concerned with the alignment of the objectives of an organisation vis a vis the employees' agreed measures, competence, skills, development plans and results delivery. According to Campbell (1990), job performance is a means to reach a goal or set of goals within a job or organisation but not the real consequences of the acts performed within the job. Employee job performance, therefore, encapsulates the behaviour individuals engage themselves in or produce in the

workplace which are in line with and contribute to an organisation's goal (Ikyanyon and Ucho 2013).

Similarly, job performance can by and large mean the efforts put forth at work by the employees towards achieving an organisational goal (Motowidlo, Borman and Schmidt 1997). Despite the relevance of job performance as an outcome measure in empirical studies, it has been adequately investigated by researchers that self-rated and supervisor-rated measurement scales are best methods of determining individual job performance (Heilman, Block and Lucas 1992). Self-rated measurement scale is an approach that allows individual participants to rate themselves on job performance, while supervisor-rated is an approach that allows only supervisor to rate his subordinate. Campbell (1990:704) linked the content and structure of performance to "a virtual desert". The author further described performance as an occupation that is carefully conducted with combination of different elements for the purpose of achieving result from a specific activity.

In elaboration, authors agree that when conceptualising performance, one has to differentiate between actions, that is, behavioural and outcome features of performance (Campbell 1990; Kanfer 1990; Campbell et al. 1993; Rose 1999). According to Campbell et al. (1993), performance must be distinguished from effectiveness and productivity or efficiency. Effectiveness refers to the evaluation of results of performance, while productivity refers to the ratio of effectiveness to the cost of attaining the outcome. Similarly, availability of information resources should also be distinguished from utilisation. Availability of information resources means their presence in libraries for immediate use (Aguolu and Agaolu 2002). Information resources might be available, that is, the library might have acquired them, but they may be inaccessible to those who need them for whatever reason (uncatalogued, mis-catalogued, mis-shelved or lost).

The word information has become famous since the 1950s. The era of globalisation has forced universities and other organisations to search for the best forms of information to face the challenges of their future engagement. Nations across the globe have reacted differently to the dynamic nature of the information environment that influences their lives as information has changed from traditional to modern. It is the knowledge of information that contributes to the economic, cultural, social and political well-being of society (Cogburn 1998). In any academic

institution, a library is established as a critical component of institutional infrastructure that supports teaching and learning activities through the provision of necessary information resources to users. Mason (2010) views the mission of the academic library as having to build and maintain a collection that will support the growth of information and job performance of both academic librarians and other library users.

Inadequate modern information resources have been the main reasons why some university libraries in Africa are not measured up to their contemporaries in the western world on job performance. In other words, they do not place much value on information (Abrahams, Burke and Mouton 2009/2010). Since most institutions acquire resources to support teaching and learning from the library, it is expected of librarians to ensure they have the commensurate information skills required to be productive. Effective job performance is said to be impeded because of the inability of some African university libraries to provide modern information resources through internet connectivity. The provision of timely information in university libraries as a result of modern Information Communication Technology (ICT) infrastructure has led to increases in job performance in advanced countries (Benat, Soumitra and Bruno 2013). This poses a challenge as to whether equal information availability and utilisation opportunity can lead to a comparative increase in job performance in African university libraries (Frankor and Akussah 2012:34). If academic librarians in African university libraries have easy access to modern information resources and technologies, it is most likely that the quality of their job performance will increase and this will have a consistent positive impact on their job performance and output compared to that of developed countries (Foster et al. 2008 and Frankor and Akussah 2012).

From the global viewpoint, it is availability of information resources that makes utilisation possible, while it is utilisation that makes performance achievable. Thus, the combination of availability of information resources and information technology may improve job performance of academic librarians. However, there is need for all developed and developing countries of the world to take information as tools that assist the enhancement of job performance of academic librarians through the use of modern information resources (Rosenberg 2005; Chuene 2000; Lancaster and Sandore 1997; Rada 1994). This can be possible if academic librarians realise the enormous role information resources play in improving efficient services. In Canada, for instance,

information resource utilisation and its effect on job performance of academic librarians have been adopted. Librarians are leaders in using technology to improve traditional library resources and services to meet the challenges of the 21st-century. In Africa, a committee was set up by the government and mandated to design an information technology/information resources plan for the country and ensure all libraries are ICT compliant for the betterment of the country (Olise 2010). The foregoing reiterates government's commitment to improving library services and performance.

It is observed that Nigerian university scholars are not measured up compared to their contemporaries in advanced countries in terms of job performance (Ani et al. 2016; Madukoma and Opeke 2013; Madukoma and Popoola 2012; Frankor and Akussah 2012; Adams, King and Hook 2010; Foster et al. 2008 and Aguolu 1996). Part of the problem has been traced to inadequate modern information resources and poor electricity supply in most of the university libraries resulting in low level of availability and utilisation of information. Therefore, for the purpose of this study, the working definition of information will be within the realm of science and technology; information as knowledge which is transferable and information as a basic resource that links a variety of activities involving individuals, institutions and society (Adewole 2001 cited in Aderanti and Adedotun 2015: 1346).

In the same vein, the present study views information resources as a collection of library information materials significant to users' needs which should be managed by librarians. These resources consist of journal collections, students' research projects, newspapers/magazines, books/monographs, conference proceedings, computers, databases, abstracts and indexes, government documents, conference proceedings, theses and dissertations, internet, online information resources and ICT tools. These are essential resources needed by academic librarians to improve job performance. Academic librarians are professionally trained persons who have earned a minimum of master's degree in Library Studies or cognate fields and are engaged in library services (Robert 2014).

Discussed in the next section is the historical development of Nigerian educational system.

### **1.3 Brief historical development of the Nigerian educational system**

Nigeria had a population of 186,053,386 million people in 2016 and a projected population of 392 million in 2050 (CIA World Fact Book 2017). Nigeria is geographically situated on the north of the Gulf of Guinea in West Africa. It has a space of about 923,768 km<sup>2</sup> and is bordered to the east by Chad and Cameroun, to the north by the Niger Republic, to the West by the Republic of Benin and to the south by the Gulf of Guinea (Encyclopaedia Britannica 2002). There are 36 states and 774 local government areas. Each state is governed by the governor while the local government area is under the leadership of the Chairman/Chairperson (Nigeria Country Profile 2008: 17-18). Lately, the 36 states of Nigeria were structured into six geo-political zones, in particular: South-South, South-East, South-West, North-East, North-West and North-Central (Okorie, Ademowo, Saka, Davies, Okoronkwo, Bockarie, Molyneux and Kelly-Hope 2013: 3). Although these zones are not contained in the Nigerian constitution, they structure the reason for some changes that occur in political circles, particularly in zones of political arrangement, situating of government ventures and different types of bureaucratic character consistency. In each of these states, there is federal university, while each state government also has a state-owned university.

Before the arrival of British colonialists in the early 19th Century, there were two types of education systems. In the northern part of the country the instruction was carefully a strict issue which included the educating of Qur'an and the Arabic letter set (Baba 2011). Then again, the indigenous framework was the second kind of education before the arrival of British colonialists. Students were taught the practical skills needed to function successfully in traditional society. In the 1840s, Western education was presented by British evangelists. The Anglican Church Missionary Society floated a few schools in the mid-1800s in which the British frontier government gave the congregation financial support and by the mid-twentieth century, the administration started structure erection with optional schools. At that point, the British merged the northern and southern areas into one state in the year 1914. At that time, a total of 11 optional schools were functioning, except the ones under the control of missionaries. During that period, Western training gradually entered the northern district. By 1947, only 66,000 students were enrolled in grade school in the north and after ten years, the rate of enrolment during this period increased to 206,000 students; while in the western area at this period, number of students selected increased from 240,000 to 983,000. The eastern area encountered the most dramatic changes in

essential enrolment during this period, springing from 320,000 to 1,209,000 students. The number of secondary school students in the whole nation developed significantly, expanding from 10,000 out of 1947 to 36, 000 of every 1957. A large portion of this development (90%) was altogether in the south (Zurlo 2017).

In the 1950s, Nigeria adopted Form Six, a British system of education that structured secondary education into six years - three junior secondary years, two senior secondary years and a year university preliminary programme. Any candidate that scores very high at the end of Form Six examination at the end of Form Six were usually admitted into universities. As of Nigeria's independence in 1960, with about 6,000 students, there were only six higher educational institutions in Nigeria out of which three were established in the west, two in the south and one in the north (Zurlo 2017).

This takes us to the study site which shall be discussed in the next section.

#### **1.4 The study site**

The study will be limited to some of the universities in Northern part of Nigeria. These seven federal universities include Federal University Lokoja, Federal University Lafia, University of Ilorin, University of Jos, Federal University of Technology Minna, Federal University of Agriculture Makurdi and University of Abuja all in North–Central region of the country. The northern part of Nigeria consists of three regions, namely the North-East, the North-West and the North-Central. The North-Central region which is blessed in natural resources is made up of seven states situated in the middle belt region of Nigeria. The Nigeria's system of government allows for division of power between federal, state and local governments. With the total number of 36 states in Nigeria, these states are divided into six geo-political regions. The North-Central has the highest number of states which are Niger, Kogi, Benue, Plateau, Nasarawa, Kwara and Federal Capital Territory (FCT) Abuja. It is important to have an in-depth understanding of these seven federal universities in the North-Central region of Nigeria.

University of Abuja was established January 1, 1988 (under Decree No. 110 of 1992 as amended) with mandate to run a distance learning and conventional programmes simultaneously as the first university in Nigeria to assume such a dual mandate (Becky 2009). The university is committed to



and seeks academic excellence in ensuring equal education for all. University of Abuja library was established the same year the university was founded. The university took off from the temporary site in Gwagwalada, tagged as the 'mini- campus'. Presently this university is operating from both the main and the mini campuses (University of Abuja: n. d). The mini campus library with a seating capacity of 420 readers ceased to be the main library in August 2014 as a result of the completion of the Central Library at the main campus. The total number of staff in the college library is as of now sixty-two (62) with 13 professional librarians, 11 non-professional administrators and other senior supporting staff, and 38 junior staff. The library is headed by a University Librarian with other staff. The newly constructed Central Library is located along airport road Abuja with a seating capacity of 3000 readers at a time (University of Abuja: n.d.). The library began the integration of information resources into hybrid services in 2005 and the process is still in progress. Although all these hybrid services are provided to assist teaching and learning, they also improve job performance of all the academic librarians (Seidu 2012: 6).

The Federal University of Technology also known as FUT Minna is a federal government-owned university situated in North-Central region of Nigeria. It was established on 1 February 1983 with the objective of providing the nation with much needed reliance in Sciences, Technology and Engineering (STEM). It is a specialised university of technology. The university library otherwise known as Ibrahim Babangida (IBB) library was established in 1988 at the inception of the university. The library has an annex at Bosso campus. In all, the libraries has a seating capacity of 2,200. The library has attempted to integrate its services, particularly the serials collections in the last six years. As a result of this, some of its journal collections have been converted into digital form.

University of Ilorin was another federal government-owned university established in 1975. The university was situated in Ilorin, Kwara State capital in North-Central, Nigeria. The university was established in order to execute one of the educational visions of the country's third National Development Plan. The aim is to provide Nigerians opportunities to acquire higher education and to generate high level of human resources that are vital for the rapid economic development. University of Ilorin library was established in 1976 with a seating capacity of 2,400. The library

has various information resources that assist members of the university community to improve their job performance. The university provided different electronic resources such as CD-ROMs, databases, e-journal and OPAC (University of Ilorin 2011).

In October 1975, the military government established seven additional universities, including University of Jos, which was established with a vision of being an innovative university with great interaction between town and gown. Today, the institution carries a high responsibility of preparing students for the future. The institution's library is committed to providing education that is globally competitive to the needs of employers and the developing of students to face the challenges of Nigeria and beyond. The university library was established in 1975; it is as old as the university itself. It has a seating capacity of 2,350 for readers. The library has been providing information resources services to its users for effective and efficient service delivery (University of Jos: n.d).

The Federal university Lokoja, also known as Fulokoja, is one of the eight federal universities created under the administration of the immediate past president (Goodluck Ebele Jonathan) of the Federal Republic of Nigeria. The university was established on 16 February 2011 and situated in the confluence city of Lokoja, the capital of Kogi State, North-Central Nigeria. As part of the requirements of the National Universities Commission (NUC), the university was established with the state-of-the-art library to provide information resources to support the teaching, learning and research activities of the parent institution. The university library was later devolved into faculties with intention of accommodating the teeming population of students and staff of the university. The library has a seating capacity of 635 readers at a time with electronic library facilities. The library is also enjoying the subscription of full-text databases.

Federal University of Agriculture, Makurdi is located in the capital city of Benue State of Nigeria. It occupies a land area of 8,048 hectares, thus making it the largest holder of agricultural land mass among universities of its kind (Seidu 2012: 8). The university serves 19 states in the Northern part of the country and Federal Capital Territory. It has a modest seating capacity of 1550 readers at a time. The establishment of universities of agriculture came into effect on 1 January 1988 following a demerger process that resulted in simultaneous coming on stream of the two universities of

agriculture located in Makurdi in Benue State, and Abeokuta in Ogun State (University of Agriculture Makurdi: n.d.). The university library is named Francis Idachaba library, which was established in 1988, the same time the university was established. The essence of establishing the library is to provide resources that will enhance the academic activities of lecturers, students and other community of users. The library is the heart-beat of the institution which serves as the educational life-wire of every serious clientele Barman (2011) describes library as change agent that requires constant positive changes to go along with the changing personality of its users - a development that has necessitated the University of Agriculture, Makurdi to expand the library collection (both print and electronic). The library is also enjoying the subscription of full-text databases such as EBSCOHOST, AGORA, HINARI and OARE and intranet materials (E-silo, LanTEEAL). These resources are downloadable at user's convenience (Ugah 2017).

The Federal University Lafia was established in 2011 along with nine other universities by former President of Federal Republic of Nigeria, President Goodluck Jonathan. The university was established to increase access to, and improve the quality of education, particularly in a state that had no federal university present. The university is located in Lafia, the capital city of Nasarawa State, part of North-Central Nigeria. Academic activity started in September 2012 with just 247 students in 11 programmes and just three faculties (Admin 2015).

For further clarity of the geographical spread in Nigeria, a map showing various states of Nigeria is presented in Figure 1.1. Nigeria has 36 states with Abuja as the federal capital.



Figure 1.1: Map of Nigeria, showing the six regions and the location (shown in green) of the present study (Source: SkyscraperCity.com 2011).

In the next section, the statement of the problem is identified and presented.

### 1.5 Statement of the problem

University libraries are often established primarily to provide both staff and students of the parent institution with unhindered access to information resources. Academic librarians are expected to make use of these resources for the enhancement of their job performance. However, a sizeable number of studies in the literature reported poor use of library resources by academic librarians (Olasore and Adekunmisi, 2015; Ani 2013; Madukoma and Opeke, 2013; Madukoma and Popoola 2012). This is attributed to factors ranging from obsolete equipment in the libraries, poor internet connectivity and stringent working conditions. This submission is however against the findings of Heilman, Block and Lucas's (1992) which reported that the use of self-rated scale brought about bias on job performance rating rather than the use of both self-rated and supervisor-rated scale measurement to determine librarians' job performance. These divergent views (self-rated and

supervisor-rated) as noted by Madukoma and Opeke (2013) and Heilman, Block and Lucas (1992) created a gap that needed to be investigated.

This study, therefore, examined the availability and utilisation of information resources in some selected Nigerian university libraries vis-a-vis job performance enhancement of academic librarians. In another development, Ani's (2013) study is only limited to utilisation of electronic information resources without considering the non-electronic resources. Further findings from Ani (2013) view accessibility and utilisation as a single construct to determine job performance of academic librarians. Therefore, this study considers both electronic and non-electronic resources as determinants of job performance. Also, availability, accessibility and utilisation will be examined as three different concepts that determine job performance. These are the gaps that necessitate this present study.

In addition, the issue of globalisation tends to affect the pattern of access and use of electronic information materials amid academic librarians. With globalisation, the world now is seen like one village (Hamdi 2015: 1) in such a way that what is happening on one side of the world can easily be seen from the other side. Studies, such as Ani (2013); Okiki (2013); Lamptey, Boateng and Antwi (2013); Madukoma and Opeke (2013); Frankor and Akussah (2012); Adams, King and Hook (2010) and Aiyetan and Olotuah (2006), have shown that academic librarians in Africa and particularly in Nigeria are lagging behind in terms of job performance compared to what happens in the developed countries. The reasons provided by such studies include inadequate fund and poor electricity supply.

Despite these assertions, the review of literature showed that none of the existing studies have been able to address the availability and utilisation of information resources for job enhancement by academic librarians in selected libraries particularly in North-Central Nigeria. As a result of the foregoing, this study is important as it observes that if such a situation persists, there is a great possibility of the academic librarians in Nigeria migrating from the world of globalisation where colleagues in the profession enjoy the benefits of the available information resources in either of the formats. Hence, there is need for academic librarians in Nigeria to strive adequately in the use of electronic information resources in order to meet up with the information service provision of

the 21<sup>st</sup> century as well as for them to compete favourably with their counterparts in the other parts of the world. Having stated the research problem, it is imperative to examine the purpose of this study. Hence, the next section presents aims and objectives of the study.

## **1.6 Aim and objectives of the study**

The purpose of the study is to examine availability and utilisation of information resources by academic librarians for job performance enhancement in selected university libraries in North-Central Nigeria. The main objectives of the study are to:

1. determine the extent to which academic librarians in universities in North-Central Nigeria perform their jobs;
2. examine the level of availability and utilisation of information resources as well librarians' job performance in selected university libraries in North-Central Nigeria;
3. to assess the extent of accessibility and utilisation of information resources among academic librarians in selected university libraries in North-Central Nigeria;
4. ascertain the relationship between information resource availability, accessibility, utilisation and job performance of academic librarians in selected university libraries in North-Central Nigeria;
5. ascertain factors inhibiting the use of information resources for job enhancement among academic librarians in universities in North-Central Nigeria.

Arising out of the identified objectives, the following research questions guided this study:

## **1.7 Research questions**

The study is guided by the following research questions:

1. To what extent are university academic librarians in North-Central Nigeria performing their jobs?
2. What is the level of availability and utilisation of information resources by academic librarians in selected university libraries in North-Central Nigeria?
3. What is the level of accessibility and utilisation of information resources academic librarians in selected university libraries in North-Central Nigeria?

4. What is the relationship between information resources availability, accessibility, utilisation and job performance among academic librarians in North-Central universities?
5. What are the factors that inhibit academic librarians from fully utilising information resources for job enhancement in selected university libraries in North-Central Nigeria?

The following hypotheses are developed to answer research questions 2, 3 and 4 raised above:

### **1.8 Research hypotheses**

- H<sub>01</sub>: There is no significant relationship between information availability and job performance among academic librarians in North-Central Nigeria.
- H<sub>02</sub>: There is no significant relationship between information accessibility and job performance among academic librarians in North-Central Nigeria.
- H<sub>03</sub>: There is no significant relationship between information utilisation and job performance among academic librarians in North-Central Nigeria.
- H<sub>04</sub>: There is no significant relationship among information availability, accessibility and information utilisation among academic librarians in North-Central Nigeria.

### **1.9 Significance of the study**

As Nworgu (1991:67) has asserted, ‘the significance of a study is required because it tries to determine whether the research is of practical or professional value to the society’. This study contributes to literature by providing empirical evidence on the hinderance to the use of information resources for job performance enhancement among academic librarians specifically from a developing country perspective such as Nigeria. It also contributes to practice by providing a deep understanding of the best predictors of information resources availability and use among academic librarians from a developing country context. The study provides necessary information on developing capacity building plans and strategies for ICTs implementation and electronic information resources as emerging tools for universal research and integration in Nigeria. In addition, it provides data that may assist the universities in Nigeria in the formulation of relevant policies at the institutional and national levels for effective job enhancement. The study explicates the explanatory power of the Maslow and TTF in predicting job performance especially in the context of a developing nation. The study contributes to the following:

**Knowledge:** The study contributes to the literature on information resource and librarians' job performance in its attempt to provide theoretical understanding of the key concepts. It bridges the gap found in some current studies. It can also be used as basis for comparing findings of similar studies and building theoretical or conceptual frameworks.

**Practice:** The study is useful to librarians, the management team and practitioners as it could help to establish the relationship that exists between the constructs of information resources and job performance. Also, the study could assist university library management in identifying gaps that exist in the library and create room for new innovations as modern tools for global research.

**Policy:** The study serves as a basis for re-evaluation, re-focusing and re-strategizing job performance activities of librarians through the provision of clear policy direction and implementation strategies for a robust intellectual asset management in Nigerian university libraries.

**Further Research:** The study will evoke new approaches either to validate the findings or dispute, or to expand its findings.

### **1.10 Originality of the study**

Originality is a key factor in evaluating a PhD research. Originality in research is "novelty" which means that the research in question must have substantial contribution(s) to present knowledge in a particular discipline. Originality goes beyond knowledge building and reflects the researcher's authenticity throughout the research process (Guetzkow and Lamont 2004).

According to Cryer (2000: 190), the area in which novelty/originality can be used include research methodology, data analysis, investigation of new knowledge and research outcome. The University of Melbourne Academic Skills Unit (2010:3) highlighted 19 standard criteria which a study must satisfy to achieve its originality. Some of the criteria the investigator considered to be important to this present study, as suggested by the University of Melbourne Academic Skills Unit (2010:3) who cited Phillips and Pugh (1994:61-62), are listed below:

- application of existing ideas to new areas of study;
- demonstration of originality by testing someone else's idea;
- employing a different methodological approach to solve a problem;
- conducting empirical work that has not been done before; and
- conducting research on a new field of study.



The present study was based on the studies conducted by Olasore and Adekunmisi (2015) and Ani (2013) that propose how availability, accessibility and use of electronic information resources may significantly affect job performance of academic librarians. Novelty/originality of this study establishes testing of the above proposition with empirical investigation in some academic libraries in Nigerian universities. Since this study mainly focused on an important aspect of educational system in Nigeria, it is considered appropriate to explain the theoretical framework upon which the study is based. Similarly, the essence of the theories is to espouse the relationship that exists among the variables of interest in the study.

### **1.11 Overview of theoretical framework**

The theoretical framework that guides this study are Maslow's Hierarchy of Needs Theory and Task-Technology Fit. The choice of these theories was inspired by their richness and high descriptive features characterised by an identification of goals to measure performance and use. Motivation has been identified by scholars as a key factor that has a significant influence on human behaviour and action (Saade, Nebede and Mark 2009). These theories are used in this study to explain possible variation in the extent of availability and utilisation of information resources as well as job performance among academic librarians in North-Central university libraries. In line with the research questions 3 and 5 for the study, the need for self-actualisation drives academic librarians to be involved in higher job performance.

In line with the research questions 1, 2, and 4 for the study, the Task-Technology Fit Theory (TTF) will provide a guide in exploring availability and utilisation of information resources as determinants of academic librarians' job performance - see Table 1.1 for details.

**Table1.1: Mapping research questions to theoretical theories**

S/N	Research questions	Theory and the construct
1	To what extent are university academic librarians in North-Central Nigeria performing their jobs?	Maslow (self-actualisation)
2	What is the level of availability and utilisation of information resources in university libraries in North-Central Nigeria?	TTF (availability)
3	What is the level of accessibility and utilisation of information resources in selected university libraries in North-Central Nigeria?	TTF (utilisation)
4	What is the relationship between information resources availability, utilisation and job performance among academic librarians?	TTF (accessibility)
5	What are the factors that inhibit academic librarians from fully utilising information resources for job enhancement in selected university libraries in North-Central Nigeria?	Maslow (esteem need)

How the theories have been applied in similar studies will be reviewed in the literature review in Chapter Three.

### 1.12 Overview of literature review

Previous literature review providing the foundation for this research was drawn from both empirical and conceptual studies. Literature was sourced from books, journals, theses, conference proceedings, technical reports and databases such as ProQuest, Web of science, JSTOR, ERIC etc. In addition, most of the literature reviewed was undertaken largely from Nigeria, Africa and the international context in view of emerging trends in the ICT environment.

Thematically, the studies in extant literature covered extensively the following areas: information resources/sources, information resources availability, information resources accessibility, information resources utilisation, job performance and factors inhibiting effective job performance. Theoretically, extant studies relied on Motivational Theories, User's Acceptance of Information Technology Theory, System Resources Theory and Maslow Theory (Okiki 2013; Wanjuku 2013 and Ani 2013). Similarly, from the methodological perspective, extant studies on

job performance and information resources use have extensively utilised quantitative approach (Nkedife 2015; Ani, Ngulube and Onyanha 2014; Madukoma and Opeke 2013; Amusa, Iyaro and Olabisi 2013 and Madukoma and Popoola 2012). For these reasons, the current study addressed these gaps through the research questions as reflected in Table 1.1.

### **1.13 Overview of research methodology**

Research methodology is a systematic way of solving a problem. It is a science of studying how research is to be carried out. The study was premised on the post positivism paradigm. The post positivists theorise that “any perception of reality is drawn from empirical observation and existing theory with the basic concepts of quantification and generalization” (Pickard 2007:10). The ontological belief of post-positivists is critical realism; the ethical behaviour (axiology) is based on respecting privacy of respondents through the use of informed consent in research. This research paradigm is consistent with the mixed method approach, which can combine qualitative and quantitative design for data collection. Creswell (2014) found the use of post positivist paradigm vital in a research. The mixed method approach was adopted for the study. A descriptive survey research design was utilised for this present study. This allowed the effective collection and processing of data that were collected through structured and semi structured questionnaires administered to a sample of 128 academic librarians and seven (7) Heads of libraries respectively. The reliability and validity of instruments was achieved using Cronbach alpha measures. Quantitative data were analysed using SPSS software while the qualitative data was analysed thematically.

### **1.14 Ethical considerations**

A study of this nature requires the need to uphold ethics in order to avoid conflict of interest. Ethics are the standards that govern the conduct of an individual especially when carrying out a research. The researcher obtained ethical clearance for the study from the University of KwaZulu-Natal and then permission from the seven selected university libraries. The researcher ensured that respondents were guaranteed maximum confidentiality in terms of the information they divulged and that the information given would be strictly used for research purposes.

### **1.15 Delimitations of the study**

The study is specifically delimited to seven university libraries of federal universities in the North-Central that were established between 1975-2011. In other words, it does not cover all the academic libraries but limited to federal university libraries. The study covers all the seven states in North-Central Nigeria. In Nigeria, the educational institutions are broadly divided into three, namely federal, state and private in terms of ownership. The federal universities are universities that are under the control of the federal government. The choice of North-Central for this study is purposive because the region has the highest number of academic librarians working in federal universities compared to other regions in the country (Nigerian Library Association Online Forum 2016).

The theoretical framework upon which this study is built are Task-Technology Fit (TTF) theory and Maslow's Hierarchy of Needs theory which cover the research paradigm and approach that was used for the study. TTF and Maslow are adopted for the study because of the strengths and relevance they have over other theories, such as TPC, Utilisation theory TAM and UTAUT theory. Having stated the delimitations of the study, it is therefore, necessary to outline the structure of the thesis in the next section.

### **1.16 Definition of key terms**

The following terms were operationalised in the course of the study:

**Academic libraries:** An academic library is a library that exists in higher institution of learning. Its two major purposes are to support curriculum implementation and the research of university faculty members and students (Curzon and Quiñónez-Skinner 2009). An academic library in this present study, has various roles in providing and facilitating utilisation of information resources to both students and academic librarians for their job performance.

**Academic librarian:** A person with a minimum qualification of master's degree in Library and Information Studies related disciplines that work in the library or teach and conduct research (Basse 2006). Also, academic librarians are personnel trained in the art of information management and are responsible for organising, evaluating and disseminating information, providing support to members (students, researchers and lecturers) of an academic community.

**Information availability:** Information availability means ensuring the presence of information resources in libraries for immediate use (Aguolu and Aguolu 2002).

**Information accessibility:** Information accessibility is the ability to get, locate or obtain both print and e-information resources with ease in the conduct of research (Ameen and Awais 2015:103). Thus, information accessibility in this study is considered as a process in which academic librarians can easily find and locate information materials.

**Information utilisation:** Information utilisation is the ability to use various sources of information in the conduct of research (Borgman 2000:18). Utilisation informs the ease of use of both print and e-resources through ICTs.

**Information resources:** In this present study, information resources are defined as collections of non-human information resources in the library relevant to the needs of academic librarians and other library users.

**Job performance:** Job performance is considered as an output of the librarian on the job, measurable in terms of quality and quantity of job done (Oduwole 2004).

### **1.17 Structure of thesis**

Chapter One presented the introduction and background to the study, statement of the problem, objectives of the study, research questions, significance of the study, delimitation of the study, rationale for the study and definition of key terms. It also provided an outline of the research methodology used for this study as well as ethical consideration.

Chapter Two examines the theoretical framework grounded on availability and utilisation of information resources as determinants of librarians' job performance which form the basis of the study. In this case, Maslow's Hierarchy of Needs Theory and Task-Technology Fit and their application to the study are justified.

Chapter Three focuses on comprehensive review of existing literature in related areas of the research based on objectives of the study and research questions. It highlights what has been done, existing gaps in literature and the contribution of the study.

Chapter Four: Research methodology: This chapter discusses the post-positivist paradigm underpinning the study. The survey research design is elaborated on. The qualitative and quantitative methodological approaches and their attendant methods are equally explored.

Chapter Five presents the findings of the study based on the specific research questions of the study, literature and theoretical constructs informing the study. Descriptive statistics are used to present the findings.

Chapter Six: Discussion of findings: Findings presented in Chapter Five are discussed in consonance or otherwise with existing literature, relevant theoretical constructs and practice.

Chapter Seven presents the summary of findings, conclusion, originality and the study's contributions to new knowledge, recommendations and suggestions for further studies based on the outcome of this research.

### **1.18 Summary**

Chapter one offered an overview to the study by discussing the role of information resources as variables that determine academic librarians' job performance. Discussed in this chapter are global perceptions of information resources, job performance, mandates and historical development of the seven selected academic libraries as well as the objectives, delimitations, significance and definitions of key terms used in the study.

However, job performance of academic librarians in African university libraries and Nigerian university libraries in particular is allegedly low when compared with that of advanced countries. Access and utilisation of information resources have been suggested as reasons that may solve performance problems in some African university libraries and consequently lead to comparative increase in job productivity of librarians. Thus, this study is designed at investigating if there is a relationship between availability, accessibility and utilisation of information resources and job performance of academic librarians in some selected university libraries in Nigeria. Relevant ethical issues were followed to guide the study. The theoretical framework and methodology of the study were briefly discussed. The chapter concluded with the thesis structure. The next chapter discusses in detail the theoretical framework in relation to the study.

## **CHAPTER TWO THEORETICAL FRAMEWORK**

### **2.1 Introduction**

What differentiates the composition of journalistic writings from that of research (particularly, academic papers), is by the virtue of improvement of a well-built and coherent theoretical framework (Caliendo and Kyle 1996 cited in Balkwill, Sanders and Muhumuza 2013). There is a widespread confusion among scholars about the theoretical and conceptual perspective to adopt when conducting a research owing to common language regarding the notions of conceptual and theoretical frameworks (Leshem and Trafford 2007; as cited in Ngulube, Mathipa and Gumbo 2015). A few studies have viewed theoretical framework as conceptual development of idea (Anfara 2008; Ocholla and Le Roux 2011 and Maxwell 2013 as cited in (Ngulube, Mathipa and Gumbo 2015).

Ravitch and Riggan (2012) posit that a “theoretical framework” is an aspect of a conceptual framework. The use of theoretical framework and conceptual framework varies among scholars. According to Dine et al. (2015:54) conceptual framework can be viewed as a means of setting a stage for the presentation of the research question driving the investigation based on the statement of the research problem. The statement of the problem also presents the context and the issues that caused the researcher to conduct the study.

Theoretical framework is a combination of two words; theory and framework. Neuman (2003:42) conceives theory as a system of interrelating of ideas and concepts which summarize and organize knowledge. According to Mills and Birks (2014:260), a theory is an “explanation scheme comprising a set of concepts related to each other through logical patterns of connectivity. According to Ngulube, Mathipa and Gumbo (2015: 10), a theory is a framework of ideas that provides an explanation of something. The commonly quoted definition of theory is that of Kerlinger that espoused by (Anfara and Mertz 2006; Cohen, Manion and Morrison 2007:12; Creswell 2009:51). According to Kerlinger (1986:9), a theory is “a set of interrelated constructs/measures, definitions, and suggestions that exhibit an orderly perspective on a particular phenomenon by indicating relations among factors, to clarify natural phenomena”.

However, Ngulube, Mathipa and Gumbo (2015) argue that the models, concepts, constructs and propositions represent building blocks to theory formulation. They further argued that a thin line exists between concepts and constructs. Similarly, Creswell (2009) cited in Ngulube, Mathipa and Gumbo (2015) further emphasised that the difference between the two terminologies depends largely on the concept of a given discipline. A construct is an indicator variable that measures a characteristic or trait (Hubbard 2013). Also, a construct is a concept or an idea about an object, attribute, or phenomenon that is worthy of measurement (Leggeth 2011). On the other hand, a model can be characterized as "a system for considering an issue and may develop into a statement of the relationship among hypothetical propositions" (Wilson 1999:250). While theories lead to theoretical frameworks, models can be said to be the main route for researchers to reach conceptual frameworks (Ngulube, Mathipa and Gumbo 2015). In a related development, concepts could be adopted to distinguish between social phenomena and a group of concepts can lead to formulation of constructs (Anfara and Mertz 2006). However, relationships among constructs are expressed in terms of propositions.

A framework is "a set of ideas and principles that researchers use when forming decisions and judgements" (MacMillan English Dictionary 2002:561). Similarly, Wong and Aspinwall (2004:94) define a framework as a "structure that comprises relevant entities or a set of guiding principles and ideas that support a discipline" that is used in a manner that secures link between theory and practice. However, a theoretical framework is a system of setting assumption, concept and specific social theories (Neuman 2006:74). Brink, Van Der Walt and Van Rensburg (2012) argue that it relates to statements resulting from an existing theory.

In the opinion of Radhakrishna, Yoder and Ewing (2007), it is used to provide the basis for conducting research. Making findings significant and generalizable is the purpose of a theoretical framework as it helps in extending the frontiers of information by giving both bearing and driving force (Polit and Beck 2004:119).

The theoretical framework underpinning this study is Maslow's Hierarchy of Needs and Task Technology-Fit. Therefore, the Chapter Two of the study is organised as follows: section 2.2 discusses the role of a theoretical framework in research; while section 2.3 discusses theoretical



framework in quantitative and qualitative studies. Section 2.4 elaborates on the theoretical perspectives adopted for this study. Section 2.4.1 and 2.4.2 explain Maslow's Hierarchy of Needs and Task Technology-Fit and justify their adoption for the study. Lastly, section, 2.5 provides a summary of the chapter. The next section focuses on the role of a theoretical framework in research.

## **2.2 The role of a theoretical framework in research**

According to Blaikkie (2007), the basic methodological issue confronting all social researchers includes the possible influence of theoretical frameworks adopted on social experience, social reality and ideas. The author refers to social experience as an individual's conduct, social relationships and cultural practices in everyday life. Blaikkie (2007:13) citing Ramazanoglu and Holland (2002), argues that social reality could be termed as materials and socially constructed world within everyday life that have impact on individuals' lives in terms of providing opportunities and commanding restriction. By and large, ideas could be described as methods of conceptualizing and making sense of reality and skill. The examples of ideas include concepts, knowledge and theories. The various theoretical frameworks present different methods of connecting social reality, social experience and idea.

In order to justify the use of a particular theoretical framework, researchers might want to input their data into what is acceptable in the theory (Anfara and Mertz 2006). It is necessary to reject any theoretical framework that does not fit the data to be analysed and search for a new theory. This will make the research meaningful.

## **2.3 Theoretical framework in quantitative and qualitative studies**

Creswell (2009:55) asserts that "in quantitative studies, theory is used deductively, and the important theory is placed towards the beginning of the plan for the study". A preceding theory is used as basis for generating predictions in quantitative research that can be tested through empirical study; and the findings might have a broader importance and utility (Polit and Beck 2004:49). The objective, according to Creswell (2009), is to test or validate the theory, not to develop it. Creswell (2009:55) adds that:

...the researcher advances a theory, collects data to test it, and reflects on its validation or invalidation by the result. The theory becomes a framework for the entire study, an organizing model for the research questions and/or hypothesis and for the data collection procedure.

Qualitative studies use theory “as an inductive process of building from data to comprehensive themes to a more generalized theory or model” (Creswell 2014:133). A researcher’s interaction with the respondents enables the conceptualisation of the subjects since they are in position to elucidate research patterns. Information gathered from the respondents by the researcher is categorised into themes which are generalized and compared to the experiences of people and the available literature search about the study. Creswell (2014:133) notes that “the development of themes into forms, theories or generalizations proposes varied end points for qualitative studies”. This study used both quantitative and qualitative approaches so as to gather facts and describe the details of the data. More information on these will be covered in Chapter Four. Discussed in the next section is the theoretical perspective underpinning the study.

## **2.4 The theoretical perspective adopted for this study**

Selltiz, Wrightsman and Cook (1976:16) emphasised that a theory could be regarded as a set of concepts and the interrelationships that are assumed to exist among those concepts. As noted earlier, Maslow’s Hierarchy of Needs and Task-Technology Fit Theory served as the theoretical framework for this study. The choice of these theories was inspired by their richness and high descriptive features characterised by identification of goals to measure performance and use. Motivation has been identified by scholars to have significant influence on human behaviour in the course of performing a given action (Saade, Nebede and Mark 2009). In this study, Maslow’s Hierarchy of Needs and the Task-Technology Fit Theory were adopted to explain the relationship between information resources availability, utilization and job performance of librarians in some selected Nigerian universities. These theories will be discussed in the next section.

### **2.4.1 Maslow’s Hierarchy of Need theory**

This theory was rooted in the assurance that librarians consider their work as a great asset to the institution rather than a cost and the rewards to staff are valued. Maslow (1954:2) presents human needs in ascending order: physiological needs, safety needs, social needs, esteem needs and needs

for self-actualization. For example, physiological needs include human basic needs such as shelter and food, while self-actualisation need is viewed as the uppermost need in the pyramid.

The concepts of motivation, needs and employee performance gained extensive recognition as an area of augmented research owing to their importance in measuring economic development across countries (Kaita and David 2015: 2). Need is described as an inside expression that makes certain results look appealing. An unsatisfied need creates tension that stimulates drives inside a person to find goals that, if attained, will reduce tension (Ball 2013).

Ward and Lasen (2009) describe emotional meaning as an attribute which compels a person to seek after an objective through a demonstration that gives importance, reason and course to the conduct of an individual. Most of the theories on motivation were developed between the 1930s and 1980s to enhance employees' productivity. The theorists were Allport (1933), Maslow (1943, 1954), Lowry (1982), Alderfer (1972), James (1980), Herzberg (1959) and Lowry, Beadles and Krilowicz (2004). This study focussed attention on Maslow's hierarchy of needs which is often applied in behavioural research.

Hierarchy of needs is fundamental to Maslow's theory of motivation of 1965. Maslow argues that human needs are in the hierarchical order and that unfulfilled lower needs could rule one's intuition, activities until being fulfilled. The physiological requirements (for instance, appetite and thirst) come first, followed by security needs, social needs (affiliation), confidence needs (recognition), and, lastly, self-actualization needs. The satisfaction of a need could facilitate optimal satisfaction of an individual towards performing effectively on a given task. The fulfilment of the essential needs is viewed as essential to such interest (Zalenski and Raspa 2006).

Maslow's theory could measure the changes in academic librarians' performance in university libraries. In relation to the theory, the satisfaction of librarians' basic needs could enhance his/her self-actualisation. The need for self-actualisation encourages academic librarians to work in the direction of high job performance in order to be noticeable in their professional expertise. The self-fulfilment need offers the strength for excellence in research for librarians' career advancement. The need for self-actualisation will push academic librarians to use the infrastructural amenities, such as

information resources (Internet sources, books and electronic resources) for realisation of quality and excellence in job performance.

Every librarian anticipated to be accomplished by getting to the top of his/her career or being celebrated worldwide will separate himself/herself from those things that will lower his/her job performance. Maslow (1943) stressed that the first three sets of needs in the hierarchy (psychological, security and belongingness) could be classified as inadequate needs. A concerted effort must be taken to satisfy these needs in order to make an individual to be contented. The remaining sets of needs are esteem and self-actualisation which relate to the growth and human development in their job performance.

Maslow's theory further states an individual has a pyramidal hierarchy of needs to be satisfied in order to walk their ways from the lowest to highest levels of rung. Psychological existence in Maslow's hierarchy of needs could also be used to cover the possession of social circle in pursuing one's talent through self-actualization. The unfulfilled needs at the lower level on the ladder may hinder an individual in attaining the next stage. Unsatisfied needs could also promote discrepancy in job performance (Maslow 1954).

In relation to the focus of this research, academic librarians have the obligation to ensure that deficiency needs are met. In another development, a safe environment as well as appropriate information resources available in the library could enhance job performance of academic librarians. It also implies creating an enabling environment in which academic librarians can thrive so as to develop their full potential. Inability to satisfy these needs would theoretically increase frustration of academic librarians which could bring about poorer accomplishment, lower work fulfilment, and increase brain drain within and outside the library. For example, job insecurity and poor performance may hinder individuals' growth needs. They therefore work harder to get security, without recourse to fulfil other needs.

However, the different levels of needs (constructs) on Maslow's hierarchy are discussed as follows in relation to the academic librarian job performance:

**Physiological needs:** Maslow described the physiological needs at the bottom of the triangle to explain the role of fundamental biological drives such as shelter, water, air, and food in motivating an employee to perform optimally at a given assignment. Academic libraries must provide librarians with a salary that enable them to afford adequate living conditions. Any hungry academic librarian will hardly be able to make significant contributions to his/her organisation. According to Norwood (1999) cited in Olunubi and Arogundade (2013:62), information resources may be one of the required ingredients to satisfy the needs at this level. This simply indicates that the use of available information resources to satisfy the information needs of the users depends largely on the emotional stability of the librarians. Therefore, there is need for university librarians to invest substantially on information resources as a means of enhancing capacity development of academic librarians.

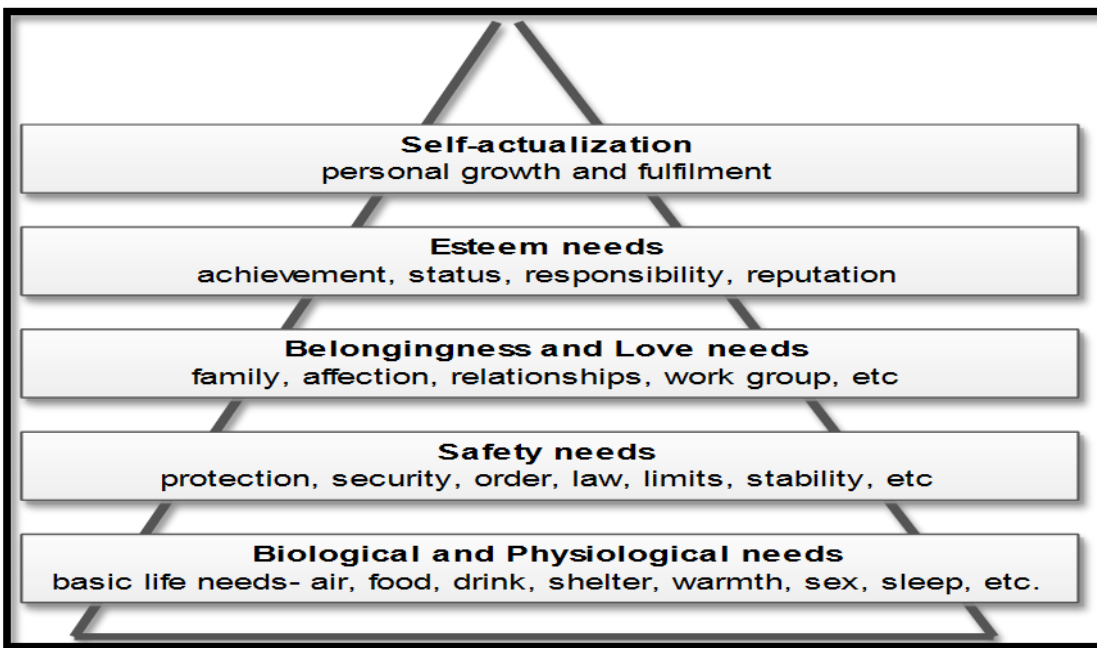
**Safety needs:** Another level of needs described by Maslow is safety needs. These explain the need for a secure working environment free from any threats or harms. It always activated after physiological needs must have been met. In this regard, academic librarians working in an environment free of harm do their jobs without fear of harm and this will lead to higher job performance.

**Social needs:** Social needs refer to the need to be affiliated, that is the necessity required to be loved and accepted by other people. They are activated after safety needs must have been met. In order to meet the needs, academic librarians must strive to participate in social events, such as library tour, library orientation, and social media, which will improve their job performance.

**Esteem needs:** Esteem needs include the necessity for self-respect and approval of others. These needs can be divided into internal and external motivators. The internal motivators explain the needs for accomplishment, self-esteem and self-respect. On the other hand, the external motivators explain the need to attain social status, recognition and reputation. Over time, libraries have introduced the institutionalisation of award banquets in recognition of the distinguished achievements. These needs, according to Voclcck (1995:160), could be addressed by organization through utilisation of positive-reinforcement programmes, provision of symbols of recognition and inclusion of junior employees in strategic management procedures. If all these needs can be satisfied by academic librarians, there is tendency for them to exhibit self-confidence, sense of belonging and gratification, which will eventually lead to self-actualization.

**Self-actualisation:** The need for a person to fulfil his or her capabilities and potential towards attaining growth (Rowley 1996:5). At this stage, an individual strives to reach the peak of a chosen performance or full potential in life. At this level of motivation, individuals struggle for justice, truth, beauty, meaningfulness, individuality and perfection (Ludlow and Stasbury 2002). However, only few people manage to attain this highest level of needs (self-actualisation). Even though this appears impractical, Maslow observed that very few individuals reach this level of experience. The need for self-actualisation therefore stimulates the academic librarian to work diligently towards attaining the set goal such as becoming the university librarian.

Figure 2.1 illustrates the various levels of needs which Maslow believed all people, including academic librarians, aspire to.



**Figure 2.1: Maslow’s Hierarchy of Needs Theory**

Source: Maslow Hierarchy of Needs (1954)

Mila (2011:13) noted that workplace motivation theories were embedded in Maslow’s hierarchy of needs. The author suggests ways to which the theory can be applied to workplace environment, such as the academic library. The illustration of workplace motivation theories is presented in Table 2.1 below:

**Table 2.1: Illustration of workplace motivation theories**

<b>Categories of human need</b>	<b>Application in the workplace/Library</b>
Physiological needs	Lunch breaks, leave, salaries that are market related.
Safety needs	Provision of a safe working environment, retirement benefits, medical insurance and job security.
Belongingness/social needs	Being free to attend team-based gatherings, and conferences.
Esteem needs	Recognition for achievements and management making subordinates feel appreciated and valued.
Self-actualization needs	Challenge and the opportunity to reach their full career potential (University Librarian).

Maslow's hierarchy of needs from Huitt (2004)

### **Strengths and weaknesses of Maslow's Hierarchy of Needs Theory**

The theory of Maslow's Hierarchy of needs is a well-established theory adopted to explain the importance of motivation in securing employee optimal performance (Ugah and Okpara 2008: 2). Roser (2012) also claims that Maslow (1971) introduced a pyramid of needs. This theory has been the most generally known theory used in management since the 1950s when it was presented. This theory is relevant to explain factors that could motivate academic librarians to perform effectively in a given task.

Adaptation of this theory could help librarians to justify the need for provision of self-need, self-actualisation, physiological need mechanism towards enhancing the academic librarians' performance. The theory is very popular among heads of organizations such as libraries due to its simplicity provision of clear-cut conditions in which lower-level needs can be achieved towards motivating employees to reach their full potential (Wilson 1993).

Despite this, the theory has been the subject of criticism owing to some of its weaknesses. Wahba and Bridwell (1976), Koontz, O'Donnell and Welhrich (1986) as well as Cole (2002:97) submitted that Maslow's theory suffers from inconsistency, rigidity and belief that human basic needs of human must be accomplished in a strict order.

Maslow acknowledged that his preliminary notion about one growth need that is self-actualization was feeble and required additional differentiation without including the two new lower-level growth needs (Maslow and Lowery 1998). Individuals as claimed by Armstrong (2006) may have diverse priorities and it is difficult to accept that human needs advance gradually up to the hierarchy as postulated by Maslow. Sometimes human needs overlap; for example, it is wrong to always assume that fulfilment of all needs is achieved in a systematic order. There is also a notion that the theory is artificial and simplistic; as it does not represent or address the real issues. Hence, it may not be realistic in application particularly in a social setting such as a library.

Maslow's Hierarchy of Needs was adopted to explain why some librarians are productive on the job, while others are less productive. Although Maslow's theory has been criticised by Bennett (2011), its application in the library setting could provide librarians with conceptual means of understanding employees' motivation. In line with Research Questions 1, 4 and 5 of the study, self-actualisation needs could be said to drive academic librarians to get involved in higher job performance. This theory is suitable to this study in the sense that it provides a framework for understanding academic librarians' attitude towards job performance. The available information resources will continue to be used by academic librarians as long as they are accessible in their institutional libraries and improve their job performance, which is the ultimate reason for the utilization of the information resources.

#### **2.4.2. Task-Technology Fit Theory**

Information resources are aimed at helping librarians perform tasks more effectively. Libraries spend huge amounts of money on information resources to improve their institutions' ranking and the performance of individuals (Goodhue 1995). A serious concern of research in information resources system is to understand the relationship between information resources and an individual's performance. Task-technology fit is important but is often overlooked in understanding the influence of technology/electronic resources on an individual's performance.

Task-Technology Fit (TTF) according to Goodhue and Thompson (1995:217) explain "the degree to which technology/information resources assist an individual to accomplish his/her portfolio of tasks". Precisely, it explains the fit among the task requirements, individual's abilities and the functionality and the interface of the technology (Goodhue, Littlefield and Straub 1997). In



information system research, technology refers to computer system (hardware, software, data and other related library resources) and librarian's support (such as training and help lines). Technology/electronic resources are viewed as tools used by individuals in carrying out their task portfolios. Tasks are the actions carried out by an individual or a group of persons while turning input into output (Goodhue and Thompson, 1995: 216).

Since the focus of this study is to determine the influence of information resources on individual's performance, this theory was adopted to assess the performance of academic librarians using extended Task-To-Perform Chain (TPC), as one of the most widely used models for evaluating sources of information use and technology adoption on performance. The investigation of the extent to which information improves an individual's performance in the library has resulted in utilisation- focused model (Venkatesh et al. 2003). The utilisation-focused model argues that the utilisation of information is the result of the user's access to information.

For an information system to have a positive influence on an individual's performance, it must be utilized and there must be a good fit with the tasks it must support (Goodhue and Thompson 1995). If the task-technology fit of the electronic resources/technology is lacking, the information resources/technology will not improve performance. Pentland (1989) affirmed that Internal Revenue Services (IRS) auditors had positive attitude toward Personal Computers and utilized them widely, but that the PCs had little positive impact on their performance, or even negative impacts. The Personal Computers were being utilized for inappropriate tasks, that is, tasks where the electronic resources were not a good fit with task needs.

Impact of information resources on academic librarian's performance in the workplaces, especially in institutions has made it easier for librarians to improve in their job performance. Several studies such as Nkiko and Iroaganachi (2016); Lamptey, Boateng and Antwi (2013) and Dallis and Popp (2012) have evaluated job performance generally without resort to the fact that the library information resources have varying degrees of intricacies in the usage of these resources. It is necessary, therefore, for libraries to re-evaluate the influence of these information resources as they affect the task requirements of academic librarians. This is vital in order to maximise the potential of these resources for job performance and provide ways for growth and enhancement.

Goodhue and Thompson's (1995) task-to-perform chain (TPC) is based on two distinct research approaches. The first approach is the academic librarians' acceptance and adoption research angle; that is utilisation-focused research that concentrates on the academic librarian's attitudes and beliefs to determine the utilisation of information resources in the library. An important stream on which TPC centres is the "utilization research stream". This stream focuses on the academic librarian's attitude and beliefs to determine the utilisation of information resources/information systems.

Large number of utilisation studies are based on theories of attitude and behaviour (Fishbein and Ajzen 1975; Robey 1979; Swanson 1987; and Davis, Bagozzi and Warsaw 1989). Aspects of technology (for example, good quality system/ information resources (Lucas 1975) lead to academic librarian's attitudes (beliefs, affect) about information resource. Librarians' attitudes alongside social norms (Moore and Benbasat 1996; Hartwick and Barki 1994); and other situational causes lead to intention to utilise information resources and eventually lead to increased utilisation. The consequence is that higher utilisation will result to positive performance impact.

The second is the "fit angle", that concentrates on the influence of information representation on performance of academic librarians with respect to access and usage of electronic resources (Benbasat, Dexter and Todd 1986; Vessey 1991). The fit focus has been most evident in any study on the impact of information resources on an individual's decision-making performance.

Benbasat, Dexter and Todd (1986) and Dickson, DeSanctis and McBride (1986) aver that the influence of data representation on performance appears to depend on fit with the task. Misalliances between technology characteristics and tasks may slow down decision-making performance by necessitating additional translations within technology characteristics or decision process (Vessey 1991).

There have also been connections between fit and utilisation. At the library level, fit and utilisation or adoption have been connected (Tornatzky and Klein 1982; Cooper and Zmud 1990). At individual

level, an "electronic information resources" construct has been established to be a predictor of use of electronic resources for managerial processes (Floyd 1988).

Concentrating on utilisation theory may disregard the fact that not all information resources utilisation is voluntary. For instance, a resource may be in use just because that is all that is available, and the academic librarians may have no choice other than to make use of such information resource to achieve improved job performance (Irick 2008). If utilisation is not voluntary, academic librarian's performance may depend upon the task-technology fit rather than utilisation (Goodhue and Thompson 1995). Moreover, there is likelihood that upsurge in utilisation of electronic information resources will not necessarily lead to higher job performance. There are also problems with stringency on the part of the task-technology fit theory. For the theory to concentrate on fit alone, may not guarantee acceptable attention to the fact that the resources must be utilised before they can have any influence on academic librarians' performance (Goodhue and Thompson 1995).

This study adapted one of the constructs from the TTF theory to suit the research questions. There are eight dimensions proposed in the TTF construct: data quality, locatability, authorisation, compatibility, ease of use, reliability, timeliness and relationship. The researcher retained two of the original constructs, namely ease of use and relationship. Reliability as the third dimension in the original TTF construct –was adapted to explain availability in context of this study. Robey (1979), Crawford (1982), Goodhue and Thompson (1995) and Torkzadeh and Doll (1999) reported a positive relationship between information resources use and job performance. Also, Pentland (1989) reported either no relationship or negative relationship between information resources and job performance. DeLone and McLean (1992) identify information resources use as an antecedent of performance and re-emphasise the relationship between information resources usage and the benefit of performance (DeLone and McLean 2003).

However, Straub (1994) employed the information diffusion model to study the relationship between information resources use and performance benefits. The relationship among the variables of interest appeared to be mixed. This may be due to the observation of non-performance of both the print and non-print information resources used. As noted by Goodhue and Thompson (1995),

resources need be utilised before they can deliver performance impact on academic librarians. In view of this, higher information resources use, may lead to higher technology performance impact on job productivity.

In addition, the degree to which these information resources are available will determine the use and performance (Goodhue and Thompson 1995). However, positive relationship between availability and resources utilisation has been confirmed in previous studies (Benbasat, Dexter and Todd 1986; Dickson DeSanctis and McBride 1986; Goodhue and Thompson 1995; Staples and Seddon 2004). Hence, it is logical to expect that the greater the availability of information resources is, the greater the utilisation and the higher the performance impact on academic librarians will be, as indicated in Research Question 2.

The relationship between TTF and performance has been investigated by previous scholars such as Sanzogni 2014; Bukie 2015; Oliveira and Tam 2016). Goodhue and Thompson (1995) have investigated the relationship between TTF and performance. They also examined the relationship among 25 different technologies in two organisations and concluded that a positive relationship exists between TTF and performance. Goodhue (1998:128) recommends that further empirical and conceptual study should address the issue of whether there is a relationship, as well as under what situation the relationship is strong and weak. In reaction to this recommendation, Staples and Seddon (2004) affirmed a strong relationship between TTF and performance. Luarn and Huang (2009) found a moderate support for the fact that TTF will positively affect performance of academic librarians in a related study.

The Task-Technology Fit Theory was adapted for this study because some of the variables in the theory have relationship with the constructs which explain availability and utilisation of information resources on job performance of academic librarians in the North-central Zone of Nigeria. The diagram below (Figure 2.2) describes the main variables of the Task Technology-Fit Theory.

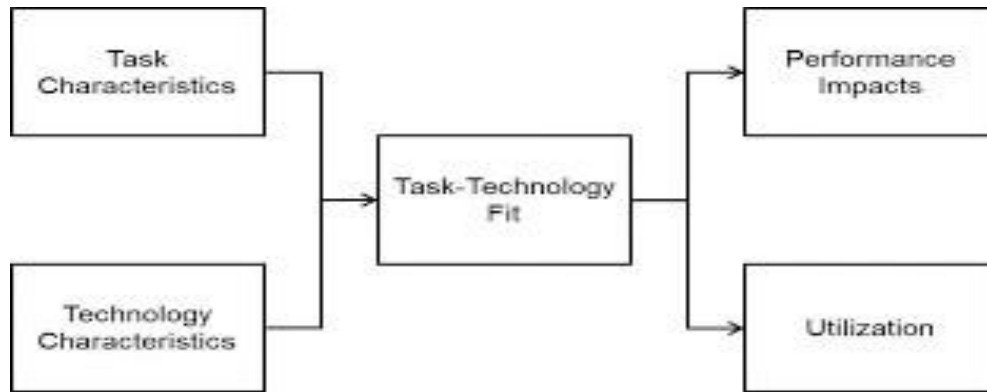


Figure 2.2 Task-Technology Fit

Source: Adapted from Goodhue and Thompson (1995)

There are five main variables in the Task Technology Fit Theory (Goodhue and Thompson 1995). The variables include task characteristics, technology characteristics, task technology fit, performance impacts and utilisation. The five main variables will be discussed in the next sections to understand their relationship to information resources use and job performance of academic librarians in North-central Nigeria.

### **Task characteristics**

Task characteristics is the first of the main variables discussed by the proponents of the TTF Theory. Task technology fit broadly defined tasks as activities carried out by people in converting inputs to outputs to fulfil their information needs (Goodhue and Thompson 1995). These attributes include all the routine that the academic librarians might utilize data innovation to perform. Task characteristics can be diverse in various manners: task non-routineness, task reliance, and time criticality. As tasks become more challenging, the information sources offer less usefulness and librarians' assessment of information resources will diminish. In this study, task may be viewed as the functions to which academic librarians engage in as part of their job performance both in teaching and practice, for which they use print and non-print materials as information resources for daily activities in order to improve their job performance.

### **Technology characteristics**

The second variable of the TTF is technology characteristics. Technologies are seen as

"instruments utilized by people to complete tasks" (Goodhue and Thompson 1995:216). The characteristics of these technologies can affect academic librarians' perception and use of technology. The TTF theory emphasises the importance of fitting the characteristics and functionality of technology used to the request imposed by the individual's needs. Studies have shown that a better fit will improve perceived performance (Goodhue 1998; Carswell et al., 2000; Carswell and Venkatesh 2002; Zigurs and Khazanchi 2008; McGill and Klobas, 2009). Academic librarians consider technology characteristics more critical in usability. Academic librarians believe that if these technology characteristics are utilized, there will be positive impact on their job performance; and if they are lacking, the information resources in the library will not improve performance. Technology characteristics include quality, reliability and availability (Piccoli, Ahmad and Ives 2001).

### **Individual**

Individual is another variable emphasised to have affected the use of information technology by the proponents of the TTF. Individual is concerned with the role of academic librarians in the use of electronic resources, which is significant in the study of use of information resources and job performance. Nan (2011), reviewed the use of electronic resources, and identifies four essential characteristics of e-resources use construct such as IT use, IT use behaviour, IT use process and time. The IT use factors encompass users, IT artefacts and work activities as major elements. There are differences between task requirements, individual's ability and the functionality of the information system.

This study contends that some characteristics of users of electronic resources may affect the perceived fit of both print and electronic resources in meeting the task-related needs of academic librarians. Evaluation of technology fit and perception of performance differ, depending upon the strength of librarians' experience in the use of information resources, such as e-book, e-journal and other related information devices.

### **Performance Impact**

Another variable that can affect the use of e-resources and job performance of academic librarians is performance impacts. Performance impacts entail the use of available resources to accomplish

a task by an individual. A high level of TTF could be used to stimulate high performance, and the satisfaction with the information resources (Goodhue and Thompson 1995). High TTF increases the performance impact of the information resources. Academic librarians use information resources at their disposal to improve their job performance.

### **Utilisation**

The behavior employed to complete tasks can be describe as utilisation (Goodhue and Thompson 1995: 218). Another variable that can affect e-resources use is utilisation. In the conduct of research, Borgman (2000) describes utilisation as the ability to use information resource effectively. Goodhue and Thompson (1995) present the precursors of utilisation, which include beliefs of using an information resource. Goodhue and Thompson argue that task-technology fit should be a determinant of beliefs about the expediency of information resources and the merit of using the information resources. The relevant of ease of use as a construct in the study means utilization. Information resources might be available, accessible but not utilised due to non-catalogued, mis-catalogued, mis-shelved and host of other reasons.

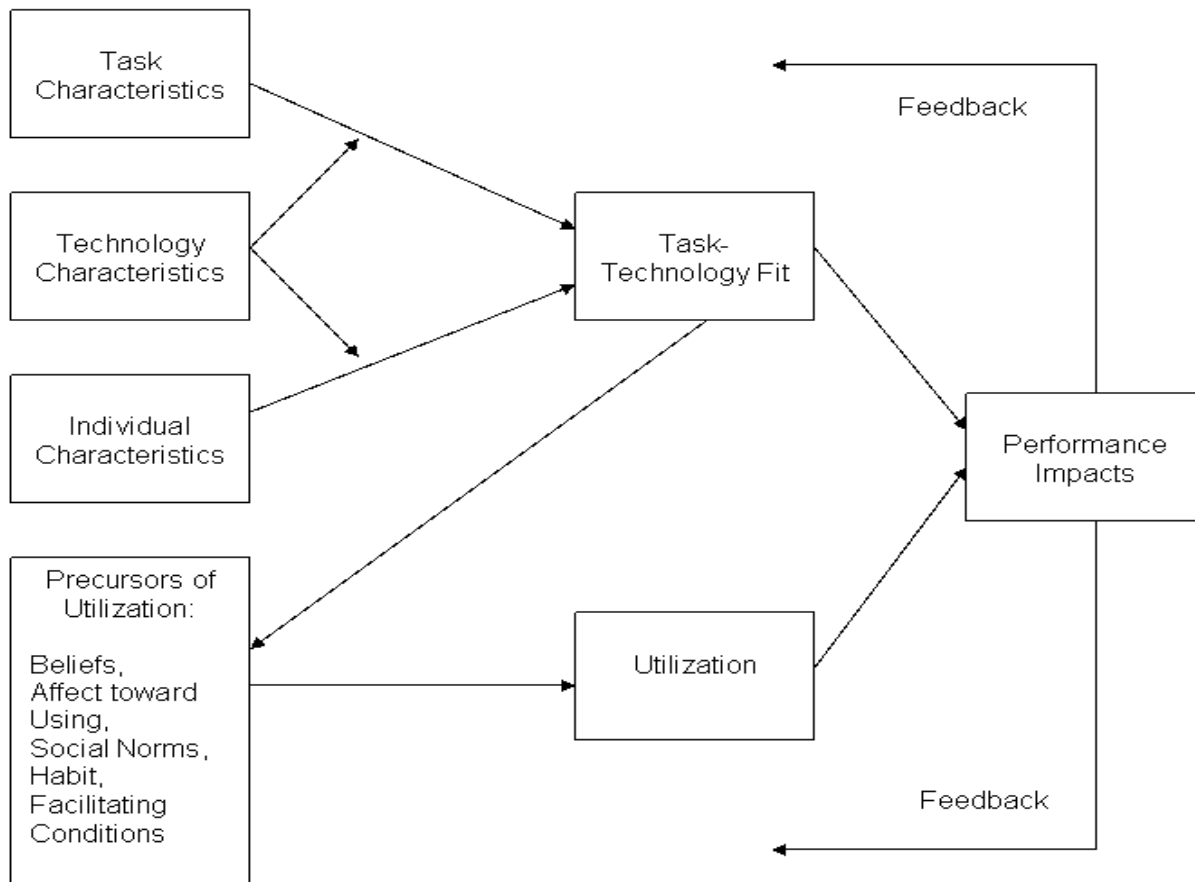
Owing to the limitations of TTF theory, Goodhue and Thompson (1995) have suggested a theory that combines both task-technology fit and utilisation. This model, called TPC, utilises both lines of research and claims that technology/information resources must be utilised and fit the task they support in order to have a performance influence. The TPC Model (Figure 2.3) gives a picture of the way in which print and electronic information resources, user tasks, and utilisation relate to changes in performance.

Since its beginning, the TPC framework usage has moderating factors. In particular, it has adopted a different range of information resources/systems in different contexts (Goodhue and Thompson 1995; Zigurs and Buckland 1998; Goodhue 1998; Dishaw and Strong 1999; Zigurs et al 1999; Karimi, Somers and Gupta 2004; D'Ambra and Wilson 2004a, 2004b). Goodhue and Thompson (1995) verified a streamlined TPC model examining how TTF impacts users in an organisational context. The study found a hypothesised relationship between the TTF variable and utilisation. Vlahos, Ferratt and Knoepfle (2004) examined the fit between computer-based information resources and the essentials of managers (academic librarians) in their decision-making tasks. To

measure the TTF, librarians' evaluation of information resources was used to gauge how these resources would support academic librarians in their decision-making.

As observed by Davis (1986) and Davis, Bagozzi and Warsaw (1989), Technology Acceptance Model (TAM) is a tool to foresee the possibility of an emerging technology being adopted within an organisation. It is possible to foresee future usage by applying the TAM at the time that technology is introduced. Dishaw and Strong (1999) pooled the TTF theory with TAM theory and established the extended part in an institutional use setting. The analyses shown that the extended framework described more differences than either TTF nor TAM alone (Dishaw and Strong 1999). Staples and Seddon (2004) verified the technology-to-performance chain in compulsory and voluntary use settings. The whole TPC research model (Goodhue and Thompson 1995) was conducted by surveying staff of the university (compulsory use) and students (voluntary use) in terms of usage of library resources. In both settings, the impact of performance on TPC was found to be strongly supported, as well as beliefs and attitudes about the usage (Staples and Seddon 2004).





**Figure 2.3 Technology-to-Performance Chain**

Source: Goodhue and Thompson (1995)

From the foregoing discussion of the strengths and weaknesses of TTF, it is evident that the ease of use and relationship are the two determinants of information resources usage. Specifically, the ease of use proposes that a librarian will improve job performance if he/she believes in the task characteristics which will lead to high performance. In line with Research Questions 2, 3 and 4 of the study, the TTF provides a guide in exploring availability and utilization of information resources as determinants of academic librarian’s job performance. This is one of the strengths of this theory. Table 2.1 below presents a mapping of research questions to the constructs of Maslow and Task-Technology Fit.

Table 2.2: Mapping research questions to theoretical theories

S/N	Research Questions	Theory
1	To what extent are academic librarians in North-Central Nigeria performing their job?	Maslow
2	What is the level of availability and utilisation of information resources in university libraries in North-Central Nigeria?	Availability Construct TTF
3	What is the level of accessibility and utilisation of information resources among academic librarians in North-Central Nigeria?	Ease of Use Construct (TTF)
4	What is the relationship between information resources utilisation and job performance among academic librarians?	TTF (relationship construct) and Maslow.
5	What are the factors that inhibit academic librarians in universities in North-Central Nigeria from fully utilising information resources for job enhancement?	Maslow theory

Having stated the above theories, it is important to give the summary of the study in the next section.

## 2.5 Summary

This chapter presented the theoretical framework underpinning the study. The theories that provided the basis for solving the research problem through were explained and justified; these are Maslow’s Hierarchy of Needs and Task-Technology Fit. Therefore, a theory can be described as an interconnected system of concepts and ideas that summarize and organize knowledge. On the other hand, a theoretical framework is used to provide the rationale for conducting the research.

Self-actualization and self-fulfilment have been the reason for the choice of Maslow's Hierarchy of Needs Theory, as they explain why certain individuals (including academic librarians) are productive, while some are less productive. It also shows how academic librarians with high need for job performance in research could work hard to improve their performance for successful profession development.

The second theory, Task-Technology Fit Theory, assumes that information resources give value by being instrumental in some tasks. The proponents of the theory discuss the importance of technology characteristics, task characteristics, task-technology fit, performance impacts and utilisation towards motivating an individual in using technology to perform job functions optimally. When this theory is applied to the use of e-resources to render library services it is evident that its use goes a long way in helping or shaping the job performance of academic librarians.

Furthermore, the impact of information resources on individual's performance as the dependent variable was also discussed. The technology-perform chain (TPC), which is one of the extensively used theory for assessing the effect of use of information resources on performance, was also explained. The theory has proved that the extent to which information resources improves an individual's performance in the library has resulted in utilisation-focused theory (Venkatesh et al. 2003).

Finally, the theories point to the fact that the utilisation of information could be said to be due to availability and accessibility of abundant information resources. To this end, the review of these theories as indicated in this section shows the importance of Maslow's Hierarchy of Needs and Task-Technology Fit to the study. The matching of research questions to theory of these theories and their relationships was also done in this chapter, as shown in Table 1. The chapter equally presented the strengths and weaknesses of these theories. The next chapter reviews the literature on information resources as determinants of academic librarian's job performance in selected university libraries in North-central Nigeria.

## **CHAPTER THREE LITERATURE REVIEW**

### **3.1 Introduction**

A literature review is a written document that presents deep and complete understanding of the current state of knowledge about a phenomenon. It is a process of acquiring general knowledge with the present research in a subject area in order to have a clear-cut understanding of the concepts and issues in the field (Gravetter and Forzano 2009: 588). Also, Nengomasha (2009:51) defined literature review as a way by which a researcher gains thorough knowledge and understanding of a research topic; determines area of research that has been investigated and identifies gaps the researchers intend to fill. To this end, the essence of a literature review is to offer a platform that puts the researcher's work into viewpoint and establishes the foundation, based on present related knowledge (Grinnell and Unrau 2008: 46).

As noted by Creswell (2014:60), the motive behind a literature review is to give a framework for setting up the significance of a study. It fills in as a benchmark for contrasting the results of a study with other findings. Also, it shares with the reader the results of other studies that are similar with the one being investigated (Creswell 2014:60). A literature review is important because it helps the researcher gain familiarity with previous work in an area of scholarly interest (Gastel 2012).

The literature review in this section was aimed at introducing the reader to the current and previous research that has been done in area of availability and information resources utilisation as determinants of librarian's job performance. The two major types of literature review are: 1) the empirical literature review, which deals with evidence-based research (such as scientific experiments, surveys and research studies). They are studies based on experience and observation, rather than on systematic logic and 2) conceptual literature review, which is based on concept of theories (Kothari 2004:12). From the above types of literature, both were reviewed. The researcher focused on the empirical and theoretical literature sourced from print and information resources in journals, books, databases and other related media in some developed and developing countries. This section of literature review is organised with focus on broader issues as well as research questions. Nonetheless, the research literature is discussed under the following major themes:

- (i) information resources/sources;
- (ii) information resources availability;
- (iii) information resources accessibility;
- (iv) information resources utilisation;
- (v) job performance; and
- (vi) factors inhibiting effective job performance.

### **3.2 Information resources/sources**

Overtime, information has been described as a significant factor for planning, decision making and forecasting (Otazu n.d:56). Therefore, to obtain quality information that will enable a librarian to accomplish the aforementioned functions, understanding the nature of information resources available becomes utmost important. The most successful person in life according to Mchombu (2000) is the person with the best information. Information outfits a person with the ability to pick and to act in a knowledgeable way (Balman 2015). However, information is stored and packaged in different formats representing information resources or information sources. Hence, data assets can be characterized as stages or media on which data is recorded with the aim of preserving, managing, storing, retrieving, disseminating and utilising it (Otazu n.d:56).

Andersen et al. (2002:1) defined information sources/resources as oral or written, human or virtual that are easily accessible. Adomi (2012) noted that information resources are media from which an individual or a group of people receive concepts, messages and direction that enable them to accomplish a given task such as taking a vital decision, as well as solving a problem. Information resources according to Stoker, Tsannng and Evans (2007) cited in Zaid (2011:1) are taken to be tangible and organised collections of such information, whether in print, microfilm or held on some computer storage media such as compact disk (CD) or digital versatile disc (DVD), media-print and non-media print. Information resource is a form of long-term storage; which is used for replicating and conveying meanings expressed in human-readable and machine-readable characters. Information resource is purposefully designed for use as an instrument for a certain activity, used for strongly pronounced consumer values, and which often permit product to be regarded as a commodity in the information market (Berestova 2015:86).

Chimah and Nwokocha (2013) explain that academia has been confronted with inadequate information resources that ought to facilitate their job performance in various disciplines. The study by Chimah and Nwokocha (2013) presented a discourse on various concepts of information resources, characteristics, material resource, utilisation and web based (Internet) information.

Findings from the study showed that librarians' and other researchers' job performance are determined by the means of accessing and utilising information resources in the library. Further findings showed that without good information resources communication channels, utilisation will be difficult and accessibility might be impaired. Effective channel of information resources accessibility is paramount in the utilisation of information for job performance. Acquaintance (on the part of librarians) and utilisation (on the part of researchers) of these vital information resources that can enhance effective job performance in the academic libraries and research institution were recommended.

In Nigeria like in other unindustrialized nations of the world, Oyelude and Bamigbola (2013) assessed the role of socio-economic factors on quality of rural inhabitants. Rural areas are either non-literate or semi-literate with poor quality of life. The authors observed that since independence, Nigeria has been experiencing some economic strangulation that has devastated the country and her citizenry. The authors further reported that the general social economic situation of Nigeria throughout the years had decayed because of poor and absence of good information resources. In corroborating this assertion, Adetimirin (2005)'s study on socio-economic factors of undergraduate students use of information communication technologies in Nigerian universities found that the patterns of consumption, the dispersion of income and wealth, the manner by which individuals act and overall quality of life has a critical role to play in their access and utilisation of information resources.

Park (2007) revealed that information resources have been hindered by economic and as well as lack of good infrastructure for contact with poor based information sources. This author further observed that inadequate infrastructure has obstructed the academic librarians from accessing information resources that could boost their research activities thereby limiting their ability to improve on job performance. In the same vein, Jiyane and Ocholla (2004) carried out a study in

South Africa and observed that academic librarians are overstretched and have no opportunity to seek appropriate information, locate the right information resources and even learn to read in order to improve on job performance. From the review of literature of these authors, it exposed extant factors influencing academic librarian's job performance. This study is distinct from previous studies owing to the focus on the importance of use of print and non-print information resources in determining academic librarians' job performance.

Scholars such as Kawatra (2011); Rao (2000:3- 4) in their studies found that if properly used information resources could enhance job performance. Further, the authors categorised information sources into two: print/document sources and non-print/non-document sources. The authors defined document/print information sources as information that is contained in documents and has been recorded in printed form. According to Rao (2000:4), documented sources enable the transfer of information from one generation to another which contributes positively to the technological, religious, cultural, socio-political economic advancement of human beings. Printed resources are categorised as tertiary, secondary and primary sources (Rao 2000:4). However, Unegbu (n.d:81) stressed that non-print/non-document information sources otherwise called audio-visual materials that is, information sources that combined sound with visual images and world wide web are an example of non-print/non-document information resources. Print information resources/sources are tabulated in Table 3.1.1 below.

**Table 3.1: Print information resources/sources**

Type	Description	Use	Examples
Primary	Primary sources are first-hand accounts or individual representations and creative works. They are created by those who have directly witnessed what they are describing and bring it as close to the original event or thought as possible without being filtered, influenced or analysed through interpretation (Replinger 2015).	-Primary sources are used to make claims or criticisms, as evidence for theories, or to gain timely perspectives on a topic.	-Periodicals - Research report -Conference proceedings -Standards -Literature -Theses/dissertations -Newspaper -Magazines
Secondary	Secondary sources build off primary sources with more extensive and indepth analyses. They summarize, evaluate, and analytically interpret primary material, often by offering a personal perspective (Replinger 2015).	They are good sources to gather background information on a topic. -Secondary sources can also be used to explore what subtopics have already been explored on a given topic.	-Indexing services -Abstracting services -Review of progress -Treatise -Monographs -Text books -Reference books (Dictionaries, Encyclopaedia, Handbooks, Tables and Formulae).
Tertiary	Tertiary Sources are distillations and collections of primary and secondary sources (Replinger 2015). The information is compiled and digested into factual representation, so that it does not obviously reflect points of view, critiques or persuasions. Tertiary sources are typically the last to be published in the information cycle (Replinger 2015).	-A tertiary source is used for a general overview of topic. - It gives background information of a research.	-Directories -Yearbooks -Bibliographies -Location of list of periodicals -Indexing and abstracting -Research progress Guides and Guides to professional organisation.



### **3.2.1 Primary sources of information**

Primary sources are original information materials from which other information sources are derived (Otazu n.d:57). Kumar (2010:7) defined primary sources of information as the principal printed record of unique innovative work or portrayal of new use of an old subject or thought. This type of information sources could likewise show up in an electronic organization.

Adomi (2012) and Nnadozie (2014) agreed with Kumar (2010) and identified primary information resources/sources as autobiographies, periodicals, theses, memoirs, interviews, lecture notes, personal letters, diaries, grey literature among others as first-hand information providers. Moreover, there are other form of primary sources that are referred to as unpublished sources (Nnadozie 2014:36 37). These types of primary sources include audio and visual recording, artefacts, photographs, internet communication portraits, sets of data such as census statistics among others. These primary information resources are discussed in detail below.

#### **(i) Periodicals/Serials**

According to Reitz (2004a), a periodical can be defined as a serial publication which contains distinct title, poems, editorials, a mix of articles, short stories, reviews, columns, or other short works written by more than one contributor. It is issued in softcover periodically such as monthly, quarterly, bi-annually and annually without prior decision as to when the final issue will appear. According to Reitz (2004a), the content of a periodical is usually controlled by an editor or editorial board. Periodical publications include but not limited to newspapers, electronic magazines journals and annuals (reports, yearbooks, etc.) The terms periodicals and serials are commonly used interchangeably. According to Ogbonna (2009:46), they are publications that appear with distinguishing titles and issued in sequential part bearing numerical or chronological description and intended to continue indefinitely. Otazu (n.d:58) further stated that they are times bound, and materials published at ordinary interims, for example, day by day, week by week, month to month or yearly. Since they are published so often, they tend to include the most recent information.

According to Sababa (2012:61), Ogbonna (2009:46) and Otazu (n.d), these include journals, magazine, newspapers, annuals, reports, memoirs, proceedings, monographic series, bulletins, etc.

## **(ii) Journals**

Journals are periodicals devoted to disseminating research and discourse on current developments in a specific discipline, subdiscipline, or field usually published on a month to month, quarterly or annual basis (Reitz 2004b). The examples of journal articles include the output of the research carried out by a person, group on a particular subject matter usually sold by subscription. Ogbonna (2009) described journals as publications issued periodically bearing numerical or sequential depiction and planned to be continued indefinitely. They include the accompanying sorts: academic diaries (learned society diaries), house diaries, learned diaries business and exchange journals (Otazu n.d:58).

## **(iii) Magazines**

Magazines are publications of a popular interest which contain articles on a variety of topics, written by various authors in a non-scholarly style (Reitz 2004c). Most magazines are heavily illustrated, contain advertising, and are printed on glossy papers. According to Reitz (2004c), articles in magazines are usually short (less than five pages long), frequently unsigned, and do not include a bibliography or list of references for further reading. Most magazines are issued monthly or weekly for sale at newsstands, bookstores and through subscription. Magazines can also be described as periodic publications containing pictures, articles and stories of interest to those who purchase or subscribe to them and are published weekly or monthly or at other defined regular intervals (Lawal 2008 cited in Sababa 2012:62). Magazines articles are about recent developments, lifestyle, news and culture. They are otherwise called well-known magazines, whose audience is the overall population; the content is written by journalists, correspondents and interested contributors. Examples are *Time*, *Tell*, *Newsweek* and *Newswatch* and so forth (Otazu n.d:58-59).

## **(iv) Newspapers**

Newspapers are serial publications, that are usually in printed or newsprint forms and that are issued on daily basis pertaining to events of previous days of the week, or weekly. Newspapers may contain editorial comments, news, regular columns, advertising, letters to the editor, cartoons and other items of local and international interests (Reitz 2004d). Newspaper articles are written by journalists and serve as a good source of news and current events for effective information dissemination and contain editorials, entertainment information, classified advertisements, sports and other information (Otazu n.d:59). Lawal (2008) cited in Sababa (2012) noted that a newspaper

is a daily or weekly publication on folded sheet containing articles, news and advertisement on current happenings. Examples include *the Punch, Guardian, Vanguard, This Day, Tribune, The Sun, The Nation New York Times, Daily Graphic, Tabloid*.

**(v) Reports**

Reports are printed or electronic publications of the activities of a company, bodies and other corporate entities which are published monthly, quarterly or annually. A report, which is usually detailed, is an archive that presents information in an organized format for a precise audience (such as: board of directors, other governing body or current and prospective shareholders) and other purpose. Although summaries of reports may be delivered orally, complete reports are always delivered in the form of written documents in softcover. It describes the firm's activities during the current financial position and preceding fiscal year (Reitz 2004e). They are technical in nature, because they generally give the results of research and developments or projects usually in unpublished or semi-published literature since they are not available through the conventional book platforms (Otazu n.d:59). It can also be said to be a publication published annually and contains information about events which occurred in the year of coverage (Ogbonna 2009:42).

**(vi) Theses/Dissertations**

Theses/dissertations are used interchangeably in Nigeria. Theses are academic and research work usually submitted by students of higher institutions with a view to earning academic degrees such as Master and Doctoral degrees which are found in the collection of academic libraries (Ogbonna 2009:46). According to Otazu (n.d:59), a thesis can be seen as a dissertation advising an original viewpoint as a result of research, especially, on the side of candidate for a scholarly qualification usually a doctorate degree. Theses/dissertation constitute a good source of primary information because they are expected to be the result of purely academic work or original research, conducted in a new or uncharted environment as to discover new knowledge or expand the frontiers of existing knowledge in a particular specialty. From such findings, journal articles and textbooks may be published to further bring to the fore the result of such original work Otazu (n.d:59).

**viii. Conference Proceedings**

Conference proceedings are a published record of a gathering, symposium, congress, or different assemblies supported by a general public or affiliation, usually but not necessarily including abstracts or reports of papers presented by the members (Reitz 2004h). Proceedings are collection

of academic papers that are published usually in the context of an academic conference, congresses, seminars or workshops (Otazu n.d:59). Proceedings are likewise important primary source of information since they serve as the media through which results of scientific research are disseminated (Otazu n.d:59).

### **3.2.2 Secondary sources of information**

Secondary sources of information are sources that either refer to or are compiled from primary sources of information (Musa 2017:26). According to Musa (2017:26), the “original information must have been modified, reorganized or selected in order to fill a specific need for an assemblage of users”. Such sources contain information sorted and arranged on the bases of some positive arrangement. These contain organized repackaged information opposed to new information. According to Otazu (n.d:62), these are sources of information derived from an already existing primary source that come from the interpretation of an original source of information or a first-hand information source or document. Otazu (n.d:62) further noted that:

Secondary sources analyse, comment on, describe, discuss, evaluate, and interpret the evidence provided by primary sources or documents. Secondary sources cite primary sources of information as well as enable the user to locate a primary source of information.

The dissimilarity in definition has a lot to do with context, discipline and how a source is used for example, bibliographies, treatises, monographs, indexes, textbooks and some reference materials are examples of secondary information sources (Otazu n.d:62). These secondary information resources are discussed in detail below.

#### **(i) Bibliographies**

Reitz (2004i) defined bibliography as an orderly list of composed works by a particular author on a given subject. Bibliographies are compilation of works, titles that share one or more common characteristics (language, structure, period, a spot of publishing, and so forth). A bibliography may be comprehensive or selective which may be published serially or in book form (Reitz 2004i). According to Sababa (2012:59), the word bibliography is derived from two Greek words biblio and graphy meaning books and writing. Therefore, bibliography connotes the writing of books or in its most general sense, it is the study and description of books (Sababa 2012:59). Ogbonna

(2009:42) noted that this is a reference work that contains a compilation or list of information on recorded sources of information which provides sources of information and not the information itself. A bibliography is a list of source materials used in the process of preparing a piece of work, or that are referred to in the text (Otazu n.d:63).

**(ii) Treatise**

A treatise is a book or long conventional paper, usually on a complex or abstruse subject, particularly a systematic well-documented presentation of actualities, proof, standards or conclusions drawn from such project (Reitz 2004j). Treatise can further be explained as a written discourse on certain subject, which are generally longer, greater depth treatment of the subject matter, and more concerned with investigating, exploring, and exposing the principles of the subject under discussion (Berggren and Jones 2001 cited in Otazu n.d:63).

**(iii) Indexes**

An index is arrangement of a list of headings alphabetically, which involves individual names, places, and subjects treated in a composed archive, with page numbers serving as pointers for further reference of the potential reader. An index serves as the pointer to the page (s) where information or source is referred to in the main text (Reitz 2004k). An index can also be described as a pointer to the holdings of books which enables easy retrieval of information and is usually found at the back of the book which give user easy location of word in the book and arranged alphabetically (Sababa 2012:60). It is a list of words or phrases that carries associated pointer or locator as to direct the user to where useful materials relating to that phrase or heading can be found in a given document. The pointers in this case can be the page numbers, paragraph numbers or section numbers; while the words can be authors' names, titles, places, events or other items considered relevant and of interest to a possible reader of the book (Glenda and Jon 2007; Sherry and Kari 2005 cited in Otazu n.d:64).

**(iv) Textbooks**

Reitz (2004l) described a textbook as an edition of a book specifically intended for the use of students who are enrolled in a course of study, preparing for examinations on a subject or in an academic discipline, as distinct from the trade edition of the same title. Textbooks are sometimes published in conjunction with an exercise manual, lab manuals, and educator's manual. They may likewise be referred to as the standard work used for a particular course of study, regardless of

whether published in special edition or not. Also, a textbook is a publication used especially in the study of a subject and used for teaching and learning with a single or joint author(s) who are usually conversant in the subject(s) of the book, most times experts are professionals in their subject field (Ogbonna 2009:48). According to Otazu (n.d:64), a textbook is a book used as a standard source of information on a particular subject. It is a book used in the investigation of a subject as one containing a presentation of the standards of a subject; or an abstract work relevant to the investigation of a subject (Otazu n.d:64).

#### **(v) Reference Materials**

Reitz (2004m), described reference materials as any publication from which authoritative information can be found. They are usually not meant to be read from cover to cover. Reference materials include but are not limited to dictionaries, encyclopaedias, catalogue records, printed indexes and abstracting services, bibliographic databases and so on. Similarly, reference sources are information resources designed to be consulted or referred to for specific bits of information (Obichere, Uche and UdoAnyanwu 2012:34). Otazu (n.d:65) noted that, good reference information resources have the quality of ease-of-use or user-friendly nature in its entries and they are not designed to be read from page to page like textbooks but mainly for consultations within the reference section of the library such as dictionaries, encyclopaedias, directories, yearbooks, almanac, handbooks/manuals, biographical sources, abstracts.

### **3.2.3 Tertiary sources of information**

The third level of information resources is tertiary sources of information, which is produced after the consultation of both primary and secondary sources of information (Otazu n.d:69). The main function of information resources at this level is to assist the information seeker in the use of both primary and secondary sources of information. According to Otazu (n.d:69), tertiary sources are not typically credited to a specific author and are not viewed as entirely worthy to scholarly research because, at times, the nature of reference sources recognized under secondary sources overlap with the tertiary sources so that similar examples of sources are used to describe both tertiary and secondary sources which makes their differentiation difficult. Such sources include reference books, dictionaries encyclopaedias, chronologies, guidebooks, sequences, manuals, fact books, bibliographies. The information exhibited in the tertiary sources is exceptionally condensed and the

aim is to provide relevant information in minimum number of expressions. They are principally the guides to look through secondary and primary sources (Rao 2000:4).

### **3.2.4 Electronic Information Resources (EIRS)**

EIRs are digital representation of data, ideas and information that are prepared to facilitate unrestricted access to information resources that are not directly owned by the user or the institution. Electronic Information resources comprise of information and additionally computer program(s) encoded for perusing and manipulating by a computer, by the use of a fringe gadget directly connected to the computer, for example, a CD-ROM drive, or remotely by means of computer, for example, the Internet (Reitz 2004n). The category includes electronic texts, bibliographic databases, software applications, web sites, e-books, institutional repositories, collections of e-journals, etc. (Reitz 2004n).

According to Tsakonas and Papatheodorou (2006:421), “EIRs are resources in electronic format, and these include e-books, e-journals, full text database, e-thesis, e-magazines, reference database, online database and other computer-based electronic networks. Further, e-resources could be described as those materials which could be remotely accessed locally or through the Internet with the aid of a computer or handheld mobile devices (Johnson et al. 2012:3).

The followings can be deduced from the above definitions. First, computer access plays a pivotal role in the utilization of electronic resources. Different kinds of computers such as personal computer, mainframe, or handheld mobile devices can be utilized. Second, electronic resources can be in different forms such as e-journal, e-book, e-thesis, full text database, online database, CD-ROM, among others. Third, e-resources can be in numerical, graphical or time-based forms that can be marketed and made available commercially to target audience or users.

EIRs require licensing and authentication, they are not publicly available free of charge. The significance of EIRs is being recognized at various libraries (such as academic, research, public, etc). However, the EIRs consume much of library budgets, even to the detriment of monographic acquisitions (Gakibayo, Ikoja-Odongo and Okello-Obura 2013:19). As concluded by these authors, ICTs have brought a positive impact on the nature, boundaries and structure of information. These electronic information resources are discussed in detail below.

(i) **E-book**

An e-book is a digital version of traditional print book designed to be read on a personal computer or e-book reader (Reitz 2004o). Some libraries offer access to electronic books through the online catalogue. Similarly, Martin (2008) classified electronic book as: ...” a publication made available in digital form, consisting of text, images, or both, readable on the flat-panel display on computers devices” (Martin 2008: 2).

Johnson et al (2012:25) viewed an e-book as a book that is given in a computerized organization to checkout or used by means of an Internet program, a computer, or another electronic gadget like a digital book reader. Similarly, Dinkelman and Stacy-Bates (2007:45) defined digital book as any bit of electronic content regardless of size or composition (an advanced item), excluding journal/diary productions, made accessible electronically (or optically) for any gadget (mobile or handheld) that incorporates a screen.

It can therefore be concluded that e-books are in digital form which can be accessed using an Internet browser, a computer, or any other electronic devices. Also, the content of e-book can be in form of text, images or both (Dinkelman and Stacy-Bates 2007; Martin 2008; Johnson et al. 2012).

Falk (2003:63) investigated the use of e-books for learning and information gathering in some colleges in United States of America as against printed materials. The findings indicated that e-books were oversubscribed among students and librarians as a means of their learning and job performances. The author further submitted that in utilising e-books for teaching and learning, distance learning is one of the areas that benefitted more. In the same vein, Abdullah and Gibb (2008:593) studied the use of e-books by scholars at University of Strathclyde. Their findings revealed unawareness of the availability of e-book by more than half (57%) of the respondents, while about 60% of the respondents had not utilised an e-book. Despite unawareness of e-books and the low level of utilisation, respondents indicated their preparedness to study more about e-books.



The advantages of e-books include space-saving, accessibility, speedy publications as well as low costs (Ashcroft and Watt, 2004:33). In contrast, Minčić-Obradović (2011: 22-23) highlighted the demerits of e-books as follows:

- i. Difficulties with reading on screen as it strains eyes;
- ii. Technical necessities. E-books need to be compatible with other ICT devices for it to be functional; and
- iii. Compatibility with citation software. The aim is to facilitate a seamless compatibility between academic libraries citation software package and e-book collections.

The review and analysis of the importance of e-books in academic libraries indicated that, for e-books to be widely accepted and used, there is need to maintain compatibility between the format of e-books and users' devices.

#### **(ii) E-journal**

An e-journal is a computerized version of a print journal/diary or a journal/diary-like electronic publication with no print version made accessible by means of the Web, email, or different methods of Internet access (Reitz 2004p). Some online electronic journals/diaries are graphically demonstrated on the print version. With the development of the Internet, librarians and information professionals have acknowledged the capabilities of ICT as a means of resource sharing and to identified challenges encountered in intellectual property rights from the author to the publisher (Correia and Neto 2006 cited in Gakibayo, Ikoja-Odongo and Okello-Obura 2013:4). As indicated by Johnson et al. (2012:25), e-journals/diaries are provided in a digital format for access through Internet program, a computer or other electronic gadget. Lee (2002:128) defined e-journal/journal/diary as an electronic asset published as a sequential, often duplicating a journal that already exists in print structure, yet in addition being born digital. The major objective of subscribing to e-resources in academic libraries is to facilitate wider and easy access to information resources that are not owned directly by the libraries but that are on the World Wide Web. Lee (2002)'s study established that all the parameters enhanced the effective utilisation of e-resources for job performance by academic librarians. E-journals are interactive which make it more friendly than print resources, and e-journals do not require shelve spaces, rather they only require a computer with internet facilities (Liew et al. 2000 cited in Sejane, 2017:61).

(iii) **Online newspaper**

Online newspapers are serial publications of news items that are issued on a daily basis pertaining to events of previous days of the week, or weekly and information on instant happenings so long there is Internet connectivity (Reitz 2004q). The news/information in online newspapers may be accessed remotely through the use of laptop, telephone and other mobile technologies (Reitz 2004q).

The electronic version of many magazines and newspapers can provide the user with detailed information as well as show the same in an exciting way; online newspapers and magazines has contributed to the emergence of a new situation where many newspapers and magazines have begun to publish their online editions which have brought the whole world on a reader's desktop/mobile (Koundal and Mishra 2018:54). According to these authors, the e-newspaper is the kind of online service which provides information about important national and international affairs, stories as well as financial issues. Furthermore, they provide news in multimedia form through the use of photographs, charts, graphs, video and audio chips. However, the services provided by this outlet, are geared towards providing information to readers.

(iv) **Full-text database**

Full-text database as defined by Reitz (2004r) is an e-resource that offers text of a single work entirely. Full-text database includes articles published in one or more journals, magazines and/or newspapers. For examples, a bibliographic database which offers the whole text of a significant proportion of the works indexed, in addition to the bibliographic citation and an abstract of the content, such as JSTOR, Britannica Online and other e-databases. Full-text database provides the full-text of a document instead of just a citation or abstract; full-text documents from electronic databases are typically available in PDF or HTML (Johnson et al. 2012:25). Carr and Wolfe (1999:1) stated that one of the legacies of the growth of the Internet and of the Web is that individuals are no longer contented with computer services which only direct them to information but rather they want computer services to provide indexing and abstracting of resources as well as the full content.

(v) **Reference database**

A reference database is a large catalogue which can be searched for information on a particular subject (Stevenson and Collin 2006:176). Among the merits of searching electronic sources of information on the Web is that the information on this platform is readily available, fast and mostly free (Rao 2000:18). The web allows individual or groups of individuals to search different information sources at a given time. This web contains similar information materials as can be found in the library. Information can be sourced/searched through the use of almanac, dictionary, abbreviations, charts acronyms, tables, among others.

(vi) **Compact disc-read only memory (CD-ROM) databases**

Compact Disc-Read Only Memory (pronounced "see dee rahm"), is a small plastic optical disk similar to an audio compact disc, measuring 4.72 inches (12 centimeters) in diameter, used as a publishing medium and for storing information in digital format (Reitz 2004s). The disc is read by a small laser beam inside a device called a CD-ROM drive. According to Reitz (2004s), the data encoded on a CD-ROM can be searched and displayed on a computer screen that cannot be changed or erased. The author further stated that each disc has the capacity to store 650 megabytes of data, the equivalent of 250,000 to 300,000 pages of text or approximately 1,000 books of average length.

Munoo (2000:11) further noted that a CD-ROM is an e-resource format that contains up to 650900 Mega-Bytes (MB) of information on a single-sided, single-layer optical disc. Johnson et al. (2012: 25) noted that most CD-ROM technologies make use of hardware peripherals such as a computer, CD-ROM driver, CD-ROM disc, speakers or headphones, interface cable to connect the computer to the CD-ROM drive, a port or controller card in the computer and a software programme to access the CD-ROM. In libraries, CD-ROMs are used primarily as a storage medium for bibliographic databases and full-text resources, mostly dictionaries, encyclopaedias, and other reference works (Reitz 2004s).

The following can be deduced from the above definitions. First, a CD-ROM is a valuable storage device that has the capacity to store up to 650megabytes of data or more. Second, a CD-ROM can be used to store e-resource that contains texts, figures, pictures, diagrams, among others. Third, the content of CD-ROM can be accessed through a computer hardware peripheral such as CD-ROM

driver or other external devices that can be connected to the computer. Finally, the content or encoded data in a CD-ROM can be searched and displayed on a computer screen that cannot be altered by changing or erasing it.

From the foregoing, the description and analysis of the nature of information resources was to put into proper perspective the type of information sources (textbooks, journals, e-books, thesis) and other information resources that academic librarians make use in the course of carrying out their daily activities. The use of these information sources is to facilitate job performance of academic librarians.

The main essence of preparing information resources is to facilitate ease of access which will in turn enhance the job performance of academic librarians (Sejane, 2017; Onifade and Sowole 2011; Nnadozie 2007; Afolabi 2007; Falk, 2003; Kitao and Kitao, 2001; and Nwozu, 2000; Rao; 2000). Despite the important role of easy access of information resources in enhancing job performance of academic librarians, scholars such as Toll (2001) cited in Jiyane and Ocholla (2004) found that, the use of information resources (reference sources) is fraught with problems. They asserted that many academic librarians do not know where to begin their search and most of them have little or no idea of how to use the online catalogue or perform searches in databases hence, hinder their job performance.

In Nigeria. Onifade and Sowole (2011) in their study on reference services in the university libraries found that majority of the respondents do not find reference resources relevant because they are obsolete and do not meet their information need for enhancing their job performance. The dearth of current and up-to-date information for research in university libraries in Nigeria is ascribed to poor levels of developing both print and electronic information resources (Afolabi 2007). Hence, there is need for libraries in Nigeria to stand as vanguards for reception of innovation exchange emanating from the developed economies.

In Nigeria, Omah and Urhiewhu (2016) conducted a study on a strategy for the effective utilisation of information resources in Karim Lamido local government area of Taraba State. Their findings revealed that textbooks, charts, pictures, chalk boards, graphs, transparencies, display boards,

encyclopaedias, dictionaries, globes and atlases were utilised to a significant extent in the local government, while televisions and computers were minimally utilised. This low level of utilisation was attributed to inadequate resources. The study recommended seminars and programmes as strategies to enlighten clientele on the relevance of the utilisation of information resources and services as this would help in enhancing the library resources utilisation level; and librarians should look inward to internally generated funds for equipping the libraries. Therefore, to achieve successful job performance of academic librarians, a functioning library with information resources needs to be in place.

Agboola (2009) conducted a study to elicit information on the use of print and electronic resources by agricultural science in Nigerian universities. A questionnaire was the main instrument for data collection. The results of the findings revealed that textbooks (42.1%) were the most preferred print materials being used by the respondents, while the essential electronic agricultural library (TEEAL) were the most preferred among electronic resources available in the libraries (52.2%). Findings further revealed that inadequate access to full Internet connectivity and lack of skills to use available electronic databases properly are the major challenges. This study is in agreement with the findings of Oduwale and Sowole (2006) that revealed that TEEAL was the most used electronic databases by staff. The study also showed that a significant relationship exists between the respondents' use of information resources (print and agricultural databases). In conclusion, it can be viewed that libraries had incorporated electronic sources into their collections; they were equally well-stocked with up-to-date print materials which has positive impact on their job enhancement.

In Africa, Nwatela (2013:52) emphasized that the utilisation of information resources is still dismally low. Mchombu (2000) agreed with Nwatela (2013) and noted that there is still a gap in the information exchange process in Africa. For instance, in South Africa, Jiyane and Ocholla (2004) observed that there are adequate information resources, but that academic librarians are overworked and so have no time to seek or locate appropriate information. This is not the case in Nigeria where most of the information resources are not relevant because they are obsolete (Onifade and Sowole 2011 and Afolabi 2007).

In India, Parameshwar and Patil (2009) conducted a study on the influence of library information sources environment on the use of resources by the faculty members and research scholars in Gulbarga University Library, India. The findings revealed that major access points to internet by the librarians in the survey were the university library (63.55%), department (37.24%), Internet cybercafé (35.51%) and home (18.22%). This finding shows that internet connectivity at the offices of the librarians was clearly lacking and this confirmed a poor state of availability and utilisation of information resources in the university. Several studies have confirmed a link between working environment such as information resources in the library and job performance (Naharuddin and Sadegi 2013; Chandrasekarr 2011; Vischer 2008 and Mohapatra 2003).

Kaminer (2010) studied the prevailing electronic information environment in the U.S. through a questionnaire survey. The study revealed that over 90% of librarians in the surveyed university were found to have computers in their offices and at home. Access to the internet was also very high at the two access points- homes and offices. In the same vein, a similar study conducted by Everhart and Logan (2005) in Ohio revealed that 99.4% of the students surveyed agreed that school librarians and library information sources helped the students and the academic librarians to succeed in their job performance.

Ollé and Borrego (2010) examined the use of electronic resources and its impact on the information behaviour of academics at Catalan universities. A focus group discussion was used to gather data from seven members of staff and five academic librarians. Findings from the study revealed that the amount of journal reading among academics as a result of increase in electronic journals availability enhanced their job performance. Findings further showed that academic librarians were aware of the importance of internet search engines as the first information sources for academics. The study concluded that librarians confirmed the upward trend in the amount of journal reading among academics owing to increase in the number of electronic journals available and the perceived influence of access of this information resources for job enhancement. In a related development, Dadize (2005) posited that electronic resources remain an invaluable research tools that can be used to complement the print-based resources in a traditional library thus supporting the argument that librarians preferred different kinds of database depending on their needs. This confirms the revelation from (Ollé and Borrego 2010).

From the foregoing, the extant literature in this section revealed a paucity of studies on information resources among academic librarians (Omah and Urhiewhu 2016; Kaminer 2010; Ollé and Borrego 2010; Agboola 2009; Parameshwar and Patil 2009; Oduwole and Sowole 2006). It is noted that most of the studies made use of single method approach with or without any theoretical base. Hence the present study tried to close this gap by employing mixed methods research and also explaining the theme "availability and utilisation of information resources among academic librarians for job performance enhancement in North Central Nigeria" with Maslow's Theory and TTF. In addition, the statement of problem, study's objectives as well as the research questions determine to a large extent the choice of theories used to explain the constructs of this study.

### **3.3 Information resources availability**

The volume of information resources available in the world is massive; hence it becomes obligatory to review information resources availability for academic librarians' job performance. Studies by Okiki (2013), Naidu, Rajput and Motiyani (2007), Eason, Richardson and Yu (2000) and Abels, Liebscher and Denman (1996) reveal that availability of information resources improves job performance of academic librarians. Despite this view, Jimba and Atinmo (2000) in contrast posited that availability and utilisation of electronic information resources has no significant relationship with job performance in Nigeria. Mahajan (2006) maintained that information usage for researchers had significant relationship with the performance of librarians that are science-based, while information usage revealed insignificant difference with performance of librarians in Humanities at Panjab University. Therefore, the inconsistencies in the findings of Jimba and Atimo (2000) and Mahajan (2006), makes it pertinent to further examine the effect of information availability and utilisation on academic librarians' job performance.

Ani, Ngulube and Onyanacha (2014) conducted a study on electronic resources as a platform for conducting research in universities. Their report showed that accessibility as well as utilisation of electronic information resources had a significant positive influence on research productivity of researchers in the surveyed universities. Further, based on discipline, accessibility was reported to have no significant influence on electronic information resources utilisation by researchers. On the other hand, the research findings of some studies conducted in Nigeria present contrasting views on the subject matter (Ehikhamenor 2003a; 2003b and Jimba and Atimo 2000). These authors noted that

the Internet contributes little to improving productivity. Even though 77.5% of the Internet users appraised e-journals as either important or very important, none of them could say how many journals they consulted. Therefore, the assessment of e-journals by the Nigerian scientists is based on their expectations rather than on their experience of actual use.

Okiki (2013) conducted a study on availability of information resources for research output in twelve federal universities in Nigeria. The study examined the productivity output of academia in some selected federal universities in Nigeria. The study adopted an ex-post facto research design which is a descriptive survey, and multistage sampling techniques to select 1,057 academic staff from twelve federal universities from the six geo-political zones of the country. Questionnaires were used for data collection. Data were analysed using descriptive statistics, the Pearson Moment Correlation Coefficient. Motivational Theories and User's Acceptance of Information Technology Theory were the two theoretical frameworks used for the study. From the findings, it was reported that librarians should organise continuous awareness program on availability of information resources to increase academic staff job performance productivity.

Further studies by Mahmood, Hartley and Rowley (2011); Vakkari (2008); Jankowska (2004); Nwezeh (2010); Badu and Markwei (2005); Ojedokun and Owolabi (2003); Mgobozi and Ocholla (2002); Ajala et al. (2010); Popoola (2009); and, Ani and Biao (2005) agreed with the view by Ani, Ngulube and Onyanha (2014).

As averred by Nazan and Kurbanoglu (1998), scholars in social sciences at a Turkish university used library resources (mostly refence resources) for teaching programmes and job performance. Also, Selvamani (2012) reported that books, periodicals and newspapers were the most used information resources for job enhancement among the faculty members in Chennai. Ani (2013) identified availability and utilisation of information as a single construct, whereas this present study examined availability and utilisation of information resources as two different concepts. This is because utilisation of information resources is determined by availability of the resources and thus, the need for the present study. Moreover, this study examined availability and utilisation of both electronic and non-electronic resources in Nigerian university libraries.



### **3.4 Information resources accessibility**

Library and information centres are established with the purpose of facilitating ease of access to information resources for users. Information resources accessibility entails the provision of means of retrieving information bearing materials in any form for a variety of purposes. Access to information resources could be within library environment or at user's convenient point of location (remotely). In a report presented at the workshop on journal provision by the Association of African Universities (2003) on the state of development of African University libraries, the body expressed concern that African university libraries have been left to decline to a pitiable state owing to inadequate funding and infrastructure. The organization highlighted that meagre research funding, low provision for periodicals and journals as well as absence of heavily discounted prices for e-resources, lack of database maintenance policy are some of the challenges confronting African University libraries. The workshop concluded that there is need for African university libraries to work closely with each other and focus more on ICT, bandwidth management, physical infrastructure as well as information sharing as a means of facilitating staff performance and efficiency. According to UNDP (2003:3), access to information is about advocating the idea that access to various sources of information is necessary for effective participation in a democracy process.

In a study conducted by Cilliers (1994:18), information accessibility is described as related to information resources availability of an information infrastructure, such as communication channels, delivery system and access points needed for acquisition, processing and use of information. However, the availability of information resources does not mean accessibility (Musa 2017; Aguolu and Aguolu 2002:3). Librarians or users of information resources should be informed, that is, they must be able to search and use information resources efficiently and effectively to enhance their performance. Scholars such as Moon et al. (2012); Adedoye (2000); and Cilliers (1994:18) have linked access to information to a librarian's job performance.

In Lesotho, access and use of e-resources in some selected academic libraries was investigated by Sejane (2017). The study was informed by the UTAUT model, and post positivist paradigm was adopted, and mixed methods were used for data collection. Findings revealed that e-resources (such as e-mail, websites and search engines) were mostly accessed and used. Further, the findings

revealed the main purpose of e-resources is to support academic librarians in their professional research. Besides, low internet bandwidth, obsolete information, budget cuts, inadequate searching skills and high cost of databases subscription were revealed as the major challenges to access and use of e-resources in the libraries. The author concluded that libraries must strive to ensure that information users enjoy unrestricted access to information resources. Evaluation and resource sharing procedure enhanced efficient management of e-resource collection as well as the use of e-collection development policies for enhanced academic librarian's job performance were recommended by (Sejane 2017). The gap in the literature reviewed showed that most authors studied factors influencing accessibility and utilisation of e-resources among scholars (researchers) without recourse to the utilisation of non-electronic resources. This study expanded the frontiers of scholarship by incorporating non-electronic resources.

In Malaysia, Hashim and Mokhtar (2012) studied trends and issues in preparing 21<sup>st</sup> century librarians and information professionals. The authors noted that globalization of information, integrated and widespread ICT applications among others are the major factors required to facilitate information access (Hashim and Mokhtar 2012:2). From the foregoing, it can be discerned that for academic librarians' job performance to be efficient, there must be new skills and competencies, particularly in the area of current trend in ICT so as to be able to manage library collections and services for easy access.

In India, Parameshwar and Patil's (2009) study on the utilisation of library resources at the Gulbarga University emphasised access to Internet. The authors reported low use of the university electronic information resources despite the huge investment and other collaborations with international agencies on information system development. The authors recommended the need for Gulbarga University management to maintain a well-equipped Virtual Learning Resource Centre as well as provision of mechanism for creating awareness on the available e-resources and Internet facilities for effective job performance by librarians at Gulbarga University. Similarly, Zhang (1998) evaluated the impact of e-resources on job performance of academic librarians as against the print resources at Rolling's College in the United States. The author observed that the impact of e-resources on formal scholarly communication in Library and Information Science is low, compared with the impact of

print resources, as measured by e-resources cited. Zhang (1998) further reported that e- journal format is the most cited source owing to user needs as against the print journal format.

In some selected universities in South-West Nigeria, Franca (2017) carried out a study on e-information resources accessibility and utilisation and research output of librarians. The study focuses only on e-resources. Findings revealed that all the surveyed universities have access to e-resources, but none of them exploit these resources to the fullest for their job output. Findings further showed that, the major problem faced by librarians in these universities is lack of time as a result of routine tasks, thus affects their level of usage and research output.

Ishola and Obadare (2014) revealed high level of accessibility of information resources in the selected universities studied. It was also reported that services provided in the library were not proactive, customer oriented and innovative, rather they were conventional, reactive and product oriented. The study further showed that for productivity to improve, the libraries must factor in ICT facilities and innovative approaches in their library services to further improve access and use which will increase job performance of librarians and users of the libraries. This was also noted by Bakare (1994) as cited in Asikhia (2010).

Ani (2013) investigated the impact of e-information resources accessibility and utilisation by academic librarians on job performance at two selected universities in Nigeria. Ani (2013) highlighted e-information resources accessibility and utilisation without considering non-electronic resources. Maslow's Hierarchy of Needs theory was used to underpin the study. The study adopted a quantitative approach as research paradigm with survey and bibliometrics as research methods. Questionnaire was used as the primary instrument for data collection. The data from the study were analysed using SPSS. This present study expanded the frontier of scholarship by incorporating non-electronic resources. Ani (2013) recommended that future study should consider non-electronic information resources. The position of this author resonates with Hobohm (1999) and Olanlokun and Lawoyin (1995) who noted that academic librarians depend on the use of textbooks, theses, monographs, dissertations and periodical literature for their research endeavours.

### **3.5 Information utilisation**

The competence to use information materials effectively and resourcefully depends largely on the amount of information/knowledge the librarians possess about the available information resources and how best to explore such. Information utilisation entails creation of awareness and provision of means of accessing available information resources for diverse purposes (Eiriemiokhale and Ibeun 2017).

The driving force for librarian's information use is to enhance job performance. Academic librarian functions typically revolve around teaching, community engagement, support for the research needs of staff, faculty, and students to assist in supporting the school's curriculum and as a result they require a wide range of information (Omopupa 2016). According to Omopupa (2016:39), the growing diversity of information resources gives academic librarians a variety of sources of information to choose from depending on their competencies and individual efficiency. Cornwall (2011) noted that the way an information resource is presented determines the effectiveness of its use.

Ani et al. (2016) conducted a study on strategies for enhancing the ICT-based library resources utilisation in research and job productivity. Findings revealed that lack of access to ICT resources, high cost of Internet use, inadequate funds, incompetence of library staff, lack of ICT skills and poor awareness of ICT-based library resources were some of the challenges affecting the use of ICT-based library resources. A study by Hussain and Kumar (2013) reported the use of information resources by faculty of Pharmacy in Chennai. The findings showed that most of the academic librarians from the master school of management visit the library for adequate access of reference resources and services for effective and efficient job performance. Findings further showed that books, periodicals and newspapers are the most used information resources that enhance job performance among faculty members while maps, charts microfilms/microfiches are of less used. Similarly, Selvamani (2012) revealed a positive relationship in the use of information resources by faculty of Pharmacy college.

Wanjiku (2013) examined utilization of educational resources for instigating librarian's performance in selected secondary schools in Mbeere South, Mmbu country, Kenya. The study

examined the status of physical and material resources in secondary schools and to determine how effectively students and staff utilize the available information resources in the libraries in influencing their performance. From the findings, it was observed that materials and physical resources such as textbooks and library services are inadequate which contributed to low performance in Kenya.

In Nigeria, Attama (2013) explored the impact of library resources on the publication output of academic staff in Nigeria polytechnics. From the findings, it was observed that there was average utilisation of some library information resources which led to low productivity level among academic staff in some polytechnics. The study further revealed that some library information resources had significant impact on job productivity of academics in terms of publication output. The findings showed that most respondents demonstrated poor skills in the use of library resources; inadequate modern ICT; poor electricity supply and non-availability of electronic resources as constraints to library resources utilisation. The study concluded that the libraries under study need to re-order their collection development and acquisition policies in order to meet the expected goal of information resources utilisation.

In University of Nigeria, Ugwu (2008) examined effect of some personal characteristics on the information resources utilisation by social science researchers. Findings showed that education and position are good predictors of information use while professional experience had little influence in explaining variations in information resource use. Similarly, in Nigeria, Jagboro (2003) conducted a study on the use of Internet by university academic staff. Despite, the advantages of internet to research, learning and teaching, a number of difficulties still persist in the use of Internet for academic purposes in science-based programmes. The author concluded that the use of Internet for research would positively improve librarian's job performance through the provision of access points at the faculty and departmental levels. In addition, the findings by Franca (2017); Agba, Mbotto and Agba (2013); Hashim and Mokhtar (2012); Everhart and Logan (2005); Lonsdale (2003) and Zhang (1998) showed that Internet facilities had a significant contribution to academic librarian's job performance.

### **3.6 Job performance of academic librarians**

Job performance is referred to as the behaviour an individual engages him/herself in or produces in the workplace in line with an organization's goal (Ikyanyon and Ucho 2013). From the behaviourist's point of view, it is the productivity of an individual's job-related behaviours (Shooshtarian, Ameli and Aminilari 2013; Zamanet et al. 2014 cited in Ugwu 2018:4). However, job performance can be measured through punctuality, work quality, performance, personal characteristics, work environment, behaviour as well as job outcomes, and training effectiveness (Tseng and Huang 2011).

In Pakistan, Tahir, Mahmood and Shafique's (2010) study reported that library personnel's job performance was impacted by lack of formal training and skills to use modern technology. In terms of the preference of electronic resources over non-electronic resources, their findings showed no significant differences to librarians' job performance. The results also revealed that the scholars liked to use both electronic and non-electronic information resources.

Kebede (1999) adopted performance evaluation of academic librarians in three academic libraries in developing countries (South Africa, Ethiopia and Egypt). Issues of value awareness, evaluation cost, shortage of staff and lack of methods and tools to employ for the purpose were emphasized. The author concluded that performance evaluation templates for librarians working in the library in developing countries were almost absent. This is because the information resources in developing countries make performance a very difficult task to undertake.

A study by Lamptey, Boateng and Antwi (2013) on public universities in Ghana focused on motivation and job performance of librarians, the effect of motivation on performance, the intrinsic and extrinsic factors that contributed to low job performance. The study used Maslow's Hierarchy of Needs as theoretical framework. From these findings, the authors discovered some factors that determined low job productivity among librarians which included poor information resources in the library or shortage of information sources, lack of skills, inadequate training and inadequate ICT skills. Similarly, Aiyetan and Oltuah (2006) examined the relationship between motivation and performance of workers in the Nigerian universities. The findings of Lamptey, Boateng and

Antwi (2013) and Aiyetan and Oltuah (2006) established that staff were not carrying out their work as expected despite the fact that they were motivated.

In Nigeria, Oyewole and Popoola (2015) examined the effect of personal factors and work locus of control on library personnel's job performance. As revealed by the findings, there was a significant correlation among independent variables (such as work experience, age, position, academic qualification, monthly salary and work locus of control) and dependent variables (library personnel's job performance). The need for library administrators and managers to venture into the recruitment of personnel with the independence variables was recommended as a means of enhancing job performance. This resonates with Belias, Sdrolias and Koutiva (2013) study that noted that demographic variables had a significant relationship with job performance of employee. However, the finding contrasted with outcome of similar research in Britain and United States of America that demographic variables that come with age, working experience appear to count less for job performance (Munk 1999).

In Nigeria, the relationship between staff development programme and librarians' job performance in Maiduguri were examined by Saka and Haruna (2013). Findings revealed no significant relationship between formal education and staff's job performance in the branch libraries. Findings further revealed a significant relationship between conferences/seminars and job performance of academic librarians in branch libraries. The study also revealed a significant positive relationship between workshop attendance and librarians' job performance in the surveyed libraries. In spite of various forms of formal education available in the surveyed university, lack of dedication and commitment to duty hindered librarians job performance. Adomi and Famola (2012); Mbagwu and Nwachukwu (2010) and Saka (2008) also reported that a significant relationship existed between educational qualification and job performance and that there was high correlation between training programmes and job performance of academic librarians.

Madukoma and Popoola (2012) and Madukoma and Opeke (2013) examined job performance of librarians based on self-rated measure. The authors noted that the weakness of this approach is that the respondents (employees) may be biased in their assessment. This is the gap the study seeks to fill by adopting Heilman, Block and Lucas's (1992) self-rated and supervisor rated performance

measure. The scale contains ten questions in all with the first five items measuring self-rated performance to be completed by academic librarians and the other five items measuring the supervisor rated, to be completed by the university librarians for employees under them in the selected universities.

In South-West, Nigeria, Amusa, Iyaro and Olabisi (2013) conducted a study on work environments and public university librarians' job performance. The authors reported that the work environment for librarians in terms of physical facilities, open communication, motivation and information resources in the libraries played a crucial role in determining their job performance. The study also established that there was a significant correlation between work environment, information resources and job performance of academic librarians. Improved physical facilities, personal emolument and constant funding by the government were recommended as means of improving performance within the system.

Igbinovia and Popoola (2016) investigated organizational culture and emotional intelligence as predictors of job performance among library personnel in academic libraries in Edo state, Nigeria. From the findings, it was revealed that there were high levels of job performance, emotional intelligence and organisational culture among library personnel. The study further showed a positive correlation between job performance of library staff and organisational culture. The direct combination of organizational culture and emotional intelligence were found to predict job performance of library personnel in the academic libraries under study. This finding agrees with that of Parthasarathy and Ramalingam (2015); Olanipekun, Aje and Abiola-Falemu (2013); Ng'ang'a and Nyongesa (2012); Pizer and Hertel (2005). However, from the above scenario, it can be deduced that for academic librarians' jobs to improve there must be relationship between emotional intelligence and organisational culture which is influenced by demographic, psychological and institutional factors.

Ikonne (2015:863) examined the impact of performance appraisal on library employees' job performance in selected South-West Nigerian university library and information centers. Findings revealed that perceived performance evaluation of library staff (routine appraisal of an employees' job performance) as a management device designed to improve the personnel's performance; but



not a management means for strengthening superior-subordinate relationship. The author further noted that performance appraisal could influence job performance as it can be used to motivate employees to work harder. The study, however, recommended suitable appraisal scheme that will suit the library personnel's performance and a regular feedback to the employees after an evaluation for effective job performance among librarians. This corroborates Schachter (2004)'s report on the importance of evaluation in enhancing academic librarian's job performance. The finding of the study was aligned with the submission of Heilman, Block and Lucas's (1992) on the importance of maintaining supervisor-rated performance measurement in an organisation.

A mediation model of transformational leadership was proposed by Ugwu (2018) for improving librarians' job performance in Nigerian university libraries. Ugwu reported that knowledge management has influence on the relationship between transformational leadership and librarians' job performance in the selected university libraries. This finding was in agreement with previous studies by Nwaigwe (2015); Manaf and Hatif (2014) and Walumbwa, Avolio and Zhu (2008) which revealed existence of a relationship between job performance and transformational leadership.

Madukoma and Popoola (2012) investigated the relationship between utilisation of library and job performance of senior non-academic staff in Nigeria. The authors reported that non-academic personnel do not regularly use library owing to their busy schedule, unlike their academic counterparts, who must make use of the library for regular update in their teaching and research activities. As revealed from the findings, that there was no significant relationship between job performance and gender of respondents. Besides, there was a significant relationship between utilisation of library and respondents' work performance.

### **3.7 Factors inhibiting effective job performance of academic librarians in university libraries**

Several authors such as Ajie (2019); Okiki and Durodolu (2018); Khuong and Yen (2016); Al-Fadhli, Corral and Cox (2016); Ani et al. (2016); Familusi and Ajayi (2015); Ndakalu (2014); Amusa, Iyaro and Olabisi (2013); Rahman, Khatun and Islam (2008) and Johnson (2007), among others, have discussed the main problems and challenges faced by academic librarians in carrying

out their activities. A review of the literature on some of the studies conducted at international level in general and particularly in developing countries to investigate the factors inhibiting effective job performance of academic librarians in university libraries will now be examined.

Khuong and Yen (2016:1) identified five working factors (role ambiguity and conflict, work overload, working relationship, career development and working environment.) that prevented effective job performance. These factors had influence on librarians' job performance in some industries at Dong Xuyen Industrial Zone, Ba Ria –Vung Tau Province, Vietnam.

Johnson (2007) noted that academic librarians and other information professionals in Mongolia were not motivated and therefore, they were not eager to improve their job performance. The findings also revealed that government barely provided enough funds for the establishment of libraries during the Soviet period, neither was it inclined to invest scarce information resources to train academic librarians that seemed to lack relevance in the face of the enormous economic and social upheaval following the collapse of the Soviet Union. Findings further showed that there has been no attempt to re-evaluate the entire system of libraries and library education to make it more relevant to the information needs of the country. The author concluded that the job performance of academic librarians in Mongolia continue to suffer from absence of financial assistance by governments towards enhancing their job performance.

Furthermore, study conducted by Siwakoti (2008) revealed the lack of government agency to control, evaluate and monitor job performance of academic librarians in some of the library schools. Therefore, inadequate budgetary constraints, lack of awareness programmes, inadequate library materials, inadequate space, lack of trained and skilled manpower and lack of appropriate government policy are the hindering factors for effective job performance of academic librarians.

Ndakalu (2014) explained the utilisation and access to digital information resources at the University of Nairobi academic library. The study revealed that majority of the academic librarians used the digital information resources in the library for their job performance. The study further showed that majority of the respondents do not approach the librarians for digital information resources services. Absence of adequate information skills, poor information infrastructure and

inadequate training are the major challenges confronted in accessing and utilising digital information resources. The study recommended that, for effective utilisation and accessibility of digital information resources in the library to enhance job performance, the management should formulate a strategic plan, policies and ensure extensive training for staff and others library users.

Rahman, Khatun and Islam (2008) studied the library education and job performance in Bangladesh. Findings showed that majority of the library do not have sufficient numbers of computers in the library, that there is inadequate classification and catalogue tools, inadequate information resources, poor motivational factors, training, low salary scale and delay in promotion which constitute hindrances to poor job performance of academic librarians.

Ali and Bakhshi (n.d: 109-110) noted that academic librarians in India are facing many challenges on their job performance such as inadequate funds, poor infrastructure, lack of permanent modern information resources, problem of policy and evaluation and lack of global perspective were identified. The authors suggested that an aptitude test should be conducted among academic librarians before appointment. Re-training of staff should be made compulsory for all academic librarians, availability of high-quality staff and part- time based learning programmes should be adopted for academic librarians who require further study. The need to maintain a complete infrastructure was recommended as a means of imparting practical training among the personnel. It was concluded that to enhance high job performance of academic librarians, there should be periodic provision of access to frequent training, modern information resources and ICT facilities.

Jestin and Parameswari (2005:1) investigated the difficulties confronting librarians in the 21st century in India. The authors noticed that, librarians were exposed to different challenges in their day-to-day activities. The introduction of PCs and new innovation was a problem to all library professionals, and it was agreed that librarians ought to be prepared to partake in the process of producing and distributing knowledge and information for personal satisfaction and training for all (Jestin and Parameswari 2005:3). Also, Dasgupta (2009:8) revealed that there is non-presence of standards and norms for the education of academic librarians in India. Challenges for Indian librarians was the rise of new LIS schools, deficient workforce strength, absence of accreditation bodies, absence of legitimate library offices, inadequate physical infrastructures and absence of

apprenticeship programme all leading to low job performance (Dasgupta 2009:8). The study recommended that management should play a leading role in helping LIS education in India, by creating more job opportunities for LIS professionals (academic librarians inclusive) and removing disparity in pay scales among LIS professionals so that the academic librarians could put more effort in order to improve their performance. Haider (2003) revealed the present job performance scenario of academic librarians in India is not so inspiring. The author remarked that funds and inadequate modern information materials in the country are some of the challenges facing academic librarians in India. It was suggested that in order to improve job performance, an academic library needed to improve the quality of their information resources and other physical facilities.

In Iran, Gavvani, Shokraneh and Shiramin (2011:9) concluded that librarians do not have traditional skills and sufficient background knowledge to meet the changing needs of their job requirements. According to these authors, librarians must be empowered with the new skills and resources that will enhance their job performance. For effective and efficient job performance of a librarian in Iran, there is need for changing the resources in the library. Also, Al-Fadhli, Corral and Cox (2016) found that lack of technological skills, staff workload and insufficient number of staff are the major obstacles confronting job performance among librarians In Kuwait.

In Pakistan, Mohammad (1992) enumerated problems hindering effective job performance of librarians as: lack of opportunities for proper training, appropriate guidance, availability and access to information sources, financial assistance and sponsorship, encouragement, publication or dissemination of research findings, and personal interest and initiative. The study does not show a healthy picture of academic librarian's job performance as all libraries are not fully automated. Internet service for librarians is only provided in university libraries, the provision and the use of Internet is not present in both public and college libraries. In Nigeria, the foregoing problems are also a common phenomenon.

In Africa, Nigeria in particular, Nwalo (2000:2) stressed that African countries face the challenge of effective and efficient management of information resources in the 21st century. The author lamented that African countries face bottlenecks of apathy and inadequate funding by governments

and their officials. Undeveloped information infrastructures and shortage of technology manpower have been identified as problems that academic librarians encounter in carrying out their jobs. Faniran and Olaniyan (2012) suggests the need to share information resources between information rich and the information poor across cultures for mutual benefit. This is in line with Kagan's (2000:1) view, that emphasised that "electronic information resource as a commodity or public good that influenced the development of library services and the basic assumptions should be examined concerning the provision of electronic information resources in order to fill the growing gap between information rich and information poor for effective job performance of librarians".

Amusa, Iyaro and Olabisi (2013) found that the environmental factors of academic librarians in terms of physical facilities, motivation and open communication are favourable factors that could enhance academic librarian's job performance in public university libraries in Nigeria while personal emolument was a hindering factor for low job performance. Further findings showed that there is positive correlation between work environment and performance of academic librarians in order to ease the problem of underperformance of librarians, the study recommended that physical facilities, funding and better emolument should be provided. Similarly, Ndagana's (2007) study in Nigeria; Iyoro's (2005) study in Nigeria noted that when workers are given necessary motivation and better physical facilities they require, they tend to display maximum willingness in the discharge of their duties which in turn enhances their job performance.

According to Igbokwe (2011:32), many factors could hinder effective job performance in Nigeria. According to the author, personal factors such as poor attitude to work, training, absenteeism, underproductivity are major factors that affect librarian's job performance. Similarly, Chikaodili (2010:45) and Nwachukwu (1988) listed the following as factors hindering librarian's job performance:

- i. managerial ability;
- ii. lack of skill or technological know-how;
- iii. lack of physiological drive; and
- iv. attitude/technology employed.

In supporting the findings of Chikaodili and Nwachukwu, Lowler and Porter (n.d.) cited in Mbagwu and Nwachukwu (2010) stressed that individual's efforts, environmental factors and inadequate

funding hindered academic librarian's job performance. The authors further categorised environmental factors to include education, organizational design, organisational policies, social expectations, training and values. Further findings showed that staff development and training job performance as majority of the respondents acknowledged that they performed above average after training. In view of the above, academic librarian's must strive to understand their role in the library as well as channel their energies positively for effective job performance.

The reviewed literature indicated that there are barriers inhibiting information resources availability, accessibility and utilisation among librarians which in turn have a negative effect on their job performance. The limitations noted include lack of information literacy (lack of ability to retrieve and use the right information) poor funding as well as limited physical access to resources.

### **3.8 Summary**

The chapter introduced the importance of literature review in any study. Examined were the concept and the significance of information resources. The chapter examined various type of information resources used in academic libraries. The reviewed literature showed that a library information resource comprises both print and non-print materials. The chapter further discussed key variables used in the study. Both locally and internationally relevant empirical studies were identified, evaluated and reviewed. This review was mainly on information resources, information accessibility, information availability, information utilisation as well as job performance.

It is evident from the available literature that, substantial parts of the studies were conducted in developing countries and some in developed countries with few studies emanating from Nigeria. The implication of this is that, academic librarians in Nigeria have not contributed immensely to the discussion on information resources as determinants of job performance.

A major revelation from the reviewed literature indicated that no study has been conducted from the North-central region of Nigeria on the subject matter for the enhancement of librarians' job performance. This is the lacuna in the knowledge that the study seeks to fill. Lastly, the chapter identified some of the hindering factors for effective job performance of academic librarians.

## **CHAPTER FOUR RESEARCH METHODOLOGY**

### **4.1 Introduction**

Chapter Four of the study deals with the procedures and methods adopted in conducting the study. The chapter justifies the choice of research philosophy, research design and data collection techniques employed to achieve the research objectives and questions of the study. Research methodology as described by Schensul (2012:72) is the strategy that researchers use to ensure that work can be repeated, critiqued and adapted. These approaches serve as a guide on the choices scholars make about sampling, data collection and analysis. Research methodology could also be described as the set of techniques or guide to the researcher used to conduct research (Creswell, 2003:365; Howell 2013:194). It is primarily concerned with the understanding a scholars/researcher has about social realities, the interpretation given to a phenomenon, and the basic apparatus put in place for planning proper research strategies and procedures used in addressing issues within a body of research (Cohen, Manion and Morrison 2007:91). Similarly, Kothari (2004) describes research methodology as a way to systematically solve the research problem

In similar vein, Govender (2018:357), defined research methodology as the entire nature of the procedures that are carried out in the research. The methods define the means or modes of data collection or, sometimes, the manner in which a specific result is to be calculated (Howell 2013). However, one may consider "method", with regards to investigate, as a methodology, strategy and rules that are utilized in conducting a research (Hassani 2017:5). A method might require various apparatuses, instruments, gear and such. Besides, "methodology" could be viewed as a logical approach that explores, compares, contrasts and explain various approaches to which a research could be carried out with the use of different methods (Hassani 2017:5). Therefore, methodology permits researcher to make a reference based on reasoning, realism, beliefs and knowledge that inform research (McGregor and Murnane 2010).

In a related development, research is a term used copiously for any kind of investigation that is intended to uncover interesting or new facts (Walliman 2011). The term research is made up of two syllables, 're' and 'search' which means to investigate, inquiry, examine, test, try, search again

among others (Kumar 2011:7). Kumar (2011:1) further noted that, research is a method of analyzing fundamentally the different parts of the everyday work of the professional; understanding as well as devising guiding ethics that represent a specific process and creating and examining recent theories that add to the development of the researcher's reputation and profession. Fowler, Fowler and Crystal (2011) described research as the methodical investigation into and study of materials and resources in order to establish facts and reach a new conclusion. In humanities, DePoy and Gitlin (2015) cited in Hassani (2017:1), described research as a systematic strategy employed to generate knowledge about human behaviour, experience and environments in which thinking and action processes of researcher are clearly specified to be logical, understandable, confirmable and useful. Pandey and Pandey (2015: 577) noted that, a research is a systematic investigation or activity to gain new knowledge of the already existing facts. The authors further noted that research is responsible for bringing to light new knowledge, correcting current mistakes, removing existing misconceptions and adding new learning to existing pool of knowledge. Also, research is considered as the application of scientific method in solving the problems (Pandey and Pandey 2015).

Therefore, the purpose of this section is to provide underlying assumptions about the scenery of the reality being examined, what makes a "valid" research and which research methods are suitable to a particular research undertaking (Myers 1997). These sets of values and beliefs refer to theoretical traditions (Prasad and Prasad 2002; Patton 2002), or research orientations (Tesch 1990) or paradigms (Kuhn 1962; Kuhn 1996 cited in Denzin and Lincoln 2005 and Orman 2016). Similarly, authors such as Berg (2008), Williams and Morrow (2009) noted that research is underpinned by various philosophical beliefs or schools of thoughts. These philosophical beliefs or schools of thoughts are referred to differently in literature. The authors further indicated that research could be regarded as paradigms. Meanwhile, Creswell (2014) classified research as world views, rather than paradigms. Some of the research paradigms include interpretivism, positivism, post-positivism and pragmatic paradigms among others (Creswell 2014). These paradigms provide the ontological and epistemological stance of a study for any preferred methodology that a researcher chooses to use in carrying out social research, be it quantitative, qualitative, or mixed method. This section further provides methodological justification for the study as well as insight



into the specific procedures followed in obtaining, organising and analysing data gathered for the study.

The chapter is organised into: research paradigm; research design; location and population of the study; sampling procedure; reliability and validity of instrument; data collection; data analysis, ethical considerations and evaluation of research methodology. The next section of the study discusses the research paradigm that guided the study.

## **4.2 Research paradigm**

This research was conducted within the paradigm of post-positivism. Bryman (2008:605) defined a paradigm as a model or framework for observation and understanding, shaping both what we see and how we understand it. Paradigm is a way of observing likely occurrences that encompass a set of theoretical assumptions which guide one's approach to enquiry (Polit and Beck 2004:13). It is a basic set of beliefs that guide action (Guba 1990:17). According to Du Plooy-Cilliers (2014:19), a paradigm is referred to as research traditions or worldviews. In other words, they enlighten the researcher on how research can be undertaken accordingly. As such, Kivunja and Kuyini (2017:26) argued that research paradigm makes up the abstract opinions and rules on how a researcher understands the world, and in what manner he/she understands and acts inside that world. By worldview, it is implied that a paradigm constitutes the conceptual convictions and principles that influence how a researcher sees the world, and how he/she interprets and acts inside that world.

Paradigms are also called epistemologies, worldview and ontologies Morgan (2007) or broadly conceived research methodologies (Neuman 2009). Worldview is a general philosophical orientation about the world and the nature of research that a researcher brings to a study (Creswell 2014:35). Worldviews arise based on discipline orientations, inclinations of students' advisors/mentors, and past research experiences (Creswell 2014:35).

There are numerous approaches to research. Neuman's (2000) approach, for instance, entails the study of individuals, as well as their beliefs, interaction, behaviour and institutions. The following are some of the approaches: positivist, post-positivist, interpretative, constructivist and critical (De Vos et al. 2011:5).

Thomas Kuhn's book titled "The structure of scientific revolutions", first published in 1962 (Mouton 1996:203) "espoused the foundation of the word paradigm". The second edition of the book which was published in 1970 draws attention to the role of paradigms in the history of natural sciences. Before then, Mouton and Marais (1990:150), Mouton (1996:203), Creswell (2007:19) Collis and Hussey (2009:55), Babbie (2010:33; 2011: 34) and De Vos et al (2011:40) had used the term; and the supporting theory of paradigms had a key influence on the philosophy and methodology of social science. Polit and Beck (2012:29) asserts that a paradigm is a worldview, a general perspective on the complexities of the world. Furthermore, paradigms for human inquiry are often characterized in terms of the ways in which they respond to basic philosophical questions, such as, what is the nature of reality? (ontology) and what is the relationship between the inquirer and those being studied? (epistemology) (Polit and Beck 2012:29).

More precisely, a paradigm includes the recognised theories, approaches, traditions, body of research and methodology, models, frames of reference. The term could also be seen as a model or framework for observing and understanding a phenomenon (Creswell 2007:19; Babbie 2010:33; and Babbie 2011:32). Hence, paradigms occupy a significant position in social sciences research. Furthermore, various scholars have ascribed meanings to the notion of paradigms in research. For instance, Creswell (2009) used the term world view. Thus, the adoption of the term paradigm is figurative when applied in natural sciences, as opposed to the social sciences. It is also a paradigm that provided the ontological and epistemological stance of a study. May (1997) viewed research methodology as beliefs and paradigms, while Guba (1990) and Creswell (2014) referred to it as worldviews.

Pickard (2013: 12), also established that there are three main types of research paradigms in social science. These are summarised as interpretivism, positivism and post-positivism.

#### **4.2.1 Interpretivism**

This refers to a research paradigm that is more concerned with the position of individuals and perceptions with regards to a specific research concept or phenomena Bryman (2012:30).

Interpretivism is based on the view that a strategy that respects the differences between individual and natural sciences objects is needed and therefore, requires the social scientist to understand the

subjective meaning of social action. Also, interpretivism is a dominant philosophical approach which enables an individual to understand the social world through meaningful interpretations of the world inhibited by those who have already interpreted the meaning generated as part of their daily operations (Punch (2013). As noted by Willis (2007), the idea of multiple viewpoints on interpretivism arises from the idea that external reality varies. However, different people are left with varying perceptions of the world (Willis 2007:194). The acceptance of multiple views of interpretivism often lead to a more comprehensive understanding of situations (Morehouse 2011 cited in Thanh and Thanh 2015:2).

The term relates to the philosophical position of idealism and is used to group together different approaches such as phenomenology, social constructivism and hermeneutics; these methods preclude the objectivist view that meaning resides within the world independently of consciousness (Di Iorio 2015:11). Interpretivist methods also emphasised the need for researchers in social science to view themselves as social actors as a means of appreciating people's diverse ideologies. The researchers on interpretivism came to the field with some sort of prior acumen of the research context and assumptions that there exist some insufficient ideologies needed for developing a fixed research design owing to multiple, complex and unpredictable nature of what is observed as reality (Hudson and Ozanne 1998). Furthermore, interpretivism studies usually centre on meanings and may employ multiple approaches to reflect different aspects of the issue.

#### **4.2.2 Positivism**

The paradigm that dominated research for centuries is called positivism (also known as logical positivism). According to Addae and Quan-Baffour (2015:155), positivism believe that natural science assumptions and methods can be utilized in the social sciences. In this regard, the assumptions and methods of natural sciences can be used to study social phenomenon. Even though natural science deals with nature that is static, social science deals with more complex and dynamic human beings. Saunders, Lewis and Thornhill (2009:138) added that scientific methods and language is generally used in positivism research to explore and document human experiences with focus on quantifiable outcomes that are suitable for statistical analysis. In philosophy, positivism adheres to the view that only "factual" knowledge acquired through observation (the senses), measurement among others is reliable (Scotland 2012:10). In positivism studies, the

researcher's role is limited to data collection and analysis with the aid of objective method and research findings that are usually observable and quantifiable (Dudovskiy 2018). Carson et al. (2001) noted that the positivist ontology believes that the world is external and that there is a single objective reality to any research situation regardless of the researcher's viewpoint or belief. Thus, positivists take control as an organisational approach in conducting investigation by identifying a clear research topic, constructing suitable hypotheses and adopting appropriate research methodology (Churchill 1996; Carson et al 2001). Positivist scholars are disconnected from the participants of the research by creating distance, which is significant in remaining emotionally neutral to make clear difference between reason and feeling as well as between personal experience and science (Carson et al 2001).

The concept of positivists is that there is a reality out there that can be studied (Polit and Beck 2012:30). In other words, the world is assumed not just to be a creation of the human perception. The goal of positivist scholars is to make time and context-free generalisations. They observed that this is conceivable considering human actions which can be explained as a result of real causes that temporarily precede their behaviour and the researcher and his research team are independent and do not sway each other (Hudson and Ozanne 1998).

#### **4.2.3 Post-positivism**

Post-positivism developed from earlier paradigms as perceptions of knowing changed (Ngulube and Ukwoma 2019). It offers another paradigm that can shift positivism from a narrow view to a more comprehensive manner of looking at real-world problems (Henderson 2011: 342). Panwar, Ansari and Ali Shah (2017:253) assert that post-positivism was ventured as a response by educational researchers to the confines of positivism as a paradigm. Educational researchers found that positivism could not satisfy the prerequisite for social sciences resources as it (positivism) bases itself in light of observable and empirical analytical facts. Polit and Beck (2012:30) noted that, in the post- positivist paradigm, there is still a belief and a desire to understand that post-positivists recognize the impossibility of total objectivity. They do, however, see objectivity as a goal and strive to be as neutral as possible. Post- positivists also appreciate the impediments to knowing reality with certainty and therefore seek probabilistic evidence, that is, learning what the true state of a phenomenon probably is, with a high degree of likelihood (Polit and Beck 2012:30).

The current study was based on the post-positivism paradigm due to the use of both quantitative and qualitative approaches and results from these approaches augment each other in comparing the findings. However, the present study used post-positivism approach (that is the use of both qualitative and quantitative approaches with quantitative method being the dominant approach adopted for the study). The justification for the choice of post-positivism paradigm for this present study was that it allows a combination of both quantitative and qualitative methods (Olasina 2014). Quantitative and qualitative methods have been identified as a key element for improving social science research (Gorard and Taylor 2004:7). Creswell (2009:7) noted that most studies emanating from post-positivist framework are theory-driven and primarily concerned with testing or verifying theories, rather than developing a new theory. Post-positivists also recognise the intricate relationship between individual behaviour, attitudes, external structures and socio-cultural issues (Crossan 2003). The current study was informed by the post-positivist paradigm to test the influence of independent variables such as availability, accessibility and utilisation on job performance. For this present study, the post-positivist paradigm was used to gather data relevant to the research problem. Hence, study of this nature fell under this assumption because it seeks to investigate the availability, accessibility and utilisation of information resources by academic librarians for job performance enhancement in academic libraries particularly in a developing country like Nigeria.

### **4.3 Research design**

Research design, which some scholars call “strategies of inquiry” (Denzin and Lincoln 2011:56) is applied so that suitable research methods are used to ensure the realization of the main aims and objectives set out in Chapter One. Bhattacharjee (2012:35) noted that, a research design is a complete arrangement for data accumulation in a practical research undertaking. Research methods are the various procedures, schemes and algorithms used in research. All the methods used by a researcher during a research study are termed as research methods. A research design links the empirical data to a study's initial question and ultimately to its conclusion or to an action plan for moving from research question to data collection, analysis, interpretation and proffering solutions to the problems (Yin 2003). Sekaran (2003:26) and Kothari (2004) agreed with Yin's (1989) position and added that research design offers numerous critical decision-making possibilities on how data can be efficiently collected and scrutinised to arrive at solutions. According to Ngulube (2019:85), research design

should be appropriate and sound if it is to produce research that is trustworthy and beneficial to society. Pandey and Mishra (2015:18-19) highlighted some of the purposes of a research design as follows:

- i. To provide direction;
- ii. To provide an overview to other experts;
- iii. To provide blueprint for plans; and
- iv. To minimize expenditure.

According to Punch (2006:156), a survey method is an approach employed for gathering data from a vast array of respondents which may be quantitative, qualitative or mixed methods. Neuman (2006:28) noted that, in a survey, the researcher usually asks questions from the target respondents with the aid of questionnaire, interview, observation checklist among others. The author further opined that the survey method is suitable for social research owing to its wide coverage. In addition, the combination of questionnaire and interview schedule helps researchers to derive maximum benefits from the research environment rather than using a single research instrument.

This study therefore, adopted a survey approach because it is associated with the philosophical paradigm of post-positivism which underpinned the study. Post-positivistic scholars embrace scientific approaches and systematise the information process with the aid of quantification for boosting exactness of parameters and the relationship description between the two processes. Post-positivism is also concerned with revealing the truth and presenting the results via empirical means. However, in this study, data were obtained through primary and secondary sources. The primary data for the study were sourced via questionnaire and interview, while the secondary data were obtained through the use of books, the Internet, unpublished and published reports, periodicals as well as journals.

#### **4.4. Location and population of the study area**

The study was carried out at the Federal University of Agriculture, Makurdi; Federal University Lokoja; Federal University Nasarawa; Federal University of Technology, Minna; University of Abuja; University of Ilorin; University of Jos Libraries. All these university libraries are in the North-central region of Nigeria.

Population means the entire number in the study, which is the parent group from which a sample is to be drawn. The term population conveys a different meaning than a traditional one. In census survey, the count of individuals (men, women and children) is known as population (Pandey and Pandey 2015). Babbie and Mouton (2001:100) described a population as a group (usually of people) about whom a conclusion is drawn. The essence of this definition was further emphasised by Welman, Kruger and Mitchell (2005:52), who maintained that a population consists group of people, objects, institutions/ organisations, products and social events. Also, Collins and Hurssey (2003) cited in Musonda (2014:47) defined a population as a body of people or any other collection of items under consideration for research purposes. The choice of North-Central geopolitical zone in Nigeria is purposive because the region has the highest number of academic librarians working in federal universities compared to other regions in the country (Nigerian Library Association Online Forum 2016). The region also has the highest number of federal institutions in Nigeria. Furthermore, the choice of the region is also in consonance with the findings of Etuk (2015); Bolaji (2018) who noted that North-Central region of Nigeria contained the second, third and fourth generation universities established from 1975-2011 based on the National Universities Commission's transformation process. The population of both academic librarians and the heads of libraries (university librarians) was obtained through the Nigerian Library Association Online Forum and personal contact with professional colleagues in sampled institution as shown in Table 1 below:

Table 4.1: Population of academic librarians in the selected university libraries

Population	Uni. <sup>1</sup> of Ilorin	Uni. of Jos	Uni. of Abuja	Fed. Uni. Lokoja	Fed. Uni. Nasarawa	Fed. Uni. of Tech. Minna	Fed. Uni. of Agri. Makurdi	Total
Academic librarians	10	25	13	14	10	27	29	128
Heads of libraries	1	1	1	1	1	1	1	7
Grand total	11	26	14	15	11	28	30	135

Source Nigerian Library Association Online Forum (2016)

#### 4.5. Sampling procedure

This study used the census method, where all the one hundred and twenty-eight (128) academic librarians were surveyed and interviews were conducted with the seven (7) head of libraries to elicit information from them. The study elicited data from the academic librarians such as the heads of the libraries, deputy university librarians, principal librarians, senior librarians, librarians I and librarians II in order to obtain answers from the research questions. The justification for utilising the aggregate enumeration of academic librarians in data gathering was that the number was controllable and has the means of enhancing the representativeness level of the research outcomes at the end. The use of total enumeration was justified by O’Leary (2007:102), who noted that, the use of total enumeration becomes utmost important when the population is few and manageable to the researcher. In addition, Creswell (2009) recommended the use of a census when studying the whole population. Israel (1992: 2) argued that if the sample size is 200 or less it is advisable to conduct a census. Israel (1992) further noted that conducting a census for a small population removed sampling blunder and provides information on everyone in the population. The total number of librarians in the population was 135, which was less than 200; thus, the researcher considered it suitable to conduct a census.

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<sup>1</sup> Uni. represents University



In-depth interviews were also conducted with the heads of libraries in order to have first-hand information on key issues related to the use of information resources for job performance of academic librarians. However, as the study utilised generic<sup>2</sup> qualitative research method, Morgan (1997); Chua (2004); Johnson and Christensen (2008) and Krueger (2009) recommended six to twelve respondents. Therefore, seven heads of libraries (university librarians) were selected for this study for interviews based on the recommendation of the above authors. This set of participants was purposively selected because they were in better position to validate information provided by academic librarians on their job performance and because of their managerial experiences in the university library. Merely using the opinions of academic librarians alone to measure their job performance would not give any reliable data. Hence, the need for the opinion of the university librarians.

#### **4.6 Data collection methods**

Data in research can be collected using various procedures: tests, questionnaires, interviews, classroom observations, diaries, journals etc (Zohrabi 2013:254). The administration of research tools of data collection on the respondents is described as data collection (Bhandarkar and Wilkinson 2010). The study utilised structured questionnaires and interview (See Appendix II and III) schedules in capturing views, opinions, and responses from participants. The focus of the survey was three-fold. Respondents were asked to indicate the extent and level with which they access, use and make available library resources in enhancing academic librarians job performance. Questionnaires and interviews were employed. The combination of questionnaires and interview schedules helps researchers to derive maximum benefits from the research environment rather than using a single research instrument. The experts from Library and Information Science Departments in two universities in Kwara and Kogi States respectively validated the items on the qualitative and quantitative schedules before going for the main survey. The items on both quantitative and qualitative schedules were adjusted based on the feedback from the pre-test. Data was collected in October 2018 and ended on 23 March 2019. During this time some academic librarians were not on duty. It was at the time when the entire education system (Federal and State) in Nigeria were on

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<sup>2</sup> Generic qualitative research method is an approach when attempting survey research that includes qualitative elements in a mixed design.

strike. Self-administered questionnaires were designed in a way that the researcher could collect data on the demographics of the respondents.

The prospective respondents were contacted through personal contact, research assistants and telephone calls. Also, a semi structured interview schedule was used to collect qualitative data for the study. The benefits of using interviews in research lies in the fact that they are useful in ascertaining values, preferences, interests, task, attitudes, belief and experience. The purpose of the semi structured interview schedule was to gather open ended information (Creswell 2009) from some of the university librarians with a view to complement the quantitative method and have a better understanding of the problem (Creswell and Plano Clark 2007:7).

#### **4.7 Data collection instruments**

A questionnaire and interview schedule were the techniques employed for collection of data. In this study however, questionnaire and interview were data sources for the study. These instruments were personally administered with the help of research assistants. Some of these instruments were also administered on the respondents on a hand-to-hand approach to engender immediate response to the questions.

##### **4.7.1 Survey questionnaire**

The questionnaire items were adapted from previous studies on information resources availability, accessibility and utilisation (Ani et al. 2016; Aderanti and Adedotun 2015; Ani 2013 and Heilman, Block and Lucas 1992). Test and re-test methods of the instruments were employed to avoid the repeat of problems such as low response rates and ambiguities of questions encountered in previous studies. The questionnaire was administered after due consultation with the gate-keepers (See Appendix V, VII, IX, XI, XIII, XV and XVII) ahead of time, formal and informal communication as well as different information gathering methods were employed in the course of instruments administration. This was done in order to fit into the busy schedules of the target respondents. The structured items were rated on a 4-5-point Likert scales ((DeVellis 2003) to provide ordinal data to enable the researcher to evaluate on a continuum the various phenomena of interest of the study. The questionnaire contained mostly closed-ended questions. The use of closed-ended questions is

in conformity with the stance by authors such as Çakır and Cengiz (2016); Dillman, Smyth and Christian (2014) and Yu (2010:140) who highlighted that the essence of closed ended questionnaire is to reduce the level of subjectivity. The structured questionnaire contained 10 main items (See Appendix II).

The combination of a number of methods for data collection was used due to the fact that different paradigms (methods) can be combined in one research design (Wildemuth 1993). Previous studies have been carried out using Likert or semantic differential scales (Ugwu 2018; Alqahtani and Wamba 2012). Hence, the use of Likert scales was adopted for the present study.

The questionnaire used for data collection encompassed structured questions, prepared in closed-ended form. This questionnaire was derived from adapted standardised instruments of Ani (2013); Wanjiku (2013) and Heilman, Block and Lucas (1992) to enhance the measurement of the variables in the study. A questionnaire with sub-scales was designed to facilitate the collection of respondents' demography information. The following domain constructs were included in the survey questionnaire (See Appendix II): Extent of job performance, Self-rated job performance, Print Information Resources, Availability, Accessibility and utilisation and Hindering factors as well as Task-Technology Fit (TTF) theory. The items in the questionnaire were rated on a 4-5point Likert scale. The choice of a 4-5-point Likert scale is a well-accepted practice in this type of research. Several similar studies such as Ani (2013) and Wanjiku (2013) have used 4-5-point Likert scale measurements. Of the 128 copies of administered questionnaires to academic librarians, 103 copies which constitutes an 81% response rate were retrieved and found usable for the study. In terms of the interviews conducted (semi-structured), all the seven (7) heads of the libraries which constitutes 100% response rate participated in the study.

However, in order to ascertain the degree of competence and skills of academic librarians in the use of computer in selected university libraries, the participants were also subjected to a practical assessment on the use of ICT. Issues relating to troubleshooting (a systematic approach to problem solving that is often used to find and correct issues with complex electronics, computers and software systems), authorization (a process of granting or denying access to a network resource which facilitate access to various resources based on the user's identity), synchronization (the

process by which Data Protection Manager (DPM) transfers data changes from a protected file server to a DPM server, and then applies the changes to the replica of the protected data) as well as navigation (a process of clicking or tapping buttons and menus or making multi-finger gestures to activate functions in an application) procedures were observed among the librarians.

#### **4.7.2 Interview questions**

In addition to the use of a questionnaire, an in-depth interview was carried out to gather detailed information which involved the use of a semi-structured interview. Pickard (2013) described a semi structured interview as an instrument employed by the researcher to gather unstructured data from seven heads (university librarians). The interview questions (See Appendix III) elicited information on the following aspects in order to complement items in the questionnaire:

- (i) Information resources environment;
- (ii) Availability, accessibility and utilisation of both electronic and non-electronic resources;
- (iii) Information resources policy/strategy;
- (iv) Effect and constrains of utilising information resources on academic's performance; and
- (v) University Librarians' job performance.

In the semi-structured interview, the researcher outlined the topics covered, with the use of interviewee's responses to determine the way, in which the interview is directed. In addition, the semi-structured interview guide provided a clear set of instructions for interviewers to provide reliable, comparable and qualitative data. The semi structured interview stimulates the researcher in obtaining responses from participant(s) either through face-to-face encounter, telephone, structured questionnaire or by using the internet (Alabi 2016:96).

The in-depth interviews were conducted with the key informants who are the principal officers of the university management. This was done in order to gain a deeper and broader understanding of the phenomenon than using only the quantitative approach.

#### **4.7.3 Mixed methods research**

The word mixed methods is used in situations where different components of the research process are combined from both the quantitative and qualitative methods. On the other hand, multiple methods are selected from a single paradigm. The development of integrated qualitative/quantitative

methods remains a problem to be solved (Flick 2018:74). Timans, Wouters and Heilbron (2019:193) noted that the interest in combining methods has a long history in social science studies. This explains why for quite some time, concepts like combining methods, multiple methods and triangulation have been around to describe empirical research using different methods of data analysis. Furthermore, triangulation and mixed methods as noted by Flick (2018:2) are concepts that refer to a similar idea but make it concrete in difference ways. Mixed methods are focused on combining qualitative and quantitative methods. Wisdom (2013:1) argued that mixed methods involves a growing investigative method that enhances the methodological combination of quantitative and qualitative data in a research.

In context of this study, the application of mixed methods research allowed the researcher to tackle a broader and a more complete range of research questions owing to the fact that the researcher is not confined within the tenets of a particular method of research. In addition, the use of the method permitted the researcher to use the strength of one method of research (that is qualitative versus quantitative) to counter or overcome the weaknesses in another method. In other words, it incorporates the concept of complementarity. Furthermore, the use of mixed methods enabled the researcher to add insights and methods that might be omitted when only a single method is adopted. Similarly, the mixed methods approach enabled the researcher to simplify the results of the study. Finally, since mixed methods of research is all about the incorporation of both qualitative and quantitative methods of research, the researcher can produce more complete knowledge necessary to inform theory and practice.

Schoonenboom and Johnson (2017:108) argued that a mixed methods design is portrayed by the mix of no less than one qualitative and one quantitative research constituent. According to Wisdom (2013:2), the following are some of the features of mixed methods;

- Utilising techniques that apply qualitative and quantitative parts either simultaneously or successively, by a similar sample or with various samples;
- Collecting and breaking down both quantitative (closed-ended) and qualitative (open-ended) information;
- Outlining the strategies in theoretical models of investigation, for example, in a social

constructionist model that tries to comprehend various points of view on a single issue; and

- Mixing of data in data accumulation, analysis, or discourse.

Plano Clark and Ivankova (2016:80-81) highlighted some rationale in favour of mixed method research.

- Complementarity;
- Offsetting strengths and weakness;
- Triangulation; and
- Social justice rationale

Strengths of mixed method research

- Words, pictures, and narrative can be used to add meaning to numbers.
- Numbers can be used to add precision to words, pictures, and narrative
- Researcher can generate and test a grounded theory.
- It can be used to increase the generalizability of the results.
- Qualitative and quantitative research used together produce more complete knowledge necessary to inform theory and practice.

Weaknesses of mixed method research

- Can be difficult for a single researcher to carry out both qualitative and quantitative research, especially if two or more approaches are expected to be used concurrently; it may require a research team.
- Researcher has to learn about multiple methods and approaches and understand how to mix them appropriately.
- Methodological purists contend that one should always work within either a qualitative or a quantitative paradigm.
- More expensive.
- More time consuming.

Romm and Ngulube (2015:21) identified five designs used in mixed method research. These include convergent, explanatory, embedded, exploratory and multiphase. Therefore, this study employed explanatory as a choice of mixed method research design. Explanatory was used to confirm and reaffirm the findings of the quantitative and qualitative data. In this design, the researcher first collected and analysed the quantitative (numeric) data. The qualitative (text) data was collected and analysed in sequence and helped to explain or elaborate on the quantitative results obtained. The qualitative data refined and explained those statistical results by exploring participants' views in more depth. According to Creswell (2014: 224), the explanatory sequential mixed method is when the researcher first carries out quantitative research, analyses the outcomes and then interprets the results to describe them in qualitative approach.

Several scholars have also discussed the strength and weaknesses of sequential explanatory mixed method (Creswell 2014 and Subedi 2016). According to Creswell and Plano Clark (2018:80) the advantage of explanatory sequential mixed methods includes:

- i. This design often begins with a strong quantitative orientation for quantitative researchers;
- ii. Its structures make it easy to implement because the researcher conducts the two stages quantitative, then qualitative-independently and only gathers one sort of data at a time;
- iii. The final report can be produced by a quantitative section preceded by a qualitative section; and
- iv. This design provides emerging approaches where the second stage can be designed on the basis of what has been learnt from the original quantitative stage.

However, the present study was limited to mixed method (that is the use of both qualitative and quantitative approaches with quantitative method being the dominant approach adopted for the study). Mixed methods research is a kind of methodology adopted for collecting, analysing and integrating both the qualitative (in terms of experiments, surveys, observations) and quantitative (in terms of focus group discussion, interviews, observation, checklists, questionnaire) research (Creswell 2014). Mixed methods approach was adopted when the integration of the research methodology was perceived to provide a better understanding of the research problem than the use

of a single approach. Similarly, the reason for adopting mixed methods is that it provided more comprehensive evidence for investigating research problem than using either quantitative or qualitative method alone. It is essential to adopt a mixed method approach because employing single research method is not sufficient to examine the complexity involved in the present study. Mixed methods enhanced data collection on the experiences, attitudes and feelings of the participants about how information resources enhanced academic librarians job performance.

#### **4.8 Reliability and validity of the instruments**

Reliability refers to consistency when an instrument provides similar results when used continually over time on the same participants or when used by two researchers (Babbie, 2010; Polit and Beck 2012), while validity could be described as the ability of the researcher to meaningfully and accurately draw conclusions from all the data gathered in the study. In the same vein, validity, according to Kimberline and Winterstein (2008:2278), is degree to which an instrument measures what it's supposed to measure without any ambiguity. To ensure this, a team of academic experts evaluated this instrument. Their corrections and suggestions enhanced the instrument's content and face validity. The instruments' reliability was determined using the Cronbach's Alpha 0.07, which is a measure of the inner consistency and unwavering quality of the instrument. The content validity of the instrument was set up using the Content Validity Index (CVI), which is a measure of the degree to which a measure represents all facets of a given construct. This was guaranteed by conducting a pre-test.

The reliability of the research instrument was sufficiently captured through the instrument employed to gather information for the study. According to Carmines and Zeller (1979), reliability is a degree to which the instrument produces similar outcomes when it is repeated. To satisfy this condition therefore, thirty copies of questionnaire were administered in a trial run exercise to evaluate the reliability of the research instrument. The data collected were subjected to reliability analysis using Cronbach's Alpha method to determine the reliability of the measures and to ensure dependable measurement among the various items in the instrument. The results are shown in Table 4.2 as follows:



**Table 4.2: Reliability test using Cronbach's Alpha method**

Variable	Section in the Questionnaire	No. of Items	Initial Cronbach's Alpha Value	Item to be deleted	Final Cronbach's Alpha Value
Extent of job performance	Section II	12	0.843	Nil	0.843
Self-rated job performance	Section III	5	0.921	Nil	0.921
Print information resources	Section IV	20	0.775	Nil	0.775
Level of use of print information resources	Section V	20	0.675	18	0.876
Electronic resources	Section VI	12	0.845	Nil	0.845
Competent/ICT skills	Section VII	33	0.971	Nil	0.971
Accessibility and utilisation of electronic resources	Section VII	10	0.973	Nil	0.973
ICT policy/strategy	Section IX	9	0.943	Nil	0.943
Hindering factors for effective job performance	Section X	19	0.885	Nil	0.885

Table 4.2 shows that the majority of the variables of the study using Cronbach's Alpha method yielded the desired coefficient. However, the level of use of print information resources scale generated 0.675 at first testing which was considered weak. The researcher therefore conducted the Total Item Statistic of the scale and found that item 18 of the scale if deleted would increase the reliability coefficient to 0.876. In addition, the researcher also found that the item in question was a repetition and therefore resolved to remove the item in order to ascertain the desired coefficient of 0.876. From the above results, it can be concluded that the instrument was reliable.

#### **4.9 Pretesting of research instruments**

Pre-testing of the instrument is deployed as a means of facilitating the adequacy of the items of the questionnaire as well as to avoid the ambiguities of the questions in a larger study. In literature, the term 'pretest' and 'pilot study' are used interchangeably to explain the essence of reliability test of the instrument, which is conceptually flawed. However, for the purpose of this study the term pretest was adopted to explain the reliability of the study's instruments. Pretesting is a method

of validating the survey instrument and its measurement while pilot testing refers to "dress rehearsal" of survey procedures and administration (Rothgeb 2008:584). In other words, a pilot study also referred to as a feasibility study is usually carried out when a researcher wants to explore areas about which s/he has little or no knowledge (Kumar 2005:10). According to Converse and Presser (1986), a pretest is a critical investigation of a survey instrument that helps a researcher to determine how valid and reliable a survey research tool will be. It also ensures that a questionnaire is clearly articulated and ensures that the response options are relevant and comprehensive. According to these authors, pretesting can bring to light those inevitable instances of obscure terminology, ambiguous words and phrases unfamiliar references that the researchers did not see to be problematic but could frustrate the respondent and affect data quality and response rate. As observed by Kumar (2011), pre-testing is deployed to identify problems that the potential respondents might have in understanding as well as interpreting a question with attendant effect on their responses.

Similarly, a pre-test study precedes the main study. It should be planned and conducted; it accounts for what a researcher has learned during the process; it enables a researcher to make the necessary modifications in the main study (Gumbo 2014:1). It has been widely debated in social science research that it is better to pre-test a questionnaire even with one person rather than field survey without pretesting. However, the rule of thumb is to test at least 12 to 50 people prior to fullscale administration of questionnaire (Sheatsley 1983:226 and Sudman 1983:181).

However, in pretesting, it is advisable to ask experts in the field to pre-test the survey items by going through the entire survey instruments through the use of Likert scale in order to get their judgement on how well each questionnaire items truly reflects the construct a researcher's intent to measure (Jansen and Hak 2005). Olson (2010) reported that experts in the field look at the intuitive and logical layout that can reduce respondent burden and improve the quality of the data.

A pre-test study of the questionnaire was done at two different university libraries (Kogi State University and Kwara State University) to ensure that this was valid and reliable in terms of the procedures for measurement. It was important that copies of the questionnaire be pre-tested to ascertain that the instructions and questions are clear, straightforward and easy to understand.

Monette, Sullivan and DeJong (2002) asserted that for surveys, a minimum of 30 people should be contacted for the pre-testing of the instruments which was in agreement with Sheatsley (1983) and Sudman (1983). The questionnaire was pretested on 30 academic librarians in state owned university libraries (Kogi State University and Kwara State University), within the North-Central political zone and 23 were duly filled and returned. These universities were not involved in the main study. Pre-testing of data collection tools aided in sharpening and assembling the intended data.

#### **4.10 Limitations of the study**

The following were the constraints encountered in the course of data collection exercise.

- i. Lack of funds for the researcher to travel across the seven universities in the North Central Nigeria was a major challenge.
- ii. The industrial action embarked upon by Academic Staff Union of Universities (ASUU) in Nigeria was a major constraint for data collection. It was difficult to retrieve some copies of the questionnaire administered to librarians in some of the universities as a result of the industrial impasse between ASUU and the federal government of Nigeria. Copies of questionnaire were administered on 29<sup>th</sup> October 2018 and the industrial action commenced on the 4<sup>th</sup> November 2018 with negative effect on questionnaire response rate.

#### **4.11 Data analysis**

Data analysis may be quantitative (for example, use of statistical techniques such as regression or structural equation modeling) or qualitative e.g. coding or content analysis (Bhattacharjee 2012). According to De Vos, Fouché and Venter (2002), analysis can also be defined as the breaking down and ordering of the quantitative information gathered through research (or some other means of data gathering). It also involves searching for trends and patterns of associations and relationships among these data or groups of them. The data arising from the study were analysed with the aid of the statistical software known as Statistical Package for the Social Sciences (SPSS version 24.0). For the research questions, descriptive statistics: frequency counts, percentages, mean and standard deviation were employed to describe variables and their occurrences among the respondents. Inferential statistics was used to test the hypotheses. Research questions three and

four were hypothesized and analysed using regression analysis which is a set of statistical processes for estimating the relationships between a dependent variable and one or more independent variables (Shaibu 2009). Furthermore, to ascertain whether significant difference exist among information availability, accessibility and utilization, analysis of variance (ANOVA) was used.

Similarly, data reduction was carried out to facilitate the cleaning of data in qualitative study. Cohen, Manion and Morrison (2011:559) noted that data reduction is an important component of data cleaning in qualitative study. The authors further noted that data reduction refers to volumes of data being reduced to bearable minimum through the process of focusing, selecting, abstracting, simplifying and transforming the data to a manageable level. Qualitative data in the study was analysed using thematic analysis.

#### **4.12 Ethical issues**

Research ethic refers to what is right or wrong in a research. Gratton and Jones (2010) submitted that all researchers, irrespective of research designs; sampling procedures as well as the choice of research methods, should adhere to ethical requirements. The study adhered to the University of KwaZulu-Natal (UKZN) ethics policy guidelines (2014). A study of this nature requires upholding ethics in order to avoid conflict of interest. The ethical issues of the study were based on the informed consent (See Appendix I), anonymity, voluntary participation, confidentiality and institutional permission. The ethical guidelines outline in Chapter One; Section 1.14 guided the present study. The researcher obtained ethical clearance (See Appendix XVIII) for the study from the University of KwaZulu-Natal's policy on research ethics and informed consent from the seven selected university libraries (See Appendix IV, VI, VIII, X, XII, XIV and XVI). Additionally, permission was granted from the sampled universities (See Appendix V, VII, IX, XI, XIII, XV and XVII). To safeguard the data in terms of storage and provision of access to research report after the completion of the programme, the supervisor will have unlimited access to the data. Also, the data collected will be disposed after five years. A soft copy of the thesis will be made available to all the surveyed institutions which will be accessible to all the academic librarians in all the selected university libraries. Also, a soft copy of the thesis will be deposited in the seven branches of the National Library of Nigeria as well as in the seven States Library Boards in North-Central region of Nigeria. Reporting of the findings of the

thesis will also be disseminated through publications in peer review journals as a way of expanding the frontier of knowledge.

#### **4.13 Evaluation of the research methodology**

Evaluation entails a periodic process of gathering data and analysing or ordering it in such a way that the resulting information can be used to determine whether the study is effectively carried out based on planned activities, and the extent to which stated objectives and anticipated results are achieved (Martinez 2005). In the same vein, evaluation is a holistic approach that compares the process and results with the goals and objectives set for making value judgements on a programme (Peshin, Jayaratne and Singh 2009:31). The authors further stated that it is a systematic determination of the merit, value and relevance of such a subject that use criteria guided by a set of standards. In other words, evaluation basically involves receiving feedbacks on how a person or organization accomplishes its goals and objectives.

Nonetheless, in arriving at the methodological choice adopted for this present study, the researcher took note of the following areas as highlighted by (Denscombe 2007; Hesse-Biber 2010; Garaba 2010:183; Creswell and Plano-Clark 2011:268):

- i. enhances the credibility of data before the audience who will receive and utilise the results;
- ii. facilitate the flexibility of the evaluation in order to facilitate change or redirection in order to avoid procedures logjam;
- iii. the resources at the researcher's disposal (in terms of funding, time, equipment and assistance);
- iv. easy comprehension of the data so collected which enables the researcher to garner confidence; and
- v. the credibility of the results emanating from the methods selected.

Consequently, the researcher experienced several challenges in the methodology and process of data collection. The primary data for the study were sourced via questionnaires and interviews, while the secondary data were obtained from books, the Internet, unpublished and published reports, periodicals as well as journals. The researcher intended to conduct a face-to-face interview with the

participants, but the nature of their work, the industrial action embarked upon by the Academic Staff Union of Universities often referred to as ASUU strike and the official engagement prevented all scheduled appointments. Consequently, the university librarians in all the surveyed universities requested for a printed copy of the interview schedule which was made available for them to be completed at their convenience. Problems such as limited time and delay in retrieving data from participants were some of the challenges associated with data collection. With consistent follow up, the researcher was able to overcome these challenges as more than half of the copies of questionnaire administered were retrieved while all the interview results were also retrieved. In all, there was a good response rate of 81% (See table 5.1) while the qualitative survey yielded 100% response rate.

Furthermore, as regards the research methodology evaluation process, the research design was shaped by the nature of the problem under scrutiny vis à-vis the instruments, framework, the time and resources available for the project. Descriptive survey dominated the research methods used in this study. The dominant of the survey strategy is quite common as studies have demonstrated over decade (Ngulube 2018, Romm and Ngulube 2015 and Creswell 2014). The researcher employed the sequential explanatory mixed method research design as a guide to understand the phenomenon under investigation (Romm and Ngulube 2015:20).

In view of the challenges encountered in the course of data collection, the reliability and validity of instrument were guaranteed with the simplicity and clarity of the items in the survey instrument; while these instruments were personally administered with the help of seven research assistants, and maintaining good relationship and networking with respondent in the process. Given the opportunity to conduct the same study again in spite of the shortcomings encountered in the methodology, mixed methods have been confirmed a success in advanced research across all fields of study including humanities as suggested by (Romm and Ngulube 2015). The researcher would be eager to make use of observation, on-the-spot assessment (site visits) as well as focus group discussion to carry out the study as these would enable the researcher to capture events as they unfold as well as to reduce the level of subjectivity of the research instrument. This is because there are difficulties associated with the use of questionnaires being inaccurate due to the time and energy spent in filling out the questionnaire and there is no room for clarity for both the researcher and the respondents. Interviews

and observations on the other hand, are simple, easy, convenient to carry out and equally more reliable. Interviews helped the researcher and the participants to clarify ambiguous questions.

#### **4.14 Summary**

The chapter discussed the paradigms, research design, study's location and population. Methods adopted to guide the study were discussed in detail. Questionnaire and interview were the data collection instruments. Total enumeration method (census) was thereafter adopted to select professional librarians in the selected universities in Nigeria. The census included 128 academic librarians with return rate of 81% and 7 heads of libraries (university librarians) with 100% response rate, totalling 135 respondents. Cronbach Alpha technique was used to establish the reliability co-efficient of the items of the instrument while thematic analysis was employed to ascertain the responses gathered through the university librarians. The quantitative data was analysed with the SPSS. Also highlighted in this chapter is the validity and reliability issues to ensure the quality and effectiveness of instruments of data collection, and observation of ethics in research were also highlighted. The researcher, in the course of this study, was able to establish the relevance and appropriateness of the research methods in capturing the study's specific objectives as well as addressing the research questions. The evaluation of the research methodology therefore contributed immensely in enhancing the researcher's confidence about the reliability of the instruments employed and the data emanating from such procedures. The next chapter will focus on data analysis and presentation.

## **CHAPTER FIVE**

### **DATA ANALYSIS AND PRESENTATION**

#### **5.1 Introduction**

This chapter focuses on data analysis and presentation of findings on availability and utilisation of information resources as determinants of academic librarians' job performance in North-Central Nigeria. Data analysis and presentation are presented based on the constructs of Maslow Theory and Task-Technology Fit Theory as discussed in Chapter Two (2.3.1 and 2.3.2) of the study. The theoretical framework developed for this study provided the rationale for the multi-method analysis used to conduct empirical study. These approaches facilitated clarification and deepening of understanding with respect to the real-life experiences of academic librarians as a consequence of their job performance(s). The theoretical framework is important because it dictates data collection procedure based on theory which has connection with concepts, constructs and ideas (Grant and Osanloo 2014:21).

The aim of data analysis and presentation of findings in research is to answer the empirical findings and summarise the research questions as addressed by the study (Garaba 2010:187). Similarly, Bhattacharjee (2012:23) noted that data is analysed and interpreted so as to draw conclusions concerning the research questions of interest. In data analysis, Creswell (2012:195) suggested that each hypothesis or research question should be responded to in order they were presented in the study. The aim of data analysis and presentation of findings in research is to answer the empirical findings and summarise the research questions as addressed by the study

However, the data presented in this chapter were generated from a qualitative, quantitative as well as observation schedule administered on academic librarians in North-Central Nigeria in order to determine their job performance. Similarly, the study sought to examine the extent to which information resources in the library determine academic librarians' job performance in selected Nigerian university libraries in North-Central region. The study addressed five research questions and four hypotheses as shown in Chapter One (Sections 1.7 and 1.8).

The research outcomes for the quantitative data are presented in the following order. First, respondents' demographics are presented and discussed. Second, data collected on the five research questions is descriptively analysed using standard deviation, mean and percentages.



Lastly, the research hypotheses were tested using regression analysis and analysis of variance (ANOVA). For the quantitative data, both descriptive and inferential statistics were used to present the findings in line with Katz (2006) submission that tools such as figures and frequency tables can be used to best represent opinions on quantitative data. Also, qualitative data gathered for this study through semi-structured interviews from head of libraries is reported.

## **5.2 Response rate**

Response rate is the proportion or percentage of individuals selected into a sample of survey that are qualified and eligible to participate in the study (Johnson and Wislar 2012). Historically, Johnson and Wislar (2012:1805) noted that “response rate has been a technique of documenting and evaluating survey quality”. In a survey research, response rate is often calculated by dividing the total number of respondents with the overall questionnaires distributed multiplied by hundred. Several scholars have categorised response rates to different percentages. According to Johnson and Wislar (2012:1805), the threshold of acceptable response rates in a survey is put at 60%. However, as stressed by Polit and Beck (2004:366) the response rates of 65% and above are adequate for most researchers. Fincham (2008:43) asserted that response rate of 80% for a research is acceptable in any social science research. Singleton and Straits (2005:145) further noted that it is important to pay attention to response rates. According to the authors, the response rate of 85% in a qualitative survey is minimally adequate for data analysis, below 70%, there is a serious chance of bias.

In this study however, 128 copies of questionnaire were administered across the seven university libraries. Out of this total, 103 copies were duly completed and returned for quantitative analysis giving a response rate of 81%, while 100% response rate was achieved for the qualitative data analysis. The response rate of academic librarians in the surveyed institutions is presented in Tables 5.1.

**Table 5.1: Response rate from survey n=103**

S/N	Sampled Universities	Total Number of Questionnaires Administered	Total Number of Questionnaires Returned	Response Rate (%)	Percent of Questionnaires Returned
1	Federal University Lafia	10	10	100.0	9.7
2	Federal University Lokoja	14	10	71.4	9.7
3	Federal University of Agriculture Makurdi	29	17	58.6	16.5
4	Federal University of Technology Minna	27	27	100.0	26.2
5	University of Abuja	13	10	76.9	9.7
6	University of Ilorin	10	9	90.0	8.7
7	University of Jos	25	20	80.0	19.4
<b>Total</b>		<b>128</b>	<b>103</b>	<b>80.5</b>	<b>100.0</b>

Table 5.1 shows that 128 copies of questionnaire were administered while 103 copies of the questionnaire were found to be valid and usable. Out of the total of 103, 10 (9.7%) each were obtained from respondents from Federal University Lafia, Federal University Lokoja and University of Abuja. 17 (16.5%) were validly filled by academic librarians in Federal University of Agriculture Makurdi, 27 (26.2%) from Federal University of Technology Minna, 9 (8.7%) from University of Ilorin and 20 (19.4%) from University of Jos. Table 5.1 further shows a response rate of over 70% in all the selected universities except Federal University of Agriculture Makurdi that had 58.6% response rate.

Out of the one hundred and twenty-eight questionnaire administered, one hundred and three (103) questionnaires were found usable, representing 81%. This is supported by Fincham (2008:1); Bryman (2012:224) and Johnson and Wislar (2012:1805) submission that the acceptable response rate for survey should not be less than sixty percent (60%). It can therefore be concluded that the response rate for this study was favourable. This is in line with Maxfield and Babbie (2015) classification of response rates of 60-69% as acceptable; 70-85% as very good and above 85% as excellent.

### **5.3 Biographical information of respondents**

Table 5.2 shows the presentation and analysis of data on the background information of the sampled academic librarians in terms of gender, age, highest educational qualification, professional rank, working experience, salary per month and marital status of the respondents

**Table 5.2: Background information of respondents n=103**

S/N	Variable	Category	Frequency	Percent (%)
1	Gender of Respondents	Male	57	55.3
		Female	41	39.8
		Missing	5	4.9
		Total	103	100.0
2	Age of Respondents (Years)	< 30years	9	8.7
		30-39	36	35.0
		40-49	24	23.3
		50-59	30	29.1
		> 60	3	2.9
		Missing	1	1.0
		Total	103	100.0
3	Highest Educational Qualification	PhD	15	14.6
		M.Sc/MLIS/MA	73	70.9
		Missing	15	14.6
		Total	103	100.0
4	Professional Rank	Librarian II	38	36.9
		Librarian I	24	23.3
		Senior Librarian	10	9.7
		Principal Librarian	9	8.7
		Deputy University Librarian	4	3.9
		Total	85	82.5
		Missing	18	17.5
		Total	103	100.0
5	Working Experience (Years)	0-5	27	26.2
		6-10	28	27.2
		11-15	14	13.6
		16-20	9	8.7
		21 Above	22	21.4
		Total	100	97.1
		Missing	3	2.9
		Total	103	100.0
6	Salary per month (₦)	>120000	42	40.8
		>150000	23	22.3
		>200000	12	11.7
		>250000	6	5.8
		>300000	5	4.9
		Missing	15	14.6
		Total	103	100.0

**Gender:** Table 5.2 shows that majority of the respondents were male, (57) accounting for 55.3% of the total respondents. Female respondents were 41, representing 39.8% of the total respondents. 5 (4.9%) of the total respondents did not indicate their gender.

**Age of Respondents:** The age distribution shows that majority of the respondents (36, 35.0%) were between 30 to 39 years old. This is followed by 50-59 years old (30, 29.1%) and 40-49 years (24, 23.3%). Only (9, 8.7%) of the respondents were below 30 years old while (3, 2.9%) were 60 years old and above. Only one of the total respondents did not indicate his/her age category.

**Highest Educational Qualification:** Table 5.2 also shows that majority of the respondents 73 have masters' qualifications (M. Sc/MLIS/MA) as their highest educational qualification. This category accounts for 70.9% of the respondents. There were 15 PhD holders which represents 14.6% of the respondents. Also, 15 (14.6%) of the total respondents did not indicate their highest educational qualification.

**Professional Rank:** Table 5.2 presents the cadre of the respondents in the selected universities. The respondents were categorised into five: Librarian II, Librarian I, Senior Librarian, Principal Librarian and Deputy University Librarian. The results of the finding revealed that the majority of the respondents (62, 60.2%) are either Librarian II or Librarian I. Senior Librarian, Principal Librarian and Deputy University Librarian account for 10(9.7%), 9(8.7%) and 4(3.9%) respectively. 18 (17.5%) of the respondents did not indicate their professional rank.

**Working Experience:** Table 5.2 showed that, majority of the respondents (55) have worked between zero to ten years which account for 53.4% of the total respondents, while 22 (21.4%) have worked for twenty-one years and above. Respondents who have worked for eleven to twenty years account for 23(22.3%). However, 3(2.9%) of the total respondents did not indicate their working experience.

**Salary per month:** Table 5.2 shows that 42 (40.8%) earned more than ₦120,000; 23(22.3%) earned more than ₦150,000; 12(11.7%) earned more than ₦200,000; 6(5.8%) earned more than ₦250,000; while 5(4.9%) earned more than ₦300,000. 15 (14.6%) of the total respondents do not indicate their monthly salary.<sup>3</sup>

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<sup>3</sup> ₦ means Nigeria Currency Symbol

## 5.4 Data presentation based on research question

In this section, data collected from the survey were analysed and presented in line with the different research questions and hypotheses.

### 5.4.1 Job performance of academic librarians in North-Central Nigeria

The first research question for this study sought to examine the extent to which university academic librarians in North-Central Nigeria are performing their jobs. Items in Sections II and III in the questionnaire (See Appendix II) were analysed to answer the research question.

However, from the table below, the mean (weighted mean) is calculated by assigning 5, 4, 3, 2, 1 (Excellent, good, average, fair and poor) respectively and later divided by the total number of respondents. In interpreting the mean score, the higher the score the higher the performance. The standard deviation is a statistic that measures the dispersion of a dataset relative to its mean and is calculated as the square root of the variance. If the data points are further from the mean, there is a higher deviation within the data set; thus, the more spread out the data, the higher the standard deviation. The formulae for the weighted mean and standard deviation are:

$$\text{Weighted Mean} = \frac{\sum_{i=1}^n (X_i * W_i)}{\sum_{i=1}^n W_i}$$

$$\text{Standard Deviation} = \sqrt{\frac{\sum (X - \bar{X})^2}{n}}$$

**Table 5.3: Job performance of academic librarians in North-Central Nigeria n=103**

S/N	Statement	Excellent	Good	Average	Fair	Poor	Mean	Std Dev
1	Cataloguing	57 (55.4%)	46 (44.6%)	0 (0%)	0 (0%)	0 (0%)	4.55	0.500
2	Circulation	41 (39.9%)	61 (59.1%)	0 (0%)	0 (0%)	1 (1%)	4.37	0.594
3	Reference	35 (34%)	57 (55.4%)	10 (9.8%)	1 (1%)	0 (0%)	4.22	0.656
4	Acquisition of materials	40 (39.3%)	47 (46.1%)	10 (9.9%)	3 (3%)	2 (2%)	4.18	0.872
5	Information literacy	25 (24.6%)	55 (54%)	18 (17.7%)	2 (2%)	2 (2%)	3.97	0.826
6	Journal publication	24 (23.8%)	55 (54.5%)	15 (14.9%)	5 (5%)	2 (2%)	3.93	0.875
7	Current awareness services	19 (18.7%)	59 (57.9%)	16 (15.7%)	7 (6.9%)	1 (1%)	3.86	0.833
8	Selective dissemination of information	15 (15%)	56 (56%)	23 (23%)	3 (3%)	3 (3%)	3.77	0.851
9	Exhibition and display	15 (14.9%)	43 (42.6%)	24 (23.8%)	13 (12.9%)	6 (6%)	3.48	1.083
10	Consortium service (Interlibrary loan)	13 (13%)	32 (32%)	31 (31%)	10 (10%)	14 (14%)	3.20	1.214
11	Indexing	14 (13.8%)	30 (29.5%)	32 (31.4%)	14 (13.8%)	12 (11.8%)	3.20	1.194
12	Abstracting	9 (9%)	33 (32.7%)	35 (34.7%)	11 (10.9%)	13 (12.9%)	3.14	1.140

Table 5.3 shows that over 75% of the respondents indicated excellent, good and average in all the questions in the table. Ranking the items based on the mean scores and standard deviation values shows that academic librarian performs the listed task in the following order of proficiency: Cataloguing ( $\bar{X} = 4.55$ ;  $SD = 0.500$ ); Circulation ( $\bar{X} = 4.37$ ;  $SD = 0.594$ ); Reference ( $\bar{X} = 4.22$ ;  $SD = 0.656$ ); Acquisition of materials ( $\bar{X} = 4.18$ ;  $SD = 0.872$ ); Information literacy ( $\bar{X} =$

3.97; SD = 0.826); Journal publication ( $\bar{X}$  = 3.93; SD = 0.875); Current awareness services ( $\bar{X}$  = 3.86; SD = 0.833); Selective dissemination of Information ( $\bar{X}$  = 3.77; SD = 0.851); Exhibition and display ( $\bar{X}$  = 3.48; SD = 1.083); Consortium service (Inter-library loan) ( $\bar{X}$  = 3.20; SD = 1.214); Indexing ( $\bar{X}$  = 3.20; SD = 1.194); Abstracting ( $\bar{X}$  = 3.14; SD = 1.140). It can be deduced from the outcomes in Table 5.3 that most academic librarians perform better in terms of cataloguing, circulation and reference and least in consortium services, indexing and abstracting.

**Table 5.4: Self-rated job performance of academic librarians n=103**

Q/N	Statement	Highly Competent	Quite Competently	Competent	Fairly Competently	Not competently	Mean	Std Dev
III_a	How competently do you perform your job?	40 (40.5%)	41 (41.5%)	18 (18.2%)	0 (0%)	0 (0%)	4.22	0.736
III_b	How would you judge your overall perceived competence?	36 (36%)	40 (40%)	22 (22%)	2 (2%)	0 (0%)	4.10	0.810
Q/N	Statement	Very High Quality	High Quality	Moderate Quality	Low Quality	Very Low Quality	Mean	Std Dev
III_c	How would you judge the overall quality of your work?	35 (35%)	48 (48%)	17 (17%)	0 (0%)	0 (0%)	4.18	0.702
III_d	How would you judge the overall quantity of your work?	30 (34.9%)	40 (46.6%)	16 (18.7%)	0 (0%)	0 (0%)	4.16	0.717
Q/N	Statement	Most Effectively	Quite Effectively	Effectively	Fairly Effectively	Not Effectively	Mean	Std Dev
III_e	In your estimation, how effectively do you get your work done?	31 (31%)	50 (50%)	19 (19%)	0 (0%)	0 (0%)	4.12	0.700

Heilman, Block and Lucas's (1992) self-rated and supervisor-rated performance scale was adopted in evaluating academic librarians' job performance. The result shows that 40(40.5%) of the respondents adjudged themselves to be highly competent in performing their jobs; 41(41.5%) said they are quite competent while 18(18.2%) indicated competent. The result also shows that 36(36%) of the respondents considered their perceived competence to be high in performing their jobs while



40(40%) indicated quite competent. Only 22(22%) and 2(2%) adjudged themselves to be competent and fairly competent respectively.

35(35%) of the respondents adjudged the quality of their work to be of very high quality; 48(48%) said the quality of their work is high while 17(17%) indicated moderate quality. Table 5.4 further shows that 30(34.9%) of the respondents considered the quantity of their work to be of very high quantity while 40(46.6%) indicated high quantity. Only 16(18.7%) adjudged the quantity of their work to be of moderate quantity.

Table 5.4 shows that 31(31%) of the respondents adjudged themselves to be most effective in getting their jobs done; 50(50%) said they are quite effective while 19(19%) indicated effective. It can therefore be said that two sets of needs (esteem and self-actualisation) relate to personal growth and development which improves performance as noted by Maslow's hierarchy of need theory (Maslow 1954).

#### **5.4.2 Level of availability and utilisation of information resources**

The second research question sought to determine the level of availability and utilisation of information resources in selected universities libraries in North-Central Nigeria. Items in Sections IV and V in the questionnaire (See Appendix II) were analysed to answer the research question.

**Table 5.5: Availability of print information resources n=103**

S/N	Print information resources	Highly Available	Available	Moderately Available	Not Available	Mean	Std Dev
1	Newspapers	74 (72.6%)	26 (25.5%)	2 (2%)	0 (0%)	3.71	0.499
2	Textbooks	72 (71.3%)	26 (25.8%)	3 (3%)	0 (0%)	3.68	0.528
3	Journal collections.	49 (50%)	46 (47%)	3 (3.1%)	0 (0%)	3.47	0.560
4	Dictionaries	44 (44%)	47 (47%)	9 (9%)	0 (0%)	3.35	0.642
5	Research reports	42 (41.2%)	49 (48.1%)	11 (10.8%)	0 (0%)	3.30	0.657
6	Encyclopaedias	41 (40.6%)	45 (44.6%)	14 (13.9%)	1 (1%)	3.25	0.727
7	Thesis/ Dissertation	42 (42%)	41 (41%)	14 (14%)	3 (3%)	3.22	0.799
8	Magazines	33 (32.7%)	44 (43.6%)	22 (21.8%)	2 (2%)	3.07	0.791
9	Government Publications	28 (27.8%)	53 (52.5%)	19 (18.9%)	1 (1%)	3.07	0.711
10	Bibliographies	22 (22%)	58 (58%)	19 (19%)	1 (1%)	3.01	0.674
11	Handbooks	25 (24.8%)	51 (50.5%)	24 (23.8%)	1 (1%)	2.99	0.728
12	Pamphlet/ Posters	25 (25.6%)	45 (46%)	26 (26.6%)	2 (2.1%)	2.95	0.778
13	Seminars/ Symposium	19 (19.2%)	52 (52.6%)	27 (27.3%)	1 (1.1%)	2.90	0.707
14	Conference proceedings	15 (15.2%)	55 (55.6%)	27 (27.3%)	2 (2.1%)	2.84	0.696
15	Abstracts	19 (19.2%)	42 (42.5%)	33 (33.4%)	5 (5.1%)	2.76	0.822
16	Manuscripts	13 (13%)	49 (49%)	30 (30%)	7 (7%)	2.71	0.820
17	Technical reports	16 (16.4%)	41 (41.9%)	35 (35.8%)	6 (6.2%)	2.68	0.820
18	Indexes	15 (15.2%)	44 (44.5%)	33 (33.4%)	7 (7.1%)	2.68	0.819

Table 5.5 shows that over 90% of the respondents indicated highly available, available and moderately available to all the questions relating to the availability of print information resources. Ranking the items based on the mean scores and standard deviation values shows that the following print information resources are available (See table 5.5). Furthermore, Table 5.5 shows that the most available print information resources were newspapers, textbooks and journal collections while the least available include indexes, technical reports and manuscripts.

**Table 5.6: Level of use of print information resources by academic librarians n=103**

S/N	Print information resources	Daily	Weekly	Monthly	Semester	Never	Mean	Std Dev
1	Newspapers	83 (83%)	9 (9%)	4 (4%)	2 (2%)	2 (2%)	4.69	0.813
2	Textbooks	68 (68%)	13 (13%)	11 (11%)	8 (8%)	0 (0%)	4.41	0.975
3	Dictionaries	56 (57.2%)	22 (22.5%)	13 (13.3%)	5 (5.2%)	2 (2.1%)	4.28	1.013
4	Journal collections	51 (52.6%)	21 (21.7%)	18 (18.6%)	6 (6.2%)	1 (1.1%)	4.19	1.014
5	Magazines	48 (48%)	29 (29%)	14 (14%)	4 (4%)	5 (5%)	4.11	1.109
6	Encyclopaedias	37 (38.2%)	31 (32%)	17 (17.6%)	7 (7.3%)	5 (5.2%)	3.91	1.146
7	Handbooks	31 (32.3%)	32 (33.4%)	22 (23%)	8 (8.4%)	3 (3.2%)	3.83	1.073
8	Research reports	32 (33.7%)	25 (26.4%)	20 (21.1%)	15 (15.8%)	3 (3.2%)	3.72	1.182
9	Bibliographies	31 (33.7%)	20 (21.8%)	25 (27.2%)	10 (10.9%)	6 (6.6%)	3.65	1.235
10	Government Publications	28 (28.6%)	28 (28.6%)	26 (26.6%)	11 (11.3%)	5 (5.2%)	3.64	1.160
11	Pamphlet/ Posters	30 (31.6%)	23 (24.3%)	26 (27.4%)	8 (8.5%)	8 (8.5%)	3.62	1.248
12	Thesis/ Dissertation	26 (27.1%)	29 (30.3%)	20 (20.9%)	18 (18.8%)	3 (3.2%)	3.59	1.166
13	Seminars/ Symposium	23 (24.3%)	29 (30.6%)	29 (30.6%)	9 (9.5%)	5 (5.3%)	3.59	1.116
14	Abstracts	22 (23.5%)	23 (24.5%)	27 (28.8%)	14 (14.9%)	8 (8.6%)	3.39	1.238
15	Manuscripts	21 (22.6%)	25 (26.9%)	27 (29.1%)	9 (9.7%)	11 (11.9%)	3.39	1.269
16	Conference proceedings	14 (14.8%)	31 (32.7%)	29 (30.6%)	13 (13.7%)	8 (8.5%)	3.32	1.142
17	Indexes	16 (17.3%)	31 (33.4%)	19 (20.5%)	12 (13%)	15 (16.2%)	3.23	1.328
18	Technical reports	14 (14.9%)	28 (29.8%)	21 (22.4%)	15 (16%)	16 (17.1%)	3.10	1.320

Table 5.6 shows that all the print information resources are being used on daily, weekly, monthly and semester basis. The results further show that print information resources such as newspapers, textbooks, dictionaries, journal collections, magazines, encyclopaedias, handbooks, research reports, bibliographies, government publications, pamphlet/posters and thesis/dissertation are mostly used on a daily basis. The five least used print information resources include abstracts/indexes, manuscripts, conference proceedings, indexes and technical reports.

Maslow's 1954 constructs on self-actualisation noted that infrastructural facilities or information resources (internet sources, print resources and e-resources) bring quality and excellence into the job, which will in turn push academic librarians to make use of such resources.

#### **5.4.3 Level of accessibility and utilisation of information resources**

The third research question sought to establish the level of accessibility and utilisation of information resources in selected universities libraries in North-Central Nigeria. Items in Sections VI and VII in the questionnaire (See Appendix II) were analysed to answer the research question.

**Table 5.7: Accessibility of print information resources n=103**

S/N	Print information resources	Highly Accessible	Accessible	Moderately Accessible	Not Accessible	Mean	Std Dev
1	Textbooks	77 (75.5%)	22 (21.6%)	3 (3%)	0 (0%)	3.73	0.510
2	Newspapers	73 (72.3%)	25 (24.8%)	3 (3%)	0 (0%)	3.69	0.524
3	Journal collections	68 (66.7%)	30 (29.5%)	4 (4%)	0 (0%)	3.63	0.561
4	Encyclopaedias	57 (56.5%)	34 (33.7%)	10 (10%)	0 (0%)	3.47	0.672
5	Dictionaries	56 (55%)	37 (36.3%)	9 (8.9%)	0 (0%)	3.46	0.655
6	Research reports	44 (44%)	49 (49%)	7 (7%)	0 (0%)	3.37	0.614
7	Magazines	49 (48.6%)	41 (40.6%)	9 (9%)	2 (2%)	3.36	0.729
8	Thesis/ Dissertation	49 (48.6%)	37 (36.7%)	14 (13.9%)	1 (1%)	3.33	0.750
9	Government Publications	40 (39.7%)	47 (46.6%)	14 (13.9%)	0 (0%)	3.26	0.688
10	Bibliographies	39 (39.4%)	48 (48.5%)	10 (10.2%)	2 (2.1%)	3.25	0.719
11	Handbooks	40 (40.9%)	43 (43.9%)	14 (14.3%)	1 (1.1%)	3.24	0.733
12	Seminars/ Symposium	33 (33.7%)	51 (52.1%)	13 (13.3%)	1 (1.1%)	3.18	0.694
13	Pamphlet/ Posters	33 (33.4%)	45 (45.5%)	21 (21.3%)	0 (0%)	3.12	0.732
14	Conference proceedings	27 (27.6%)	55 (56.2%)	16 (16.4%)	0 (0%)	3.11	0.656
15	Abstracts	31 (31.7%)	46 (47%)	16 (16.4%)	5 (5.2%)	3.05	0.830
16	Indexes	34 (35.1%)	38 (39.2%)	20 (20.7%)	5 (5.2%)	3.04	0.877
17	Manuscripts	26 (26%)	47 (47%)	22 (22%)	5 (5%)	2.94	0.827
18	Technical reports	26 (26.6%)	43 (43.9%)	26 (26.6%)	3 (3.1%)	2.94	0.810

Table 5.7 shows that over 95% of the respondents indicated highly accessible, accessible and moderately accessible to all the questions relating to the accessibility of print information resources. Ranking the items based on the mean scores and standard deviation values shows that the five most accessible print information resources are textbooks, newspapers, journal collections, encyclopaedias and dictionaries while the least accessible include indexes, manuscripts and technical reports. Hence, the TTF theory on accessibility confirms that information resources give value by being instrumental in some tasks or collection of tasks and librarians reflect on this in evaluating their job performance (Goodhue and Thompson 1995).

**Table 5.8: Accessibility and utilisation of electronic resources n=103**

S/N	Accessibility and utilization	Very True	True	Seldomly True	Not True	Mean	Std Dev
1	I make use of important electronic materials on the Internet daily.	54 (54.6%)	39 (39.4%)	5 (5.1%)	1 (1.1%)	3.47	0.644
2	I access and use online databases for my job performance	52 (52%)	40 (40%)	8 (8%)	0 (0%)	3.44	0.641
3	I make use of electronic journals regularly on the web	46 (45.6%)	49 (48.6%)	6 (6%)	0 (0%)	3.40	0.601
4	I know the relevant of databases accessible in my area of study	43 (42.6%)	50 (49.6%)	8 (8%)	0 (0%)	3.35	0.623
5	I have enough ability to access and use electronic material.	44 (44%)	46 (46%)	8 (8%)	2 (2%)	3.32	0.709
6	I utilize as well as access electronic resources via institutional network for my job performance	39 (38.7%)	46 (45.6%)	14 (13.9%)	2 (2%)	3.21	0.753
7	I desire to utilize as well as access electronic materials than print resources for my job performance	39 (39.4%)	40 (40.5%)	17 (17.2%)	3 (3.1%)	3.16	0.817
8	I spend appreciable time to use and access e-resources for my job performance daily.	33 (33.4%)	49 (49.5%)	15 (15.2%)	2 (2.1%)	3.14	0.742
9	I use local area network in my office to retrieve e-resources for my job performance.	30 (30%)	49 (49%)	17 (17%)	4 (4%)	3.05	0.796
10	I use and access CD-ROM databases for my job performance	31 (31.4%)	40 (40.5%)	23 (23.3%)	5 (5.1%)	2.98	0.869

Table 5.8 shows that over 70% of the respondents indicated very true and true to all the questions relating to the accessibility and utilisation of e-resources. Based on the mean scores, the respondents' assessments of the different items in Table 5.8 indicate that accessing relevant electronic resources on the Internet daily is of paramount importance to academic librarians while the use CD-ROM databases in performing their jobs is of little usage.

#### **5.4.4 Information resources availability, accessibility, utilisation and job performance among academic librarians**

The fourth research question sought to establish the relationship between information resources availability, accessibility, utilisation and job performance among academic librarians in North Central universities. Items in Sections VIII and IX in the questionnaire (See Appendix II) were analysed to answer the research question. To answer this question, responses to twenty-two items in (Appendix II) were used.



**Table 5.9: Electronic resources n=103**

S/N	E-Resources	Description	Response	
			Freq	%
1	E-Journals	Journals published in electronic format, usually on the Internet.	101	98.1
2	E-Books	A book publication accessible in digital form, consisting of text, images, or both display on a computer's devices.	99	96.1
3	E-Newspapers	Newspaper that exists on the World Wide Web or internet.	86	83.5
4	E-Thesis/dissertation	These databases contain PhD theses and dissertations published through e-format.	81	78.6
5	E-Magazines	An E-magazine also known as ezine (spelled e-zine) is a electronic articles that is distributed by an electronic method.	69	67.0
6	Reference database	These are electronic format which are available on internet such as dictionaries, almanacs and encyclopaedias.	78	75.7
7	Online database	A database accessible from a local network/Internet, as opposed locally stored on individual computer. Examples are SCIENCE DIRECT, JSTOR, AGORA, HINARI, OARE, PUBMED, EBSCOHOST etc.	96	93.2
8	Full text database	Full-text database provide the full-text of a document instead of just a citation or abstract.	90	87.4
9	Multimedia Products	They are e- resources that feature wired and wireless telic communication and data services, including cell phones, laptops and tablets.	77	74.8
10	Telecommunication product	An exchange of information over significant distance by electronic means and refers to all types of voice, data and video transmission.	60	58.3
11	Desktop and portable computers		88	85.4
12	CD-ROM	CD-ROM is short for compact-disc read-only memory. The disc is used for the permanent storage of information	83	80.6
13	Others		15	14.6

*Note: Percent (%) is computed based on the total number of valid responses of 103*

The results show that e-journals, e-books and online databases are the most available and accessible electronic resources while multimedia products, e-magazines and telecommunication products are the least available and accessible electronic resources. Table 5.9 was guided by Task-Technology Fit by Goodhue and Thompson (1995) that stressed that information resources (internet sources, print resources and e-resources) bring quality and excellence into academic librarians' job performance.

**Table 5.10: Task-Technology Fit (TTF) reference n=103**

S/N	Statement	Strongly Agree	Agree	Disagree	Strongly Disagree	Mean	Std Dev
<b>Accessibility</b>							
1	I can access information resources quickly and easily when I need it	37 (39%)	50 (52%)	6 (6.4%)	2 (2.2%)	3.28	0.679
2	The information resources I used are accessible	28 (28.9%)	64 (66%)	4 (4.2%)	1 (1.1%)	3.23	0.568
3	It is easy to access my desired information resources	21 (21.7%)	59 (60.9%)	15 (15.5%)	2 (2.1%)	3.02	0.677
4	I can count on the information resources available when the need arises	19 (19.6%)	59 (60.9%)	15 (15.5%)	4 (4.2%)	2.96	0.720
<b>Ease of Use</b>							
5	I can easily do what I want to do using the print and non- print information resources for accessing and analysing data	31 (31.7%)	58 (59.2%)	7 (7.2%)	2 (2.1%)	3.20	0.657
6	I can learn how to use the information resources that give access to data	30 (30.7%)	59 (60.3%)	7 (7.2%)	2 (2.1%)	3.19	0.653
7	The information resources that give me access to data are convenient to use	27 (27.9%)	59 (60.9%)	10 (10.4%)	1 (1.1%)	3.15	0.635
<b>Utilization</b>							
8	I think the information resources are appropriate for my job	29 (29.9%)	58 (59.8%)	10 (10.4%)	0 (0%)	3.20	0.606
9	The present information resources should be the main tools in further tasks	29 (29.9%)	53 (54.7%)	13 (13.5%)	2 (2.1%)	3.12	0.711
10	It is better to use the present information resources rather than other information resources	26 (26.9%)	52 (53.7%)	13 (13.5%)	6 (6.2%)	3.01	0.810
<b>Performance</b>							
11	The information resources provide helpful guidance in performing my tasks	48 (49%)	47 (48%)	3 (3.1%)	0 (0%)	3.46	0.559
12	Information resources use enhance the quality of the job I do	46 (47.5%)	49 (50.6%)	2 (2.1%)	0 (0%)	3.45	0.540
13	Using information resources improve my tasks Performance	46 (47.5%)	47 (48.5%)	4 (4.2%)	0 (0%)	3.43	0.576
14	Performing my tasks depend on information resources I use	42 (43.3%)	50 (51.6%)	5 (5.2%)	0 (0%)	3.38	0.585
15	Using information resources increases my productivity	49 (50.6%)	46 (47.5%)	2 (2.1%)	0 (0%)	3.48	0.542

**Accessibility:** Table 5.10 shows that majority of the respondents (Over 70%) strongly agreed/agreed with the statements on accessibility of information resources in the following order: academic librarians can access information resources quickly and easily when they need it ( $\bar{X}$  =3.28;SD=0.679); The information resources academic librarians used are accessible ( $\bar{X}$  ) = 3.23;SD=0.568); it is easy to access desired information resources ( $\bar{X}$  ) = 3.02;SD=0.677); and academic librarians can count on the information resources to be ‘up’ and available when they need it ( $\bar{X}$  ) =2.96;SD=0.720). It can be concluded that academic librarians’ assessment of accessibility of information resources is satisfactory.

**Ease of Use:** Table 5.10 shows that majority of the respondents (Over 80%) strongly agreed/agreed with the statements on ease of use of information resources in the following order: academic librarians can easily do what they want to do using the print and non-print information resources for accessing and analysing data ( $\bar{X}$  ) = 3.20;SD=0.657); it is easy to learn how to use the information resources that give access to data ( $\bar{X}$  ) =3.19;SD=0.653); and the information resources that give access to data are convenient and easy to use ( $\bar{X}$  ) =3.15;SD=0.635). It can be deduced from the results that respondents’ assessment of ease of use of information resources among academic librarians is satisfactory.

**Utilization:** Table 5.10 also shows that majority of the respondents (Over 80%) strongly agreed/agreed with the statements on utilization of information resources in the following order: academic librarians think the information resources are suitable for my task ( $\bar{X}$  ) =.20;SD=0.606); think the present information resources should be main facility tools in further tasks ( $\bar{X}$  ) =3.12;SD=0.711); and it would be much better for them to use the present information resources rather than other information resources ( $\bar{X}$  ) =3.01;SD=0.810). It can be deduced from the results that respondents’ assessment of utilisation of information resources among academic librarians is satisfactory.

**Performance:** Table 5.10 also shows that majority of the respondents (Over 90%) strongly agreed/agreed with the statements on job performance in the following order: using information resources increases academic librarians’ productivity ( $\bar{X}$  ) =3.48;SD=0.542); the information resources provide helpful guidance in performing their tasks ( $\bar{X}$  ) =3.46;SD=0.559); using information resources improve the quality of the tasks academic librarians’ do ( $\bar{X}$  ) =3.45; SD=

0.540); using information resources improve tasks performance ( $\bar{X}$ ) =3.43; SD=0.576); and academic librarians' successfully use the information resources to perform their tasks ( $\bar{X}$ ) =3.38; SD=0.585). It can be concluded from the results that the respondents maintain satisfactory assessment of the use of information resources for their job enhancement. This analysis of this table is guided by Task-Technology Fit owing to the fact that ease of use and relationship are the two determinants of information resources usage.

#### **5.4.5 Factors inhibiting academic librarians from fully utilising information resources for job enhancement.**

The fifth research question sought to establish obstacles to the use of information resources for effective job performance in North-Central universities. Items in Sections X in the questionnaire (See Appendix II) were analysed to answer the research question.

academic librarians from fully utilising information resources for job enhancement.

**Table 5.11: Obstacles to the use of information resources for effective job performance n=103**

S/N	Statement	Strongly Agree	Agree	Disagree	Strongly Disagree	Mean	Std Dev
1	The type of technology in an organization influences librarians' job performance. Obsolete equipment reduces output, increases stoppages, and poor performance	34 (34.4%)	61 (61.7%)	4 (4.1%)	0 (0%)	3.30	0.543
2	Poor internet connectivity	34 (35.1%)	56 (57.8%)	7 (7.3%)	0 (0%)	3.28	0.591
3	Low bandwidth of internet access is a major problem	38 (39.2%)	48 (49.5%)	8 (8.3%)	3 (3.1%)	3.25	0.736
4	Inadequate electricity supply	37 (37.8%)	49 (50%)	10 (10.3%)	2 (2.1%)	3.23	0.715
5	Motivation is a fundamental recipe for high level job performance of academic librarians. When management fails to motivate, the employee becomes a liability to the organization which is turned to poor performance	34 (34%)	56 (56%)	8 (8%)	2 (2%)	3.22	0.675
6	Manual process of library operation is a major constraint for information search	34 (34.7%)	51 (52.1%)	11 (11.3%)	2 (2.1%)	3.19	0.713
7	Slow download	24 (25%)	65 (67.8%)	7 (7.3%)	0 (0%)	3.18	0.543
8	Lack of current information resources has a negative effect on academic librarian's job performance	32 (32.7%)	53 (54.1%)	9 (9.2%)	4 (4.1%)	3.15	0.751
9	Unenthusiastic attitude results to poor services and ineffective utilization of resources	28 (28.6%)	57 (58.2%)	12 (12.3%)	1 (1.1%)	3.14	0.658
10	Inadequate equipment is a major hindrance for academic librarian's job performance	28 (28.3%)	57 (57.6%)	14 (14.2%)	0 (0%)	3.14	0.639
11	Political influences: a higher perception of organizational politics results in decreased levels	25 (25.8%)	58 (59.8%)	13 (13.5%)	1 (1.1%)	3.10	0.653

	of job performance among academic librarians						
12	Non-conducive working environment leads to ineffective utilisation of information sources	27 (27.3%)	54 (54.6%)	17 (17.2%)	1 (1.1%)	3.08	0.695
13.	Inadequate modern ICT Equipment	23 (23.5%)	59 (60.3%)	15 (15.4%)	1 (1.1%)	3.06	0.655
14.	Paucity of relevant databases from foreign countries	27 (27.7%)	52 (53.7%)	14 (14.5%)	4 (4.2%)	3.05	0.769
15	Improper shelving of information resources makes search difficult	27 (27.9%)	48 (49.5%)	18 (18.6%)	4 (4.2%)	3.01	0.797
16	Poor skill in the use of information resources hinder job performance	24 (24.8%)	52 (53.7%)	18 (18.6%)	3 (3.1%)	3.00	0.750
17	Limited computer system	24 (25%)	49 (51.1%)	20 (20.9%)	3 (3.2%)	2.98	0.767
18	Obsolete information resources affect academic librarians job performance	24 (24.5%)	47 (48%)	22 (22.5%)	5 (5.2%)	2.92	0.821
19	Non-availability of e-resources hindered academic librarians' performance	25 (26.1%)	44 (45.9%)	20 (20.9%)	7 (7.3%)	2.91	0.872
20	Inadequate staffing	24 (24%)	49 (49%)	20 (20%)	7 (7%)	2.90	0.847
21	Perceived low competence among academic librarians results in poor performance	17 (17.2%)	46 (46.5%)	32 (32.4%)	4 (4.1%)	2.77	0.780
22	Relevant resources are not always available.	21 (21%)	41 (41%)	26 (26%)	12 (12%)	2.71	0.935

Table 5.11 reveals the factors inhibiting effective job performance of academic librarians in universities in North-Central Nigeria in their order of severity. From the results in Table 5.11, obsolete equipment was identified as the major obstacle hindering the use of information resources. The implications of using obsolete equipment include output reduction, increase in stoppages and poor performance. In line with the Research Question 5 of the study, the need for self-actualisation as espoused in Maslow's 1954 theory represent an important construct in enhancing academic librarians' job performance in universities in North Central Nigeria.

## 5.5 Hypotheses testing

In this section, a regression analysis was performed to establish the relationship between the dependent variable (job performance) and independent variables (information availability, information accessibility and information utilisation). The results are shown in Tables 5.12 to 5.14 below:

**Table 5.12: Model summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	0.813 <sup>a</sup>	0.661	0.651	0.5259174	2.082

*a. Predictors: (Constant), Information Availability, Accessibility, Utilization*

*b. Dependent Variable: Job Performance*

Table 5.12 shows that when the independent variables: information availability, information accessibility and information utilisation were regressed on job performance, 0.661 was obtained as the coefficient of determination ( $R^2$ ). The value of the Adjusted  $R^2$  is 0.651. This implies that information availability, information accessibility and information utilisation jointly explain 65.1% of the variation in job performance. The value of Durbin-Watson statistic is 2.082 implying the absence of first order serial correlation (first-order serial correlation means when error terms from different cross-sectional observations are correlated).

**Table 5.13: ANOVA<sup>a</sup>**

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	53.406	3	17.802	64.363	0.000 <sup>b</sup>
Residual	27.382	99	0.277		
Total	80.788	102			

*a. Dependent Variable: Job Performance*

*b. Predictors: (Constant), Information Availability, Accessibility, Utilization*

Table 5.13 shows that F-statistic of 64.363 is statistically significant at  $p < 0.05$  ( $p = 0.000$ ). This implies that there is a statistically significant relationship between the job performance and the explanatory variables (information availability, information accessibility and information utilisation).



**Table 5.14: Coefficients**

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	0.602	0.331		1.817	0.072		
Availability	0.081	0.096	0.050	0.842	0.402	0.986	1.014
Accessibility	0.231	0.098	0.235	2.365	0.020	0.346	2.887
Utilization	0.591	0.097	0.604	6.091	0.000	0.348	2.875

*a. Dependent Variable: Job Performance*

The results in Table 5.14 reveal that job performance is positively and significantly related to information accessibility and information utilization. Though information availability is positively related to job performance, the relationship is not statistically significant at 5% level of significance. The relationship between the job performance and explanatory variables (information availability, information accessibility and information utilisation) are shown as follows: information availability ( $\beta = 0.081$ ;  $p > 0.05$ ); information accessibility ( $\beta = 0.231$ ;  $p < 0.05$ ); and information utilization ( $\beta = 0.591$ ;  $p < 0.05$ ).

Hair et al. (2014) specified that the tolerance level should not be less than 0.10 while variance inflation factor (VIF) should be below 5 before it can be concluded multicollinearity is absent in any data set. Table 5.14 showed that the tolerance values ranged from 0.348 to 0.986. It can be implied that the scores obtained are higher than the speculated benchmark. Also, the variance inflation factors (VIFs) that ranged from 1.014 to 2.887 are less than the acceptable benchmark as suggested by Hair et al. (2014).

The results in Table 5.14 were used to test hypotheses one, two and three accordingly

***H<sub>01</sub> There is no significant relationship between information availability and job performance among academic librarians in North-Central Nigeria.***

The results in Table 5.14 show that there is a positive but statistically insignificant relationship between information availability ( $\beta = 0.081$ ;  $p > 0.05$ ) and job performance. The t-statistic values of 0.0842 confirmed the results. The results showed that the null hypothesis should be rejected. It can

be concluded that job performance of academic librarians in North-Central Nigeria is not significantly influenced by information availability.

***H<sub>02</sub> There is no significant relationship between information accessibility and job performance among academic librarians in North-Central Nigeria.***

The results in Table 5.14 show that there is a positive significant relationship between information accessibility ( $\beta= 0.231$ ;  $p<0.05$ ) and job performance. The t-statistic values of 2.365 confirmed the results. The results showed that the null hypothesis should be rejected. Conclusively, job performance of academic librarians in North-Central Nigeria is significantly influenced by information accessibility.

***H<sub>03</sub> There is no significant relationship between information utilization and job performance among academic librarians in North-Central Nigeria.***

The results in Table 5.14 show that there is a positive significant relationship between information utilisation ( $\beta= 0.591$ ;  $p<0.05$ ), and job performance. The t-statistic values of 6.091 confirmed the results. The results showed that the null hypothesis should be rejected. Conclusively, job performance of academic librarians in North-Central Nigeria is significantly influenced by information utilisation.

The results in Table 5.15 were used to test hypothesis four.

***H<sub>04</sub> There is no significant difference between information availability, information accessibility and information utilisation among academic librarians in North-Central Nigeria.***

To determine if there is any significant difference among information availability, information accessibility and information utilisation among academic librarians in North-Central Nigeria, analysis of variance (ANOVA) was used because the variables of interest are more than two categories. The result is shown in Table 5.15:

**Table 5.15: Mean, Standard Deviation ANOVA Results of Information Availability, Accessibility and Utilization**

Anova: Single Factor/one-way						
SUMMARY						
Groups	Count	Sum	Average	Variance		
Availability	103	315.507	3.063	0.296		
Accessibility	103	302.917	2.941	0.818		
Utilization	103	303.333	2.945	0.828		
ANOVA						
Source of Variation	SS	Df	MS	F	P-value	F crit
Between Groups	0.9931	2	0.4965	0.7674	0.4651	3.0253
Within Groups	198.0057	306	0.6471			
Total	198.9988	308				

The result ( $F=0.7674$ ;  $p=0.4651$ ;  $F\text{ Crit}=3.0253$ ) shows that there is no statistically significant difference in academic librarians' perception of information availability, information accessibility and information utilisation. Since the ANOVA result is found to be statistically insignificant, posthoc-test was not conducted. Based on the results in Table 5.15, it is therefore concluded that there is no significant difference in academic librarians' perception of information availability, information accessibility and information utilisation in North-Central Nigeria.

## 5.6 Results from structured interviews

Interviews were conducted with the seven heads of university libraries in North- Central Nigeria. The results of semi-structured interviews (See Appendix III) are presented in this section in the following order: The seven heads of university libraries (North-Central Nigeria) are not individually identified as they were assured anonymity.

Respondent I to Respondent VII claimed that information resources are available and accessible for use in their university libraries. The summary of their responses to the information resources availability and accessibility is presented in Table 5.5.16.

### 5.6.1 How available and accessible are the following information resources in your university libraries?

**Table 5.6.16: Summary of interview responses on information resources**

<b>Items</b>	<b>Respondent I</b>	<b>Respondent II</b>	<b>Respondent III</b>	<b>Respondent IV</b>	<b>Respondent V</b>	<b>Respondent VI</b>	<b>Respondent VII</b>	<b>Remark</b>
Computers (official in the library and personal)	We have adequate computer system for use, in fact there are 72 computers/ laptops for use by the staff	Virtually every personnel of the library have unlimited access to the available computer for private and official usage	Very available	There is adequate computers for official use	Computers and workstations exist in this university	Available	Very adequately available	Highly available
Internet access (Library/home)	Yes, there is internet access	The internet is very accessible	There is internet access at home and other convenient locations	Access to Internet is very seamless	There is unlimited access to internet in library and staff quarters	Highly available on fibre optics with wireless connectivity	Available at office and sometimes through individual effort	Available
Campus network	It is available but fairly accessible	To a large extent, the campus network is effective	It is very fair	As I said earlier, the campus network is highly accessible	Very effective	This is highly available	Highly available	Highly accessible
Print materials (books, etc.)	Printed resources are available and accessible	There is abundant resources for use by students and staff	Available	There is wide collection of old and recent books on various subject areas	Very adequate	They are available and current	Adequate	Adequate
e-resources (e-journals, etc.)	There is fairly availability and accessibility of electronic information resources	We keep building the library e-resources	We keep upscaling our e-resources to meet the users' needs	The e-resources are very adequate	Oure-resources are up to date	Available for the use of generality of all	Adequately available	Available

Findings from Table 5.6.16 shows that a careful examination of responses given by the university librarians interviewed on the information resources environment revealed that the universities in North-Central Zone of Nigeria maintain an effective information resources environment.

### **5.6.2 How often do you access and use these resources to improve your job performance?**

**Table 5.6.17: Summary of interviews on accessibility and utilisation of both electronic and non-electronic resources**

	<b>Response</b>	<b>Remark</b>
<b>Respondent I</b>	Very often barring extraneous factors, they are being used on daily basis	Highly accessible
<b>Respondent II</b>	Accessibility is 24/7 hours because our resources are mostly online (IP access and remote access). The utilisation is based on improving and knowing more about our areas of specialisation for teaching and research. As such utilisation is mostly on a daily basis.	High
<b>Respondent III</b>	I use both electronic and printed resources at least once in a week	High
<b>Respondent IV</b>	Regularly	High
<b>Respondent V</b>	They are highly accessible	High
<b>Respondent VI</b>	I used these resources frequently	High
<b>Respondent VII</b>	Very often	High

Findings from Table 5.6.17 revealed that the interview's conducted with University Librarians to ascertain accessibility and utilisation of both electronic and non-electronic resources indicated that all the university librarians claimed to make use of electronic and non-electronic resources at regular intervals for official and personal development.

### **5.6.3 Heads of libraries' rated job performance**

Heads of libraries were also asked to assess the personnel (academic librarians) working under them. These personnel were grouped into Assistant Librarian, Librarian II, Librarian I, Senior Librarian and Deputy University Librarian. University Librarians were made to employ Heilman, Block and Luca's (1992) supervisor-rated performance scale to assess personnel working under their supervisions (See Appendix III). The respondents (University Librarians) from the seven universities were asked the following questions:

- (i) How competent does the group under your supervision perform their job?
- (ii) How effective does the individual get work done?
- (iii) Overall quality of individual grouping work
- (iv) Overall perceived competence of individual grouping and (v) Overall quantity of individual work.

**Table 5.6.18a: How competent does the group under your supervision perform their job?**

	Respondent I					Respondent II					Respondent III					Respondent IV					Respondent V					Respondent VI					Respondent VII							
	H C	QC	C	FC	NC	H C	C C	C	F C	N C	H C	QC	C	F C	N C	H C	QC	C	F C	N C	H C	QC	C	F C	N C	H C	QC	C	F C	N C	H C	QC	C	F C	N C			
Assistant Librarian			x			X						X																										
Librarian II			X			X							X													X							x					
Librarian I		X					X					X						X									X						X					
Senior Librarian		X					X					X					x										X								x			
Principal Librarian		X																									X							x				
Deputy University Librarian																	x									X									X			

**Key:** HC = Highly Competent, QC = Quite Competent, C = Competent, FC = Fairly Competent, NC = Not Competent

From Table 5.6.18a, the respondents (Head Libraries) were asked during the interview to rate the competence of individual librarian in performance of their jobs. The university librarians in the seven universities in North Central region of Nigeria rated the academic librarians working under them very high and claimed that the personnel under their care are all competent in discharging their duties.

**Table 5.6.18b: How effective does the individual get work done?**

	Respondent I					Respondent II					Respondent III					Respondent IV					Respondent V					Respondent VI					Respondent VII							
	ME	QE	E	FE	NE	ME	QE	E	FE	NE	ME	QE	E	FE	NE	ME	QE	E	FE	NE	ME	QE	E	FE	NE	ME	QE	E	FE	NE	ME	QE	E	FE	NE			
Assistant Librarian						X																																
Librarian II		X				X																	X													x		
Librarian I		X					X						X						X					X												X		
Senior Librarian		X					X					X						X					X														x	
Principal Librarian	X																						X														X	
Deputy University Librarian	X										X							X									X										X	

**Key:** ME = Most Effectively, QE= Quite Effective, E = Effectively, FE = Fairly Effective, NE = Not Effective

Table 5.6.18b revealed that Heads of Libraries from the seven universities in North Central region of Nigeria were asked during the interview to rate the effectiveness of individual librarian in the performance of his/her job tasks and overwhelming responses received from the university librarians showed that librarians get work done effectively.



**Table 5.6.18c: Overall quality of individual grouping work**

VH	Respondent I					H Respondent II					Respondent III					LQ	Respondent V					Respondent VI					Respondent VII								
	VH	H	M	LQ	VL	VH	H	M	LQ	VL	VH	H	M	LQ	VL		VH	H	M	LQ	VL	VH	H	M	LQ	VL	VH	H	M	LQ	VL				
Assistant Librarian						X																													
Librarian II		X				X							X										X				X				X				
Librarian I		X				X							X					X					X				X					X			
Senior Librarian		X										X					X						X				X						x		
Principal Librarian	X											X											X				X					X			
Deputy University Librarian	X																X				X					X						X			

**Key:** VH = Very High, H = High, M = Moderate, LQ = Low Quality, VL = Very Low

As presented above in Table 5.6.18c, findings revealed that the University Librarians in the seven universities in North Central region were asked to determine the overall quality of individual librarian performance to the grouping work. The responses from the interview showed that the university librarians in the region submitted that there is high quality in the individual grouping work being carried out.

**Table 5.6.18d: Overall perceived competencies of individual grouping**

	Respondent I					H Respondent II					Respondent III M					Respondent IV					Respondent V					Respondent VI					Respondent VII									
	HC	QC	C	FC	NC	HC	QC	C	FC	NC	HC	QC	C	FC	NC	HC	QC	C	FC	NC	HC	QC	C	FC	NC	HC	QC	C	FC	NC	HC	QC	C	FC	NC					
Assistant Librarian						X																																		
Librarian II		X				X																	X			X					X									
Librarian I		X				X												X					X				X										X			
Senior Librarian		X					X						X				X						X			X					X									
Principal Librarian	X												X								X						X									X				
Deputy University Librarian	X												X				X				X						X									X				

**Key:** HC = Highly Competent, QC = Quite Competent, C = Competent, FC = Fairly Competent, NC = Not Competent

In terms of perceived competencies of individual grouping, the university librarians in the entire seven federal government owned universities in North Central Zone of Nigeria were asked to state their perception about the competencies of individuals working under their supervision. The overall response on perceived competencies of individual grouping showed that all the University Librarians had required competences for their job performances as presented in Table 5.6.18d.

Table 5.6.18e Overall quantity of individual work.

	Respondent I					Respondent II					Respondent III					Respondent IV					Respondent V					Respondent VI					Respondent VII				
	VH	H	M	LQ	VL	VH	H	M	LQ	VL	VH	H	M	LQ	VL	VH	H	M	LQ	VL	VH	H	M	LQ	VL	VH	H	M	LQ	VL					
Assistant Librarian						X																													
Librarian II			X				X															X				X					X				
Librarian I		X					X											X				X				X						X			
Senior Librarian		X						X			X						X				X						X						X		
Principal Librarian		X									X										X					X						X			
Deputy University Librarian		X									X						X				X						X					X			

**Key:** VH = Very High, H = High, M = Moderate, LQ = Low Quality, VL = Very Low

Findings in Table 5.6.18e indicates that the respondents (University Librarians) were asked during the interview to rate the quantity of individual work. The university librarians in the seven universities in North Central region of Nigeria rated the librarians working under them very high and claimed that they have quality personnel under their care. They further reiterated that these personnel are always willing to discharge their duties in line with international best practices.

#### 5.6.4 What is the effect and constraints of information resources utilisation on academic librarians' job performance?

Head of libraries were further probed to state the effect and constraints of information resources utilisation on academic librarians' job performance. All the seven respondents indicated that funds, poor electricity supply, among others, are some of the constraints confronting the use of electronic and non-electronic resources. Their responses were based on the interview conducted and the results as presented in Table. 5.5.19

**Table 5.6.19: Effect and constraints of information resources utilisation on academic librarians' job performance**

	Response	Remark
<b>Respondent I</b>	Funding for subscription, lack of infrastructure, hardware and software, problems of electricity and competent manpower	Inadequate
<b>Respondent II</b>	The main challenge confronting the library is inadequate funds	Inadequate
<b>Respondent III</b>	There is meagre budgetary provision for hardware and software acquisition as well as in subscribing to latest e-resources/databases	Inadequate
<b>Respondent IV</b>	Funding available is not sufficient for meeting library needs	Inadequate
<b>Respondent V</b>	I can say categorically that the budgetary provision is grossly inadequate to subscribe to the current literature in various fields of knowledge.	Inadequate
<b>Respondent VI</b>	Well the constraints to access at FUT Minna Library is mostly no alternative power supply and funds are inadequate to subscribe to some electronic databases as such we tend to subscribe less expensive ones	Inadequate
<b>Respondent VII</b>	Insufficient funds have been the major challenge confronting the library management and development.	Inadequate

Table 5.6.19 shows that inadequate funding was the major constraint noted by all the seven respondents. Heads of libraries also acknowledged that inadequate funding has negative impact on their job performance.

#### 5.7. Summary

This chapter presented the findings of the study based on research questions and hypothesis that were investigated. The findings showed that 90% of the respondents revealed high availability of information resources for their job performance. Findings from the results also showed that

all the print information resources are being used on a daily, weekly, monthly and semester basis for high job performance.

The results further showed that most academic librarians perform better in terms of cataloguing, circulation and reference and least in consortium services, indexing and abstracting. The results also showed that academic librarians adjudged themselves to be most effective in getting their jobs done.

The results also revealed that over 95% of the respondents indicated high accessibility to all the questions relating to print information resources accessibility while 70% of the respondents indicated very true and true to all the questions relating to accessibility and utilization of e-resources for their job performance. Heads of libraries also acknowledged that inadequate funding and irregular electricity supplies were the major factors hindering the use of information resources and that impacted on their job performance.

The results from the test of the hypotheses in the study revealed that job performance is significantly related to information accessibility and information utilization. Though it was established that information availability is positively related to job performance the relationship between the two variables does not exist. Hence, there is significant relationship between the dependent variable and independent variables as revealed: information availability ( $\beta = 0.081$ ;  $p > 0.05$ ); information accessibility ( $\beta = 0.231$ ;  $p < 0.05$ ); and information utilization ( $\beta = 0.591$ ;  $p < 0.05$ ). However, to determine if there is any significant difference among information availability, information accessibility and information utilisation among academic librarians in North-Central Nigeria, the result of the findings ( $F = 0.7674$ ;  $p = 0.4651$ ;  $F \text{ Crit} = 3.0253$ ) showed that there is no significant difference in academic librarians' perception of information availability, information accessibility and information utilisation. The next chapter will focus on interpretation and discussion of findings.

## **CHAPTER SIX**

### **INTERPRETATION AND DISCUSSION OF FINDINGS**

#### **6.1 Introduction**

This chapter presents the interpretation of results as well as discusses the findings that were presented in Chapter Five. The chapter sets out to provide meaning, differences as well as similarities between the data collected from current study is in consonant with previous findings, objective clarifications and conclusions. According to Perri6 and Bellamy (2012:11), the essence of discussion of research findings is to determine if the data analysed is in agreement with the overall conclusions derived from a study, provide answers to research questions and hypotheses. The University of Southern California (2013:2) highlighted “the objectives of interpretation and discussion” in this chapter as follows:

- i Reiteration of the research problem;
- ii Explain meaning of the findings;
- iii Relate findings to similar studies;
- iv Acknowledge the study’s limitations; and
- v Making submissions for further research.

Consequently, the aim of this study was to investigate the extent to which information resources utilisation determine academic librarians job performance in selected Nigerian university libraries. The study addressed the following research questions:

1. To what extent are university academic librarians in North-Central Nigeria performing their job?
2. What is the level of availability and utilisation of information resources in selected university libraries in North-Central Nigeria?
3. What is the level of accessibility and utilisation of information resources in selected university libraries in North-Central Nigeria?
4. What is the relationship between information resources availability, accessibility, utilisation and job performance among academic librarians in North-Central universities?
5. What are the factors that inhibit academic librarians from fully utilising information resources for job enhancement in North-Central Nigeria?

Hence, the chapter is divided into seven sections. Section one deals with socio-demographic characteristics of the respondents, section two dwells on discussion on the extent to which academic librarians in universities in North-Central Nigeria perform their job, section three discusses level of availability and utilisation of information resources in selected university libraries in North-Central Nigeria.

Section four dwells on level of accessibility and utilisation of information resources in selected university libraries in North-Central Nigeria, section five discusses the relationship between information resources availability, section six highlights accessibility, utilisation and job performance among academic librarians in Universities in North-Central while section seven discusses the inhibitors to the use of information resources for effective job performance in universities in North-Central region of Nigeria. More importantly, the results from qualitative and quantitative were combined to simplify the findings and connect the research questions to the findings. The discussion begins with socio-demographic profiles of the respondents.

## **6.2 Socio-demographic characteristics of the respondents**

Background information of the respondents involve demographic information such as age, gender, designation, years of experience, monthly income, marital status and level of education. All these personal characteristics help the researcher in framing strategies for the target population (Brink, Van der Walt and Van Rensburg 2012). In this case, the study respondents (academic librarians) answered the above questions. The socio-demographic characteristics of the respondents are thus presented in the next sub-sections.

### **6.2.1 Gender**

Findings in Chapter Five, Table 5.2 showed demographic information of academic librarians drawn from the seven university libraries in North-Central region of Nigeria. The findings showed that there were more male academic librarians 57 (55%) than their female counterpart in the seven selected university libraries. This finding is in consonance with Ani (2013), who noted that there is usually a higher number of male respondents than females in research. Similarly, Ani, Ngulube and Onyanha (2014); Attama (2013); Lamptey Boateng and Antwi (2013) and Tahir, Mahmood and Shafique (2010) reported in their studies that there were more male than female respondents. The findings also correspond with the submission by Attama (2013) in a study of Polytechnic students in South-East and South-South Nigeria that there were more male than female respondents. Tahir, Mahmood and Shafique (2010) in their study at the University

of Punjab Pakistana, had more male than female respondents. The finding is also in agreement with submission by Lamprey, Boateng and Antwi (2013) that affirmed more male librarians 43 (72%) than females 17 (28%) in their study of six selected universities in Ghana. It can, therefore, be inferred that certain socio-cultural practices and societal prejudices tend to limit women's chances of securing job placement in university libraries in Nigeria. It is often believed that women maternal responsibilities have the potential to impair on their job performance and possibly serve as distraction in the discharge of their duties. These could suffice as the reason for the male-dominated job environment of Nigerian University libraries.

### **6.2.2 Age**

The result of this findings showed that most respondents 36 (35%) for the study were within the age range of 30-39 years while the least number of respondents were within the age bracket 60 years and above 3(3%). The implication of this finding is that majority of the respondents (36) were within the age bracket 30-39 (35%) years old which is the most productive age of the average worker in Nigeria. This finding is in agreement with the findings of Franca (2017) who confirmed that 63 (44%) of the 31-40 age group of most respondents in South-West Nigeria to be most productive. The respondents' age was found to correlate with their years of service and job performance. The finding of this study with respect to age is attributable to Nigeria's education system. This implies that the younger the personnel, the better their contributions to effective library service delivery in universities in North-Central Nigeria.

### **6.2.3 Academic qualification**

The study found that the academic librarians in the surveyed university libraries in North-Central Nigeria are well educated as 73(71%) had a master's degree and 15(15%) had a doctorate degree respectively. Therefore, this finding confirms that academic librarians in North-Central region of Nigeria are educationally qualified as reported by Franca (2017). Lamprey, Boateng and Antwi (2013), in their study on University of Ghana Library personnel, note that quite a number of academic librarians had a master's degree 43 (72%), followed by PhD degree 10 (17%) and only 7(11%) had a postgraduate diploma. The implication of this result is that academic qualification has significant effects on job performance of academic librarians. The majority of the academic librarians were responsible for core library activities and conducting research primarily. Ugwu and Ugwu (2017) also found that only age, education, job position and



work experience were significant predictors of librarians' task-based and contextual performance, with education being the most significant predictor.

#### **6.2.4 Professional rank**

The findings on the professional rank of the respondents in the surveyed university libraries showed that 10(10%) were on the Senior Librarian cadre, 9(9%) on the Principal Librarian cadre, 4(4%) on the Deputy University Librarian cadre while the others were in the cadres of Librarian II 38(37%) and Librarian I 24(23%). These findings contradict the assertion of Lamptey, Boateng and Antwi (2013) which revealed that most of the respondents in a study of library personnel in Ghana were Assistant Librarians 39(66%). The implication of this finding is that the promotional process of academic librarians in universities in Nigeria is seamless compared to what is obtainable in Ghana. In Nigerian university libraries, academic librarians are expected to get promoted through clear-cut promotion conditions, such as a certain number of publications and conference attendance, unlike, in Ghana, where they are still being subjected to further examination before being promoted. This development encourages the academic librarians to remain committed to their job in the region.

#### **6.2.5 Working experience**

Findings on the years of service of academic librarians showed that large numbers of the respondents 28(27%) had spent 6-10 years on the job, followed by 27 (26%) 0-5 years, while few of the respondents 9(9%) had spent 16-21 years. The result show that most academic librarians in North-Central Nigerian had spent between 6-10 years in service. The finding contrasts with the submission by Belias, Sdrolas and Koutiva (2013) on the influence of demographic features on job satisfaction in Greece, that majority of the respondents 83(32%) had 11-15 years of job experience. However, the finding is similar to the outcome of Hassan and Ogunkoya's (2014) research in Nigeria, that demographic variables of age and work experience appeared to count less on job performance. Most of the academic librarians sampled in this study had master's degree and 55 (53%) of them having work experience of 0-10 years. Ordinarily, this number of years should have positive effects on their job performance if certain activities, like in-house training, workshops and conferences are in place. However, with government's lukewarm attitude towards library development in Nigeria, as noted by Gbadamosi (2011), it would be difficult for this to come to reality. With the high level of unemployment in Nigeria it is not surprising to see people with master's degrees taking up a lower job that is not commensurate

with their qualifications just to make ends meet (Kazeem 2016). Hence, it can be concluded that work experience of academic librarians appeared to count less on job performance.<sup>4</sup>

### **6.2.6 Salary structure**

The results on the salary structure of the respondents in the surveyed academic libraries showed that the majority of academic librarians 42(41%) were librarian II that earned more than ₦120,000; (>\$334) per month for a master's degree holder who must have worked for 0-5 years in a university academic library, 23 (22%) earned more than ₦150,000; 12(12%) earned more than ₦200,000; 6(6%) earned more than ₦250,000; while 5(5%) earned more than ₦300,000 and must have worked for a minimum of 15 years. Thus, in this study, wages were paid to the academic librarians in universities in North-Central Nigeria on a monthly basis and this was found to be positively related to their job performance. The finding is in consonant with the submission of Oyewole and Popoola (2015) that a significant correlation existed among dependent variable (job performance) and independent variables (age, working experience, position/rank, academic qualification and monthly salary). Similarly, Strydom (2011:202) "found that remuneration plays a vital role in job satisfaction and dissatisfaction of university academic staff members".

### **6.3 Job Performance of academic librarians in North-Central Nigeria**

Research question one determined the degree to which academic librarians in universities in North-Central Nigeria are performing their job. The research question was linked to Task-theoretical framework in Chapter Two (2.4.2) of the study. In line with information services available in the selected university libraries, Items in Sections II and III (Appendix II) were analysed to answer this research question. It was found that 73(75%) of the respondents indicated that they were relatively up to the task at hand. It was also discovered that most of the academic librarians performed better in terms of cataloguing, circulation and reference services. The finding is in agreement with assertion of Hussain and Kumar (2013). The least available services were consortium services, indexing and abstracting. This finding is in agreement with Nwachukwu, Abdulsalami and Salami (2014), who reported a similar finding on abstracting and indexing services. A significant number of the respondents in their study indicated that information services in their libraries needed improvement. Gabriel (2012) found that there was

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<sup>4</sup> Librarian I are those who must have spent a minimum of three years in their previous position (Librarian I1), while Librarian II are the newly employed librarians with a qualification of master's degree.

efficiency in disseminating agricultural information particularly on indexing and abstracting. The findings corroborate those by Hussain and Kumar (2013) in Karanata University Library in India, which revealed that services like reference service, current awareness, bibliographic and online search engine strategy services were the mostly used. Besides, the study showed that 87(87%) of the scholars used reference service, 48(48%) used indexes, and 46(46%) used abstracts services. The literature reveals that reference and bibliography services are the most used among research scholars.

Also, Selvamani (2012) in a study at Channai University, India, showed that most of the respondents 75(63%) utilised journals/periodicals and circulation services for their job performance followed by 65(54%) for selective dissemination of information, 64(54%) for abstracting and indexing services, while current awareness services and reference service recorded 59(49%) and 57(48%) respectively. The findings of the present study correspond with the previous studies conducted by Owusu-Ansah, Mprah and Kumah (2014). In it, the majority of the respondents believed that the influence of information resources on library services was critical to the growth of academic librarians' job performance. They noted that two sets of needs (esteem and self-actualisation) of Maslow's (1954) hierarchy theory relate to personal growth and development which improves performance as noted by Ferri et al. 2010). Although the theoretical view suggests that self-esteem level of academic librarians should either be high or low, the literature suggests that such effects are either available or non-existent (Ferri et al. 2010). The findings contrast with the studies of Onifade and Sowole (2011) and Wanjiku (2013), which reported that reference materials and services available in Federal University of Agriculture Library, Nigeria and Mbeere South, Mmbu Country, Kenya, respectively, were very old and this had negative effect on academic librarians' job performance. Onaolapo (2016) found that services such as reference services, lending of books, displays and exhibitions and research support services rendered by Federal Polytechnic Offa Library in Nigeria are not optimally utilised by most of the target users owing to several inherent factors. Some of the respondents noted that if services such as awareness services, SDI services, photocopy services and Internet services were available, they could have made use of these services to enhance their job performance.

Furthermore, results from Table 5.4 of this study affirmed that 81(81%) of academic librarians adjudged themselves to be most effective in getting their jobs done while 81(82%) indicated high competence in their job performance. Corroborating this assertion, the head of the seven selected libraries noted that academic librarians get work done effectively owing to their competence, as noticed from the results of the interview (See Chapter Five; Tables 5.5.18a-18e). Heads of libraries were asked to give rating of their subordinates on a 6-item, 5-point Likert-type scale using Heilman, Block and Luca's (1992) Supervisor-rated Performance Scale. Their response(s) indicated that academic librarians will perform better if well motivated and provided access to information resources. They also noted that the job performance of librarians improved through motivation, skill and training. The finding is in agreement with the submission of Boxall and Macky (2009) and Boxall and Purcell (2011) that, when employees are given adequate training and other incentives, their performance will be enhanced.

From the available findings, result showed that academic librarians and heads of libraries are aware of the extent to which academic librarians in universities in North-Central Nigeria are performing their job. The literature reviewed established that the services rendered by academic librarians in universities in North-Central Nigeria were consistent with Musa (2017), who argues that availability and utilisation of information resources and services does not necessarily lead to performance, as also indicated in this study. The extent to which information resources improve individual performance in the library from a utilisation behavioural perspective is confirmed by the Task-Technology Fit theory [TTF] (Goodhue and Thompson 1995).

#### **6.4 Level of availability and utilisation of information resources**

The results confirmed the availability and utilisation of a list of eighteen various information resources based on a 4-point scale in order to answer the research question. Most of these information resources were also reported in the extant literature reviewed (Repplinger 2015; Sababa 2012 and Ogbonna 2009). Results of this finding revealed that 93(90%) of academic librarians indicated that all the identified information resources were available for use with the highest mean of  $\bar{X} = 3.71$ ;  $SD = 0.499$ . Also, all the university librarians claimed to make use of electronic and non-electronic resources at regular intervals for official and personal development. The findings correspond with the submission by Okiki (2013); Popoola (2009) that noted increasing availability as well as level of utilisation of information sources for job performance in the university libraries. Academic researchers have also observed with keen interest variation

into the level of availability as well as utilisation of information sources amongst nations and institutions.

The result of this present study showed a relationship amongst level of availability as well as utilisation of information resources by the respondents in the selected university libraries. Further, the results of the finding showed that with adequate and recent information resources, there is higher degree of utilisation among the respondents.

The findings contradict the position of Sheeja (2010), that there are major differences between availability and utilisation of information resources between scholars in science and those in social science of four universities in Kerala, India. According to the author, there was a significant difference between science and social science scholars on the perception of the adequacy of print journals and database collection, which is very relevant to this study. There was no significant difference between science and social science scholars on the perception of the adequacy of e-journals used among respondents. The study by Sheeja (2010) found that 29(29%) of the scholars from both disciplines perceived availability of e-journals as adequate; 4(4%) noted that there was no significant difference in opinion between the science and social science research scholars on e-journals availability in university libraries in Kerala. In the case of databases collection, there was difference of opinion between the science and social science scholars on the availability of databases. The social science scholars were more dissatisfied than the science scholars in the case of databases; p-value was less than significant level, 0.05 (chi-square =11.583; df =4; p-value =0.021). On the issue of print journals in the university libraries, the social sciences scholars 66 (66%) were satisfied with journal collection (very adequate and adequate); most of the science scholars 44(44%) noted that journal collection as "somewhat adequate" in their area. The chi-square test proved that research discipline-wise difference was significant in the case of print journals. Also, the majority of the scholars from both science 31(31%) and social science 27(27%) found conference proceedings collection "inadequate". With respect to whether there was any significant difference of opinion between the science and social science scholars towards conference proceedings, the result showed that p-value is greater than 0.05 (significance level). Hence, there was no significant difference between the science scholars and the social science scholars in their satisfaction on research report collection availability in university libraries in Kerala (chi-square value=2.840, df=p value=0.585).

The result of this present study showed that there was a relationship between level of availability and utilisation of information materials by the respondents in the selected university libraries which was also confirmed by the university librarians in the surveyed universities. It was also revealed that, with adequate and recent information resources, there was higher degree of utilisation among the respondents. Similarly, Agarwal and Dave (2009) investigated Internet use by scientists and research fellows of Central Arid Zone Research Institute, Jodhpur (Rajasthan). They found that 157(97%) of the respondents used the Internet for education and research and this had significant effect on their performance.

The result is also related to the findings by Oriogu, Chukwuemeka and Oriogu-Ogbuiyi (2018), in a survey research conducted on the faculty awareness, perception and use of information resources and services in a private university in Nigeria. Their analysis showed that 89(89%) of the respondents agreed with the awareness and use of textbooks for job performance. Also, 88(88%) of the respondents showed that magazines/newspapers and journals 76(76%) were suitable and relevant in meeting academic librarians' job performance. The position of this author resonates with Hussain and Kumar (2013) who noted that academic librarians depend on the use of textbooks, reference books, newspapers, theses, monographs, dissertations and periodical literature for their research endeavours which agrees with the present study.

The present findings are in consonance with Hussain and Kumar (2013) in the research on Karanata University library in India. The research indicated a large number of the respondents made use of textbooks/monographs for their job performance - 114 of the respondents made use of reference materials, theses/dissertations, government publications conference/seminar papers, and electronic journals for their jobs. It was equally observed that research scholars/ academic librarians used textbooks/monographs, thesis/dissertation and reference materials to a large extent more than other information resources.

This study also confirmed the findings of Selvamani (2012) on the utilisation of information sources by Faculty of Pharmacy in Chennai. Most of the academic librarians from the Master School of Management visited the library for adequate access of reference resources and services for effective and efficient job performance. Books, periodicals and newspapers were the most used information resources for job enhancement among the faculty members, while maps, charts, microfilms/microfiches were of less use.

Ishola and Obadare (2014) examined availability of information materials in selected university libraries in South-West Nigeria. Results of the study showed 2735 (75%) were of the opinion that there is availability of research reports, newspapers, magazine, and pamphlet/ posters. Furthermore, in response to level of use of print information resources Ishola and Obadare (2014) revealed that the majority of the respondents made use of information resources such as journals and textbooks on a daily basis. The mean and standard deviation which showed the level of utilisation of information materials in some university libraries in South West, Nigeria, a total average mean score of  $X=3.65$ ,  $SD= 1.440$ , supported the findings by Popoola and Halisco (2009), who reported that respondents make use of journals, abstracts/indexes, textbooks and theses more than other information resources. Similarly, Adomi (2012) and Nnadozie (2014) identified information sources as periodicals, theses, memoirs, interviews, lecture notes, personal letters, diaries, grey literature among others as first-hand information providers that enhanced job performance.

The finding of this study agrees with Popoola and Farukuoye's (2017) submission that job satisfaction, achievement need and teamwork are significant factors influencing work performance of academic library personnel in South-West, Nigeria. It is also in conformity with Kumar (2010), who found high frequency of use of all the primary information resources (conference papers, research report, journals, periodicals and theses). This study also revealed that two sources of information ranked low: reference resources and theses/dissertations. Familusi and Ajayi (2015) reported that 93(51%) of their respondents used virtually all the resources available to them for their job performance and that only 29(7%) did not use any of the resources. The mean and standard deviation showed the level of availability to be  $X=3.00$ ,  $SD= 0.936$ , which is in consonance with the outcome of the present study. Onifade, Ogbuiyi and Omeluzor (2013:290) noted that "information resources availability does not mean accessibility and utilization; hence, academic libraries have to market their resources and services to improve librarians' job performances". The authors concluded that since the main purpose of patronising the library is to consult and use information resources, it is the duty of management to make adequate provision for these resources and create means of accessing them for effective service delivery. Attama (2013) found that most of the respondents mentioned poor skills in the use of library resources, inadequate modern ICT, poor electricity supply and unavailability of electronic resources as constraints to library resources utilisation. In view of the empirical findings and submissions in the literature, it is, therefore, submitted that availability of information resources

remains an effective means of facilitating teaching, research and learning as well as virile services among the personnel of academic libraries.

### **6.5 Level of accessibility and utilisation of information resources**

The third research question sought to establish the level of accessibility as well as utilisation of information materials in selected institutions libraries in North-Central Nigeria. Items in Chapter Five (Table 5.7 and 5.8) were analysed to answer the research question. The results showed that the five most accessible print information resources are textbooks, newspapers, journal collections, encyclopaedias and dictionaries while the least accessible include indexes, manuscripts and technical reports. Also, 72(70%) of the respondents indicated “very true” and “true” against all the questions relating to the access and utilisation of e-information materials. This result was also corroborated by university librarians.

This result corroborates the findings by Ishola and Obadare (2014), that textbooks were the most accessible print information resources 3379(92%), followed by dictionary 3284(90%) and encyclopaedia 3277(90%) and Newspapers 3200(91%) in academic libraries in South-West Nigeria. The mean score was  $X=3.07$ ,  $SD=0.801$ . On the use and access to electronic resources, Ishola and Obadare (2014) showed that accessing and using e-journals on the Internet regularly 95(94%) and accessing important e-resources on the Internet everyday 94(94%) were of paramount importance to academic librarians. The use of CD-ROM databases 71(72%) in performing their jobs.

This result is in consonance with the findings by Sejane (2017). In the study, 4 (10%) of respondents opined that CD-ROM databases were the least electronic resources used by academic librarians in Lesotho Library. The results also support the findings of Gakibayo, Ikoja-Odongo and Okello-Obura (2013) at Mbarara University Library in Uganda. Internet search engines were the most utilised electronic information resources in the university library 168(63%). Scholarly databases were the least used, with 15(5%) usability, as against CD-ROM in the present study. Dhanavandan and Tamizhchelvan (2012) found that Internet was the most available electronic resources in Tamil Nadu library, India (used by 133 (95%) of the respondents), with e-book as the least e-resource (used by 50 (36%) respondents).

Conversely, Parameshwar and Patil (2009) reported low use of the university electronic information resources despite the huge investment on access to Internet. Similarly, Gakibayo, Ikoja-Odongo and Okello-Obura (2013) assert that librarians may not be aware of the value of



CD-ROM to their job performance. Also, the results of the findings by Ani (2013) showed that a positive influence exist amongst information accessibility as well as utilisation with regards e-resources by faculty members for the enhancement of their academic and research productivity. Moreover, the present study revealed that the higher the level of accessibility of information resource the higher the probability that the resources will impact positively on academic librarian's job performance is. Hence, accessibility as well as resources utilisation has positive influence with one another as this was confirmed in this study. This finding corroborates Goodhue and Thompson (1995), who used TTF theory to test accessibility of information resources as instrument for evaluating job performance.

### **6.6 Relationship between information resources availability, accessibility, utilisation and job performance among academic librarians**

The results on the relationship between information resources availability, accessibility, utilisation and job performance amongst the sampled respondents in North-Central universities revealed that a strong relationship exists between information resources use and librarians' job performance. To establish the findings, four hypotheses were generated in the study (see Items in Sections VIII and IX of Appendix II):

- H<sub>01</sub>: There is no significant relationship between information availability and job performance among academic librarians in North-Central Nigeria.
- H<sub>02</sub>: There is no significant relationship between information accessibility and job performance among academic librarians in North-Central Nigeria.
- H<sub>03</sub>: There is no significant relationship between information utilisation and job performance among academic librarians in North-Central Nigeria.
- H<sub>04</sub>: There is no significant relationship between information availability, accessibility and information utilisation among academic librarians in North-Central Nigeria.

On the question of availability, accessibility and utilisation of e-resources for job performance in Chapter Five (Table 5.9), thirteen items were used to establish this. The respondents (103) noted that four of the items, namely e-journals, e-books, online databases and full text databases were the most available, accessible and used by academic librarians in selected university libraries which was also supported by university librarians. Telecommunication products 60(58%) and e-magazine 69(67%) were the available e-resources least used. This finding is in line with the submission by Mwantimwa (2017) in Tanzania. Academic staff and researchers were asked to indicate how they used electronic resources/databases to support research. A total of 99(83%) of

them revealed that they used electronic resources for their job performance; 9(8%) indicated otherwise. Dhanavandan and Tamizhchelvan (2012) revealed that the availability of electronic resources at Tamil Nadu libraries, were used for effective job performance. E-books 50(36%) were the least available electronic resources at the surveyed engineering institution libraries in Tamil Nadu. On accessibility, their report revealed that of all the listed electronic access mode available at the institution libraries, OPAC was the major access point.

The results presented in Table 5.10 of the study showed that the construct from the TTF theory on accessibility of information resources used was reported to be the highest ranked with 92(94.9%) respondents submitting that the information resources they preferred to use were accessible. Nevertheless, the finding contrasts with that of Ani, Ngulube and Onyancha (2014) who found that accessibility had no significant impact on use of e-information resources by researchers based on discipline.

On the ease of use of information resources, this study affirmed the TTF theory by Goodhue and Thompson (1995), which proposes that personnel (librarians) will improve job performance if they believe in the task characteristics which will lead to high performance. In this study ease of use was reported as a system attribute that had critical value for the academic librarians. Ninety-one per cent of the respondents strongly opined that it was easy to learn the usage of the information resources based on accessibility, as espoused by Goodhue and Thompson (1995) in the TTF theory.

On the aspect of utilisation, findings from the study showed that 82(80%) of academic librarians who responded to the questions opined that they made use of the information materials provided by their libraries. It can therefore be said that the respondents' assessment on utilisation of information resources among academic librarians was satisfactory. The findings are in line with Venkatesh et al. (2003) who argue that the extent to which information improves an individual's performance in the library is as a result of the utilisation-focused model which is in agreement with TTF theory and the present study. To this end, academic librarians could perform better when they make use of available information resources which is in agreement with the findings of Kawatra (2011). Furthermore, on the issue of performance as a construct, 93(90%) of the respondents strongly agreed with the statement on job performance. This implies that respondents' assessment of performance of information resources among academic librarians

was satisfactory. This supports the view of Goodhue and Thompson (1995), that a high level of TTF could be used to stimulate high performance and satisfaction with the information materials.

The present finding is consistent with the submission of Goodhue and Thompson (1995), who reported a positive relationship between information resources use and job performance. It also tallies with that by D'Ambra, Wilson and Akter (2013) who found that a strong relationship exists between TTF and job performance. Luarn and Huang (2009) also found a moderate support in the use of TTF to establish positive effect of job performance of academic librarians. Also, positive relationship between availability and resources utilisation was confirmed by Goodhue and Thompson (1995); Cane and McCarthy (2009).

Hussain and Kumar (2013) discovered that books, periodicals and newspaper are the most used information resources to enhance job performance among faculty members while maps, charts microfilms/microfiches are less used. Similarly, Selvamani (2012) reported that there is positive use of information resources by Faculty of Pharmacy Colleges Chennai University, India. Similarly, Adomi and Famola (2012), Mbagwu and Nwachukwu (2010) reported a positive relationship between level of education and job performance. The authors further noted that a high relationship exist between educational training and job performance of academic librarians. Belias, Sdrolis and Koutiva (2013) reported that demographic variables had a positive relationship with job productivity/performance of employees.

However, the result here contrasts with the submission by Madukoma and Popoola (2012) who reported no significant relationship between job performance and gender of the study's respondents. Hassan and Ogunkoya's (2014) study on the outcome of research in Nigeria established that demographic variables that come with age and work experience appeared to count less for job performance. Saka and Haruna (2013) examined the relationship amongst staff development programme and job performance of librarians in Maiduguri, Nigeria, they reported no positive differences relationship between formal education as well as job performance. The next section from this chapter provides a discussion of findings of the hypotheses.

### **6.6.1 Discussion of the hypotheses**

In the hypotheses testing, regression method was employed to establish the relationship between the dependent variable (job performance) and independent variables (information availability, information accessibility and information utilisation). The result showed that when the independent variables: information availability, information accessibility and information

utilisation were regressed on job performance, a significant percentage was obtained at 0.661. This implies that information availability, information accessibility and information utilisation jointly explain 65.1% of the variation in job performance. Findings further revealed that Fstatistic of 64.363 is statistically significant at  $p < 0.05$  ( $p = 0.000$ ). This implies that there is a statistically significant relationship amongst the job performance and some of the explanatory variables (information availability, information accessibility and information utilisation).

Also, findings further revealed that job performance is significant to information accessibility as well as information utilisation. Though information availability displayed positive influence on job performance, the relationship indicated non-significant at 5% level of significance. The relationship between the job performance and explanatory variables (information availability, information accessibility and information utilisation) are shown as follows: information availability ( $\beta = 0.081$ ;  $p > 0.05$ ); information accessibility ( $\beta = 0.231$ ;  $p < 0.05$ ); while information utilization ( $\beta = 0.591$ ;  $p < 0.05$ ). Thus, this study is in agreement with the findings of Ani, Ngulube and Onyanha (2014) and Attama (2013).

## **6.8 Factors inhibiting effective job performance of academic librarians**

The analysis of the question on obstacles to the use of information resources for effective job performance amongst respondents in the sampled institutions in North-Central region Nigeria revealed several challenges. To answer this question, responses to 22 items in Appendix II were used to establish the obstacles/ challenges. This study noted that all the items listed in Chapter Five Table 5.11 were obstacles to the use of information resources for effective job performance of academic librarians. The results from the semi-structured interview revealed that all the respondents gave credence to accessibility, availability as well as utilisation of information sources. Since one of the reasons of using the qualitative method in research is to seek further clarification on any aspect of the quantitative method that needs expertise explanation, this study affirmed that low competencies and relevant resources among academic librarians were minor obstacles to librarian's job performance.

The seven respondents (heads of libraries) indicated that funds and poor electricity supply were some of the constraints confronting the use of both print and non-print resources for effective job performance. Corroborating this assertion, Ani et al. (2016) assert that paucity of funds, high cost of Internet use, inadequate access to ICT resources, poor ICT skills were identified as problems inhibiting the usage of ICT related information sources. Also, Mbagwu and Nwachukwu (2010) found that inadequate funding hindered academic librarian's job performance in Nigeria. The

finding is consistent with Familusi and Ajayi's (2015) view that the major obstacles facing academics in Nigeria are poor Internet connectivity, poor ICT facilities and inadequate fund. The findings of this present study support the previous scholars on the constraints to information resources utilisation in relation to academic librarian's job performance. Reports have shown that academic librarians in all universities face considerable challenges in their effort to use these information resources for their job performance. These obstacles will now be looked into.

The first major obstacle identified by the academic librarians in this study was, the type of technology used in an organisation. The majority of the respondents opined that the type of technology in an organization influences librarian's job performance. This finding agrees with the submission by Okiki and Durodolu (2018), that technology changes are a major constraint in academic libraries. It is also consistent with Tahir, Mahmood and Shafique's (2010) study in Pakistan and Ajie's (2019) in Nigeria.

In Kuwait, Al-Fadhli, Corral and Cox (2016) found that lack of technological skills, staff workload and insufficient number of staff are the major obstacles confronting job performance among librarians working in the three studied libraries. A significant number of the respondents noted that innovative technology added more creativity and responsibility to their job performance. The authors concluded that, considering the effect of technology on job performance, academic libraries must focus on the strategies that will produce a dynamic philosophy of technological development for academic librarians. Similarly, Ndakalu (2014) found that the absence of adequate information skills, poor information infrastructure and inadequate training are the major challenges confronted in accessing and utilising digital information resources in Nairobi University Library.

Other major problems confronting effective job performance of academic librarians in North Central universities included poor Internet connectivity and motivational factors. For instance, 90(87.4%) and 90(87.4%) of the respondents respectively opined that internet connectivity and motivational factors rated as the second highest constraint confronting academic librarian's job performance. This finding is confirmed by Sejane (2017) in Lesotho; Khuong and Yen (2016) in Vietnam; Amusa, Iyaro and Olabisi (2013) in Nigeria; Hashim and Mokhtar (2012) in Malaysia; Parameshwar and Patil (2009) in India. They all assert that a number of challenges are impeding the use of information resources for effective job performance.

As reported in the extant literature reviewed, other studies conducted in Nigeria agreed with the present findings on the subject matter (Agba, Mbotto and Agba 2013). These authors assert that the Internet in the universities contributes little to improving productivity of librarians. From the findings, it is obvious that some of the obstacles are similar. thus, this study agreed with Maslow's (1954) Theory on self-actualisation; it is an important construct in enhancing academic librarians' job performance. This theory is relevant in explaining factors that could motivate academic librarians to perform effectively in a given task. The theory further explains the importance of motivation in securing employee's optimal performance. In relation to this construct as affirmed by Maslow (1954), the satisfaction of librarians' basic needs would go a long way in enhancing their self-actualisation. The desire for self-actualisation encourages academic librarians to target high capacity development which will in turn enable them to carry out their job effectively.

## **6.9 Summary**

The chapter interpreted and discussed the findings presented in Chapter Five of the study. The study was guided with five research questions and four hypotheses. Task Technology Fit (TTF) theory constructs and Maslow's Hierarchy of Needs, such as utilisation, availability, accessibility, performance, self- actualisation, and self-esteem were used to justify this study. These constructs were found to be important in the usage of information resources utilisation and job performance by academic librarians in North-Central Nigeria.

Findings from the socio-demographic information of the respondents indicated that large proportion of the respondents were male. The result also revealed that most of the respondents were between the age bracket 30-39 years, while the highest age was 60 years and above. The majority of the respondents had master's degrees, such as MSc, MLIS and MA, in Library and Information Science. The results showed that most of the respondents were in Librarian II category. On the years of service, most of the academic librarians claimed that they had spent 6-10 years on their job.

Furthermore, findings from research question one revealed that over 77(75%) of the respondents indicated high satisfaction with all the services rendered in the university library. The respondents adjudged themselves to be highly competent in performing their job, using the Heilman, Block and Lucas's (1992) Self-rated and Supervisor-rated Performance Scale. A high number of the respondents indicated availability of print information resources for job performance. The most

available print information resources were newspapers, textbooks and journal collections, while the least available included indexes, technical reports and manuscripts.

On the issue of accessibility of information resources, it was reported that over 98(95%) of the academic librarians indicated access to all the questions relating to accessibility of print information resources while 77(75%) of the respondents showed that there is high utilisation and accessibility of e-resources. In addition, findings on the relationship between these variables revealed that e-journals, e-books and online databases are the most frequently used electronic resources. Several factors were reported to affect job performance of academic librarians in the sampled institutions. Findings of this present study showed that obsolete equipment was identified as the main obstacle hindering the use of information resources out of the twenty-two items listed.

On the influence of the three independent variables (availability, accessibility and utilisation) on academic libraries in North-Central Nigeria, the relationship was statistically tested and found to be positive and significant. Though information availability is related to job performance, however, the relationship shown as non-significant. The results further showed a negative correlation between availability as well as job productivity/performance. The inference of this is that the two variables are not moving in the same direction; while one is increasing the other is decreasing. The t-statistic values of 0.0842 confirmed the results. It can therefore be concluded that job performance of academic librarians in North-Central Nigeria is not significantly influenced by information availability. However, accessibility and utilisation determine librarians' job performance as reported in the findings of this present study. The next chapter provides a summary of findings, conclusions and recommendations.

## **CHAPTER SEVEN**

### **SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS**

#### **7.1 Introduction**

This study examined availability, accessibility and utilisation of information resources as variables of job performance of academic librarians in surveyed academic libraries in North Central region of Nigeria. This chapter is organised and structured around the research objectives and research questions. The summary of the chapters, findings of the study, conclusion as well as recommendations were based on issues identified in the reviewed and theoretical literature. The contributions of this study to policy, knowledge, practice, methodology and theory are outlined and suggestions for further studies based on the outcome of this study was proposed. The foregoing is noted by Mutula and Majinge (2017:125) who reported that the concluding chapter of a thesis should focus on the following:

- i. provide a link of the summary of key issues that emerged in the study to the research questions;
- ii. a conclusion that accounted for all the research questions must be provided;
- iii. recommendations that emanated from best practices elsewhere must be presented; and
- iv. there must be provision of clearly feasible recommendations with action plans and responsibilities.

The purpose of this study was to examine availability and utilisation of information resources by academic librarians for job performance enhancement in selected university libraries in North-Central Nigeria. The following were the research questions addressed by this present study:

1. To what extent are university academic librarians in North-Central Nigeria performing their job?
2. What is the level of availability and utilisation of information resources in selected university libraries in North-Central Nigeria?
3. What is the level of accessibility and utilisation of information resources in selected university libraries in North-Central Nigeria?
4. What is the relationship between information resources availability, accessibility, and utilisation and job performance among academic librarians in North-Central universities?
5. What are the factors that inhibit academic librarians from fully utilising information resources for job enhancement in selected university libraries in North-Central Nigeria?



This present study was underpinned by Maslow's Hierarchy of Needs Theory and Task-Technology Fit Theory and post-positivist research paradigm. Both the qualitative and quantitative methods were adopted for data collection. The study's population comprised professional librarians in seven selected academic libraries in North-Central Nigeria. The qualitative data were collected from librarians using a semi-structured interview, while a questionnaire was employed to gather quantitative data with the help of seven research assistants in the surveyed university libraries. The interview data was analysed through thematic analysis, while the questionnaire was analysed with the aid of SPSS (Version 24.0) to generate descriptive statistics, frequency counts, percentages, mean and standard deviation.

## **7.2 Summary of the chapters**

Chapter One discusses the study by discussing the role of information resources as variables that determine academic librarians' job performance. Global perceptions of information resources, job performance, mandates, historical development of the seven institutions selected for the study, the objectives of the study, delimitation of the study, and significance of the study were discussed in this chapter. The chapter also highlighted the research gap that the study filled. Operational definition of terms was also catered for, in addition to a table mapping the principal theories with the research questions.

Chapter Two examined the theoretical framework underpinning the study. In this case, Maslow's Hierarchy of Needs Theory and Task-Technology Fit that is the bane of solving the research problem were explained and justified. The choice of Maslow's Hierarchy of Needs Theory and Task-Technology Fit were justified. Matching of research questions to models and theories and their relationships was also done in this chapter.

Chapter Three focused on comprehensive review of existing literature from relevant local and international empirical studies. The opinion of scholars on issues and concepts and the importance of information resources used in academic libraries were examined. The reviewed literature showed that library information resources comprise both print and non-print materials. The chapter further reviewed key variables used in the study. This review covered information resources, information accessibility, information availability, information utilisation as well as job performance.

Chapter Four presented the methodology adopted for the study. The discussion covered the research design, location of the study, sampling procedure, population of the study, reliability and validity of the research instruments, pretesting of research instruments, challenges encountered in data collection, ethical issues and evaluation of the research methodology. The post-positivist paradigm, which the present study was hinged on was also explained.

Chapter Five focused on data analysis and presentation of research findings based on the research questions and hypotheses. The data collected from heads of library and academic librarians were presented in tables. The results from demographic information revealed that a higher percentage of the respondents were male 57(55%) and in the age range of 30-39 years. The findings showed that 80% of the respondents revealed high availability, accessibility and utilisation of information resources for their job performance. However, heads of library and academic librarians reported obstacles to their job performance(s).

Chapter Six presented the discussion of findings of the research and hypotheses as analysed and presented in Chapter Five. The findings were discussed in the context of the extant literature reviewed and the theories adopted for this study. The purpose of this chapter was to see whether the aims and objectives of this study were accomplished and if the theoretical framework successfully explained the results and findings of this study.

Chapter Seven provided a summary of this study. The objective of this chapter was to draw conclusions and recommendations for the study based on the results of the findings from the research.

### **7.3 Summary of findings**

This section summarises the findings of this study in relation to information resources utilisation as well as job performance of academic librarians in North-Central Nigeria. The objective was to provide access and use based on availability and utilisation of information sources in academic libraries. The strong point of this present study is the fact that availability, accessibility and utilisation analysis was supported by the semi-structured interviews with the heads of libraries. This provided the desired background information to support the analysis and interpretation of the data collected and views on the topic. The study provided a clear signal that academic librarians' job performance in North-Central Nigeria was moving towards an electronic information environment. Thus, this section provides a summary of the availability, accessibility and utilisation of information sources in some selected university libraries, the importance of

information resources, challenges faced by academic libraries and offers recommendations that support availability, accessibility and utilisation of these resources in university libraries. The empirical findings are summarised in the next sections.

### **7.3.1 Extent to which academic librarians in North-Central Nigeria perform their job**

The first research question examined the extent to which university academic librarians in North-Central Nigeria performed their job. Self-rated job performance of academic librarians was measured. The findings showed that perceived competence was the least means of self-rated job performance of the academic librarians. Competency and quantity were the two ranked self-rated job performance of the academic librarians in North-Central Nigeria out of the five items. Details of this result can be found in Chapter Five of this thesis (See Tables 5.3 and 5.4).

With regard to services rendered and job performance among the academic librarians, the findings showed that all the items measured were significant, with the exception of four items which had a mean value below 3.5. It could, therefore, be said that some of the items had mean scores above 3.5 to demonstrate the extent of job performance of academic librarians in North-Central Nigeria. The top ranked items in Table 5.3 were "cataloguing services", with the majority of the respondents ( $\bar{X} = 4.55$ ;  $SD = 0.500$ ) indicating excellent, good and average; circulation ( $\bar{X} = 4.37$ ;  $SD = 0.594$ ); reference ( $\bar{X} = 4.22$ ;  $SD = 0.656$ ) and acquisition of materials ( $\bar{X} = 4.18$ ;  $SD = 0.872$ ). The least ranked items were exhibition and display ( $\bar{X} = 3.48$ ;  $SD = 1.083$ ); consortium service (inter-library loan) ( $\bar{X} = 3.20$ ;  $SD = 1.214$ ); indexing ( $\bar{X} = 3.20$ ;  $SD = 1.194$ ) and abstracting ( $\bar{X} = 3.14$ ;  $SD = 1.140$ ). Also, the top ranked item in Table 5.4 was "how competently do you perform your job", with the majority of the respondents ( $\bar{X} = 4.22$ ;  $SD = 0.736$ ) indicating "most effectively", "quite effectively" and "effectively" against the statement. The second highly ranked item was "How would you judge the overall quality of your work?", with ( $\bar{X} = 4.18$ ;  $SD = 0.702$ ) of the respondents indicating "very high quality" and "high quality". The least ranked was the item "In your estimation, how effectively do you get your work done?" ( $\bar{X} = 4.12$ ;  $SD = 0.700$ ), with the respondents indicating "most effectively", "quite effectively" and "effectively". In addition, as evident in the interview conducted with the heads of the seven selected university libraries, the result confirmed that job performance of academic librarians varied according to professional rank. They further reiterated that these personnel are always willing to discharge their duties in line with international best practices.

### **7.3.2 Level of availability and utilisation of print information resources**

The second research question investigated the level of availability as well as utilisation of information sources by academic librarians in the seven selected university libraries. Two parameters (availability of print and level of use of information resources) were used to measure the research question. The findings showed that newspapers, textbooks, journal collections, dictionaries, research reports, encyclopaedias, theses/dissertations, magazines, government publications, bibliographies, handbooks, pamphlet/poster, seminars/symposium, conference proceedings, abstracts, manuscripts, technical reports and indexes were available. Details of the findings can be found in Chapter Five (See Sections 5.5 and 5.6). The results shown in Table 5.5 revealed that the most available information resources for job performance of the academic librarians were newspapers 100(98%), textbooks 98(97%), journal collections 95(97%) and dictionaries 91(89%). However, this study revealed that all the items listed were significant to job performance, with the exception of abstracts 61(62%), manuscripts 62(62%), technical reports 57(58%) and indexes 59(60%), which had a frequency count of less than 65%. It can, therefore, be said that all the items with above 65% demonstrated high level of availability.

On the level of use (See Chapter 5, Table 5.6), the study revealed that all items measured were significant to job performance, with the exception of five least used print information resources. These were abstracts, manuscripts, conference proceedings, indexes and technical reports. It could be said that the items having a means score above  $\bar{X} = 3.50$ ) demonstrated high level of use among the academic librarians. The top-ranked item in Table 5.6 were "newspapers", with majority of the academic librarians ( $\bar{X} = 4.69$ ) agreeing that they used newspapers on daily, weekly, monthly and semester bases for their job performance. The second highly rated item were "textbooks", with ( $\bar{X} = 4.41$ ) respondents agreeing that they used textbooks on daily, weekly, monthly and semester bases. The third highly rated item were "dictionaries", with ( $\bar{X} = 4.28$ ) respondents agreeing with the statement. In addition, the in-depth interview with the heads of the sampled libraries revealed that all of them agreed that there was availability of print information resources for the enhancement of academic librarians' job performance.

### **7.3.3 Level of accessibility and utilisation of print and electronic information resources**

The third research question examined accessibility and level of utilisation of print and nonprint resources in North-Central Nigeria towards academic librarians' job performance. The findings of the result revealed that all the items measured were significant, with the exception of two items

(manuscripts and technical reports) which had a mean value below 3.0. It could be said that the items having a mean score above 3.0 demonstrated a high level of access and use of print resources among the respondents. The top-ranked item in Table 5.7 were textbooks, with the majority of the academic librarians 99(97%), with  $\bar{X} = 3.73$ ;  $SD=0.510$  agreeing with the statement. The second highly rated item were newspapers, with 98(97%) and  $\bar{X} = 3.69$ ;  $SD=0.524$  agreeing that there is high accessibility of newspaper for their job performance. All the items, from 1-16, were accessible for use, with a mean score of above 3.0. Also, manuscripts ( $\bar{X}=2.94$ ) and technical reports ( $\bar{X}=2.94$ ) had the lowest mean score below 3.0.

The result on electronic information resources accessibility and utilisation revealed that all the ten attributes measured were significant, except one which had a mean value below 3.0. Therefore, it could be said that the items with means score above 3.0 showed high level of utilisation and accessibility of electronic information resources among the professional librarians. The top-ranked item in Table 5.8 was "I make use of important electronic materials on the Internet daily", with 93(94%) respondents agreeing with the statement. All the items were significant, except item ten ("I use and access CD-ROM databases for my job performance"), with a mean score less than 3.0. Interviews with the heads of the sampled libraries confirmed that there was high level of accessibility and utilisation of print and electronic resources.

#### **7.3.4 Relationship between information resources availability, accessibility, utilisation and job performance**

The fourth research question examined the relationship between information resources availability, accessibility, utilisation and job performance among the academic librarians in North-Central universities. The result showed that all the twelve items measured were significant to job performance, except telecommunication products 60(58%) and e-magazines 69(67%), which were the least used electronic resources, as shown in Table 5.9. Furthermore, the majority of the respondents agreed with the statement that e-journals, e-books and online databases were the highest ranked items that are most available, accessible and used by academic librarians in the surveyed university libraries.

Table 5.10 also reveals the relationship between the constructs of the study. The findings showed that all the items with a mean value above 3.0 were significant, except one which had a mean value of 2.96. It could, therefore, be said that items with above mean score of 3.0 demonstrated high relationship for job performance. It can, therefore, be concluded that the professional

librarians' assessment of accessibility of information resources was satisfactory, using all the constructs.

### **7.3.5 Obstacles to the use of information resources for effective job performance**

The fifth research question investigated the main obstacles affecting the use of information resources for job performance by academic librarians. The findings indicated that some challenges were identified as the obstacles hindering the use of information resources. These included obsolete equipment, poor Internet connectivity, low bandwidth, poor electricity supply, motivation factor and lack of skills. All the items in Table 5.11 were obstacles to academic librarians' job performance. The interviews conducted with the heads of the sampled libraries showed that budgetary allocation and funding were inadequate in all the surveyed university libraries, which corroborated the findings in the quantitative data.

## **7.4 Conclusion**

The study demonstrated that the availability, accessibility and utilisation of information resources remain critical factors for enhancing the job performance of academic librarians in some selected academic libraries in North-Central region of Nigeria. It is noticeable from the overall findings of this study that the level of performance of academic librarians in the surveyed academic libraries was high. Printed information resources, such as newspapers, textbooks, journal collections, dictionaries and research reports, were found to be the most available resources among the respondents, while the least available included indexes, technical reports and manuscripts.

On the issue of accessibility of information resources, the findings showed that there is need for libraries to subscribe to more e-resources and provide greater access link. This buttresses the point made by previous scholar that information resources availability does not necessarily translate into accessibility and use (Musa 2017). The respondents' basis for choosing to use certain information resources and for not using some was attributed to several factors. Notably, the respondents identified poor skills in the use of library resources; inadequate modern ICT; inadequate power supply, inadequate funds, poor Internet connectivity and unavailability of electronic resources as constraints to library resources utilisation. This study documented some obstacles facing academic librarians in using these resources. There was a positive but statistically insignificant relationship between information availability and job performance. This

might not be unconnected with the dynamic nature of the Internet accessibility in most of the surveyed universities, as reported by the heads of the surveyed libraries. This study concluded that most of the academic librarians that participated in this research/study were in the early stage of their careers. Also, they were likely to be more involved in library activities than any other cadre.

## **7.5 Recommendations**

In view of the findings, literature review and theoretical viewpoints, the researcher tables recommendations on the extent of job performance of academic librarians in North-Central region of Nigeria; level of availability and utilisation of information resources; level of accessibility and utilisation of information resources; relationship between information resources availability, accessibility, utilisation and job performance; and factors inhibiting effective utilisation of information resources for job performance of academic librarians.

### **7.5.1 Extent of job performance of academic librarians in North-Central Nigeria**

The first research question of this study examined the services rendered and extent of job performance of academic librarians. The major finding is that the most common services rendered by academic librarians were cataloguing, circulation, reference and acquisition of materials. The findings suggest that the extent of job performance by academic librarians with respect to these services was high though not all the services were being rendered by the academic librarians for their job performance (See Table 5.3 in Chapter 5).

**Recommendation 1:** Universities libraries should create awareness among library staff on the importance of engaging in the use of cataloguing, circulation and reference services. Partnership should be pursued with various faculty libraries and other professional bodies, such as Librarians' Registration Council of Nigeria (LRCN) and Nigerian Library Association (NLA) at every annual general assembly conferences/workshop so that library staff can gain the required exposure on the use of these services.

### **7.5.2 Level of availability and utilisation of information resources**

The result on the second research question showed that newspapers, textbooks, journal collections, dictionaries and research reports were the most available print information resources used by the academic librarians, with positive influence on job performance. Newspapers and

textbooks were the major print information resources available among the academic librarians (See Table 5.5 and 5.6 in Chapter 5).

**Recommendation 2:** It is therefore, recommended that all the selected university libraries should concentrate on the provision of newspapers, textbooks, journal collections, dictionaries and research reports to ensure maximal utilisation to improve job performance. If other information resources were in place within a shortest period, it will go a long way in assisting academic librarians to carry out their job performance in line with international best practices. However, the study found that availability of information resources did not contribute to job performance; certain factors might be responsible for this. Hence, librarians must factor in the mechanism for accessing and utilising these materials in the library.

**Recommendation 3:** Universities' library management should put in place acquisition policy on selection of print information resources that will enhance performance. This policy must be reviewed every five years in order to be in tandem with latest developments in the world. This policy should factor in some selection criteria.

### **7.5.3 Level of accessibility and utilisation of information resources**

The third research question established the level of access and use of information resources. The overall results of the study showed a positive and significant relationship between utilisation and accessibility of information sources (See Table 5.7 and 5.8 in Chapter 5).

**Recommendation 4:** The analysis showed that access to theses/dissertations and technical reports in most of the libraries studied was low. This study, therefore, recommended that resource sharing should be encouraged through institutional repository services. This can be done by encouraging the researchers and academics to deposit their publications annually in the university repository. Librarians must be trained and retrained on how to upload on the institutional repository (IR). This will permit librarians to access and use the data and content.

### **7.5.4 Relationship between information resources availability, accessibility, utilisation and job performance**

The fourth research question sought to establish the relationship between information resources availability, accessibility, utilisation and job performance.

**Recommendation 5:** In this study, there was no positive relationship found between availability and job performance. There are some information resources that are said to be available in the library. However, trying to access such resources is very difficult. In such cases, job performance



will be affected. It is recommended that academic libraries should embark on intensive cataloguing and classification of print resources, proper shelving and regular shelf reading to ensure that accessibility is not impaired. Also, academic librarians should undertake a holistic evaluation of all the e-resources that are available online and take down dead links that are not Internet protocol (IP) regulated within and outside the university. A time- frame between 3 to 4 years could be needed to achieve these in the Nigerian University libraries.

#### **7.5.5 Obstacles to the use of information resources for effective job performance**

The fifth research question established obstacles to the use of information resources for effective job performance. As reviewed in the literature, studies have shown major problems encountered in the use of information materials for job performance (See Table 5.11 in Chapter 5).

**Recommendation 6:** As mentioned earlier, obstacles such as poor electricity supply, poor Internet connectivity, lack of skill, limited modern computer technology, and inadequate staff, among others, were due to inadequate funds and budgeting provision for academic libraries by the government. Many respondents (heads of libraries) acknowledged that the 2019 budget for education, which stood at 7.04% of the total budget, was far below expectation for a country and this had a negative impact on their libraries. Therefore, it is recommended that the 26% UNESCO policy on proper funding of education should be observed. To fix Nigeria's tertiary education problems on budgetary allocations, there should be an increase to at least 15% from the present 7.04% allocation if the UNESCO policy cannot be observed. An increase in budgetary allocation to education over the next five years will have significant positive effect on library budget and will increase librarians' job performance which will serve as a framework for enhancing availability and utilisation of information resources for job performance enhancement.

**Recommendation 7:** Motivation and capacity building should also be in place by university management to equip academic librarians with relevant skills that will enhance the use of information resources for their job performance. Such motivation includes reward system in terms of compensation (overtime, annual leave, leave bonus and regular promotion) and capacity building in terms of in-house training, workshop, conferences and seminars attendance at both local and international levels. This reward system can be incorporated into the service scheme of librarians right from entry-level to the topmost position. This would serve as a fallback cushion for academic librarians in their line of duty which will improve their performance.

## **7.6 Originality and implication of the study**

The originality of this study is reflected in several ways. Previous studies have investigated the use of library electronic information resources by academic staff with or without a theoretical framework. However, among the few studies that used Motivation Theory of Maslow and System Resources Theory as their theoretical lens to examine the availability, accessibility and use of electronic information resources and job performance of academic librarians, none of them consider the non-electronic resources (Olasore and Adekunmisi 2015, Okiki 2013, Wanjuku 2013 and Ani 2013). Similarly, previous studies conducted in Nigeria have predominantly used the qualitative method (Igbinovia and Popoola 2016, Madokuma and Opeke 2013, Madokuma and Popoola 2013). This present study examined empirically the availability and utilisation of both print and non-print information resources for job performance enhancement among academic librarians using mixed methods research design of explanatory type with combination of theories (Maslow Hierarchy of Needs and Task -Technology Fit).

In addition, since there has been no comprehensive empirical study employing a mixed methods approach in north-central Nigeria, this current study uniquely explores this research gap using mixed methods research design of explanatory type. The mixed method approach enabled the researcher to conduct an in-depth investigation into the issues of availability and utilisation of information resources for job performance enhancement among academic librarians in Nigerian universities.

### **7.6.1 Implication of the study**

A research implication is the logical connection between a condition and its outcome (Oni 2018). In this section, the contribution of this current study is highlighted in terms of theory; practice, policy and methodology.

#### **7.6.1.1 Theoretical implications**

Theoretically, the present study provides additional insight into the understanding of availability and utilisation of information resources for job performance enhancement among academic librarians, Nigeria in particular and Africa at large. The theoretical framework of this present study was based on prior empirical evidences and theoretical gaps identified in the existing literature especially with respect to the two theoretical perspectives, namely Maslow Hierarchy of Needs and Task-Technology Fit. The study established that accessibility and ease of use are the two determinants of information resources usage. This study is validated by Maslow and TTF.

In addition, this study established the relationships between availability, accessibility and utilisation as a construct on the (independent variables) of TTF and job performance (dependent variable) on Maslow.

#### **7.6.1.2 Practical implications**

In term of practice, the study contributes towards a framework for understanding the factors inhibiting the use of information resources for effective job enhancement among academic librarians. Besides, this study exposed the actual state of library information resources in Nigeria and provides recommendations on how these challenges can be addressed to improve performances of academic librarians in Nigerian universities in particular and other developing countries in general. The study found that most library information resources available in the selected academic libraries (textbooks and reference materials) were obsolete for use and this affects academic librarian job enhancement. Therefore, the finding of this study can assist universities in developing strategies for fostering the use of modern information resources to improve performance through access and use. The findings can also be useful to academic librarians in university environment in their bid to align their roles to changes in emerging trends in the ICT environment. Furthermore, the findings of this study may be useful to professional bodies such as LRCN and NLA in formulating policies that will promote adoption of ICT technology in teaching and learning for effective and efficient performance of their members.

#### **7.6.1.3 Policy implications**

With regard to policy, this study is anticipated to bring about wide debate and conversation among policy makers in Nigeria in the area of developing a framework that will address information resources in the library and job performance among education stakeholders. It has the potential and ingredients to coalesce the interest and orientations of these stakeholders (librarians, university managements, Directors of State Library Board etc) to: develop an acquisition policy that would encourage the acquisition of all formats of information resources for academic libraries; train academic librarians and ensure compliance on the use of print and electronic resources for the enhancement of job performance. In addition, policy makers in academic libraries in Nigeria and other Africa countries can utilise this research findings to develop appropriate interventions to improve job performance of their staff. Scholars have argued that effective leadership styles help in removing barriers and facilitate ways in which all staff members can interact and work as a team (Sukram and Hoskins 2012: 104).

#### **7.6.1.4 Methodological implications**

The study contributes to methodology by using regression to establish the strongest predictor(s) of the dependent variable (job performance). This study also contributes to methodology by using mixed method approach to ascertain the availability and utilisation of information resources by academic librarians for job performance enhancement in the universities studied.

#### **7.7 Limitations and suggestions for further studies**

This present study was restricted to seven federal universities in North-Central Nigeria. This was done as a result of the preliminary investigation conducted through personal contact and telephone calls which showed that only this region has not been investigated on the availability and utilisation of library information resources by academic librarians for job performance enhancement. The problems encountered in data collection were presented in Section 4.10 of Chapter Four and the limitations were also identified in Chapter Four (See 4.13). The findings showed that more research can be carried out on information resources utilisation and academic librarians' job performance. Future studies could focus on state and private universities in other geo-political zones of Nigeria. This study focused on academic librarians' job performance. Further studies can examine postgraduates' performance in the utilisation of information materials. Also, the study was limited to academic librarians in selected university libraries. Research can be extended to para-professional personnel of the libraries and university non-academic staff. Finally, future studies should also consider comparison of information resources and job performance of academic librarians in four top ranking Nigerian universities with similar status in the country with the use of observation, on-the-spot assessment (site visits) as well as focus group discussion to carry out the study as these would enable the researcher to capture events as they unfold as well as to reduce the level of subjectivity of the research instrument.

#### **7.8 Summary**

This chapter presented the summary of all the chapters of this study, findings, conclusion and recommendations of the study. This study examined availability and utilisation of information resources as determinants of job performance of academic librarians in North-Central Nigeria. Maslow's Theory of Need and Task-Technology Fit was the theoretical perspective adopted for the study. Relevant literature was reviewed along the focus of the work. The mixed methods approach was adopted. The interview questions were analysed thematically, while the questionnaire instrument was analysed with the aid of the SPSS (version 24.0).

Generally, information resources were in existence. However, there could be improvement in order to meet the needs of academic librarians' job performance. The major findings were lack of access to information resources, obsolete technology and inadequate funding. Recommendations were put forward to enhance job performance of academic librarians.

## REFERENCES

- Abbas, K.D. 2015. *Knowledge management strategies and practices in Nigerian agricultural research institutes*. Unpublished thesis (PhD). Department of Information Studies, University of KwaZulu-Natal. Available at: [https://researchspace.ukzn.ac.za/bitstream/handle/10413/12995/Abbas\\_Kabiru\\_Dahiru\\_2015.pdf?sequence=1&isAllowed=y](https://researchspace.ukzn.ac.za/bitstream/handle/10413/12995/Abbas_Kabiru_Dahiru_2015.pdf?sequence=1&isAllowed=y) Accessed on 8 May, 2017.
- Abdullah, M. and Gibb, F. 2008. Students' attitudes towards e-books in a Scottish higher education institute: part 1. *Library Review* 57(8): 594-605.
- Abels, E.G., Liebscher, P. and Denman, D.W. 1996. Factors that influence the use of electronic networks by science and engineering faculty at small institutions. *Journal of the American Society for Information Science* 47(2): 146-158.
- Abrahams, L., Burke, M. and Mouton, J. 2009/2010. Research productivity-visibility accessibility and scholarly communication in Southern African universities. *The African Journal of Information and Communication* 10(1): 20-36.
- Adams, J., King, C. and Hook, D. 2010. *Global research report: Africa*. Leeds: Thomson Reuters.
- Addae, D. and Quan-Baffour, K.P. 2015. The place of mixed methods research in the field of adult education: design options, prospects and challenges. *International Journal of Education and Research* 3(7):.151-162.
- Adeloye, A. 2000. The information market in Nigeria. *Journal of Information Science* 26 (4): 282-285.
- Aderanti, R.A. and Adedotun, A. 2015. Perceived influence of information sources availability and use on academic performance of secondary school students in Nigerian metropolitan city. *American Journal of Educational Research* 3(11): 1346-1349.
- Adetimirin, A.E. 2005. *Socio-economic factors as determinants of undergraduate students use of information communication technologies in Nigerian universities*. Unpublished thesis (PhD). Department of Library, Archival and Information Studies, University of Ibadan.
- Admin, F. 2015. Federal University of Lafia: our history. Available at: <https://www.fulafia.edu.ng/wpages/index.php> Accessed on 2 October, 2017.
- Adomi, E.E. 2012. *Information sources in the humanities*. Benin-City: Ethiopia Publishing Corporation.
- Adomi, E.E and Famola, M.O. 2012. Training and development of catalogues in National Library of Nigeria. *Nigerian Libraries* 45(1): 68-77.

- Afolabi, M.O. 2007. Electronic information resources. *Paper presented at electronic information for libraries network (elFL.net) workshop* held at Obafemi Awolowo University, Ile-Ife, 18 October.
- Agarwal, U.K. and Dave, R.K. 2009. Use of internet by the scientists of CAZRI: a survey. *Indian Journal of Library and Information Science* 3 (1): 15-21.
- Agba, A.M.O., Mbotto, W.A. and Agba, M.S. 2013. Ages or other conditions: a critical assessment of factors in workers performance in Nigeria. *International Journal of Academic Research in Business and Social Sciences* 3(7): 489-505.
- Agboola, I.O. 2009. Use of print and electronic resources by agricultural science students in Nigerian universities. *Library and Information Science Research* 32 (1): 62–65.
- Aguolu, C.C. and Aguolu, I.E. 2002. *Libraries and information management in Nigeria: seminal essays on themes and problems*. Maiduguri: Ed-Linform Services.
- Aguolu, I.E. 1996. Nigerian university libraries: What future? *The International Information and Library Review* 28(3): 261-275.
- Aiyetan, A.O. and Olotuah, A.O. 2006. Impact of motivation on workers' productivity in the Nigerian construction industry. In: Boyd, D. (ed). *Proceedings of 22<sup>nd</sup> Annual ARCOM Conference*, 4-6 September. Birmingham: Association of Researchers in Construction Management. pp. 239-248. Available at: [http://www.arcom.ac.uk/docs/proceedings/ar2006-0239-0248\\_Aiyetan\\_and\\_Olotuah.pdf](http://www.arcom.ac.uk/docs/proceedings/ar2006-0239-0248_Aiyetan_and_Olotuah.pdf) Accessed on 17 August, 2017.
- Ajala, I.O., Adegun, A.I., Adetunji, A. and Oyewumi, O.O. 2010. The impact of the Internet use on teaching and research by Ladoko Akintola university of technology academic staff. *The Information Technologist* 7(2): 187-194.
- Ajie, I. 2019. ICT training and development of the 21st century librarian. *Library Philosophy and Practice (e-journal)*. Paper 2520. Available at: <https://search.proquest.com/openview/386c224a33e396edef9200d79e15b1a8/1?cbl=54903&pqorigsite=gscholar> Accessed on 14 September, 2019.
- Alabi, A.O. 2016. *Adoption and use of electronic instructional media among academics in selected universities in South West Nigeria*. Unpublished thesis (PhD). Department of Information Studies, University of KwaZulu-Natal. Available at: [http://ukzn-dspace.ukzn.ac.za/bitstream/handle/10413/13967/Alabi\\_Adefunke\\_Olanike\\_2016.pdf?sequence=1&isAllowed=y](http://ukzn-dspace.ukzn.ac.za/bitstream/handle/10413/13967/Alabi_Adefunke_Olanike_2016.pdf?sequence=1&isAllowed=y) Accessed on 14 September, 2017.
- Alderfer, C. 1972. *Existence, relatedness, and growth*. New York: Free Press.

- Al-Fadhli, M., Corral, S. and Cox, A. 2016. Factors underlying technology adoption in academic libraries in Kuwait. *New Review of Academic Librarianship* 22(4): 371-390.
- Ali, N. and Bakhshi, S.I. (n.d). Problems and prospects of LIS education in India with special reference to distance mode. Available at: [https://bibliotheksportal.de/content/uploads/2017/11/ind4\\_indien\\_1.pdf](https://bibliotheksportal.de/content/uploads/2017/11/ind4_indien_1.pdf) Accessed on 19 July, 2018.
- Allport, F.H. 1933. *Institutional behavior*. Chapel Hill, NC: University of North Carolina.
- Alqahtani, S. and Wamba, S.F. 2012. Determinants of RFID technology adoption intention in the Saudi retail industry: an empirical study. *Proceedings of the 45<sup>th</sup> Hawaii International Conference on System Sciences (HICSS-45)*, 4-7 January. Maui, Hawaii: IEEE Computer Society. Available at: [https://www.researchgate.net/publication/261349385\\_Determinants\\_of\\_RFID\\_Technology\\_Adoption\\_Intention\\_in\\_the\\_Saudi\\_Retail\\_Industry\\_An\\_Empirical\\_Study](https://www.researchgate.net/publication/261349385_Determinants_of_RFID_Technology_Adoption_Intention_in_the_Saudi_Retail_Industry_An_Empirical_Study) Accessed on 29 November, 2018. pp. 1-13.
- Ameen, K. and Awais, S. 2015. Information accessibility for students with disabilities: an exploratory study of Pakistan Malaysian. *Journal of Library and Information Science* 20(2): 103-115.
- Amusa, O.I. Iyaro, A.O. and Olabisi, A.F. 2013. Work environments and job performance of librarians in the public universities in South–west Nigeria. *International Journal of Library and Information Science* 5(11): 457-461.
- Andersen, H.H.K., Andersen, V., Hansen, C.B. and Hertzum, M. 2002. Trust in information sources: seeking information from people, documents and virtual agents. *Interacting with Computers* 14(5): 575-599.
- Anfara, V.A. 2008. Theoretical frameworks. In: Given, L.M. (ed). *The SAGE encyclopaedia of qualitative research methods*. Volumes 1 and 2. Thousand Oaks, CA: SAGE Publications. pp. 870-874.
- Anfara, V.A. and Mertz, N.T. 2006. *Theoretical frameworks in qualitative research approach*. 5<sup>th</sup> ed. London: McGraw-Hill.
- Ani, O.E. 2013. *Accessibility and utilization of information resources for research and its effect on productivity of librarians in selected universities between 2005 and 2012*. Unpublished thesis (PhD). Department of Information Science, University of South Africa. Available at: [http://uir.unisa.ac.za/bitstream/handle/10500/13057/thesis\\_.pdf?s\\_equence](http://uir.unisa.ac.za/bitstream/handle/10500/13057/thesis_.pdf?s_equence) Accessed on 21 June, 2018.
- Ani, O.E. and Biao, E.P. 2005. Globalization: its impact on scientific research in Nigeria. *Journal of Librarianship and Information Science* 37(1): 153-160.



- Ani, O.E., Ngulube, P. and Onyancha, B. 2014. Effect of accessibility and utilization of electronic resources on productivity of academic staff in selected Nigerian universities. *Science Research* 2(6): 166-171.
- Ani, V.A., Ani, E.O., Ugwu, C.O., Nwachukwu, A.I., Obianuko, J.C., Ndaji, G.I and Maduchie, E.E. 2016. Strategies for enhancing the utilisation of information and communication technology ICT based library resources in research. *Library Philosophy and Practice (e-journal)*. Paper 1310. Available at: <https://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=3515&context=libphilprac> Accessed on 21 June, 2018.
- Armstrong, M. 2006. *Human resource management practice*. 10<sup>th</sup> ed. London: Kogan Page.
- Ashcroft, L. and Watts, C. 2004. Information: the oil in the wheel of national development. *Ghana Library Journal* 15(2): 31-44.
- Asikhia, O. 2010. Students and teachers' perception of the causes of poor academic performance in Ogun State secondary schools Nigeria: implications for counselling for national development. *European Journal for Social Sciences* 13(2): 229-242.
- Association of African Universities. 2003. *Conference of Rectors, Vice Chancellors and Presidents of African Universities (COREVIP)* held in Grand Baie, Mauritius, 17- 21 March. Available at: <http://docplayer.net/147751821-Association-of-africanuniversities-aauc-conference-of-rectors-vice-chancellors-and-presidents-of-africanuniversities-corevip.html> Accessed on 26 September, 2018
- Attama, R.O. 2013. *Library resources utilization and publication output of academic staff of polytechnics in South- East and South-South Nigeria*. Unpublished thesis (PhD) thesis. Department of Library and Information Science, University of Nigeria, Nsukka.
- Baba, N.M. 2011. Islamic Schools, the Ulama and the State in the educational development of Northern Nigeria. *Bulletin de L' A. P. D.* 33(1): 1-9.
- Babbie, E. 2010. *The practice of social research*. 12<sup>th</sup> ed. Belmont, CA: Wadsworth.
- Babbie, E. 2011. *Introduction to social research*. 5<sup>th</sup> ed. Belmont: Wadsworth.
- Babbie, E. and Mouton, J. 2001. *The practice of social research*. Cape Town: Oxford University Press.
- Badu, E.E. and Markwei, E.D. 2005. Internet awareness and use in the University of Ghana. *Information Development* 21(4): 260-268.
- Balkwill, K., Sanders, M. and Muhumuza, M. 2013. A theoretical framework for investigating ecological problems associated with biodiversity conservation in national parks: a case

- of the Rwenzori Mountains National Park, Uganda. *Open Journal of Ecology* 3(2): 196-204.
- Ball, B. 2013. *A summary of motivation theories*. Available at: <https://www.scribd.com/document/126527294/A-summary-of-motivation-theories1-pdf> Accessed on 8 August, 2017.
- Balman, M. 2015. *The common core principles to support self-care*. 2nd ed. Leeds: Skills for Care.
- Barman, K. 2011. The library is a growing organism: Ranganathan's fifth law of library science and the academic library in digital era. *Library Philosophy and Practice (e-journal)*. Paper 548. Available at: <http://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1579&context=libphilprac> Accessed on 2 October, 2017.
- Bassey, B.A. 2006. *Students' evaluation of teaching effectiveness of academic staff in University of Calabar, Nigeria*. Unpublished thesis (PhD). Department of Library and Science, University of Calabar, Nigeria. Available at: [https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=2ahUKEwj49e-xcHmAhUCmRoKHe\\_0DRAQFjAAegQIARAC&url=https%3A%2F%2Fcodesria.org%2FIMG%2Fpdf%2Ft\\_bassey\\_bassey\\_asuquo-3.pdf%3F8043%2F55d24242daf59795d089402385fe075d4adc3fb4&usg=AOvVaw2p8Jo9AvsNqN80nXc1YxpQ](https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=2ahUKEwj49e-xcHmAhUCmRoKHe_0DRAQFjAAegQIARAC&url=https%3A%2F%2Fcodesria.org%2FIMG%2Fpdf%2Ft_bassey_bassey_asuquo-3.pdf%3F8043%2F55d24242daf59795d089402385fe075d4adc3fb4&usg=AOvVaw2p8Jo9AvsNqN80nXc1YxpQ) Accessed on 27 March, 2018.
- Becky, E. 2009. All universities information's at a glance. *University of Abuja Blog*. [Online]. Weblog post. 2 July. Available at: <http://nigeriauniversitiesinfo.blogspot.com.ng/2009/07/brief-history-of-university-abuja.html> Accessed on 2 October, 2017.
- Belias, D., Sdrolas, L. and Koutiva, M. 2013. The influence of demographic features on the job satisfaction of Greek bank employees. *International Journal of Human Resource Management and Research* 3(4): 15-28.
- Benat, B., Soumitra, D. and Bruno, L. 2013. *The global information technology report: growth and jobs in hyper connected world*. Geneva: World Economic Forum and INSEAD.
- Benbasat, I., Dexter, A.S. and Todd, P. 1986. An experimental program investigating colorenhanced and graphical information presentation: an integration of findings *Communication of the ACM* 29 (11): 1094-1105.
- Bennett, B. 2011. Another criticism of Maslow's hierarchy of needs. Available at: <http://billbennett.co.nz/2011/07/02/criticism-maslows-hierarchy/> Accessed on 23 March, 2017.

- Berestova, T.F. 2015. The concept of information resources and other components of the theory of information-resource science *Scientific and Technical Information Processing* 43(2): 83–87.
- Berg, B.L. 2008. Social sciences, qualitative research. In: Given, L.M. (ed). *The SAGE encyclopaedia of qualitative research methods*. Thousand Oaks, CA: SAGE Publications. pp.826-831.
- Best, J.W. 1981. *Research in education*. 4<sup>th</sup> ed. New Jersey: Prentice-Hall.
- Bhandarkar, P.C. and Wilkinson, T.S. 2010. *Methodology and techniques of social research*. Mumbai: Himalaya Publishing House.
- Bhattacharjee, A. 2012. *Social science research: principles, methods and practices*. 2<sup>nd</sup> ed. University of South Florida: Scholar Commons.
- Blaikie, N. 2007. *Approaches to social enquiry*. Cambridge: Polity Press.
- Bolaji, F. 2018. List of universities in Nigeria approved by NUC - 2019 latest list. *CampusBiz Journal Blog*. [Online]. Weblog post. 1 November. Available at: <https://campusbiz.com.ng/list-of-universities-in-nigeria> Accessed on 14 December, 2018.
- Borgman, C.L. 2000. *From Gutenberg to global information infrastructure: access to information in the networked world*. Cambridge: Mass, MIT Press.
- Boxall, P. and Macky, K. 2009. Research and theory on high-performance work systems: progressing the high-involvement stream. *Human Resource Management Journal* 9(1): 3-23.
- Boxall, P. and Purcell, J. 2011. *Strategy and human resource management*. Basingstoke: Palgrave Macmillan.
- Brink, H., Van Der Walt, C.V. and Van Rensburg, D. 2012. *Fundamentals of research methodology for health care professionals*. 3<sup>rd</sup> ed. Cape Town: Juta.
- Bryman, A. 2008. The end of the paradigm wars? In: Alasuutari, P., Bickman, L. and Brannen, J. (eds). *The SAGE handbook of social research methods*. Los Angeles: SAGE Publications. pp. 13-25.
- Bryman, A. 2012. *Social research methods*. 4<sup>th</sup> ed. New York: Oxford University Press.
- Bukie, O.F. 2015. Task technology fit and lecturer's performance impacts: the technology utilization, satisfaction and performance (TUSPEM) dimension. *International Journal of Computer Science Issues* 12(3): 232-239.

- Çakır, H. and Cengiz, O. 2016. The use of open ended versus closed ended questions in Turkish classrooms. *Open Journal of Modern Linguistics* 6(1): 60-70. Available at: [https://file.scirp.org/pdf/OJML\\_2016032211194169.pdf](https://file.scirp.org/pdf/OJML_2016032211194169.pdf) Accessed on 7 August, 2018.
- Campbell, J.P. 1990. Modelling the performance prediction problem in industrial and organizational psychology. In: Dunnette, M. D. and Hough, L.M. (eds). *Handbook of industrial and organizational psychology*. Volume 1. PaloAlto: Consulting Psychologists Press. pp. 687-732.
- Campbell, J.P., McCloy, R.A., Oppler, S.H and Sager, C.E. 1993. A theory of performance. In: Schmitt, E., Borman, W.C. and Associates. (eds). *Personnel selection in organizations*. San Francisco: Jossey-Bass. pp. 35–70.
- Cane, S. and McCarthy, R. 2009. Analyzing the factors that affect information systems use: a Task-Technology Fit meta-analysis. *Journal of Computer Information Systems* 50(1): 108-123.
- Carmines, E.G. and Zeller, R.A. 1979. *Reliability and validity assessment* (Vol. 17). Thousand Oaks, CA: SAGE Publications.
- Carr, J.A. and Wolfe, A. 1999. Core journal titles in full text databases. In: Thompson, H.A. (ed). *Racing toward tomorrow: proceedings of the Ninth National Conference of the Association of College and Research Libraries*. Detroit, Chicago: The Association. pp. 26-33.
- Carson, D., Gilmore, A., Perry, C. and Gronhaug, K. 2001. *Qualitative marketing research*. London: SAGE Publications.
- Carswell, A.D. and Venkatesh, V. 2002. Learner outputs in an asynchronous distance education environment. *International Journal of Human-Computer Studies* 56(5): 475-494.
- Carswell, L., Thomas, P., Petre, M., Price, B. and Richards, M. 2000. Distance education via the internet: the student experience. *British Journal of Educational Technology* 31(1): 29-46.
- Central Intelligence Agency of the United States. 2017. Nigeria: population and geography. *World Fact Book*. Available at: <https://theodora.com/wfbcurrent/nigeria/> Accessed on 15 August, 2017.
- Chandrasekarr, K. 2011. Workplace environment and its impact on organisational performance in public sector organizations. *International Journal of Enterprise Computing and Business System* 1(1): 1-20.

- Chikaodili, P.O. 2010. *The impact of job satisfaction on employee performance in government owned enterprises*. Unpublished dissertation (M.BA.). Department of Management, Enugu State University, Nigeria. Available at: <http://www.unn.edu.ng/publications/files/images/OKEKE,%20CHIKAODILI%20P.pdf> Accessed on 2 October, 2017.
- Chimah, J.N. and Nwokocho, U. 2013. Information resources, retrieval and utilization for effective research in tertiary and research institutions. *Asian Journal of Humanities and Social Sciences* 1(3): 43-50.
- Chua, C. 2004. Perception of quality in higher education: In: Carmichael, R. (ed). *Proceedings of the Australian Universities Quality Forum, 7-9 July*. Adelaide: Australian Universities Quality Agency. pp. 181-187.
- Chuene, M.M. 2000. The effect of information technology on library acquisition: experiences at the University of North-West, South Africa. *African Journal of Library, Archives and Information Science* 1(11):25-38.
- Churchill, G.A. 1996. *Basic marketing research*. 3<sup>rd</sup> ed. Fort Worth, TX: The Dryden Press.
- Cilliers, I. 1994. The unique role of the public library as an information provider. *Cape Librarian* 38(5): 16-21.
- Cogburn, D.L. 1998. Globalization, knowledge, education and training in the information age. *International Forum on Information and Documentation* 23(4): 23-29. Available at: [http://www.unesco.org/webworld/infoethics\\_2/eng/papers/paper\\_23.htm](http://www.unesco.org/webworld/infoethics_2/eng/papers/paper_23.htm) Accessed on 2 October, 2017.
- Cohen, L., Manion, L. and Morrison, K. 2007. *Research methods in education*. 6<sup>th</sup> ed. London: Routledge Publishers.
- Cohen, L., Manion, L. and Morrison, K. 2011. *Research methods in education*. 7<sup>th</sup> ed. London: Routledge Publishers.
- Cole, G. A. 2002. *Personnel and human resource management*. 5<sup>th</sup> ed. Hampshire: Cengage Learning.
- Collis, J. and Hussey, R. 2009. *Business research: a practical guide for undergraduate and postgraduate students*. 3<sup>rd</sup> ed. London: Palgrave Macmillan.
- Converse, J. M. and Presser, S. 1986. *Survey questions: handcrafting the standardized questionnaire*. Newbury Park, CA: SAGE Publications.
- Cooper, R.B. and Zmud, R.W. 1990. Information technology implementation research: a technology diffusion approach. *Management Science* 36(2): 123–139.

- Cornwall, J. 2011. Using a pictorial quiz to facilitate learning during nursing science lectures. *Practice and Evidence of the Scholarship of Teaching and Learning in Higher Education* 6(2): 135-154.
- Coyle, J. and Williams, B. 2000. An exploration of the epistemological intricacies of using qualitative data to develop a quantitative measure of user views of health care. *Journal of Advanced Nursing* 31(1): 1235-1243.
- Crawford, A. 1982. Corporate electronic mail: a communication intensive application of information technology. *MIS Quarterly* 6(3): 1-13.
- Creswell, J.W. 2003. *Research design: qualitative, quantitative and mixed method approaches*. 2<sup>nd</sup> ed. London: SAGE Publications.
- Creswell, J.W. 2007. *Qualitative inquiry and research design: choosing among five Creswell, approaches*. 2<sup>nd</sup> ed. Thousand Oaks: SAGE Publications.
- Creswell, J. W. 2009. *The selection of research designs*. 2<sup>nd</sup> ed. London: SAGE Publications
- Creswell, J. W. 2012. *Educational research: planning, conducting, and evaluating quantitative and qualitative research*. 4<sup>th</sup> ed. Boston, MA: Pearson Education, Inc.
- Creswell, J.W. 2014. *Research design: qualitative, quantitative and mixed methods approach*. 4<sup>th</sup> ed. London: SAGE Publications.
- Creswell, J.W. and Plano Clark, V.L. 2007. Understanding mixed methods research. In: Creswell, J.W. and Plano Clark, V.L. (eds). *Designing and conducting mixed methods research*. Thousand Oaks: SAGE Publications. pp. 1-19.
- Creswell, J.W. and Plano-Clark, V.L. 2011. *Designing and conducting mixed methods research*. 2<sup>nd</sup> ed. Thousand Oaks, California: SAGE Publications.
- Creswell, J.W and Clark, V.L. 2018. *Designing and conducting mixed methods research*. 3<sup>rd</sup> ed. Thousand Oaks: SAGE Publications.
- Crossan, F. 2003. Research philosophy: towards an understanding. *Nurse Research* 11 (1): 46-55.
- Crotty, M. 1998. *The foundations of social research: meaning and perspective in the research process*. London: SAGE Publications.
- Cryer, P. 2000. *The research student's guide to success*. 2<sup>nd</sup> ed. New York: Open University Press.
- Curzon, S.C. and Quiñónez-Skinner, J. 2009. Academic libraries. In: Bates, M.J. and Maack, M.N. (eds). *Encyclopaedia of Library and Information Sciences*. 3<sup>rd</sup> ed. New York: Taylor and Francis. pp. 11-22.

- Dallis, D. and Popp, M.P. 2012. *Planning and implementing resource discovery tools in academic libraries*. Hershey: IGI Global.
- D'Ambra, J. and Wilson, C.S. 2004a. Explaining perceived performance of the World Wide Web: uncertainty and the task-technology fit model. *Internet Research* 1(4):294–310.
- D'Ambra, J. and Wilson, C.S. 2004b. Use of the World Wide Web for international travel: integrating the construct of uncertainty in information seeking and the tasktechnology fit (TTF) model. *Journal of the American Society for Information Science and Technology* 55 (8): 731–42.
- D'Ambra, J., Wilson, C. and Akter, S. 2013. Application of the task-technology fit model to structure and evaluate the adoption of E-books by academics. *Journal of the American Society for Information Science and Technology* 64(1): 48-64.
- Dadzie, P.S. 2005. Electronic resources: access and usage at Ashesi university college. *Campus-Wide Information Systems* 22(5): 290-297.
- Dasgupta, A. 2009. Preparing future librarians in India: a vision for LIS Schools of Indian Universities in the 21<sup>st</sup> Century. *Paper presented at 75th IFLA Council and General Conference held in Milan, Italy, 23-7 August. Available at: <https://www.ifla.org/pastwlic/2009/126-dasgupta-en.pdf>* Accessed on 25 July, 2018.
- Davis, F.D. 1986. *A technology acceptance model for empirically testing new end-user information systems: theory and results*. Massachusetts: Institute of Technology.
- Davis, F.D., Bagozzi, R.P. and Warsaw, P.R. 1989. Users' acceptance of computer technology: a comparison of two theoretical models. *Management Science* 35(8): 983-1003.
- DeVellis, R.F. 2003. *Scale development: theory and applications*. Thousand Oaks CA: SAGE Publications.
- De Vos, A.S., Fouché, C.B. and Venter, L. 2002. Quantitative data analysis and interpretation. In: De Vos, A. S. (ed.). *Research at grass roots: for the social sciences and human service professions* 2<sup>nd</sup> ed. Pretoria: Van Schaik Publishers.
- De Vos, A.S., Strydom, H., Fouche, C.B. and Delpont, C.S.L. 2011. *Research at grass roots: for the social sciences and human services professions*. 4<sup>th</sup> ed. Pretoria: Van Schaik Publishers.
- DeLone, W.H. and McLean, E. 1992. Information systems success: the quest for the dependent variable. *Information Systems Research* 3(1): 60-95.
- DeLone, W.H. and McLean, E. 2003. The DeLone and McLean model of information system success: a ten-year update. *Journal of Management Information Systems* 19(4): 9-30.



- Denscombe, M. 2007. *The good research guide: for small-scale social research projects*. 3<sup>rd</sup> ed. Maidenhead: Open University Press.
- Denzin, N.K. and Lincoln, Y.S. 2005. The discipline and practice of qualitative research. In: Denzin, N.K. and Lincoln, Y.S. (eds). *Handbook of qualitative research*. Thousand Oaks, CA: SAGE Publications. pp. 1-32.
- Denzin, N.K. and Lincoln, Y.N. 2011. The sage handbook of qualitative research. 4<sup>th</sup> ed. In: Denzin, N.K. and Lincoln, Y.S. (eds). *Research design*. Thousand Oaks, CA: SAGE Publications. pp. 47-71.
- Dhanavandan, S. and Tamizhchelvan, T. 2012. An evaluation of e-resources in academic libraries in Tamil Nadu. *Journal of Emerging Trends in Computing and Information Sciences* 3(3): 421-426.
- Di Iorio, F. 2015. The interpretative nature of knowledge: hermeneutics and sensory order. In: Magnani, L., Aliseda, A., Longo, G., Sinha, C., Thagard, P. and Woods, J. (eds). *Cognitive autonomy and methodological individualism: interpretative foundations of social life*. New York: Springer International Publishing. pp. 11-53.
- Dickson, G.W., DeSanctis, G. and McBride, D.J. 1986. Understanding the effectiveness of computer graphics for decision support: a cumulative experimental approach. *Communication of the ACM* 29(1): 40-47.
- Dillman, D. A., Smyth, J. D. and Christian, L. M. 2014. *Internet, phone, mail and mixed-mode surveys: the tailored design method*. 4<sup>th</sup> ed. Hoboken, NJ: John Wiley and Sons.
- Dine, C.J., McGaghie, W.C., Bordage, G. and Shea, J.A. 2015. Problem statement, conceptual framework and research question. In: Carline, J.D. and Durning, S.J. (eds). *Review criteria for research manuscripts* 2nd edition. Washington, DC: Association of American Medical Colleges. pp. 52-57. Available at: <https://depts.washington.edu/dbpeds/Review%20Criteria%20For%20Research%20Manuscripts.pdf> Accessed on 15 April, 2018.
- Dinkelman, A. and Stacy-Bates, K. 2007. Accessing e-books through academic library websites. *College and Research Libraries* 68(1): 45-57.
- Dishaw, M. T. and Strong, D.M. 1999. Extending the technology acceptance model with tasktechnology fit constructs. *Information and Management* 36(1): 9–21.
- Dudovskiy, J. 2018. *Research methodology: positivism research philosophy*. New York: Amazon.



- Du Plooy-Cilliers, F. 2014. Research paradigms and traditions. In: Plooy-Cilliers, F., Davis, C. and Bezuidenhout, R.M. (eds). *Research matters*. Cape Town: Juta. pp. 18-35.
- Eason, K., Richardson, S. and Yu, L. 2000. Patterns of use of electronic journals. *Journal of Documentation* 56(5): 477-504.
- Ehikhamenor, F.A. 2003a. Internet facilities: use and none use by Nigerian universities scientists. *Journal of Information Science* 29(1): 35-48.
- Ehikhamenor, F.A. 2003b. Internet resources and productivity in scientific research in Nigerian universities. *Journal of Information Science* 29(2): 107-116.
- Eiriemiokhale, K.A and Ibeun, M.O. 2017. Awareness, availability and accessibility of library resources by students of Kwara State University, Malete, Nigeria. *Library Philosophy and Practice (e-journal)*. Paper 1629. Available at: <https://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=4669&context=libphilpra> c  
Accessed on 14 September, 2018.
- Encyclopaedia Britannica. 2002. *Profile of Nigerian nation*. Available at: <https://www.britannica.com/place/Nigeria> Accessed on 22 August, 2017.
- Etuk, G.K. 2015. Innovations in Nigerian universities: perspectives of an insider from a “fourth generation” university. *International Journal of Higher Education* 4(3): 218232.
- Everhart, N. and Logan, D.K. 2005. Building the effective school library media centre using the student learning through Ohio school libraries research study. *Knowledge Quest* 34(2): 51-54.
- Falk, H. 2003. Electronic campus. *The Electronic Library* 21(1): 63-66.
- Familusi, E.B. and Ajayi, N.A. 2015. Information accessibility and utilization: the panacea to job performance and productivity of academic staff in the faculties of agricultural sciences: a case study. *International Journal of Intelligent Information Systems* 4(6): 95-100.
- Faniran, S. and Olaniyan, K. 2012. From information-poor to information-rich: bridging regional economic disparities in Nigeria through e-governance. In: Garcia, J.R., Helbig, N. and Ojo, A. (eds). *Proceedings of the 6th international conference on theory and practice of electronic governance practice*, 22-25 October. Albany: Association for Computing Machinery. pp. 184-187.
- Ferri, D.L., Lian, H., Fiona, X.J., Pang, F.X.J. and Kipping, L.M. 2010. Self-esteem and job performance: the moderating role of self-esteem contingencies. *Personnel Psychology* 63 (1): 561–593.

- Fincham, J. E. 2008. Response rates and responsiveness of surveys and standards. *American Journal of Pharmaceutical Education* 72(2): 1-3.
- Fishbein, M. and Ajzen, I. 1975. *Belief, attitude intentions and behaviour: an introduction to theory and research*. Boston: Addison-Wesley.
- Flick, U. 2018. *Doing triangulation and mixed methods*. London: SAGE Publications.
- Floyd, S.W. 1988. A micro model level of information technology use by managers. In: Gattiker, U.E. and Larwood, L. (eds). *Studies in technology innovation and human resources volume 1: managing technological development*. Berlin and New York: Walter de Gruyter. pp. 123-142.
- Foster, K., Heppensta, R., Lazarz, C. and Broug, E. 2008. Emerald academy 2008 authorship in Africa. Available at: <https://www.yumpu.com/en/document/read/354272/thisemerald-academy-project-looks-at-african-authorship> Accessed on 10 October, 2016.
- Fowler, H.W., Fowler, F.G. and Crystal, D. 2011. *The concise oxford dictionary: the classic first edition*. Hawthorne, CA: Oxford University Press.
- Franca, N. 2017. *Accessibility, use of electronic information resources and research output of librarians in universities in Ekiti, Ondo and Osun states, Nigeria*. Unpublished dissertation (M.A.). Department of Information Resources Management, Babcock University, Ilishan Remo, Nigeria. Available at: [https://www.babcock.edu.ng/oer/oer/project\\_theses/college\\_of\\_postgraduate\\_studies/IRM/ACCESSIBILITY,%20USE%20OF%20ELECTRONIC%20INFORMATION%20RESOURCES%20AND%20RESEARCH%20OUTPUT%20OF%20LIBRARIANS%20IN%20UNIVERSITIES%20IN%20EKITI,%20ON.docx](https://www.babcock.edu.ng/oer/oer/project_theses/college_of_postgraduate_studies/IRM/ACCESSIBILITY,%20USE%20OF%20ELECTRONIC%20INFORMATION%20RESOURCES%20AND%20RESEARCH%20OUTPUT%20OF%20LIBRARIANS%20IN%20UNIVERSITIES%20IN%20EKITI,%20ON.docx) Accessed on 15 April, 2018.
- Frankor, D.K. and Akussah, H. 2012. Information use and policy decision making by district assembly members in Ghana. *Information Development* 28 (1): 32-42.
- FUT.edu. 2009. History of FUT Minna. Available at: <https://www.futminna.edu.ng/index.php/futminna/history> Accessed on 2 August, 2017.
- Gabriel, K.M. 2012. Efficacy of indexing and abstracting services in the dissemination of agricultural information resources in the institute for agricultural research library, Ahmadu Bello University, Zaria. *International Journal of Advancements in Research and Technology* 1(5): 1-13.
- Gakibayo, A., Ikoja-Odongo, J.R. and Okello-Obura, C. 2013. Electronic resources utilization by students in Mbarara University Library. *Library Philosophy and Practice*

- [e-journal]. Paper 869. Available: <https://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=2055&context=libphilprac> Accessed on 16 August, 2018.
- Garaba, F. 2010. *An investigation into the management of the records and archives of former liberation movements in East and Southern Africa held by national and private archival institutions*. Unpublished thesis (PhD). Department of Information Studies, University of KwaZulu-Natal. Available at: [https://researchspace.ukzn.ac.za/xmlui/bitstream/handle/10413/1495/Garaba\\_Francis\\_2010.pdf?sequence=1&isAllowed=y](https://researchspace.ukzn.ac.za/xmlui/bitstream/handle/10413/1495/Garaba_Francis_2010.pdf?sequence=1&isAllowed=y) Accessed on 17 April, 2019.
- Gastel, B. 2012. *Preparing the literature review section of a dissertation*. Available at: <http://www.authoraid.info/uploads/resources/preparing-the-literature-review-section-of-a-dissertation.pdf> Accessed on 2 May, 2018.
- Gavvani, V.Z., Shokraneh, F. and Shiramin, A.R. 2011. Need for content reengineering of the medical library and information science curriculum in Iran. *Library Philosophy and Practice (e-journal)*. Paper 477. Available at: <http://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1495&context=libphilprac> Accessed on 15 July, 2018.
- Gbadamosi, B.O. 2011. A survey of primary school libraries to determine the availability and adequacy of services for universal basic education in Oyo State, Nigeria. *Evidence Based Library and Information Practice* 6(2): 19-33.
- Goodhue, D. L. 1995. Understanding user evaluations of information systems. *Management Science* 41(12): 1827-1844.
- Goodhue, D.L. 1998. Development and measurement of validity of a task-technology fit instrument for user evaluations of information systems *Decision Sciences* 29(1): 105-138.
- Goodhue, D.L. and Thompson, R.L. 1995. Task technology fit and individual performance. *MIS Quarterly* 19(2): 213-236.
- Goodhue, D.L., Littlefield, R. and Straub, D. 1997. The measurement of the impacts of the IIC on the end users: the survey. *Journal of the American Society for Information Science* 48(5): 454-465.
- Gorard, S. and Taylor, C. 2004. *Combining methods in educational and social research*. Berkshire: Open University Press.
- Govender, E. 2018. Methodology is the engine of your study. In: Tomaselli, K.G. (ed). *Making sense of research*. Pretoria: Van Schaik Publishers. pp.357-362.

- Grant, C. and Osanloo, A. 2014. Understanding, selecting and integrating a theoretical framework in dissertation research: creating the blueprint for your “house”. *Administrative Issues Journal: Education, Practice and Research* 4(2): 12–26.
- Gratton, C. and Jones, I. 2010. *Research methods for sports studies*. 2<sup>nd</sup> ed. London: Routledge.
- Gravetter, F.J. and Forzano, L.A.B. 2009. *Research methods for the behavioural sciences*. 3<sup>rd</sup> ed. Belmont, CA: Wadsworth.
- Gray, D. E. 2004. *Doing research in the real world*. London: SAGE Publications.
- Grinnell, R.M. and Unrau, Y.A. 2008. *Social work research and evaluation: foundations of evidence-based practice*. New York: Oxford University Press.
- Guba, E.G. 1990. *The alternative paradigm dialog*. Newbury Park: SAGE Publications.
- Guetzkow, J. and Lamont, M. 2004. What is originality in the humanities and social sciences? *American Sociological Review* 69(4): 190-212.
- Gumbo, M.T. 2014. An action research pilot study on the integration of indigenous technology in technology education. *Mediterranean Journal of Social Sciences* 5(10):1-7.
- Haider, J.S. 2003. Not financial issues alone: moving towards better resource sharing in Pakistan bottom line. *Managing Library Finances* 16(2): 54-64.
- Hair, J.F., Black, W.C., Babin, B.J. and Anderson, R.E. 2014. *Multivariate data analysis*. 7<sup>th</sup> ed. Edinburgh: Pearson Education Limited.
- Hamdi, F. 2015. *The impact of globalization in the developing countries*. Available at: <https://www.linkedin.com/pulse/impact-globalization-developing-countries-fairoozhamdi> Accessed on 15 September, 2017.
- Hartwick, J. and Barki, H. 1994. Explaining the role of user participation in information system use. *Management Science* 40(4): 440-465.
- Hashim, L B. and Mokhtar, W.H. 2012. Trends and issues in preparing new era librarians and information professionals. *International Journal of Humanities and Social Science* 2(7):1-6. Available at: [http://www.ijhssnet.com/journals/Vol\\_2\\_No\\_7\\_April\\_2012/16.pdf](http://www.ijhssnet.com/journals/Vol_2_No_7_April_2012/16.pdf) Accessed on 13 December 2018.
- Hassan, B. and Ogunkoya, O. 2014. Demographic variables and job performance: any link? *Acta Universitatis Danubius Economica* 10(4):19-30.
- Hassani, H. 2017. *Research methods in computer science: the challenges and issues*. Preprint: Available at: <https://arxiv.org/pdf/1703.04080.pdf> Accessed on 20 December, 20 2018.

- Heilman, M.E., Block, C.J. and Lucas, J.A. 1992. Presumed incompetence? Stigmatization and affirmative action efforts. *Journal of Applied Psychology* 77(4): 536-544.
- Henderson, K.A. 2011. Post-positivism and the pragmatics of leisure research. *Leisure Sciences* 33(4):341-346.
- Herzberg F. 1959. *Two factor theory: Herzberg's motivation theory*. Available at: <https://managementstudyguide.com/herzbergs-theory-motivation.htm> Accessed on 2 July, 2017.
- Hesse-Biber, S.N. 2010. *Mixed methods research: merging theory with practice*. New York: The Guilford Press.
- Hobohm, H. 1999. Social science information and documentation: is the time ripe for a state of the art? *Paper presented at the 65th IFLA Council and General Conference* held in Bangkok Thailand, 20-28 August. Available at: <https://archive.ifla.org/IV/ifla65/papers/029-150e.htm> Accessed on 17 July, 2018.
- Howell, K.E. 2013. *An introduction to the philosophy of methodology*. Los Angeles, CA: SAGE Publications.
- Hubbard, R. 2013. *What is a construct in research methods?* Missouri-Columbia: University of Missouri.
- Hudson, L. and Ozanne, J. 1988. Alternative ways of seeking knowledge in consumer research. *Journal of Consumer Research* 14(4): 508–521.
- Huitt, W. 2004. Maslow's hierarchy of needs. *Educational Psychology Interactive*. Available at: <http://www.edpsycinteractive.org/topics/conation/maslow.html> Accessed on 7 October, 2017.
- Hussain, A. and Kumar, K. 2013. Utilization of information resources and services of the master school of management library: a study. *International Journal of Library Science* 9(3): 39-52.
- Igbinovia, M.O. and Popoola, S.O. 2016. Organizational culture and emotional intelligence as predictors of job performance among library personnel in academic libraries in Edo state, Nigeria. *Journal of Information Science Theory and Practice* 4(2): 34-52.
- Igbokwe, P.C. 2011. *Job satisfaction and performance of librarians in federal university libraries in South East Nigeria*. Unpublished dissertation ((MLS). Department of Library and Information Science, University of Nigeria, Nsukka. Available at: <http://www.unn.edu.ng/publications/files/images/patrick%20Chijioke.pdf> Accessed on 7 October, 2018.

- Ikonne, C.N. 2015. Influence of performance appraisal on job performance of library employees in selected university library and information Centres in South-West Nigeria. *International Journal of Innovation and Applied Studies* 11(4): 863-871.
- Ikyanyon, D. and Ucho, A. 2013. Workplace bullying, job satisfaction and job performance among employees in a federal hospital in Nigeria. *European Journal of Business and Management* 5 (23): 116–124.
- Ikyanyon, D.N. and Ucho, A. 2013. Workplace bullying, job satisfaction and job performance among employees in a federal hospital in Nigeria. *European Journal of Business and Management* 5(23): 1-9.
- Irick, M.L. 2008. Task-technology fit and information systems effectiveness *Journal of Knowledge Empirical Test, Information Systems Research* 17(3): 228-246.
- Ishola, B.C. and Obadare, S.O. 2014. Availability, access to and level of use of academic information resources; study of selected academic libraries in South-Western Nigeria. *Journal of Educational and Practice* 5(28): 21-33.
- Israel, G.D. 1992. *Determining sample size*. University of Florida: IFAS Extension. Available at: <https://www.tarleton.edu/academicassessment/documents/Samplesize.pdf> Accessed on 9 July, 2017.
- Iyoro, A.O. 2005. Influence of self-concept, job motivation and satisfaction on work performance of university library personnel in South-West Nigeria Ago-Iwoye. *Journal of Social Behavioural Science* 1(2): 96-110.
- Jagboro, K.O. 2003. A study of internet usage in Nigerian universities: a case study of Obafemi Awolowo University Ile-Ife, Nigeria. *First Monday* 8(2-3) Available at: <http://firstmonday.org/ojs/index.php/fm/article/view/1033/954> Accessed on 8 May, 2018.
- James, W. 1980. *Psychology: briefer course*. New York: Collier.
- Jankowska, M.A. 2004. Identifying university professors' information needs in the challenging environment of information and communication technology. *Journal of Academic Librarianship* 30(1): 50-66.
- Jansen, H. and Hak, T. 2005. The productivity of the three-step test-interview (TSTI) compared to an expert review of a self-administered questionnaire on alcohol consumption. *Journal of Official Statistics: an International Quarterly* 21(1): 103-120.
- Jestin, J. and Parameswari, B. 2005. Challenges for library professionals in India in the new millennium. *Library Philosophy and Practice (e-journal)*. Paper 30. Available at:

[http://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1030&context=libphilp\\_rac](http://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1030&context=libphilp_rac)

Accessed on 16 July, 2018.

- Jimba, S.W. and Atinmo, M.I. 2000. The influence of information technology access on agricultural research in Nigeria. *Electronic Networking Application and Policy* 10(1): 63-71.
- Jiyane, V. and Ocholla, D. N. 2004. An exploratory study of information availability and exploitation by the rural women of Melmoth, KwaZulu-Natal. *South African Journal of Libraries and Information Science* 70(1): 1-9.
- Johnson, B. and Christensen, L. 2008. *Educational research: quantitative, qualitative and mixed approaches*. London: SAGE Publications.
- Johnson, C.A. 2007. Library and information science education in developing countries. *The International Information and Library Review* 39(2): 64-71. Available at: <http://scihub.tw/10.1080/10572317.2007.10762734> Accessed on 19 September, 2018.
- Johnson, S., Evensen, O.G., Gelgand, J., Lammers, G., Sipe, L. and Zilper, N. 2012. Key issues for e-resources collection development: a guide for libraries. *A report of the acquisition and collection development section*. Hague: IFLA. Available at: [https://www.ifla.org/files/assets/acquisition-collection-development/publications/IFLA\\_ELECTRONIC\\_RESOURCE\\_GUIDE\\_FINAL\\_May2nd%5B1%5D.pdf](https://www.ifla.org/files/assets/acquisition-collection-development/publications/IFLA_ELECTRONIC_RESOURCE_GUIDE_FINAL_May2nd%5B1%5D.pdf) Accessed on 7 August, 2018.
- Johnson, T.P. and Wislar, J.S. 2012. Response rates and nonresponse errors in surveys. *Journal of the American Medical Association* 307(17): 1805-1806.
- Kagan, A. 2000. The growing gap between the information rich and the information poor, both within countries and between countries: a composite policy paper. *IFLA Journal* 26(1): 28-33.
- Kaita, P. and David, D. 2015. Needs theory and employee performance: a case study of employed PNG University graduates. Available at: [http://devpolicy.org/Events/2015/2015-PNG-Update/Presentations/Day-2/Educationand-human-development\\_paper\\_Kaita.pdf](http://devpolicy.org/Events/2015/2015-PNG-Update/Presentations/Day-2/Educationand-human-development_paper_Kaita.pdf) Accessed on 10 October, 2017.
- Kaminer, N. 2010. Scholars and the use of the internet. *Library and Information Science Research* 19 (4): 329-345.
- Kanfer, R. 1990. Motivation theory and industrial organizational psychology. In: Dunnette, M.D. and Hough, L.M. (eds). *Handbook of industrial and organizational psychology*. 2nd ed. Volume 1. Palo Alto: Consulting Psychologists Press. pp. 75–170.



- Karimi, J., Somers, T. M. and Gupta, Y. P. 2004. Impact of environmental uncertainty and task characteristics on user satisfaction with data. *Information Systems Research* 15 (2): 175–93.
- Katz, M. J. 2006. *From research to manuscript: a guide to scientific writing*. Dordrecht: Springer.
- Kawatra, P.S. 2011. *Textbook of Information Science*. New Delhi: A P H Publishing.
- Kazeem, Y. 2016. About half of the university graduates in Nigeria cannot find jobs. Available at: <https://qz.com/africa/603967/about-half-of-the-university-graduates-in-nigeriacannot-finf-jobs/> Accessed on 13 September, 2019.
- Kebede, G. 1999. Performance evaluation in library and information systems of developing countries: a study of the literature. *Libri* 49(2): 106- 124. Available at: <http://scihub.tw/https://doi.org/10.1515/libr.1999.49.2.106> Accessed on 19 July, 2018.
- Kerlinger, F. 1986. *Foundations of behavioral research*. Orlando: Holt, Rinehart and Winston Publishers.
- Khuong, M.N. and Yen, V.H. 2016. Investigate the effects of job stress on employee job performance: a case study at Dong Xuyen Industrial Zone, Vietnam. *International Journal of Trade, Economics and Finance* 7(2): 31-37.
- Kimberline, C. and Winterstein, A.G. 2008. Research fundamentals: validity and reliability of measurement instruments used in research. *American Journal of Health-System Pharmacist* 65(1): 2276-2284.
- Kitao, K. and Kitao, S. 2001. Reference materials for students and researchers. *Doshisha Studies in Language and Culture* 4(1): 307-360.
- Kivunja, C. and Kuyini, A.B. 2017. Understanding and applying research paradigms in educational contexts. *International Journal of Higher Education* 6(5):26-41.
- Koontz, H., O'Donnell, C. and Welhrich, H. 1986. *Essentials of Management*. 4<sup>th</sup> ed. New York: McGraw-Hill.
- Kothari, C.R. 2004. *Research methodology: methods and techniques*. 2<sup>nd</sup> ed. New Delhi: New Age International Publishers.
- Koundal, P. and Mishra, R. 2018. Print and online newspapers: an analysis of the news content and consumption patterns of readers. *The Journal of Indian Institute of Mass Communication* 53(1): 53-71.
- Krueger, R.A. 2009. *Focus groups: a practical guide for applied research*. 4<sup>th</sup> ed. Thousand Oaks, CA: SAGE Publications.



- Kuhn, T.S. 1962. *The structure of scientific revolutions*. Chicago: Chicago Press.
- Kumar, K. 2010. Quality in education: competing concepts. *Contemporary Education Dialogue* 7(1): 7-18.
- Kumar, R. 2005. *Research methodology: a step-by-step guide for beginners*. 2<sup>nd</sup> ed. London: SAGE Publications.
- Kumar, R. 2011. *Research methodology: a step-by-step guide for beginners*. 3<sup>rd</sup> ed. London: SAGE Publications.
- Lamprey, R.B., Boateng, M.S. and Antwi, I.K. 2013. Motivation and performance of librarians in public universities in Ghana. *Library Philosophy and Practice (e-journal)*. Paper 911. Available at: <https://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=2203&context=libphilprac> Accessed on 5 November, 2017.
- Lancaster, F.W. and Sandore, B. 1997. *Technology and management in library and information services*. Illinois: Graduate School of Library and Information Science Publication Office.
- Lee, S.D. 2002. *Electronic collection development: a practical guide*. New York: Neal Schuman.
- Leggett, A. 2011. *Research problems and questions operationalization: constructs, concepts, variables and hypotheses*. Missouri-Columbia: University of Missouri.
- Lonsdale, M. 2003. *Impact of school libraries on achievement: a review of the research for the Australian School Library Association*. Melbourne: Australian Council for Educational Research. Available at: [https://www.researchgate.net/publication/234608717\\_Impact\\_of\\_School\\_Libraries\\_on\\_Student\\_Achievement\\_A\\_Review\\_of\\_the\\_Research](https://www.researchgate.net/publication/234608717_Impact_of_School_Libraries_on_Student_Achievement_A_Review_of_the_Research) Accessed on 10 November, 2017.
- Lowry, C.M., Beadles, N. A. and Krilowicz, T. 2004. Using personality and cognitive ability to predict job performance: an empirical study. *International Journal of Management* 21(3): 97-128.
- Lowry, R. 1982. *The journals of A.H. Maslow*. Hawthorn: Penguin Books.
- Luarn, P. and Huang, K. 2009. Factors influencing government employee performance via information systems use: an empirical study. *Electronic Journal of e-Government* 7(3): 227 -240.
- Lucas, H. 1975. Performance and use of information system. *Management Science* 21(8): 908-919.
- Ludlow, H.T. and Stasbury, S.D. 2002. Career paths for paraprofessionals: your ladder to success. *Library Administration and Management* 16 (4):198-202.
- MacMillan English Dictionary. 2002. *Framework: definition and synonyms*. London:

Macmillan Publishers Limited.

- Madukoma, E. and Opeke, R.O. 2013. Information use and job performance of senior nonacademic staff in Nigerian Universities. *Library Philosophy and Practice (e-journal)*. Paper 973. Available at: <http://digitalcommons.unl.edu/libphilprac/973> Accessed on 27 August, 2017.
- Madukoma, E. and Popoola, S.O. 2012. The relationship between library use and work performance of Senior Non-Academic Staff in private universities in South Western Nigeria. *Canadian Journal of Social Science* 8(3): 70-82.
- Mahajan, P. 2006. Internet use by researchers: a study of Panjab University, Chandigarh. *Lirary Philosophy and Practice (e-journal)*. Paper 79. Available at: <http://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1079&context=libphilprac> Accessed on 15 January, 2017.
- Mahmood, I., Hartley, R. and Rowley, J. 2011. Scientific communication in Libya in digital age. *Journal of Information Science* 37(4): 379-390.
- Manaf, A.H.A. and Latif, L.A. 2014. Transformational leadership and job performance of SMEs technical personnel: the adaptability cultural approach as mediator. *Mediterranean Journal of Social Sciences* 5(20): 648–655.
- Martin, H. 2008. Good relations: an ontology for describing products and services offers on the web. *Proceedings of the 16<sup>th</sup> International Conference on Knowledge Engineering and Knowledge Management (EKAW2008)*, Acitrezza, Italy, September 29 - October 3, Springer LNCS, Vol 5268, pp. 332-347.
- Martinez, C.L. 2005. The importance of evaluation. *GuideStar Blog*. [Online]. Weblog post 4 January. Available at: <https://trust.guidestar.org/the-importance-of-evaluation> Accessed on 8 January, 2019.
- Maslow, A.H. 1943. A theory of human motivation. *Psychological Review* 50(1): 374-396.
- Maslow, A.H. 1954. *Motivation and personality*. New York: Harper and Row.
- Maslow, A.H. 1971. *The farther reaches of human nature*. New York: The Viking Press.
- Maslow, A.H. and Lowery, R. 1998. *Toward a psychology of being*. 3<sup>rd</sup> ed. New York: Wiley and Sons.
- Mason, M.K. 2010. Myths associated with undergraduate use of academic libraries. Available: <http://www.moyak.com/papers/academic-library-anxiety.html> Accessed on 20 August, 2017.

- Maxfield, M.G. and Babbie, E.R. 2015. *Research methods for criminal justice and criminology*. 7<sup>th</sup> ed. Stamford, CT: Cengage Learning.
- Maxwell, J.A. 2013. *Qualitative research design: an interactive approach*. Thousand Oaks, CA: SAGE Publications.
- May, T. 1997. *Social research: issues, methods and process*. Philadelphia: Open University Press.
- Mbagwu, F.C. and Nwachukwu, C. N. 2010. Staff training and development, enhancement of job performance: case of Federal University of Technology Library, Owerri. *The Information Technologist: an International Journal of Information and Communication Technology* 7(2):113-121.
- McGill, T.J. and Klobas, J.E. 2009. A task technology fit view of learning management system impact. *Computers and Education* 52(2): 496-508.
- McGregor, S.L. and Murnane, J.A. 2010. Paradigm, methodology and method: intellectual integrity in consumer scholarship. *International Journal of Consumer Studies* 34(1): 419-427.
- Mchombu, C.M. 2000. Information needs of women in small businesses in Botswana. *Information and Library Review* 32(1): 39-69.
- McKim, C.A. 2017. The value of mixed methods research: a mixed methods study. *Journal of Mixed Methods Research* 11(2): 202–222.
- Mgobozi, M.N. and Ocholla, D.N. 2002. The use of electronic journals for the dissemination of scholarly information by the University of Natal and the University of Zululand. *South African Journal of Libraries and Information Science* 68(2): 81-93.
- Mila, N. 2011. *Job satisfaction in a South African academic library*. Unpublished dissertation (M.Sc.). Department of Library Science, University of Western Cape, South Africa. Available at: <https://pdfs.semanticscholar.org/861c/4b6ab1dea09faaa85861ef40a5e25389be1d.pdf> Accessed on 27 October, 2018.
- Mills, J. and Birks, M. 2014. *Grounded theory: a practical guide*. Los Angeles, CA: SAGE Publications.
- Minčić-Obradović, K. 2011. *E-books in academic libraries*. Oxford: Chandos.
- Mohammad, A. 1992. Problems of Library and information science research in Pakistan. In: Sajjad, R., Abdus, S.C. and Afzal, H.Q. (eds.) *Library education in Pakistan: past, present and future*. Lahore: Punjab University Library Science Alumni Association. pp. 33-40.

- Mohapatra, B.K. 2003. A study of the relationship of perceived work environment with job attitude, performance and health. *Journal of the Indian Academy of Applied Psychology* 34(1): 47-55.
- Monette, D.R., Sullivan, T.J. and De Jong, C.R. 2002. *Applied social research*. Orlando, FLA: Harcourt Press.
- Moon, J., Hossain, M.D., Kang, H.G. and Shin, J. 2012. Analysis of agricultural information in Korea: the government's role in bridging the digital gap. *Information Development* 28(2): 102-116.
- Moore, G.C. and Benbasat, I. 1996. Integrating diffusion of innovations and theory of reasoned action models to predict utilization of information technology by end-users. In: Kautz, K. and Priesheje, J. (eds). *Diffusion and adoption of information technology*. Boston, MA: Springer. pp. 132-146. Available at: [https://link.springer.com/content/pdf/10.1007/978-0-387-34982-4\\_10.pdf](https://link.springer.com/content/pdf/10.1007/978-0-387-34982-4_10.pdf) Accessed on 19 August, 2018.
- Morgan, D.L. 1997. *Focus groups as qualitative research*. London: SAGE Publications.
- Morgan, D.L. 2007. Paradigms lost and pragmatism regained: methodological implications of combining qualitative and quantitative methods. *Journal of Mixed Methods Research* 1(1): 48-76.
- Morse, J.M. and Chung, S.E. 2003. Toward holism: the significance of methodological pluralism. *International Journal of Qualitative Methods* 2(3): 1-12.
- Motowidlo, S., Borman, W. and Schmidt, N. 1997. A theory of individual differences in task and contextual. *Human Performance* 10(1): 71-83.
- Mouton, J. 1996. *Understanding social research*. Pretoria: JL Van Schaik Publishers.
- Mouton, J. and Marais, H.C. 1990. *Basic concepts in the methodology of the social sciences*. Pretoria: Human Sciences Research Council.
- Munk, N. 1999. Finished at forty in the new economy, the skills that come with age count for less and less: suddenly, 40 is starting to look and feel old. *Fortune Magazine* Available at: [https://archive.fortune.com/magazines/fortune/fortune\\_archive/1999/02/01/254395/index.htm](https://archive.fortune.com/magazines/fortune/fortune_archive/1999/02/01/254395/index.htm) Accessed on 27 June, 2018.
- Munoo, R. 2000. *A survey of compact disc-read only memory (CD-ROM) technology application in South African university libraries*. Unpublished dissertation (M.A.). Department of Information Studies, University of KwaZulu-Natal. Available at: <https://pdfs.semanticscholar.org/4d84/211cbcdfa33bed815fed768ad7909a9bc6a2.pdf> Accessed on 27 September, 2018.

- Musa, J.L. 2017. *Information resources and services: a handbook*. Lagos: Springfield Publishers.
- Musonda, Y. 2014. *Motivation of librarians in Central and Copperbelt Provinces of Zambia*. Unpublished dissertation (M.A.). Department of Information Science, University of South Africa. Available at: [https://pdfs.semanticscholar.org/7430/6a0ad31d2d6a45a10ffb2ce68a168e2f26e1.pdf?\\_ga=2.101976393.914107142.1576394503-1497108242.1557825038](https://pdfs.semanticscholar.org/7430/6a0ad31d2d6a45a10ffb2ce68a168e2f26e1.pdf?_ga=2.101976393.914107142.1576394503-1497108242.1557825038) Accessed on 27 September, 2018.
- Mutula, S.M. and Majinge, R. M. 2017. Shortcomings in Library and Information Science (LIS) PhD projects: analyses of examined theses and supervised for the period 2008– 2016 at select universities in eastern, western and southern Africa. *Mousaion: South African Journal of Information Studies* 35(1): 114-129.
- Mwantomwa, K. 2017. Utilisation of e-resources to support teaching and research in higher learning institutions, Tanzania. *University of Dar es Salaam Library Journal* 12(2):98123.
- Myers, M.D. 1997. Qualitative research in information systems. *MIS Quarterly* 21(2): 241- 242.
- Naidu, G.H.S., Rajput, P. and Motiyani, K. 2007. Use of electronic resources and services in university libraries: a study of DAVV central library, Indore. *Paper presented at the 10<sup>th</sup> National Convention on Knowledge, Library and Information Networking, India International Centre, New Delhi, 20-23 November*. Available at: <http://www.naclin.org/nov22.html> Accessed on 17 July, 2018.
- Naharuddin, N.M. and Sadegi, M. 2013. Factors of workplace environment that affect employees performance: a case study of Miyazu Malaysia. *International Journal of Independent Research and Studies* 2(2): 66-78.
- Nan, N. 2011. Capturing bottom-up information technology use process: a complex adaptive systems model. *MIS Quarterly* 35(2): 505-532.
- Nazan, O.U. and Kurbanoghu, S.S. 1998. Information need and seeking behaviour of scholars at a Turkish university. *Paper presented at 64<sup>th</sup> IFLA Council and General Conference held in Amsterdam, 16-21 August*. Available at <https://archive.ifla.org/IV/ifla64/041112e.htm> Accessed on 13 October, 2018.
- Ndagana, J.M. 2007. Behavioural pattern of non-academic staff of Federal Universities in Nigeria to job dissatisfaction. *Educational Forum* 10(1): 1677-1184.
- Ndakalu, O.A. 2014. *Access and utilization of digital information services in academic libraries: the case of university of Nairobi*. Unpublished dissertation (M.Sc.). Department of

- Library and Information Science, University of Nairobi. Available at: [http://erepository.uonbi.ac.ke/bitstream/handle/11295/76015/Okongo\\_Access%20and%20utilization%20of%20digital%20information%20services%20in%20academic%20libraries%3A%20the%20case%20of%20University%20of%20Nairobi.pdf?sequence=3&isAllowed=y](http://erepository.uonbi.ac.ke/bitstream/handle/11295/76015/Okongo_Access%20and%20utilization%20of%20digital%20information%20services%20in%20academic%20libraries%3A%20the%20case%20of%20University%20of%20Nairobi.pdf?sequence=3&isAllowed=y) Accessed on 13 October, 2019
- Nengomasha, C.T. 2009. *A study of electronic records management in the Namibian public service in the context of e government*. Unpublished thesis (PhD). Department of Information and Communications Studies, University of Namibia. Available at: <http://repository.unam.edu.na/bitstream/handle/11070/447/nengomasha2009.pdf?sequence=1&isAllowed=y> Accessed on 14 January, 2019.
- Neuman, W.L. 2000. *Social research methods: qualitative and quantitative approaches*. 4<sup>th</sup> ed. Boston: Allyn and Bacon.
- Neuman, L.W. 2003. *Social research methods: qualitative and quantitative approaches*. 5<sup>th</sup> ed. Boston: Allyn and Bacon.
- Neuman, W.L. 2006. *Social research methods: qualitative and quantitative approaches*. 6<sup>th</sup> ed. Boston: Pearson.
- Neuman, W.L. 2009. *Social research methods: qualitative and quantitative approaches*. 7<sup>th</sup> ed. Boston: Allyn and Bacon.
- Neuman, W.L. 2011. *Social research methods: qualitative and quantitative approaches*. 9<sup>th</sup> ed. Boston: Pearson.
- Ng'ang'a, M.J. and Nyongesa. W.J. 2012. The impact of organizational culture on performance of educational institutions. *International Journal of Business and Social Sciences* 8(3): 211-217.
- Ngulube, P. 2018. Mapping methodological issues in knowledge management research, 2009-2014. *International Journal of Knowledge Management* 15 (1): 85-100.
- Ngulube, P., Mathipa, E.R. and Gumbo, M.T. 2015. Theoretical and conceptual frameworks in the social and management science. In: Mathipa, E.P. and Gumbo, M.T. (eds). *Addressing research challenges: making headway for developing research*. Noordwyk: Osala-MASADI Publishers. pp. 43-46.
- Ngulube, P. and Ukwoma, S.C. 2019. Cartographies of research designs in library information science research in Nigeria and South Africa, 2009–2015. *Library and Information Science Research* 41(3):1-9.

- Nigeria Country Profile 2008. *Library of congress – federal research division*. Available at: <https://www.loc.gov/rr/frd/cs/profiles/Nigeria.pdf> Accessed on 15 June, 2020. Pp. 1-23.
- Nigerian Library Association Online Forum. 2016. Community of Nigerian librarians. Available at: <http://groups.yahoo.com/group/nla-online-forum/> Accessed on 14 September, 2016.
- Nkiko, C. and Iroaganach, M.A. 2016. Performance assessment model for academic libraries: the Covenant University Library example. *Annals of Library and Information Studies* 63(3): 7-15.
- Nnadozie, C.O. 2007. *Foundations of library practice*. Owerri: Springfield Publishers.
- Nnadozie, C.O. 2014. Sources of information. In: Arua, U., Uzuegbu, C. P. and Ugah, A.D. (eds). *Information literacy education for tertiary institutions*. Lagos: Zeh Communications. pp. 36-49.
- Nwachukwu, C.C. 1988. *Management theory and practice*. Onitsha: Africana Feb Publishers Limited.
- Nwachukwu, V.N., Abdulsalami, T.L. and Salami, P.F. 2014. Availability, accessibility and use of Information resources and services among information seekers of Lafia public library in Nasarawa State. *Information and Knowledge Management* 4(10): 1-11.
- Nwaigwe, U. 2015. The influence of head librarians' leadership styles on job satisfaction of librarians' in tertiary institution libraries in Imo State, Nigeria. *Open Access Library Journal* 2(6):1-9.
- Nwalo, K.N. 2000. *Reference sources and services*. Ibadan: University Press.
- Nwatela, W.M. 2013. *Factors influencing utilization of library services and resources: the case of university of Nairobi Mombasa campus library*. Unpublished (Msc) dissertation. Department of Library and Information Science, University of Nairobi. Available at: [http://erepository.uonbi.ac.ke/bitstream/handle/11295/63088/Mwatela\\_Factors%20influencing%20utilization%20of%20Library%20services%20and%20resources.pdf?sequence=3](http://erepository.uonbi.ac.ke/bitstream/handle/11295/63088/Mwatela_Factors%20influencing%20utilization%20of%20Library%20services%20and%20resources.pdf?sequence=3) Accessed on 15 June, 2020.
- Nwezeh, C.M. 2010. The use of ICT in Nigerian universities: a case study of Obafemi Awolowo University, Ile-Ife. *Library Philosophy and Practice (e-journal)*. Paper 494 Available at: <https://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1512&context=libphilprac> Accessed on 27 July, 2018.
- Nworgu, B.G. 1991. *Educational research: basic issues and methodology*. Ibadan: Wisdom Publishers.



- Nwozu, C. 2000. *A textbook in use of the library for higher education* Owerri: Springfield Publishers.
- Obichere, C., Uche, A.C. and Udo-Anyanwu, A.J. 2012. Use of reference resources by students of federal polytechnic Nekede, Oweri, Imo State. *Journal of Library and Information Science* 9(1 and 2): 32-44.
- Ocholla, D. and Le Roux, J. 2011. Conceptions and misconceptions of theoretical frameworks in Library and Information Science research. *Paper presented at the 6th biennial Prolissa Conference, Pretoria, South Africa, 9- 11 March*. Available at: <https://pdfs.semanticscholar.org/91d3/c375a42ce9527d41583c7859715c255af697.pdf> Accessed on 7 February, 2018.
- Oduwole, A. 2004. *Information technology skills and utilisation as correlated of job performance by librarians in University and Research Libraries in Nigeria*. Unpublished thesis (PhD). Department of Library, Archival and Information Studies, University of Ibadan.
- Oduwole, A.A. and Sowole, A.O. 2006. Utilization and impact of the essential electronic agricultural library database on library services in a Nigerian university of agriculture. *Electronic Library and Information Systems* 40(2): 157-167.
- Ogbonna, I.M. 2009. *Appreciating the library* 3<sup>rd</sup> ed. Port Harcourt: His Glory Publishers.
- Ojedokun, A.A. and Owolabi, E.O. 2003. Internet access competence and the use of the Internet for teaching and research activities by University of Botswana academic staff. *African Journal of Library, Archives and Information Science* 13(1): 43-53.
- Okiki, O.C. 2013. Availability of information resources for research output: perception of academic staff members in Nigerian federal universities. *International Journal of Computer Science and Telecommunications* 4(8): 15-28.
- Okiki, O.C. and Durodolu, O. 2018. Enhancing job performance of librarians in academic libraries through technological change. Available at: [https://www.researchgate.net/profile/Oluwole\\_Durodolu/publication/328496903\\_Enhancing\\_job\\_performance\\_of\\_librarians\\_in\\_Academic\\_libraries\\_through\\_Technological\\_change/links/5bd1913492851cabf2665352/Enhancing-job-performance-of-librarians-in-Academic-libraries-throughTechnological-change.pdf](https://www.researchgate.net/profile/Oluwole_Durodolu/publication/328496903_Enhancing_job_performance_of_librarians_in_Academic_libraries_through_Technological_change/links/5bd1913492851cabf2665352/Enhancing-job-performance-of-librarians-in-Academic-libraries-throughTechnological-change.pdf) Accessed on 27 July, 2019.
- Okite-Amughoro, F.A. 2016. *The effectiveness of web 2.0 in marketing academic library services in Nigerian universities: a case study of selected universities in South-south Nigeria*. Unpublished thesis (PhD). Department of Information Studies, University of KwaZulu-Natal. Available at:



<https://pdfs.semanticscholar.org/9b58/92ef9b98eccef6ee6bd9e7a67f379a41e6a6.pdf>

Accessed on 27 July, 20118.

- Okorie, P.N., Ademowo, G.O., Saka, Y., Davies, E. Okoronkwo, C., Bockarie, M.J., Molyneux, D.H. and Kelly-Hope, L.A. 2013. Lymphatic filariasis in Nigeria; micro-stratification overlaps mapping as a prerequisite for cost-effective resource utilisation in control and surveillance. *Neglected Tropical Disease* 7(9):1-13.
- O’Leary, Z. 2007. *The essential guide to doing research*. London: SAGE Publications.
- Olanipekun, A.O., Aje, I.O. and Abiola-Falemu, J.O. 2013. Effects of organizational culture on the performance of quality surveying firms in Nigeria. *International Journal of Humanities and Social Science* 3(5): 206-215.
- Olanlokun, S.O. and Lawoyin, J.O. 1995. Library use patterns: the university of Lagos main library, 1983-1988. *Lagos Librarians* 16(1 and 2): 73-77.
- Olasore, R.E. and Adekunmisi, S.R. 2015. Use of library electronic information resources by academic staff in Olabisi Onabanjo University. *Journal of Educational Research and Review* 4(4): 55-62.
- Ollé, C. and Borrego, Á. 2010. Librarians’ perceptions on the use of electronic resources at Catalan academic libraries. *New Library World* 111(1/2): 46–54.
- Olise, F.P. 2010. Information and communication technologies (ICTs) and sustainable development in Africa: mainstreaming the millennium development goals (MDGS) into Nigerian’s development agenda. *Journal of Social Science* 24(3): 155-167.
- Oliveira, T. and Tam, C. 2016. Performance impact of mobile banking: using the tasktechnology fit (TTF) approach. *International Journal of Bank Marketing* 34(4): 434-457.
- Olson, K. 2010. An examination of questionnaire evaluation by expert reviewers. *Journal of Field Methods* 22(4): 295-318.
- Olunubi, A. and Arogundade, O. 2013. A psychological appraisal of manifest needs as predictors of job involvement among selected workers in Lagos State. *Research in Psychology and Behavioral Sciences* 1(5): 61-66.
- Omah, J. E. and Urhiewhu, L.O. 2016. Strategy for an effective utilization of school library resources in Karim Lamido local government area of Taraba State. *International Journal of Scholarly Research* 11(1): 1-10.
- Omopupa, T.K. 2016. *Information behaviour of medical faculty in the tertiary health institutions in Kwara State Nigeria*. Unpublished thesis (PhD). Department of Information Studies, University of Kwazulu-Natal. Available at: <https://pdfs.semanticscholar.org/9b58/92ef9b98eccef6ee6bd9e7a67f379a41e6a6.pdf>

- [scholar.org/9bb6/03cc0bb106a38f0a34f321aca9ca23b7a1b3.pdf](https://scholar.org/9bb6/03cc0bb106a38f0a34f321aca9ca23b7a1b3.pdf) Accessed on 4 April, 2018.
- Onaolapo, S.A. 2016. Evaluating the use of polytechnic libraries in Nigeria: a case study of federal polytechnic, Offa, Library, Kwara State, Nigeria. *Library Philosophy and Practice (e-journal)*. Paper 1422. Available at:  
[https://www.researchgate.net/profile/Sodiq\\_Onaolapo3/publication/309719953\\_Evaluating\\_the\\_use\\_of\\_Polytechnic\\_Libraries\\_in\\_Nigeria\\_A\\_Case\\_Study\\_of\\_Federal\\_Polytechnic\\_Off\\_a\\_Library\\_Kwara\\_State\\_Nigeria/links/59531975a6fdcc218d281833/Evaluating-the-use-of-Polytechnic-Libraries-in-Nigeria-A-Case-Study-of-Federal-Polytechnic-Offa-Library-Kwara-State-Nigeria.pdf](https://www.researchgate.net/profile/Sodiq_Onaolapo3/publication/309719953_Evaluating_the_use_of_Polytechnic_Libraries_in_Nigeria_A_Case_Study_of_Federal_Polytechnic_Off_a_Library_Kwara_State_Nigeria/links/59531975a6fdcc218d281833/Evaluating-the-use-of-Polytechnic-Libraries-in-Nigeria-A-Case-Study-of-Federal-Polytechnic-Offa-Library-Kwara-State-Nigeria.pdf) Accessed on 14 September, 2019.
- Oni, A.D. 2018. *Understanding the theoretical and practical implications of a research paper*. 3<sup>rd</sup> ed. Thousand Oaks: SAGE Publications.
- Onifade, F.N. and Sowole, A.O. 2011. Reference services in the university libraries: awareness and perception of undergraduate students. *PNLA Quarterly* 75(3): 1-9.
- Onifade, F.N., Ogbuiyi, S.U. and Omeluzor, U. 2013. Library resources and service utilization by postgraduate students in a Nigerian private university. *International Journal of Library and Information Science* 5(9): 289-294.
- Oriogu, C.D., Chukwuemeka, A.O. and Oriogu-Ogbuiyi, D.C. 2018. Faculty awareness, perception and use of information resources and services in a private university in Nigeria. *Covenant Journal of Library and Information Science* 1(2):32-44.
- Orman, T.F. 2016. "Paradigm" as a central concept in Thomas Kuhn's thought. *International Journal of Humanities and Social Science* 6(10): 1-6.
- Otazu, C.E. n.d. Information sources/materials: book format. In: Unegbu, V.E. and Otazu, C.E. (eds). *Use of library and information resources: library use education*. IlishanRemo: Babcock University Press. pp. 55-80. Available at:  
<https://www.babcock.edu.ng/oer/books/USE%20OF%20LIBRARY%20AND%20INFORMATION%20RESOURCES.pdf> Accessed on 23 June, 2018.
- Owusu-Ansah, C.M., Mprah, R.K. and Kumah, C.H. 2014. The impact of library automation on the job satisfaction of library staff. *European Journal of Business and Social Sciences* 3(9): 100-113.
- Oyelude, A.A. and Bamigbola, A.A. 2013. Woman empowerment through access to information: the strategic roles of non-government organization in Nigeria. *US-China Education Review* 3(2):103-115.

- Oyewole, C.O. and Popoola, S.O. 2015 Personnel factors and work locus of control as determinants of job performance of library personnel in Federal Colleges of Education, Nigeria. *Chinese Librarianship: an International Electronic Journal* 40: 15-31. Available at: <http://www.white-clouds.com/iclc/clielj/cl40OP.pdf> Accessed on 27 June, 2018.
- Pandey, P. and Mishra, M.P. 2015. *Research methodology: tools and techniques*. Buzau, Al. Marghiloman: Bridge Center Publications.
- Pandey, P. and Pandey, M.M. 2015. Research methodology: tools and techniques. *Psychotherapy Research* 19(4-5): 576-582.
- Panwar, A. H., Asari, S. and Ali Shah, A. 2017. Post-positivism: an effective paradigm for social and educational research. *International Research Journals of Arts and Humanities* 45(45):253-260.
- Parameshwar, S. and Patil, D.B. 2009. Use of resources by the faculty members and research scholars in Gulbarga University Library. *Library Philosophy and Practice (e-journal)*. Paper 264. Available at: <http://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1268&context=libphilprac&sei> Accessed on 27 July, 2018.
- Park, T.R. 2007. Factors hindered effective job performance of library staff. *Journal of Library and Information Science* 10(4): 10-17.
- Parthasarathy, K. and Ramalingam, S. 2015. An empirical study on organizational culture and its impact on employee motivation with reference to industrial estate in Chennai. *International Journal of Applied Business and Economic Research* 13(1): 287-294.
- Patton, M.Q. 2002. *Qualitative research and evaluation methods*. 3<sup>rd</sup> ed. Thousand Oaks, CA: SAGE Publications.
- Pentland, B.T 1989. Use and productivity in personal computing: an empirical test. In: DeGross, J.I., Henderson, J.C. and Konsynski, B.R. (eds). *Proceedings of the Tenth International Conference on Information Systems*. Boston, Massachusetts: Association for Computing Machinery. pp. 211-222. Available at: <https://dl.acm.org/citation.cfm?id=75034&picked=prox> Accessed on 5 April, 2018.
- Perri6 and Bellamy, C. 2012. Principles of methodology: research design in social science. *Journal of Multidisciplinary Evaluation* 8(18): 62-64. Available at: [https://www.researchgate.net/publication/264039690\\_Review\\_Principles\\_of\\_Methodology\\_Research\\_Design\\_in\\_Social\\_Science\\_P6\\_C\\_Bellamy\\_2012](https://www.researchgate.net/publication/264039690_Review_Principles_of_Methodology_Research_Design_in_Social_Science_P6_C_Bellamy_2012) Accessed on 7 August, 2018.

- Peshin, R., Jayaratne, K.S.U. and Singh, G. 2009. Evaluation research: methodologies for evaluation of IPM programs. In: Peshin, R. and Dhawan, A. K. (eds). *Integrated pest management: Dissemination and impact* vol. 2. Dordrecht: Springer Publications. pp. 31-78.
- Piccoli, G., Ahmad, R. and Ives, B. 2001. Web-based virtual learning environments: a research framework and a preliminary assessment of effectiveness in basic IT skills training. *MIS Quarterly* 25(4): 401-426. Available at: <http://home.business.utah.edu/actme/7410/Piccoli.pdf> Accessed on 26 February, 2018.
- Pickard, A.J. 2013. *Research methods in information*. 2<sup>nd</sup> ed. London: Facet Publishing.
- Pizer, M. and Härtel, C.E.J. 2005. *For better or for worse: organizational culture and emotions*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Plano Clark, V.L. and Ivankova, N.V. 2016. *Mixed methods research: guide to the field*. Los Angeles: SAGE Publications.
- Polit, D.F. and Beck, C.T. 2004. *Nursing research: generating and assessing evidence for nursing practice*. 7<sup>th</sup> ed. Philadelphia: Lippincott Williams and Wilkins.
- Polit, D.F. and Beck, C.T. 2012. *Nursing research: generating and assessing evidence for nursing practice*. 9<sup>th</sup> ed. Philadelphia: Lippincott Williams and Wilkins.
- Polonsky, M.J., Jones, G. and Kearsley, M.J. 1999. Accessibility: an alternative method of ranking marketing journals? *Journal of Marketing Education* 21(3): 181-193. Available at: <https://sci-hub.tw/https://doi.org/10.1177/0273475399213004> Accessed on 29 August, 2017.
- Popoola, S.O. 2009. The use of information sources and services and its effect on the research output of social scientists in Nigerian Universities. *Library Philosophy and Practice (e-journal)*. Paper 183. Available at: <https://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1188&context=libphilprac> Accessed on 5 May, 2018.
- Popoola, S.O. and Farukuoye, M.A. 2017. Influence of job satisfaction need achievement and team work on work performance of staff in academic libraries in south west, Nigeria. *Information Impact: Journal of Information and Knowledge Management* 8(4): 77-98.
- Popoola, S.O. and Halisco, Y. 2009. Use of library information resources and services as predictor of the teaching effectiveness of social scientists in Nigerian universities. *Africa Journal of Library, Archives and Information Science* 19(1): 65-77.
- Prasad, A. and Prasad, P. 2002. The coming of age of interpretive organisational research. *Organizational Research Methods* 5(1): 4-11.

- Punch, K.F. 2006. *Introduction to social research: quantitative and qualitative approaches*. London: SAGE Publications.
- Punch, K.F. 2013. *Introduction to social research: quantitative and qualitative approaches*. London: SAGE Publications.
- Rada, J.F. 1994. The information gap between the North and the South. *IFLA Journal* 20(1): 13-15.
- Radhakrishna, R.B., Yoder, E.P. and Ewing, J.C. 2007. Strategies for linking theoretical framework and research types. In: Brirs, E.G. and Roberts, T.G. (eds). *Proceedings of the 2007 AAAE Research Conference*, Volume 34, 16- 18 May. Minneapolis, Minnesota: American Association for Agricultural Education. pp. 692 694. Available at: <http://aaaeonline.org/Resources/Documents/National/Proceedings,%20National2007.pdf> Accessed on 6 April, 2018.
- Rahman, A. I. M. J., Khatun, M. and Islam, M.M. 2008. Library education in Bangladesh: strengths, problems and suggestions. *Library Philosophy and Practice (e-journal)*. Paper 223. Available at : <http://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1225&context=libphilprac> Accessed on 4 August, 2018.
- Rao, L.K.R. 2000. Sources of Information with emphasis on electronic resources. *Paper presented at the Documentation Research and Training Centre Annual Seminar on Electronic Sources of Information*, held on 1-3 March, Bangalore, India. pp. 119. Available at: <http://vpmthane.org/studentsnotes/electronic%20sources.pdf> Accessed on 27 November, 2018.
- Ravitch, S.M. and Riggan, M. 2012. *Reason and rigor: how conceptual frameworks guide research*. London: SAGE Publications.
- Reitz, J. M. 2004a. Periodical. *Online Dictionary for Library and Information Science*. (ODLS). Available at: [https://www.abc-clio.com/ODLIS/odlis\\_p.aspx](https://www.abc-clio.com/ODLIS/odlis_p.aspx) Accessed on 17 October, 2018.
- Reitz, J.M. 2004b. Journal. *Online Dictionary for Library and Information Science*. (ODLS). Available at: [https://www.abc-clio.com/ODLIS/odlis\\_jk.aspx](https://www.abc-clio.com/ODLIS/odlis_jk.aspx) Accessed on 17 October, 2018.
- Reitz, J.M. 2004c. Magazines. *Online Dictionary for Library and Information Science*. (ODLS). Available at: [https://www.abc-clio.com/ODLIS/odlis\\_m.aspx](https://www.abc-clio.com/ODLIS/odlis_m.aspx) Accessed on 21 October, 2018.

- Reitz, J.M. 2004d. Newspapers. *Online Dictionary for Library and Information Science*. (ODLIS). Available at: [https://www.abc-clio.com/ODLIS/odlis\\_n.aspx](https://www.abc-clio.com/ODLIS/odlis_n.aspx) Accessed on 21 October, 2018.
- Reitz, J.M. 2004e. Reports. *Online Dictionary for Library and Information Science*. (ODLIS). Available at: [https://www.abc-clio.com/ODLIS/odlis\\_r.aspx](https://www.abc-clio.com/ODLIS/odlis_r.aspx) Accessed on 21 October, 2018.
- Reitz, J.M. 2004f. Conference proceedings. *Online Dictionary for Library and Information Science*. (ODLIS). Available at: [https://www.abc-clio.com/ODLIS/odlis\\_c.aspx](https://www.abc-clio.com/ODLIS/odlis_c.aspx) Accessed on 21 October, 2018.
- Reitz, J.M. 2004g. Bibliographies. *Online Dictionary for Library and Information Science*. (ODLIS). Available at: [https://www.abc-clio.com/ODLIS/odlis\\_b.aspx](https://www.abc-clio.com/ODLIS/odlis_b.aspx) Accessed on 21 October, 2018.
- Reitz, J.M. 2004h. Treatise. *Online Dictionary for Library and Information Science*. (ODLIS). Available at: [https://www.abc-clio.com/ODLIS/odlis\\_t.aspx](https://www.abc-clio.com/ODLIS/odlis_t.aspx) Accessed on 21 October, 2018.
- Reitz, J.M. 2004i. Indexes. *Online Dictionary for Library and Information Science*. (ODLIS). Available at: [https://www.abc-clio.com/ODLIS/odlis\\_jk.aspx](https://www.abc-clio.com/ODLIS/odlis_jk.aspx) Accessed on 21 October, 2018.
- Reitz, J.M. 2004j. Textbooks. *Online Dictionary for Library and Information Science*. (ODLIS). Available at: [https://www.abc-clio.com/ODLIS/odlis\\_jk.aspx](https://www.abc-clio.com/ODLIS/odlis_jk.aspx) Accessed on 21 October, 2018.
- Reitz, J.M. 2004k. Reference Materials. *Online Dictionary for Library and Information Science*. (ODLIS). Available at: [https://www.abc-clio.com/ODLIS/odlis\\_r.aspx](https://www.abc-clio.com/ODLIS/odlis_r.aspx) Accessed on 21 October, 2018.
- Reitz, J.M. 2004l. Electronic Information Resources. *Online Dictionary for Library and Information Science*. (ODLIS). Available at: [https://www.abcclio.com/ODLIS/odlis\\_e.aspx](https://www.abcclio.com/ODLIS/odlis_e.aspx) Accessed on 21 October, 2018.
- Reitz, J.M. 2004m. E-book. *Online Dictionary for Library and Information Science*. (ODLIS). Available at: [https://www.abc-clio.com/ODLIS/odlis\\_e.aspx](https://www.abc-clio.com/ODLIS/odlis_e.aspx) Accessed on 21 October, 2018.
- Reitz, J.M. 2004n. E-journal. *Online Dictionary for Library and Information Science*. (ODLIS). Available at: [https://www.abc-clio.com/ODLIS/odlis\\_e.aspx](https://www.abc-clio.com/ODLIS/odlis_e.aspx) Accessed on 21 October, 2018.



- Reitz, J.M. 2004o. Online newspaper. *Online Dictionary for Library and Information Science*. (ODLIS). Available at: [https://www.abc-clio.com/ODLIS/odlis\\_p.aspx](https://www.abc-clio.com/ODLIS/odlis_p.aspx) Accessed on 21 October, 2018.
- Reitz, J.M. 2004p. Full-text database. *Online Dictionary for Library and Information Science*. (ODLIS). Available at: [https://www.abc-clio.com/ODLIS/odlis\\_p.aspx](https://www.abc-clio.com/ODLIS/odlis_p.aspx) Accessed on 21 October, 2018.
- Reitz, J.M. 2004q. Compact disc-read only memory (CD-ROM) databases. *Online Dictionary for Library and Information Science*. (ODLIS). Available at: [https://www.abcclio.com/ODLIS/odlis\\_c.aspx](https://www.abcclio.com/ODLIS/odlis_c.aspx) Accessed on 21 October, 2018.
- Repplinger, J. 2015. Primary, secondary and tertiary sources. *Willamette University Blog*. [Online]. Weblog post. 7 December. Available at: <https://libguides.willamette.edu/primary-sources> Accessed on 13 October, 2018.
- Robert, H.K. 2014. Creating the library experience. *The Bottom Line*: (1): 70-78.
- Robey, D. 1979. Users' attitudes and management information system use. *Academy of Management Journal* 22(3): 527-538.
- Romm, N. and Ngulube, P. 2015. Mixed methods research. In: Mathipa, E.R. and Gumbo, M.T. (eds). *Addressing research challenges: making headway for developing researchers*. Noordwyk: Mosala-MASEDI Publishers and Booksellers cc. pp. 1-25.
- Rose, R.A. 1999. Work performance: a multiple regulation perspective. In: Cooper, C.L and Robertson, I.T. (eds). *International Review of Industrial and Organizational Psychology*. Volume 14. Chichester: Wiley Press. pp. 231–335.
- Rosenberg, D. 2005. *Towards the digital library: findings of an investigation to establish the current status of university libraries in Africa*. Oxford: International Network for the Availability of Scientific Publications. Available at: [http://www.inasp.info/uploads/filer\\_public/2013/04/29/towards\\_the\\_digital\\_library\\_full.pdf](http://www.inasp.info/uploads/filer_public/2013/04/29/towards_the_digital_library_full.pdf) Accessed on 7 August, 2017.
- Roser, R.M. 2012. *Influences on the professional development choices of library staff*. Unpublished dissertation (M.A.). Department of Information Studies, Victoria University of Wellington. Available at: <https://pdfs.semanticscholar.org/4de0/c5c2a66080b960d36ea1da8681592e31f1c3.pdf?ga=2.21718387.914107142.1576394503-1497108242.1557825038> Accessed on 7 January, 2017
- Rothgeb, J. 2008. Pilot test. In: Lavrakas, P. J. (ed). *Encyclopaedia of survey research methods*. London: SAGE Publications. pp.584-586.
- Saade, R.G., Nebede, F. and Mak, T. 2009. The role of intrinsic motivation in system adoption:

- a cross-cultural perspective. *Journal of Information Technology and Organizations* 4(1): 107-126.
- Sababa, L.K. 2012. Introduction to use of library, study skill, information and communication technology for Nigerians students. In: Dahiru, B.Y., Dahiru, A.B. and Solomsi, M.B. (eds). *Library resources*. Kaduna: Pyla-`Mak Service Ltd. pp 57-66.
- Saka, K.A. 2008. Staff development as a motivating factor in job performance of staff in selected branch libraries of Ramat Library, university of Maiduguri. *Journal of Information Resource Management* 1(1): 34-42.
- Saka, K.A. and Haruna, I. 2013. Relationship between staff development and job performance among personnel in branch libraries, university of Maiduguri, Nigeria. *Mediterranean Journal of Social Sciences* 4(5):9-17.
- Sanzogni, L. and Abugabah, A. 2014. Exploring factors affecting end-user's performance of information systems. *International Journal for Infonomics* 7(3 and 4): 1-18.
- Saunders, M., Lewis, P. and Thornhill, A. 2009. *Research methods for business students*. 5<sup>th</sup> ed. Harlow: Pearson Education Limited.
- Schachter, D. 2004. How to set performance goals: employee reviews are more than annual critiques. *Information Outlook* 8(9): 26-29.
- Schensul, J.J. 2012. Methodology, methods and tools in qualitative research. In: Lapan, Q.R. (ed). *Qualitative research*. San Francisco: Jossey-Bass. pp. 69–103.
- Schoonenboom, J. and Johnson, R.B. 2017. How to construct a mixed methods research design. *Cologne Journal of Sociology and Social Psychology* 9(2): 107-131.
- Scotland J. 2012. Exploring the philosophical underpinnings of research: relating ontology and epistemology to the methodology and methods of the scientific, interpretive, and critical research paradigms. *Canadian Center of Science and Education* 5(9): 9-16. Available at: <https://pdfs.semanticscholar.org/f24f/1d16645ee19b0263f4c377d9e086ed277a3c.pdf> Accessed on 9 October, 2018.
- Seidu, T.S. 2012. *Establishment of hybrid library services in federal universities of the north central zone of Nigeria*. Unpublished dissertation (M.Sc). Department of Library, Archival and Information Studies, University of Nigeria, Nsukka. Available at: <http://www.unn.edu.ng/publications/files/images/Tunde,%20S..pdf> Accessed on 15 July, 2018.
- Sejane, L. 2017. *Access to and use of electronic information resources in the academic libraries of the Lesotho library consortium*. Unpublished thesis (PhD). Department of Information Studies, University of KwaZulu-Natal. Available at: <https://pdfs.semantic>



[scholar.org/f365/76b9d90c63eb9f45caa54cfcaaaf8bb02e28.pdf](https://scholar.org/f365/76b9d90c63eb9f45caa54cfcaaaf8bb02e28.pdf) Accessed on 9 March, 2018.

- Sekaran, U. 2003. *Research methods for business: a skill-building approach*. New York: John Wiley and Sons.
- Selltiz, C., Wrightsman, L. S. and Cook, S. W. 1976. *Research methods in social relations*. 3rd ed. New York: Holt, Rinehart and Winston.
- Selvamani, J. 2012. Information use pattern of faculty of pharmacy colleges in Chennai: a study. *Indian Journal of Information Science and Services* 2(2): 30-35.
- Shaibu, I. 2009. *Statistical analysis*. Benin City: ACME Publication Limited.
- Sheatsley, P.B. 1983. Questionnaire construction and item writing. In: Rossi, P.H., Wright, J.D. and Anderson, A.B. (eds). *Handbook of survey research: quantitative studies in social relations*. New York: Academic Press, Inc. pp.195-230.
- Sheeja, N.K. 2010. Science vs social science: a study of information-seeking behavior and user perceptions of academic researcher *Library Review* 59(7):522-531.
- Shooshtarian, Z., Ameli, F. and Aminilari, M. 2013. The effect of Labor's emotional intelligence on their job satisfaction, job performance, and job commitment. *Iranian Journal of Management Studies* 6(1): 27-43.
- Sieber, S.D. 1973. The integration of fieldwork and survey methods. *American Journal of Sociology* 78(6): 1335-1359.
- Singleton Jr., R. and Straits, B.C. 2005. *Approaches to social research*. 4<sup>th</sup> ed. New York: Oxford University Press.
- Siwakoti, S. 2008. Status of school library development in Nepal. *Sri Lanka Journal of Librarianship and Information Management* 1(1): 13-19.
- SkyscraperCity.com.2011. Nigeria geo- political zone. Available at: <http://www.skyscrapercity.com/showthread.php?t=1364869> Accessed on 5 October, 2017
- Staples, D.S. and Seddon, P. 2004. Testing the technology-to-perform chain model. *Journal of Organisational and End User Computing* 16(4): 17-26.
- Stevenson, J. and Collin, P.H. 2006. *Dictionary of information and library management*. 2<sup>nd</sup> ed. London: A and C Black Publishers Ltd.
- Straub, D.W. 1994. The effect of culture on IT diffusion: e-mail and fax in Japan and the U.S. *Information Systems Research* 5(1): 23-47.

- Strydom, A. 2011. *The job satisfaction of academic staff members on fixed-term employment contracts at South African higher education institutes*. Unpublished thesis (PhD). Faculty of Education, University of the Free State, Bloemfontein. Available at: <https://pdfs.semanticscholar.org/67b3/2c9e7e3091d4b771f541d09ad28d8dd84175.pdf> Accessed on 7 July, 2019.
- Subedi, D. 2016. Explanatory sequential mixed method design as the third research community of knowledge claim. *American Journal of Educational Research* 4(7): 570-577.
- Sudman, S. 1983. Applied sampling. In: Rossi, P.H., Wright, J.D. and Anderson, A.B. (eds). *Handbook of survey research*. New York: Academic Press, Inc. pp.181-194.
- Sukram, P. and Hoskins, R. 2012. Leading the way: the managerial skills of library managers in South African university libraries. *Innovation: journal of appropriate librarianship and information work in Southern Africa* 45: 94-119.
- Swanson, E.B. 1987. Information channel disposition and use. *Decision Sciences* 18(1): 131-145.
- Tahir, M., Mahmood, K. and Shafique, F. 2010. Use of electronic information resources and facilities by humanities scholars. *The Electronic Library* 28(1): 122-136.
- Tashakkori, A. and Teddlie, C. 2003. Issues and dilemmas in teaching research methods courses in social and behavioural sciences: US perspective. *International Journal of Social Research Methodology* 6(1): 61-77.
- Tesch, R. 1990. *Qualitative research: analysis types and software tools*. New York: The Falmer Press.
- Thanh, N.C and Thanh T.T 2015. The interconnection between interpretivist paradigm and qualitative methods in education. *American Journal of Educational Science* 1(2): 24-27.
- Timans, R. Wouters, P. and Heilbron, J. 2019. Mixed methods research: what it is and what it could be. *Theory and Society* 48(1): 193-216.
- Torkzadeh, G. and Doll, W.J. 1999. The development of a tool for measuring the perceived impact of information technology on work. *Omega* 27(3): 327-339.
- Tornatzky, L.G. and Klein, K.J. 1982. Innovation characteristics and innovation adoption implementation: a meta-analysis finding. *IEEE Transaction on Engineering Management* 29(1): 28-44.
- Tsakonas, G. and Papatheodorou, C. 2006. Analysing and evaluating usefulness and usability in electronic services. *Journal of Information Service* 32(5): 400-19.

- Tseng, S.M. and Huang, J.S. 2011. The correlation between Wikipedia and knowledge sharing on job performance. *Expert Systems with Applications* 38(5): 6118–6124.
- Ugah, A.D. 2017. Library. Available at: <http://uam.edu.ng/Library> Accessed on 2 August, 2017.
- Ugah, A.D. and Okpra, M. 2008. Motivation and productivity in the library. *Library Philosophy and Practice (e-journal)*. Paper 195. Available at: <http://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1200&context=libphilprac> Accessed on 17 September, 2017.
- Ugwu, C.I. 2008. The effect of personal characteristics on the use of information sources by Social Science Researchers at the University of Nigeria, Nsukka. *Library Philosophy and Practice (e-journal)*. Paper 765. Available at: <https://www.researchgate.net/publication/237604235> Accessed on 23 June, 2018.
- Ugwu, C.I. and Ugwu, M.E. 2017. Demographic variables and job performance of librarians in university libraries in South East Nigeria. *Library Philosophy and Practice (e-journal)*. Paper 1553. Available at: <https://pdfs.semanticscholar.org/97f7/97149cb477f14fd2e66c81c0f2d8316c9db0.pdf#page=1&zoom=auto,-99,798> Accessed on 17 September, 2019.
- Ugwu, C.I. 2018. Mediation effect of knowledge management on the relationship between transformational leadership and job performance of librarians in university libraries in Nigeria. *Journal of Librarianship and Information Science* 00(0):1-15. Available at: <http://sci-hub.tw/https://doi.org/10.1177/0961000618763715> Accessed on 29 July, 2018.
- Unegbu, V.E. n.d. Information sources/materials: audio-visual/nonbook. In: Unegbu, V.E. and Otazu, C.E. (eds). *Use of library and information resources: library use education*. Ilishan-Remo: Babcock University Press. pp.81-86. Available at: <https://www.babcock.edu.ng/oer/books/USE%20OF%20LIBRARY%20AND%20INFORMATION%20RESOURCES.pdf> Accessed on 23 June, 2018.
- United Nations Development Programme. 2003. *Access to information*. New York: United Nations Development Programme. Available at: [http://www.undp.org/content/dam/aplaws/publication/en/publications/democraticgovernance/dg-publications-for-website/access-to-information-practicenote/A2I\\_PN\\_English.pdf](http://www.undp.org/content/dam/aplaws/publication/en/publications/democraticgovernance/dg-publications-for-website/access-to-information-practicenote/A2I_PN_English.pdf) Accessed on 9 September, 2018.
- University of Abuja. n.d. Brief history. Available at: <https://www.uniabuja.edu.ng/aboutus/brief-history> Accessed on 25 August, 2017.

- University of Agriculture Makurdi. n.d. Library. Available at: <http://uam.edu.ng/Library>  
Accessed on 25 August, 2017.
- University of Agriculture Makurdi. n.d. University's history. Available at: <http://uam.edu.ng/About-Us/History> Accessed on 25 August, 2017.
- University of Ilorin. 2011. Welcome to the University of Ilorin. Available at: <https://www.unilorin.edu.ng/index.php/registry/187-history/364-welcome-to-theuniversity-of-ilorin> Accessed on 25 August, 2017.
- University of Jos. n.d. University of Jos history. Available at: <http://unijos.edu.ng/about-us>  
Accessed on 25 August, 2017.
- University of KwaZulu-Natal Ethical Policy Guidelines. 2014. General guidelines for the ethics review processes. Available at: [http://research.ukzn.ac.za/Libraries/Research\\_Document/General\\_Guidelines\\_for\\_the\\_Ethics\\_Review\\_Processes.sflb.ashx](http://research.ukzn.ac.za/Libraries/Research_Document/General_Guidelines_for_the_Ethics_Review_Processes.sflb.ashx) Accessed on 17 June, 2020.
- University of Melbourne Academic Skills Unit. 2010. Developing originality. Available at: [http://services.unimelb.edu.au/\\_data/assets/pdf\\_file/0009/471267/Developing\\_originality\\_Update\\_051112.pdf](http://services.unimelb.edu.au/_data/assets/pdf_file/0009/471267/Developing_originality_Update_051112.pdf) Accessed on 10 September, 2017.
- University of Southern California. 2013. Theoretical frameworks- libguides. Available at: <https://libguides.usc.edu/writingguide/discussion> Accessed on 21 September, 2019.
- Vakkari, P. 2008. Perceived influence of the use of electronic information resources on scholarly work and publication productivity. *Journal of the American Society for Information Science and Technology* 59(4): 602-612.
- Venkatesh, V., Morris, M. G., Davis, G. B. and Davis, F. 2003. User acceptance of information technology: toward a unified view. *MIS Quarterly* 27(3): 425-478.
- Vessey, I. 1991. Cognitive fit: a theory-based analysis of the graphs versus tables literature. *Decision Sciences* 22(2): 219-240.
- Vischer, J. C. 2008. Towards an environmental psychology of workspace: how people are affected by environments for work. *Architectural Science Review* 51(2): 97-108.
- Vlahos, G.E., Ferratt, T.W. and Knoepfle, G. 2004. The use of computer-based information systems by German managers to support decision making. *Journal of Information and Management* 41(6): 763-779.
- Voclick, J. 1995. Job satisfaction among support staff in Michigan academic libraries. *Journal of College and Research Libraries* 56(2): 157-170.
- Wahba, M.A. and Bridwell, L.G. 1976. Maslow reconsidered: a review of research on the need hierarchy theory. *Organisational Behaviour and Human Performance* 15(2): 212-240.

Available at: [http://sci-hub.tw/https://doi.org/10.1016/0030-5073\(76\)90038-6](http://sci-hub.tw/https://doi.org/10.1016/0030-5073(76)90038-6)

Accessed on 5 April, 2018.

- Walliman, N. 2011. *Research methods: the basics*. London: Routledge.
- Walumbwa, F.O., Avolio, B. and Zhu, W. 2008. How transformational leadership weaves its influence on individual job performance: the role of identification and efficacy beliefs. *Personnel Psychology* 61(4): 793-825.
- Wanjuku, M.E. 2013. *Availability and utilization of educational resources in influencing students' performance in secondary schools in Mbeere South, Embu, Kenya*. Unpublished dissertation (M.Ed.). Department of Curriculum Studies, Kenyatta University. Available at: <https://library.ku.ac.ke/bitstream/handle/123456789/8976/Mucai%20Esther%20Wanjuku.pdf?sequence=1&isAllowed=y> Accessed on 7 July, 2018.
- Ward, D. and Lasen, M. 2009. An overview of needs theories behind consumerism. *Journal of Applied Economic Sciences* 4(7): 137-155.
- Welman, C., Kruger, F. and Mitchell, B. 2005. *Research methodology*. London: Oxford University.
- Wildemuth, B.M. 1993. Post positivism research: two examples of methodological pluralism. *Library Quarterly* 63(4): 450-468.
- Williams, E.N. and Morrow, S.L. 2009. Achieving trustworthiness in qualitative research: a pan-paradigmatic perspective. *Psychotherapy Research* 19(4-5): 576-582.
- Willis, J.W. 2007. *Foundations of qualitative research: interpretive and critical approaches*. London: SAGE Publications.
- Wilson, R. 1993. The library trainee: one college's experience. *Library Review* 45(4):7-13.
- Wilson, T.D. 1999. Models in information behaviour research. *Journal of Documentation* 55(3): 249-270.
- Winter, G. 2000. A comparative discussion of the notion of 'validity' in qualitative and quantitative research. *The Qualitative Report* 4(3): 1-14.
- Wisdom, J. 2013. Mixed methods: integrating quantitative and qualitative data collection and analysis while studying patient-centered medical home models. Available at: [https://pcmh.ahrq.gov/sites/default/files/attachments/MixedMethods\\_032513comp.pdf](https://pcmh.ahrq.gov/sites/default/files/attachments/MixedMethods_032513comp.pdf) Accessed on 20 June, 2020.
- Wong, K.Y. and Aspinwall, E. 2004. Knowledge management implementation frameworks: a review. *Knowledge and Process Management* 11(2): 93-104.

- Yin, R. 2003. *Case studies research: design and methods*. London: SAGE Publications.
- Yin, R.K. 1989. Case study research design and methods. *Applied Social Research Methods Series* 5(1): 14-53.
- Yu, W. 2010. An analysis of college English classroom questioning. *Journal of Language Teaching and Research* 1(2): 136-144. Available at: <http://www.academypublication.com/issues/past/jltr/vol01/02/07.pdf> Accessed on 17 September, 2018.
- Zalenski, R.J. and Raspa, R. 2006. Maslow's hierarchy of needs: a framework for achieving human potential in hospice. *Journal of Palliate Medicine* 9(1): 1120-1127.
- Zhang, Y. 1998. The impact of Internet-based electronic resources on formal scholarly communication in the area of library and information science: a citation analysis. *Journal of Information Science* 24(4): 241- 254.
- Zaid, Y.B. 2011. *Information accessibility, utilisation and socio-economic variables as predictors of quality of life of rural women in Ekiti State, Nigeria*. Unpublished thesis (PhD). Department of Library, Archival and Information Studies, University of Ibadan. Available at: <https://pdfs.semanticscholar.org/64d8/d2154ed72ccd38947729a07c2639825609e0.pdf> Accessed on 13 July, 2018.
- Zigurs, I. and Buckland, B.K. 1998. A theory of task/technology fit and group support systems effectiveness. *MIS Quarterly* 22(3): 313–334.
- Zigurs, I. and Khazanchi, D. 2008. From profiles to patterns: a new view of task-technology fit. *Information System Management* 25(1): 8-13.
- Zigurs, I., Buckland, K., Connolly, J. and Wilson, E.V. 1999. A test of task-technology fit theory for group support systems. *Data Base for Advances in Information Systems* 30 (3–4): 34–50.
- Zohrabi, M. 2013. Mixed method research: instruments, validity, reliability and reporting findings. *Theory and Practice in Language Studies* 3(2): 254-262.
- Zurlo, J.A. 2017. Nigeria: history and background. Available at: <http://education.stateuniversity.com/pages/1100/Nigeria-HISTORY- BACKGROUND.html> Accessed on 28 August, 2017.

## APPENDICES

### Appendix 1: Letter of Informed Consent



Information Studies  
School of Social Sciences  
University of KwaZulu-Natal (UKZN)  
Pietermaritzburg Campus  
Private Bag X01  
Scottsville 3209  
South Africa  
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7th April, 2017

Dear Respondent

Informed Consent Letter

**Researcher:** Jacob Oloruntoba Kutu  
Institution; University of KwaZulu-Natal  
Telephone number: 0762171054  
Email address: kutujacob82@gmail.com

**Supervisor:** Dr. Francis Garaba  
Institution: University of KwaZulu-Natal  
Telephone number: 074-513 5910 Email  
address: garaba@ukzn.ac.za.

I, Jacob Oloruntoba Kutu, of the University of KwaZulu-Natal, kindly invite you to participate in the research project entitled “availability and utilisation of information resources as determinants of job performance of academic librarians in selected university libraries in North-Central Nigeria”

This research project is undertaken as part of the requirements of the PhD, which is undertaken through the University of KwaZulu-Natal, School of Social Science.

The aim of this study is to investigate availability and utilisation of information resources as variables that determine job performance of academic librarians in selected federal university libraries in North-Central Nigeria.

Participation in this research project is voluntary. You may refuse to participate or withdraw from the research project at any stage and for any reason without any form of disadvantage. There will be no monetary gain from participating in this research project. Confidentiality and anonymity of records identifying you as a participant will be maintained by the Department of Information Studies, at the University of KwaZulu-Natal.

If you have any questions or concerns about participating in this study, please feel free to contact me or my supervisor using the numbers indicated above.

It should take you about 10 minutes to complete the questionnaire.

Thank you for participating in this research project.



4<sup>th</sup> September, 2017

-----  
Signature

-----  
Date

I ..... hereby consent to participate in the above study.

Name: ..... Date: ..... Signature: .....

**Supervisor's details**

Dr Francis Garaba  
University of KwaZulu-Natal  
0745135910  
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**Student's details**

Jacob Oloruntoba Kutu  
University of KwaZulu-Natal  
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## Appendix II: Questionnaire

Dear respondent,

I am a doctoral student in the Department of Information Studies, University of KwazuluNatal, South Africa. I am undertaking a doctoral research on availability, accessibility and utilisation of information resources as determinants of job performance of academic librarians in selected University libraries in North-Central Nigeria. As academic librarian in one of the surveyed universities, you have been selected to voluntarily participate in the study. Hence, I am pleased to request you to voluntarily complete this questionnaire as appropriate and be assured that all responses would be treated in confidence and used only for the purpose of the research.

Thanking you for your cooperation.

**KUTU, J.O.**

### Section I: Biographical Information.

1. Name of the university -----
2. Gender/ Sex: a. Male {  } b. Female {  }
3. Age: a. Less 30 {  } b. 30-39 {  } c. 40-49 {  } d. 50 -59 {  } e. 60 and above
4. Highest educational qualification: a. M.Sc./MLIS/MA {  } b. PhD {  }
5. Professional rank: a. Librarian II {  } b. Librarian I {  } c. Senior Librarian {  } d. Principal Librarian {  } e. Deputy University Librarian {  }
6. Working experience: a. 0-5 {  } b. 6-10 {  } c. 11-15 {  } d. 16-20 {  } e. 21 above. {  }
7. Salary per month: a. above #120,000 {  } b. above #150,000 {  } c. above #200,000 {  } d. above #250, 000. E. above #300,000 {  }
8. Marital status: a. Single {  } b. Married {  } c. Divorce {  } d. Widow {  }

### Section II. Extent of job performance of Academic Librarians in North-Central Nigeria.

To what extent do academic librarians in your library perform their job in the following areas? Please tick as applicable. Excellent (E), Good (G), Average (A), Fair (F) Poor (P).

S/N	Statement	Excellent	Good	Average	Fair	Poor
1	Cataloguing					
2	Circulation					
3	Reference					
4	Current awareness services					
5	Selective dissemination of Information					
6	Consortium service (Inter-library loan)					
7	Information literacy					
8	Journal publication					
9	Acquisition of materials					
10	Exhibition and display					
11	Indexing					
12	Abstracting					
	Others (i)					
	(ii)					

**Section III: Self-rated job performance (academic librarians)**

Kindly evaluate your current work performance based on **Heilman, Block and Lucas's (1992)** self-rated and supervisor-rated performance scale.

a. How competently do you perform your job?

Highly Competent      Quite Competently      Competent      Fairly Competently      Not competently  
 1{ }                      2{ }                      3{ }                      4 { }                      5 { }

b. How would you judge your overall perceived competence?

Highly Competent      Quite Competently      Competent      Fairly Competently      Not competently  
 1{ }                      2{ }                      3{ }                      4 { }                      5 { }

c. How would you judge the overall quality of your work?

Very High Quality      High Quality      Moderate Quality      Low Quality      Very Low Quality  
 1{ }                      2{ }                      3 { }                      4 { }                      5 { }

d. How would you judge the overall quantity of your work?

Very High Quantity      High Quantity      Moderate Quantity      Low Quantity      Very Low Quantity  
 1{ }                      2{ }                      3 { }                      4 { }                      5 { }

e. In your estimation, how effectively do you get your work done?

Most Effectively      Quite Effectively      Effectively      Fairly Effectively      Not Effectively      1{ }  
 2{ }                      3 { }                      4 { }                      5 { }

**Section IV. Print Information Resources.**

What is the level of **availability of print information resources** in your library? Please tick as applicable the extent to which the following print electronic resources are **available** in your university library using the scale Highly available (HA), Available(A), Moderately available (MA), Not available

S/N	Print information resources	Highly available	Available	Moderately available	Not available
1	Newspapers				
2	Textbooks				
3	Journal collections				
4	Dictionaries				
5	Research reports				
6	Encyclopedias				
7	Thesis/ Dissertations				
8	Magazines				
9	Government Publications				
10	Bibliographies				
11	Handbooks				
12	Pamphlets/ Posters				
13	Seminars/ Symposium				
14	Conference proceedings				
15	Abstracts				
16	Manuscripts				

17	Technical reports				
18	Indexes				
	<b>Others (i)</b>				
	(ii)				

**Section V.** Level of use of print information resources by Academic Librarians.

To what extent do you use available print information resources in your library for your job performance? Please tick as applicable the level to which the following available print resources are **utilised** in your university library

S/N	Print information resources	Daily	Weekly	Monthly	Semester	Never
1	Newspapers					
2	Textbooks					
3	Dictionaries					
4	Journal collections.					
5	Magazines					
6	Encyclopaedias					
7	Handbooks					
8	Research reports					
9	Bibliographies					
10	Government Publications					
11	Pamphlet/ Posters					
12	Thesis/ Dissertation					
13	Seminars/ Symposium					
14	Abstracts					
15	Manuscripts					
16	Conference proceedings					
17	Indexes					
18	Technical reports					
	<b>Others: (i)</b>					

**Section VI.** Print Information Resources.

How accessible for use are these resources for academic librarians? Please tick as applicable the extent to which the following print electronic resources are **accessible for use** in your university library.

Highly accessible (HA), Accessible (A), Moderately accessible (MA), Not accessible (NA)

S/N	Print information resources	Highly accessible	Accessible	Moderately accessible	Not accessible
1	Textbooks				
2	Newspapers				
3	Journal collections				
4	Encyclopedia				
5	Dictionaries				
6	Research reports.				

7	Magazines				
8	Thesis/ Dissertation				
9	Government Publications				
10	Bibliographies				
11	Handbooks				
12	Seminars/ Symposium				
13	Pamphlet/ Posters				
14	Conference proceedings				
15	Abstracts				
16	Indexes				
17	I Manuscripts				
18	Technical reports				
	<b>Others (i)</b>				

**Section VII:** Accessibility and utilisation of electronic resources

Please tick as applicable the extent of your accessibility and utilisation of these electronic resources (information obtained from computer/Internet/digital network) as shown in the table below within the past 5years: Very True (VT), True (T), seldomly True (SD), Not True (NT).

S/N	Accessibility and utilization	VT	T	ST	NT
1	I access relevant e-resources on the Internet everyday				
2	I access and use online databases for my job performance				
3	I access and use e-journals regularly on the Internet				
4	I am aware of lot of relevant online databases in my fields				
5	I have sufficient skills to access and use e-resources				
6	I access and use e-resources through campus network for my job performance				
7	I prefer to access and use e-resources than print resources for my job performance				
8	I spend appreciable time to use and access e-resources for my job performance daily.				
9	I use local area network in my office to retrieve e-resources for my job performance				
10	I use and access CD-ROM databases for my job performance				

**Section VIII:** Electronic Resources

Please tick as appropriate which of these e-Resources are **available and accessible** in your library? (multiple responses are allowed).

S/N	E-Resources	Description	Response
1	E-Journals	Journals published in electronic format, usually on the Internet.	
2	E-Books	A book publication accessible in digital form, consisting of text, images, or both display on a computer's devices.	
3	E-Newspapers	An E-newspaper is also known as online newspaper or web newspaper that exists on the World Wide Web or internet.	
4	E-Thesis/dissertation	These databases contain PhD theses and dissertations published through e-format.	

5	E-Magazines	An E-magazine also known as ezine (spelled e-zine) is a more specialized term appropriately used for small magazines and newsletters distributed by any electronic method, for example, by electronic mail (email/email, see Zine).	
6	Reference database	These are many dictionaries, almanacs, and encyclopedias, which are available on internet in electronic format.	
7	Online databases	An online database is a database accessible from a local network or the Internet, as opposed to one that is stored locally on an individual computer. Examples are SCIENCE DIRECT, JSTOR, AGORA, HINARI, OARE, PUBMED, EBSCOHOST etc.	
8	Full text databases	Full-text database provide the full-text of a document instead of just a citation or abstract; full-text documents from electronic databases are typically available in PDF or HTML	
9	Multimedia Products	They are e- resources that feature wired and wireless telecommunication and data services, including cell phones, laptops and tablets	
10	Telecommunication products	Also known as telecom is the exchange of information over significant distance by electronic means and refers to all types of voice, data and video transmission. Such as telephone (wired and wireless), microwave, fiber optics, satellites, radio and television.	
11	Desktop and portable computers		
12	CD-ROM	CD-ROM is short for compact-disc read-only memory. The disc is used for the permanent storage of data or audio or video recordings.	
13	<b>Others</b> (i)		
	(ii)		

**Section IX Task-Technology Fit (TTF)** Reference: DeLone and McLean 1992; Goodhue and Thompson 1995; Goodhue 1998).

S/N	Accessibility		SA	A	SD	D
1		I can access information resources quickly and easily when I need it.				
2		The information resources I used are accessible.				
3		It is easy to access my desired information resources.				
4		I can count on the information resources available when the need arises				
	<b>Ease of Use</b>					
5		I can easily do what I want to do using the print and non-print information resources for accessing and analysing data				

6		I can learn how to use the information resources that give access to data				
7		The information resources that give me access to data are convenient to use				
	<b>Utilization</b>					
8		I think the information resources are appropriate for my job				
9		The present information resources should be the main tools in further tasks				
10		It is better to use the present information resources rather than other information resources				
	<b>Performance</b>					
11		The information resources provide helpful guidance in performing my tasks.				
12		Information resources use enhance the quality of the job I do				
13		Using information resources improve my tasks Performance.				
14		Performing my tasks depend on information resources I use				
15		Using information resources increases my productivity.				

**Section X:** Hindering factors to the use of information resources for effective job performance. What are the factors that inhibit academic librarians in universities in North-Central Nigeria from fully utilising information resources for job enhancement? Please tick as applicable using the scale: Strongly agree (SA), Agree (A), Disagree (D), Strongly disagree (SD).

	<b>Statement</b>	SA	A	D	SD
1	The type of technology in an organization influences librarians' job performance Obsolete equipment reduces output, increases stoppages, and poor performance				
2	Poor internet connectivity.				
3	Low bandwidth of internet access is a major problem.				
4	Poor electricity supply to the library leads to un- conducive environment and general underutilization of resources				
5	Motivation is a fundamental recipe for high level job performance of academic librarians. When management fails to motivate, the employee becomes a liability to the organization which is turned to poor performance.				
	<b>Statement</b>	SA	A	D	SD
6	Delay in library operations through manual process increases the time spent in information search				
7	Slow download.				
8	Lack of current information resources has a negative effect on academic librarian's job performance				
9	Lukewarm personal attitude results in poor services and ineffective utilization of resources.				

10	Lack of necessary equipment has become a major hindrance for academic librarian's job performance.				
11	Political influences: a higher perception of organizational politics results in decreased levels of job performance among academic librarians.				
12	Non-conducive working environment leads to ineffective utilization of information sources.				
13	Lack of modern ICT equipment leads to delay in information delivery and hence affects job performance				
14	Absence/paucity of relevant databases leads to unavailability of relevant information especially from foreign countries				
15	Poor organization of resources makes search for information difficult				
16	Lack of skill in the use of information resources affects effective utilization of available resources.				
17	Limited computer system				
18	Resources are most of the time outdated making academic librarians to utilise obsolete information which affect their job performance				
19	Non-availability of electronic resources makes academic librarians to depend only on print resources.				
20	Inadequate staff leads to waste of time and poor services delivery				
21	Perceived low competence among academic librarians results in poor performance.				
22	Relevant resources are not always available.				
	<b>Others:</b> (i)				
	(ii)				

### Appendix III: Interview Schedule

**Section A:** Information resources environment. Please give details of how the following information resources are available and accessible for use in your library

- i. Computers (official computers in the library/official computers in personal office/personal (laptop) and computers at home
- ii. Internet access (university library/home) iii. Campus network/Intranet/LAN (library/personal office) iv. Print materials (books, journals, government publication and bibliographies etc.). v. E-resources (e-books, e-journals, E-thesis, Online database, CD-ROM etc).

**Section B:** Availability, accessibility and utilisation of both electronic and non-electronic resources. Please how often do you access and use these resources to improve your job performance?

**Section C:** Information resources policy/strategy. Please give different ICT policies/ strategies that are put in place to support and promote availability, accessibility and utilisation of both electronic and non-electronic resources in your university library.

**Section D:** Effect and constraints of utilisation of information resources on academic librarians' job performance. Please give your opinion on the effect and constrain of availability, accessibility and utilization of both electronic and non-electronic resources on the job performance of your staff.

**Section E: Librarians' Rated Job Performance (University Librarian)**

Below are statements that require you to evaluate the current job performance of each of the academic librarians that you supervise under the following grouping. Using **Heilman, Block and Lucas's** (1992) supervisor- rated performance scale. Use the scale provided

1. How competent does this individual grouping perform their job under your supervision?

Category	Highly Competent	Quite Competent	Competent	Fairly Competently	Not Competently
Librarian II					
Librarian I					
Senior Librarian					
Principal Librarian					
Deputy University Librarian					

2. In your estimation, how effectively does this individual grouping get their work done?

Category	Most Effectively	Quite Effectively	Effectively	Fairly Effectively	Not Effectively
Librarian II					
Librarian I					
Senior Librarian					



Principal Librarian					
Deputy Uni. Librarian					

3. How would you judge the overall quality of this individual's grouping work?

Category	Very High	High	Moderate	Low Quality	Very Low
Librarian II					
Librarian II					
Senior Librarian					
Principal Librarian					
Deputy University Librarian					

4. How would you judge the overall perceived competence of this individual grouping?

Category	Highly Competent	Quite Competent	Competent	Fairly Competently	Not Competently
Librarian II					
Librarian I					
Senior Librarian					
Principal Librarian					
Deputy University Librarian					

5. How would you judge the overall quantity of this individual's work grouping?

Category	Very High	High	Moderate	Low Quantity	Very Low
Librarian II					
Librarian I					
Senior Librarian					
Principal Librarian					
Deputy University Librarian					

## Appendix IV: Letter of Introduction (Federal University Lafia)



The University Librarian,  
Federal University Lafia, Nasarawa, Nigeria.  
4<sup>th</sup> September, 2017.

Dear Sir/Ma,

Letter of introduction - Mr Jacob Oloruntoba KUTU

I am a registered full time PhD student (Information Studies) at the University of KwaZulu Natal. The title of my PhD research is “Availability and Utilisation of Information Resources as Determinants of Job Performance of Academic Librarians in selected University Libraries in North-Central Nigeria”. As part of the requirements for the award of a PhD degree is expected of me to undertake original research in an environment and place of my choice. The UKZN ethical compliance regulations require me to provide proof that the relevant authority where the research is to be undertaken has given approval. The outcomes of this study are expected to assist university library management and stakeholders in identifying problems that exist in the library and create room for innovations and creativity. It will also aim at informing policy makers to take decision on information resources, resource planning and capacity building for strengthening job performance among academic librarians.

I will appreciate your support and understanding to grant me this permission to carry out this research in your institution. In addition, please kindly send the approval letter to the below email addresses. The letter should be address to the candidate not the university.

Thank you in advance for your understanding

*Kutu Jacob Oloruntoba  
PhD Student and Researcher  
Department of Information Studies  
School of Social Sciences  
College of Humanities  
University of Kwazulu-Natal, Pietermaritzburg Campus,  
Private Bag X01, Scottsville, 3209, South Africa.  
Tel.+27762171054  
Email: Kutujacob82@gmail.com or 216021160@stu.ukzn.ac.za*

## Appendix V: Gate keeper letter



### FEDERAL UNIVERSITY LAFIA

P.M.B 146, LAFIA, NASARAWA STATE

UNIVERSITY LIBRARIAN

---

April 18, 2017

**Mr. Jacob Oloruntoba Kutu,**  
Department of Information Studies,  
School of Social Sciences,  
College of Humanities,  
University of Kwazulu-Natal,  
Pietermaritzburg Campus,  
Private Bag X01, Scottsville, 3209,  
South Africa.

Dear Mr. Kutu,

**RE: LETTER OF INTRODUCTION – JACOB OLORUNTOBA KUTU**

Your letter dated 6<sup>th</sup> April, 2017 refers.

I have the honour to convey to you the University Librarians' approval for you to commence your research programme.

Thank you for choosing the Federal University Lafia Library for your research work.

Good luck.

**Hamza Muhammad Umar**  
Confidential Secretary  
For: University Librarian

Appendix VI: Letter of Introduction (**Federal University Lokoja**)



The University Librarian,  
Federal University Lokoja, Kogi State, Nigeria.  
4<sup>th</sup> September, 2017.

Dear Sir/Ma,

Letter of introduction - Mr Jacob Oloruntoba KUTU

I am a registered full time PhD student (Information Studies) at the University of KwaZulu Natal. The title of my PhD research is “Availability and Utilisation of Information Resources as Determinants of Job Performance of Academic Librarians in selected University Libraries in North-Central Nigeria”. As part of the requirements for the award of a PhD degree is expected of me to undertake original research in an environment and place of my choice. The UKZN ethical compliance regulations require me to provide proof that the relevant authority where the research is to be undertaken has given approval. The outcomes of this study are expected to assist university library management and stakeholders in identifying problems that exist in the library and create room for innovations and creativity. It will also aim at informing policy makers to take decision on information resources, resource planning and capacity building for strengthening job performance among academic librarians.

I will appreciate your support and understanding to grant me this permission to carry out this research in your institution. In addition, please kindly send the approval letter to the below email addresses. The letter should be address to the candidate not the university.

Thank you in advance for your understanding

*Kutu Jacob Oloruntoba  
PhD Student and Researcher  
Department of Information Studies  
School of Social Sciences  
College of Humanities  
University of Kwazulu-Natal, Pietermaritzburg Campus,  
Private Bag X01, Scottsville, 3209, South Africa.  
Tel. +27762171054  
Email: Kutujacob82@gmail.com or 216021160@stu.ukzn.ac.za*

## Appendix VII: Gate keeper letter



### FEDERAL UNIVERSITY LOKOJA

#### *Office of the Librarian*

*Vice-Chancellor: Professor Angela Freeman Miri*

*Librarian: Ezra Shiloba Gbaje PhD*

Kutu Jacob Oloruntoba  
Ph.D Student and Researcher,  
Department of Information Studies,  
School of Social Science,  
College of Humanities  
University of Kwazulu- Natal, Pietermaritzburg Campus,  
South Africa.

4<sup>th</sup> April, 2017


#### **Re- Letter of Introduction – Mr. Jacob Oloruntoba Ketu**

Refer to your dated 29<sup>th</sup> March, 2017 on the above subject matter, I write to inform you that your permission to carry out your research work titled "Availability and Utilization of Information Resources as Determinants of Job Performance of Academic Librarians in Selected University Libraries in North Central Nigeria" at the Federal University Library Lokoja, Kogi State, Nigeria has been approved.

On this note, you are expected to inform us the date of commencement.

Thank you.

**LIBRARIAN**  
**FEDERAL UNIVERSITY**  
**LOKOJA**

  
**Ezra Shiloba Gbaje (Ph.D)**  
University Librarian

P. M. B. 1154, Lokoja, Kogi State, Nigeria.

✉ ezra.gbaje@fulokoja.edu.ng; shiloba@yahoo.com | www.fulokoja.edu.ng

Appendix VIII: Letter of Introduction (**Federal University of Agriculture Makurdi**)



The University Librarian,  
Federal University of Agriculture Makurdi, Benue State, Nigeria.  
4<sup>th</sup> September, 2017.

Dear Sir/Ma,

Letter of introduction - Mr Jacob Oloruntoba KUTU

I am a registered full time PhD student (Information Studies) at the University of KwaZulu Natal. The title of my PhD research is “Availability and Utilisation of Information Resources as Determinants of Job Performance of Academic Librarians in selected University Libraries in North-Central Nigeria”. As part of the requirements for the award of a PhD degree is expected of me to undertake original research in an environment and place of my choice. The UKZN ethical compliance regulations require me to provide proof that the relevant authority where the research is to be undertaken has given approval. The outcomes of this study are expected to assist university library management and stakeholders in identifying problems that exist in the library and create room for innovations and creativity. It will also aim at informing policy makers to take decision on information resources, resource planning and capacity building for strengthening job performance among academic librarians.

I will appreciate your support and understanding to grant me this permission to carry out this research in your institution. In addition, please kindly send the approval letter to the below email addresses. The letter should be address to the candidate not the university.

Thank you in advance for your understanding

*Kutu Jacob Oloruntoba  
PhD Student and Researcher  
Department of Information Studies  
School of Social Sciences  
College of Humanities  
University of Kwazulu-Natal, Pietermaritzburg  
Campus, Private Bag X01, Scottsville, 3209, South  
Africa.  
Tel. +27762171054  
Email: Kutujacob82@gmail.com or 216021160@stu.ukzn.ac.za*

Appendix IX: Gate keeper letter (Federal University of Agriculture Makurdi)

# FRANCIS SULEMANU IDACHABA LIBRARY

UNIVERSITY OF AGRICULTURE  
MAKURDI, NIGERIA

## OFFICE OF THE UNIVERSITY LIBRARIAN

### VICE - CHANCELLOR

**Engr. Prof. E. I. Kucha (KSM),**  
B. Eng. M. Eng (ABU), Ph.D. (MichiganTech, USA)  
Reg. Eng. (COREN), MNSE, MSES, MSAN

### UNIVERSITY LIBRARIAN

**Dr. A. D. Ugah**  
BLIS (ABU) MLIS (IMSU) PhD (UniUyo)CLN  
Certified Librarian by the Librarians' Registration Council of Nigeria.



Private Mail Bag 2373  
Makurdi, Nigeria.  
Tel: 044-534107

6/4/2017

**Ref:** \_\_\_\_\_


**Date:** \_\_\_\_\_

**Kutu Jacob Oloruntoba,**  
Ph.D Student and Researcher,  
Department of Information Studies,  
School of Social Sciences,  
College of Humanities,  
University of Kwazulu – Natal,  
Pietermaritzburg Campus,  
Private Bag X01, ScottsVillie, 3209,  
South Africa.

### APPROVAL LETTER

I write to inform you that an approval has been granted to you to conduct your research on the topic '*Availability and Utilization of Information Resources in Selected University Libraries in North-Central Nigeria*', in this University Library.

This approval is conveyed to you for your information and necessary action.

  
**Dr. A. D. Ugah**  
University Librarian



Appendix X: Letter of Introduction (**Federal University of Technology Minna**)



The University Librarian,  
Federal University of Technology Minna, Niger Stae, Nigeria.  
4<sup>th</sup> September, 2017.

Dear Sir/Ma,

Letter of introduction - Mr Jacob Oloruntoba KUTU

I am a registered full time PhD student (Information Studies) at the University of KwaZulu Natal. The title of my PhD research is “Availability and Utilisation of Information Resources as Determinants of Job Performance of Academic Librarians in selected University Libraries in North-Central Nigeria”. As part of the requirements for the award of a PhD degree is expected of me to undertake original research in an environment and place of my choice. The UKZN ethical compliance regulations require me to provide proof that the relevant authority where the research is to be undertaken has given approval. The outcomes of this study are expected to assist university library management and stakeholders in identifying problems that exist in the library and create room for innovations and creativity. It will also aim at informing policy makers to take decision on information resources, resource planning and capacity building for strengthening job performance among academic librarians.

I will appreciate your support and understanding to grant me this permission to carry out this research in your institution. In addition, please kindly send the approval letter to the below email addresses. The letter should be address to the candidate not the university.

Thank you in advance for your understanding

*Kutu Jacob Oloruntoba  
PhD Student and Researcher  
Department of Information Studies  
School of Social Sciences  
College of Humanities  
University of Kwazulu-Natal, Pietermaritzburg  
Campus, Private Bag X01, Scottsville, 3209, South  
Africa.  
Tel.+27762171054  
Email: Kutujacob82@gmail.com or 216021160@stu.ukzn.ac.za*



## Appendix XI: Gate Keeper Letter

# Federal University of Technology, Minna

P.M.B 65, Minna, Niger State, Nigeria.

**VICE CHANCELLOR:**

**Prof. Musbau A. AKANJI**, B.Sc. (Ibadan); M.Sc.; Ph.D. (Ife), FNSBMB

**UNIVERSITY LIBRARIAN**

**Dr. Jibril A. Alhassan**, BLS (ABU) M.Sc. (DELSU) Ph.D. (UNN) CLN



Tel: +234(0)66223275

Fax: +234(0)66220766

Telegram: FUTECH, Minna

E-mail: info@futminna.net

### OFFICE OF THE UNIVERSITY LIBRARIAN

**Our Ref:**

**Your Ref:**

17<sup>th</sup> April, 2017

Kutu Jacob Oloruntoba  
PhD Student and Researcher,  
Department of Information Studies,  
School of Social Sciences,  
College of Humanities  
University of Kwazulu-Natal, Pietermaritzburg Campus,  
Private Bag X01, Scottsville, 3209,  
South Africa.

#### RE-LETTER OF INTRODUCTION: MR. JACOB OLORUNTOBA KUTU

Please, refer to the aforementioned communication dated 4<sup>th</sup> April, 2017.

I write under instruction to convey the University Librarian's approval for you to carry out your PhD research in our esteem institution.

We wish that the opportunity granted you will expose your research to a greater expectations.

Thank you and wishing you a successful and fruitful research findings.

Isah Abdullahi Yahaya

Head, E-library

For: The University Librarian

Appendix XII: Letter of Introduction (**University of Abuja**)



The University Librarian,  
University of Abuja, Abuja,  
Nigeria.  
4<sup>th</sup> September, 2017.

Dear Sir/Ma,

Letter of introduction - Mr Jacob Oloruntoba KUTU

I am a registered full time PhD student (Information Studies) at the University of KwaZulu Natal. The title of my PhD research is “Availability and Utilisation of Information Resources as Determinants of Job Performance of Academic Librarians in selected University Libraries in North-Central Nigeria”. As part of the requirements for the award of a PhD degree is expected of me to undertake original research in an environment and place of my choice. The UKZN ethical compliance regulations require me to provide proof that the relevant authority where the research is to be undertaken has given approval. The outcomes of this study are expected to assist university library management and stakeholders in identifying problems that exist in the library and create room for innovations and creativity. It will also aim at informing policy makers to take decision on information resources, resource planning and capacity building for strengthening job performance among academic librarians.

I will appreciate your support and understanding to grant me this permission to carry out this research in your institution. In addition, please kindly send the approval letter to the below email addresses. The letter should be address to the candidate not the university.

Thank you in advance for your understanding

*Kutu Jacob Oloruntoba*  
*PhD Student and Researcher*  
*Department of Information Studies*  
*School of Social Sciences*  
*College of Humanities*  
*University of Kwazulu-Natal, Pietermaritzburg*  
*Campus, Private Bag X01, Scottsville, 3209, South*  
*Africa.*  
*Tel.+27762171054*  
*Email: Kutujacob82@gmail.com or 216021160@stu.ukzn.ac.za*

## Appendix XIII: Gate Keeper Letter

# UNIVERSITY OF ABUJA

P.M.B. 117  
ABUJA, NIGERIA

**Vice Chancellor**  
**Professor Michael U. Adikwu**, FAS, FPSN, FSTAN (Hon.), MIPAN  
B.Pharm, M.Pharm, Ph.D (UNN)



**University Library**

**Librarian**  
**Dr. (Mrs.) R. I. Echezona** CLN  
B.Sc Lib Sc./Bio, MLS, Ph.D (UNN)  
Email: ifeoma.echezona@uniabuja.edu.ng  
ifeoma.echezona@unn.edu.ng  
ifeomaechzona@yahoo.com  
Tel: +234(0)803 548 3000

Ref: UA/UL/AL/34

11<sup>th</sup> April, 2017

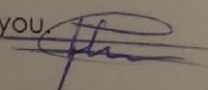
Mr. Kutu Jacob Oloruntoba  
PhD Student and Researcher  
Department of Information Studies  
School of Social Sciences  
College of Humanities  
University of KwaZulu-Natal, Pietermaritzburg Campus  
Private Bag X01, Scottsville, 3209  
South Africa.

### APPROVAL TO USE UNIVERSITY OF ABUJA LIBRARY FOR RESEARCH

Sequel to your letter dated 29<sup>th</sup> March, 2017 requesting permission to use University of Abuja Library for research.

I am happy to inform you that you have been given approval to use the Library for your PhD research.

Accept my highest assurances.

Thank you 

**Dr. (Mrs.) R.I. Echezona**  
University Librarian.

## Appendix XIV: Letter of Introduction (Univeristy of Ilorin)

The University Librarian,  
University of Ilorin Kwara State, Nigeria.  
4<sup>th</sup> September, 2017.



Dear Sir/Ma,

Letter of introduction - Mr Jacob Oloruntoba KUTU

I am a registered full time PhD student (Information Studies) at the University of KwaZulu Natal. The title of my PhD research is “Availability and Utilisation of Information Resources as Determinants of Job Performance of Academic Librarians in selected University Libraries in North-Central Nigeria”. As part of the requirements for the award of a PhD degree is expected of me to undertake original research in an environment and place of my choice. The UKZN ethical compliance regulations require me to provide proof that the relevant authority where the research is to be undertaken has given approval. The outcomes of this study are expected to assist university library management and stakeholders in identifying problems that exist in the library and create room for innovations and creativity. It will also aim at informing policy makers to take decision on information resources, resource planning and capacity building for strengthening job performance among academic librarians.

I will appreciate your support and understanding to grant me this permission to carry out this research in your institution. In addition, please kindly send the approval letter to the below email addresses. The letter should be address to the candidate not the university.

Thank you in advance for your understanding

*Kutu Jacob Oloruntoba  
PhD Student and Researcher  
Department of Information Studies  
School of Social Sciences  
College of Humanities  
University of Kwazulu-Natal, Pietermaritzburg Campus, Private Bag X01, Scottsville, 3209,  
South Africa.  
Tel. +27762171054  
Email: Kutujacob82@gmail.com or 216021160@stu.ukzn.ac.za*



## Appendix XV: (Gate Keeper Letter)

# UNIVERSITY OF ILORIN, ILORIN, NIGERIA

## THE UNIVERSITY LIBRARY

The University Librarian

**Dr. Joseph Olusegun Omoniyi**

B. A. (Hons), PGDE, M.A., M.Ed., M.P.A. (Ilorin),  
M.L.S. (Ibadan), Ph.D. (Ilorin)

*Please address all correspondence to the University Librarian*



P. M. B. 1515, ILORIN

Cables & Telegrams: UNILORIN

Telex: 33144 UNILON NG

PABX: 221590, 221687, 221691-4 Ext 419

e-mail: jsomoniya@yahoo.com

Our Ref:

5<sup>th</sup> April, 2017

Your Ref:

Date:

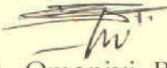
**Kutu, Jacob Oloruntoba,  
Ph. D. Student and Researcher,  
Department of Information Studies,  
School of Social Sciences,  
College of Humanities,  
University of Kwazulu-Natal,  
South Africa.**

Dear Kutu,

### **REQUEST FOR APPROVAL TO CARRY OUT RESEARCH.**

You have requested for approval to carry out your Ph.D. Research in our Library. I am pleased to inform you that your request is granted. This is in the understanding of the benefits that the outcome of the study will accrue to the Library, Staff and Clientele.

Accept the best assurances of respondents' willingness to cooperative with you in your research activities.

  
J. O. Omoniyi, Ph.D

## Appendix XVI: Letter of Introduction (University of Jos)



The University Librarian,  
University of Jos, Plateau State, Nigeria.  
4<sup>th</sup> September, 2017.

Dear Sir/Ma,  
Letter of introduction - Mr Jacob Oloruntoba KUTU

I am a registered full time PhD student (Information Studies) at the University of KwaZulu Natal. The title of my PhD research is “Availability and Utilisation of Information Resources as Determinants of Job Performance of Academic Librarians in selected University Libraries in North-Central Nigeria”. As part of the requirements for the award of a PhD degree is expected of me to undertake original research in an environment and place of my choice. The UKZN ethical compliance regulations require me to provide proof that the relevant authority where the research is to be undertaken has given approval. The outcomes of this study are expected to assist university library management and stakeholders in identifying problems that exist in the library and create room for innovations and creativity. It will also aim at informing policy makers to take decision on information resources, resource planning and capacity building for strengthening job performance among academic librarians.

I will appreciate your support and understanding to grant me this permission to carry out this research in your institution. In addition, please kindly send the approval letter to the below email addresses. The letter should be address to the candidate not the university.

Thank you in advance for your understanding

*Kutu Jacob Oloruntoba  
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College of Humanities  
University of Kwazulu-Natal, Pietermaritzburg Campus, Private Bag X01, Scottsville, 3209,  
South Africa.  
Tel.+27762171054  
Email: Kutujacob82@gmail.com or 216021160@stu.ukzn.ac.za*

Appendix XVII (Gate Keeper Letter)

**UNIVERSITY OF JOS**  
OFFICE OF THE UNIVERSITY LIBRARIAN

Vice-Chancellor

Professor Sebastian Seddi Maimako B.Sc., MBA, PhD, FCA

University Librarian

Stephen A. Akintunde  
{Dip Lib; B.Sc. (Hons.), M.Sc., PhD, PG Cert. (IM)}



P.M.B. 2084, Jos, Nigeria

Fax: 073073-611928-453734

E-mail: [librarian@unijos.edu.ng](mailto:librarian@unijos.edu.ng)

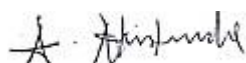
April 11, 2017

Kutu Jacob Oloruntoba  
PhD Student and Researcher  
Department of Information Studies  
School of Social Sciences  
College of Humanities  
University of Kwazulu-Natal  
Pietermaritzburg Campus Private Bag X01, Scottsville, 3209 South Africa.

Dear Kutu,

We are in receipt of your letter dated 6<sup>th</sup> April 2017 requesting to use the University of Jos Library as one of your research study areas. Your stated research topic is “Availability and Utilisation of Information Resources as Determinants of Job Performance of Academic

Librarians in Selected University Libraries in North-Central Nigeria”. Approval is hereby given for you to carry out your research in the University of Jos Library as long as data generated will be used for research purposes purely, and permission will be sought from the University of Jos concerning any use of such data otherwise. Best wishes.



Stephen A. Akintunde, PhD  
University Librarian  
Chairman, Nigerian University Libraries Consortium (NULIB)  
Tel.: +234 803 703 1004

## Appendix XVIII: (Ethical Clearance)



11 December 2017

**Mr Jacob O Kutu 216021160**  
School of Social Sciences  
Pietermaritzburg Campus

Dear Mr Kutu

**Protocol reference number: HSS/1738/017D**

**Project title:** Availability and utilisation of information resources as determinants of job performance of academic librarians in selected university libraries in North-Central Nigeria.

**Expedited Approval**

In response to your application dated 14 September 2017, the Humanities & Social Sciences Research Ethics Committee has considered the abovementioned application and the protocol have been granted **FULL APPROVAL**.

**Any alteration/s to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form, Title of the Project, Location of the Study, Research Approach and Methods must be reviewed and approved through the amendment/modification prior to its implementation. In case you have further queries, please quote the above reference number.**

**Please note: Research data should be securely stored in the discipline/department for a period of 5 years.**

**The ethical clearance certificate is only valid for a period of 3 years from the date of issue. Thereafter Recertification must be applied for on an annual basis.**

I take this opportunity of wishing you everything of the best with your study.

Yours faithfully

.....  
**Prof Shenuka Singh (Chair)**

/px

cc Supervisor: Dr Francis Garaba  
cc Academic Leader Research: Prof M Naidu  
cc School Administrator: Mrs N Mudau

**Humanities & Social Sciences Research Ethics Committee**  
Dr Shenuka Singh (Chair)  
Westville Campus, Govan Mbeki Building

Email:

Website:

1910 - 2010  
100 YEARS OF ACADEMIC EXCELLENCE

Founding Campuses

Edgewood

Howard College

Medical School

Pietermaritzburg

Westville



## Appendix XIX: Editorial Certification of Chapter One – Chapter Seven

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9 July 2020.

Dr Francis Garaba,  
Department of Information Studies,  
School of Social Science,  
University of Kwazulu-Natal, South Africa.

Dear Dr Garaba,

**EDITORIAL CERTIFICATION ON CHAPTERS ONE-SEVEN OF MR KUTU JACOB'S PhD  
THESIS**

I write to certify that an editorial review of the PhD thesis of Mr Kutu Jacob were edited by me as requested.

Thank you.

Yours faithfully,

A handwritten signature in blue ink, appearing to read 'A.B. Sunday'.

Dr A.B. Sunday.