AN ETHNOGRAPHIC STUDY OF THE UTILISATION OF ELECTRONIC LIBRARY DATABASES BY ACADEMIC STAFF IN NORTH-CENTRAL NIGERIA

KACHOLLOM MONDAY CHOLLOM

BLS (University of Maiduguri, Nigeria) MLIS (University of Ibadan, Nigeria)

Student Number: 217009140

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Supervisor: Dr Gbolahan Olasina

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DECLARATION

I **Kachollom Monday Chollom** declare that:

(i) The research reported in this dissertation/thesis, except where otherwise indicated, is my original work; (ii) This thesis has not been submitted for any degree or examination at any other university; (iii) This thesis does not contain other person's data, pictures, graphs or other information, unless specifically acknowledged as being sourced from other persons;(iv) This thesis does not contain other person's writing, unless specifically acknowledged as being sourced from other researchers. Where other written sources have been quoted, then:

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ABSTRACT

This ethnographic case study is an exploration of the utilisation of electronic library databases by academic staff in North-Central Nigeria. The motivation for this study stemmed from the researcher's experiences as a Subject Librarian as well as context-specific issues that arose from the existing literature. For instance, there was underutilisation of e-library databases by academic staff at the University of Jos, Plateau State, alongside similar institutions in North-Central Nigeria. Many previous studies on the use of e-library databases by academic staff in Nigerian universities were centred on the quantitative survey methodology. Hence, this study aimed to improve an understanding of the personal/individual experiences, environmental contexts and socio-cultural factors affecting academic staff e-library database utilisation, through ethnographic research.

Accordingly, the Symbolic Interactionist Ethnography-SIE underpinned the study. The application of the theory was anchored by the Interpretivist approach, which was supported by the execution of a case study method of research in which academics from the University of Jos, Plateau state and the FederalUniversity of Agriculture, Makurdi, Benue state were targeted. The probabilistic and non-probabilistic sampling procedures were used in selecting participants. Specifically, the purposive and stratified sampling methods were used. The qualitative research approach adopted for the study gave the researcher the opportunity to elicit detailed views of academics' perspectives on the phenomenon through observation, photovoice, semi-structured interviews, and focus group discussions. Also, documents were evaluated for triangulation of results. Data were thematically analysed according to the criteria for trustworthiness, such as credibility, transferability, dependability, and confirmability. A constant

comparison approach was used in the analysis of data. The study also compared findings from all sources of data collection and cases focused on in this study.

Consequently, the study's findings indicated academics engage with the e-library databases for research from their offices, as the office is their workspace that provides a suitable environment for the academics to engage in research and prepare for lectures.Thestudy's core results revealedacademics' leaning toward printed sources of information for teaching and research. The decision could be linked to their human nature, individual differences, and personalities, such as a resistance to change. The results revealed negative/unsatisfying experiences due to several limitations, such asinadequate skills, and library staff assistancein academics' use of online databases as the main reason for low use.Also, the results showed shared experiences with colleagues in the faculty influenced academics' use of e-library databases. The study further discovered a lack of interest in academics' use of online library databases as the main reason for low usage.

The study concluded that socio-cultural factors and environmental contexts affect academics' utilisation of e-library databases. Therefore, the study recommends that the university authorities scrupulously comprehend modern technology connected with the organisational culture and encourage academic staff of its value and benefits.There is as well the need for university libraries to develop e-database policies and frequently review and update the policies and practices associated with utilising e-library databases. The university management can do that by establishing interventions to tackle inappropriate e-library database use. Finally, actors in universities must be committed to integrating the socio-cultural work environment as an intended benefit (essential factor) in enhancing e-library database use.

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DEDICATION

I dedicate this thesis to God Almighty, who preserved and strengthened me, and to my husband, Monday Chollom Macgadongs, and my son Gadong Isaac Chollom.

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LIST OF ABBREVIATIONS AND ACRONYMS

ACRL: Association of College and Research Libraries

ASL: Academic Subject Librarian

DVC: Deputy Vice Chancellor

FGD: Focus Group Discussion

FUAM: Federal University of Agriculture Makurdi

HOD: Head of Department

IR: Institutional Repository

LIS: Library and Information Science

PC: Personal Computer

SI: Symbolic Interactionism

SIE: Symbolic Interactionist Ethnography

SIT: Symbolic Interactionism Theory

SL: Systems Librarian

SMT: Sense-making Theory

UK: United Kingdom

UKZN: University of KwaZulu-Natal

UniJos: University of Jos

USA: United State of America

UX: User Experiences

VC: Vice Chancellor

VRS: Virtual Reference Services

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CHAPTER ONE

INTRODUCTION

1.1 Introduction

The chapter presents the background of the study, the statement of the problem, objectives and research questions of the study. It also gives the significance of the study, scope and limitations, preliminary literature review, and the main theory guiding the research. Besides, it provides the paradigm that underpins the study and the diverse elements that make up the research methodology. The chapter concludes by providing the structure of the whole thesis.

1.2 Background of the study

The age of advanced technology and web development has heralded a huge transformation of the traditional library to an electronic library alongside the global information technology (IT) revolution. Thus, electronic library databases (e-library databases) have become an established component of many academic libraries' collections. According to Eiriemiokhale (2020), an electronic library database is a resource in which content is regularly revised and augmented. It provides current information and/or adds recently published sources and designs to give information ona particular topic instead of a range of issues. An online database is usually accessible from a network, including the internet (Verma, 2016). Most e-library databases are updated regularly as new journal issues are published and indexed. Several e-library databases employed in libraries comprise e-journals, e-books, catalogues, abstracting services, indexes, and reference resources purchased annually through licensing agreements that limit access to registered borrowers and library

personnel. In this study, the terms electronic library databases, e-library databases, online library databases and library e-databases capture the same meaning. Retaining the interchangeable terms is based on the fact that current literature captures them that way (Olowu, Suliman & Adedokun, 2020; Ismail, Khan & Ahmed, 2020; Mwantimwa, Mwabungulu & Kassim, 2021).

Accordingly, there are diverse types of e-library databases worldwide today, including statistical databases, images, bibliographic information, visual and scientific papers, book reviews, and conference papers. They can be full-text, directory, numeric, or multimedia, and they often contain journal articles, references to such articles, e-books, reference sources, conference papers and reports. Some libraries also subscribe to global e-library databases such as Scopus, SAGE Journals, Proquest, Xplore Digital Library, ERIC, Education Source, Emerald Insight, Academic Search Complete and IEEE, MEDLINE. The other conventional e-library databases Nigerian universities subscribed to are EBSCOHOST, AGORA, TEEAL, Bioone Online journal, Booksee, JSTOR, Elsevier Science direct, HINARI, Questia, OARE, and Scopus. Also, the National Universities Commission (NUC) has subscribed to some international and local journals and made them accessible to Nigerian Universities through its website - (www.nigerianvirtuallibrary.com) to improve teaching and research in universities in Nigeria.

The beginnings of e-library databases stemmed from initiatives such as the Mercury Campus Digital Library project at the Carnegie Mellon University (1987-1991), Bellcore Cornell University, OCLC and the American Chemical Society (1991-1995). Digitisation projects were a paradigm shift towards providing information in electronic formats (Khan & Ahmed, 2013). In 1993, the Association for Computing Machinery (ACM) initiated a database of

journal articles, conference proceedings, magazines and newsletters for its future publications. Wiley adopted such policies among others- Science Direct, JSTOR (digital contents in 1995), Academic Press, MIT Press, University presses, Library of Congress (digitisation project 1989-1994) and other large commercial publishers (Arms, 2005: 47-48, 54). Thus, this topic was selected to explore the current status of using the library e-databases among academic staff in universities in North-Central Nigeria to determine their needs. As a result, the university libraries can discover/ understand the right e-library databases to subscribe, and valuable information services to develop (Mahapatra, 2017; Anasuyi, 2017). This action can change the academic mindsets in an information environment where e-library databases are becoming more established for quality research.

Meanwhile, Ani (2013) defined utilisation as using available information resources effectively and efficiently for research and other purposes.Johnson et al. (2012) opined that utilisation is the regularity of users' information sources access. Furthermore, use is not meaningful unless connected to institutional outcomes (e.g., academic staff performance). The literature of e-library databases reported factors associated with their utilisation. These include human and socio-cultural factors. For instance, Alison, Kiyingi and Baziraake (2012) discovered utilisation was influenced by the teaching staff's busy schedules and negative attitudes. Conversely, Kiran and Diljit's (2012) findings revealed environment, delivery and outcome quality perceived by academic staff of four universities in Malaysia as key determinants to the use of e-library databases.

Accordingly, in the context of this study, utilisation is the adoption and the use of e-library databases by academic staff for teaching, research, and/or

community service. The use of these e-library databases by academic staff is expected to enhance teaching quality, paper presentation in conferences, publishing in reputable/ international journals, and be engaged in other professional and community activities (Hart & Kleinveldt, 2011; Kyvik & Aksnes, 2015). In other words, the use of library databases correlates with academics' research performance.

Expectedly, use will, in turn, lead to increased productivity since research involves generating new knowledge. Consequently, there is an expectation of anticipated research outcomes such as product, quality and reputation (DeLone & McLean, 2016). More importantly, these research activities can ultimately shape/ transform the nature of the academic environment (Blewitt, 2015). Moreover, since universities spend considerable funds on the payment of e-library databases, it is only fitting and cheap that these databases are optimally utilised. The outcome can contribute to students' and faculty's academic achievement and get value for money (Kwadzo, 2015). In view of that, the current research unraveled human, social and cultural contexts that disrupt the optimal utilisation of e-library databases. Undoubtedly, this research sheds more light on better understanding how the library databases frame the future academic staff.

For this study, academic staff comprise lecturers, Academic Subject Librarians (ASLs), and Systems Librarians of the universities involved in teaching, research, and community service. As a result of the teaching roles of ASLs as instructors to prepare and teach the online library database use and effective academic research strategies, they are categorised as academic/teaching librarians (ACRL, 2017).

The importance of e-library database-driven research by the academic staff cannot be overemphasised. Naturally, research facilitates and renews academics' knowledge, which they can impart in teaching and other academic activities. Academic staff must take advantage of these e-library databases to be more productive, perform better, and achieve the university's set goals. Thus, the growing preference for electronic information databases over the print resources in some higher institutions of learning is an indicator of academic staff acceptance of the e-library databases (Leonard, Hamutumwa & Mnubi-Mchombu, 2020).

Despite the consensus about the importance of e-library databases, their utilisation needs research attention (Lwoga & Sife, 2018) since significant problems remain in utilisation of e-library databases globally and in the developing world (AlHamad & AlHammadi, 2018; Anyim, 2018). Scholars (such as Kandasami &Vinitha, 2014; Ali et al., 2016) have surveyed academic staff's use of e-library databases in universities. The studies found that academics have embraced the use of e-library databases with great enthusiasm. Despite the earlier mentioned studies, there remain multiple context-specific issues challenging utilising the e-library databases.

Regardless of these challenges, e-library databases are vital, especially if they are up-to-date and can be accessed remotely, crossing all geographical boundaries. Such online library databases are very valuable and time-saving while conducting research activities. Users prefer the digital library over the traditional library system for its qualities, such as easy and rapid access to information, interoperability, highly serviceable and appropriate storage devices (Sonkar, Singh & Kumar, 2014; Kumar, 2017). Despite the benefits of e-library databases, academic staff still face challenges in using them.

Universities' adoption and use of e-library databases can improve the quality of education and help their academic staff and students contribute to educational research (Anam et al., 2017; Anasuyi, 2017). In recent years, educational systems have transformed research, and now several traditional university research education has become modernised through their adoption and utilisation of university library databases. As a result of these changes, some academic staff and other research scholars have adopted library databases in developed and developing countries. The changes are to get the most recent information about new research fields and trends (Verma, 2016; Khan & Bhatti, 2015). According to Ani, Ngulube and Onyancha (2015), within the last two decades, several universities in Nigeria have witnessed the adoption and application of digital resources by providing platforms for utilisation of information to enhance research by academic staff across faculties.

Several authors (Larson, 2017; Kwafor, Osman &Afful-Arthur, 2014; Nwokedi, Nwokedi, Chollom & Adah, 2017) have investigated e-library database utilisation. For example, Larson (2017) surveyed faculty awareness and utilisation of e-library databases in the University of Education, Winneba, Ghana. The findings showed that most faculty members used the e-library databases for research and other educational purposes. Hindrances to the databases' use included the inability to access the e-library databases outside the campus and passwords to some of the databases not being active. In another study, Kwafoa, Osman and Afful-Arthur (2014) investigated faculty's awareness and usage of online academic databases in the University of Cape Coast using the survey method. They reported that faculty members depended highly on the e-library databases, to support their teaching and research. Also, the study reported the low patronage of the library's online academic databases

by the staff. Furthermore, the respondents were satisfied with the available e-library databases. Among university lecturers in Nigeria, Nwokedi et al.'s (2017) study of Elsevier e-library database use among academics in University of Jos, Nigeria, revealed low patronage of the resource by the lecturers.

Given the preceding,authors have proffered some suggestions on ways to enhance the utilisation of e-library databases. These incorporate a need to understand human and socio-cultural factors (Pineda, 2014; Tolba & Mourad, 2013). Human behaviour refers to people's actions or reactions usually about the environment (Singh, 2016; Redy, 2016). On the other hand, culture consists norms, beliefs, customs, values, attitudes, opinions, and other psychological constructs. Scupin (2008) noted that culture is an expected behaviour that is learned from the society into which one is born, or in which one becomes embedded. Dhiya and Hussain (2014: 37) observed that particular society or community might accept certain values while rejecting others. The decision is due to the nature of a specific individual or grouping of individuals. It can also be due to the social, intellectual, religious and political background of the wider society/community. Socio-cultural factors are the obliges contained by cultures and societies that have an effect on the thoughts, feelings and behaviours of people. There is a relationship between cultural factors and technology adoption (Eseonu & Egbue, 2014).

Ziefle and Jakobs (2010) found out that people use technology within a cultural and social context- and these influence their behaviours towards technology. These demonstrate that cultural background plays a vital role in affecting the acceptance and use of technology. Understanding the existing utilisation of e-library databases by categories of users is framed by cultural and social context (Pineda, 2014). Accordingly, the current study uses the lens

of academic staff to improve our understanding. Western culture has played a significant role in developing new technologies. They may present ICT to non-western societies in forms that are not necessarily appropriate for non-western cultures (Dhiya & Hussain, 2014). In essence, this might affect people's interactions with the system, leading to computer apprehension, emotional issues, unique novelty, and trustworthiness (Boroujerdi & Wang, 2013). Therefore, understanding socio-cultural factors is crucial in developing and incorporating e-library database utilisation strategies/ interventions for universities' academics (Borkovich, Breese-Vitelli & Skovira, 2015). Evidence from literature demonstrates that surveys fall short in providing a comprehensive understanding of user human and social needs about library service and quality (Goodman, 2011; Ramsden, 2016). Besides, the previous studies focused on facilitating conditions, technical and infrastructural factors, but little reported on human and socio-cultural factor-led experiences, which is the issue here(Cruz-Cárdenas et al., 2019; Izuagbe, 2021; Lai, Wang & Huang, 2022).

Thus, this study adopts an unusual approach in the library and information science ecosystem, an ethnographic study to unravel the myths surrounding utilising e-library databases by academics. The application of ethnography in Information Science research is rare (Twiss-Brooks et al., 2017). Ethnography has the potential to yield much richer data on human, social and cultural contexts than survey answers alone. Afterall, innovative and creative study designs generate new data to transform our understanding of the phenomenon. Accordingly, originality is established using some criteria approved by Hockey (1994) and Edwards (2014). For instance, apart from using an ethnographic perspective, the study proposes the incorporation of novel data collection tools within the framework of ethnography (See full details in the

methodology section). As a result of this unusual choice of research design in the area of study, it is critical to reflect the choice of research design in the title of the study. Equally, it is crucial to introduce ethnography early on instead of doing so exclusively in the section on methodology. An ethnography is a research design that examines the behaviour in specific social situations, and people's understanding and interpretation of their experiences (Wilson & Chaddha, 2009). As a result of focusing mainly on details of individuals' experiences, ethnography allows the researcher to see beyond received understandings of how a specific process or situation is supposed to work or what it is supposed to mean, and learn about the meanings that its participants ascribe to it (Asher & Miller, 2011). The ethnographic study provides unique perspectives into academic staff's perceptions on e-library databases utilisation in universities in North-Central Nigeria.

1.2.1The study site

Nigeria is in West Africa, located along the Eastern Coast of the Gulf of Guinea, just north of the Equator. It is bordered by the Republic of Benin on the West, Cameroon in the East and on the North by Chad and Niger. Nigeria is organised into 36 states and a federal capital territory (FCT) in Abuja. The higher educational institutions in Nigeria are spread to every sub-region of the Country. The owners of universities in the country are federal and state governments (for federal and state universities) and corporate and religious bodies (for private universities). There are six geopolitical zones in Nigeria: North-Central, North-East, North-West, South-East, South-South and South-West (Ibrahim & Ibrahim, 2014).

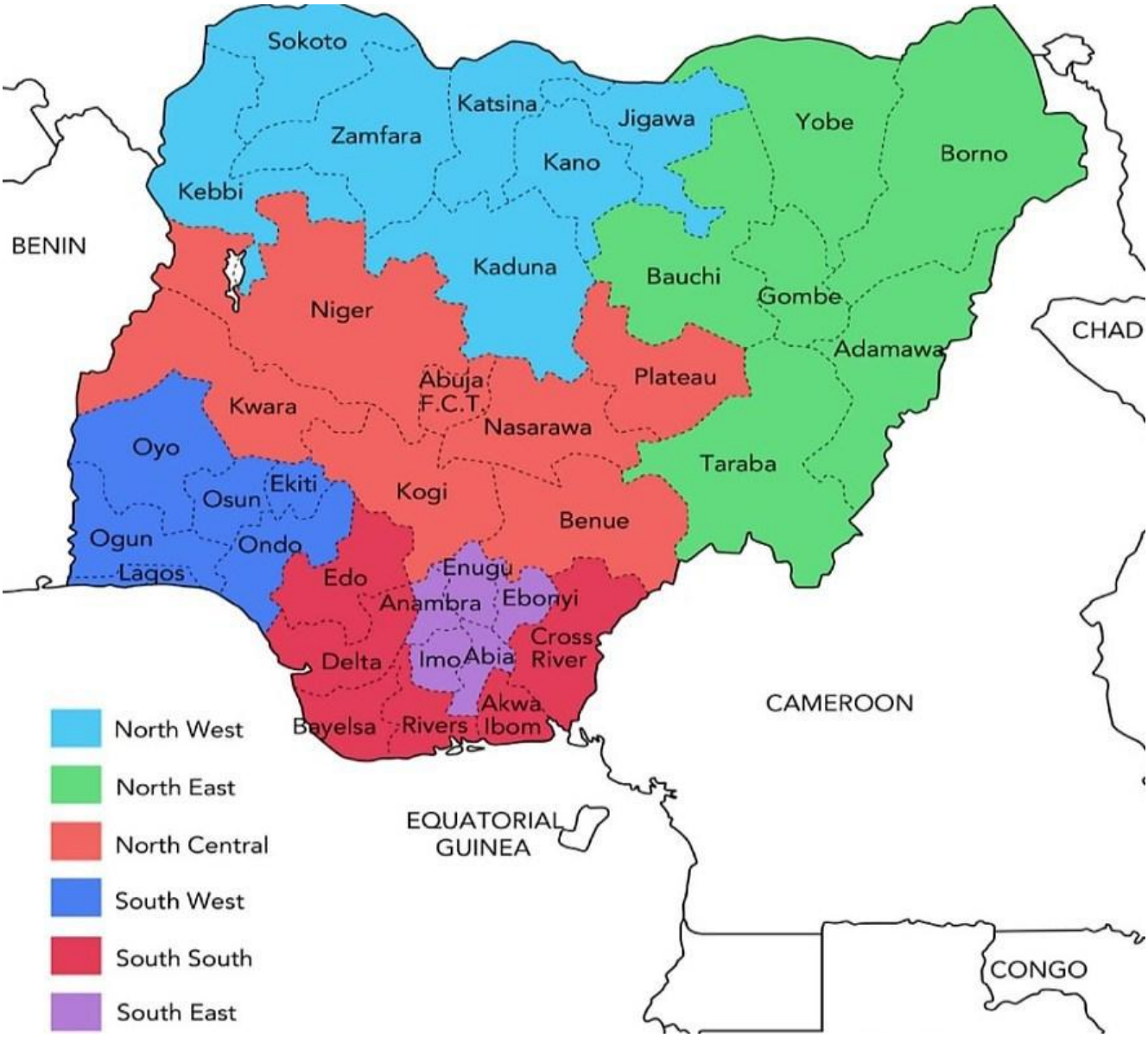


Figure 1.1 Map of Nigeria showing the six Geopolitical Zones
(https://www.google.com/search?q=www.map+of+nigeria&client=firefox-b-d&sxsrf=ALeKk01lJ-mGqYttxTGT-)

The study was carried out in the North-Central zone of Nigeria, also known as the Middle-Belt region. This geopolitical zone comprises six states: Benue, Kogi, Kwara, Nasarawa, Niger, Plateau, and the FCT- Abuja. To the West, it is situated geographically around the confluence of the Rivers Niger and Benue

(See Figure 1.1). The study's contextual setting is the academic staff at two federal universities in North- Central Nigeria: University of Jos (UniJos), Plateau State and Federal University of Agriculture, Makurdi (FUAM), Benue State. The University of Jos started as a Campus of the University of Ibadan in November 1971. The university's take-off was at the present Township Campus of the University, located along Murtala Mohammed way, Jos. It became an autonomous university in September 1975 (Mangvwat et al., 2015). UniJos has always taken the lead in ICT (UniJos and Carnegie Report, 2013). For example, UniJos constructed all-inclusive ICT communications in 2006, which provided a source for novel learning with technology (UniJos and Carnegie Report, 2013). The UniJos Library began as a campus Library in 1972. The library offers services at three locations:

1) the Bauchi Road Campus, which has two service points- the Law Library at the Law Faculty and the Main Library that services Agricultural Sciences, Engineering, Basic Medical Sciences, Nursing Sciences, Natural Sciences, Pharmaceutical Sciences, and Veterinary Medicine; 2) the Medical Library at the Permanent Site of the Jos University Teaching Hospital, Lamingo, for Medical Sciences; and 3) the Naraguta Campus Library that caters for the Faculties of Arts, Education, Environmental Sciences, Management Sciences, and Social Sciences.

Like libraries globally, UniJos library has continuously made changes to stay abreast with the most recent advances in IT to improve its services to users. Consequently, the library is concerned with constant interaction between librarians and library patrons to enhance library resources' efficient use. Moreover, the library has been significantly transformed from a manually operated library into an increasingly digital environment. All the libraries offer

wired and wireless access to electronic resources (Akintunde, 2016). The libraryhas also subscribed to important online databases. It is visible on the library's website: www.unijos.edu.ng.

Similarly, following the National Universities Commission (NUC) initiatives and reports on the establishment of Universities of Agriculture in Nigeria, the FUAM was established on 1st January 1988 following the 1987 Federal government white paper's recommendations. The decision was against the background of the success stories of Agricultural Universities worldwide. According to Indachaba (1992), central to the establishment of these Universities is introducing innovative approaches to research and training. This initiative has significantly resulted in the enhancement of agricultural production. Afterward, the FUAM Library started in 1988 (Ukih, 2012). The library possesses a variety of e-databases for teaching and research. These are also available from the website: https://librarytechnology.org/library/58143. Besides, with the rapid growth of electronic information resources collection, the FUAM Library has created policies for promoting and aiding their usage. As expected, the study provided further details on the site selection procedure and the justification in the methodology section.

Examples of the online library databases available in UniJos include EBSCO HOST, JSTOR, EconBiz, IMF eLIBRARY, Proquest, Questia, and SAGE Open. On the other hand, FUAM has EBSCO HOST, Questia, OARE, TEEAL, and Research for Life (See details of the available e-library databases in sections 4.5.1 and 4.5.2 of chapter four and the U1 monthly usage trend of EBSCO HOST in table 5.5 in section 5.4.2 of chapter five). Despite the availability of these e-library databases in the two selected libraries, they are underutilised.

1.3 Statement of the problem

The use of e-library databases by academic staff is accepted globally as contributing immensely to academic staff research work (Abdullah, Othman &Tamrin, 2019). Articles in online library databases come from publishing groups and are peer-reviewed for correctness and trustworthiness before publication (Nwone, 2017). Due to academics' need for high quality and accurate information, they need to rely on authentic/credible teaching and research sources.

Although Google search engines offer opportunities in addition to those provided by the subscribed library databases for information resources, their value for academic research is doubtful (Bates et al., 2017). Also, despite the Google search engine's ease of use, e-library databases provide more professional research satisfaction for academics (Abdullah, Othman &Tamrin, 2019). E-library databases should be "the first start for any academic research assignment, whether academics are searching for background or biographical information, a basic overview, or in-depth research coverage" (Monash University, 2017).

However, based on the researcher's personal experiences as an Academic Subject Librarian (ASL) and general observation, e-library databases are underutilised by academic staff at the University of Jos, Jos and similar institutions in North-Central Nigeria. As a result, such anecdotes and experiences of academics in the use of e-library databases and underlying patterns and relationships need to be put under the eye of scholarly analysis (Massaro et al., 2021). Although previous studies covered technical, infrastructural, finances and facilitating conditions, little is known about these socio-human experiences and associated characteristics (Izuagbe, 2021; Mugo

& Mathu, 2021). Besides, an analysis of the use of e-library databases in the developing countries reveals low utilisation by academics (Dolo-Ndlwana, 2013; Obasuyi & Okwilagwe, 2016; Nwokedi et al., 2017; UniJos, 2017; UniJos Library Subject Librarians Annual Reports, 2016-2017; Iroaganachi & Izuagbe, 2018). However, many university libraries do not keep reliable statistics of their users and use. For example, Hoskins (2010) and Sejane (2017) agreed that academic libraries do not maintain statistics on electronic information resource use. The low adoption, use rates, and how utilisation may be reshaping the academics' schedules can affect the sustainability of the e-library databases by organisations that fund the project. In other words, the international donors and organisations that fund much of the delivery of online library database services (covering subscription charges, infrastructural support, user training, and logistics) in sub-Saharan Africa can rethink the e-library database sustainability agenda for Nigerian institutions; given the analytics of use.

There are broad perspectives of information systems, e-library databases, and their utilisation (Olasina & Popoola, 2014). For instance, vendors, other service providers, and categories of users – students and librarians have their views and dimensions of utilisation and improvements. Deja, Rak and Bell (2021) and Durrant (2021) discussed opportunities, conceptual and revolutionary issues for some in the landscape of e-library databases. While others view working in data-rich environments such as e-library databases as nothing new, some view the service as similar to print sources (Medeiros et al., 2021; Leighton, Cui & Cutumisu, 2021). It is critical to regularly explore these different perspectives in the ecosystem of the culture and practice of utilisation from the lens of academics (Goss, 2022; Durrant, 2021). Another problem that often arises is differences in perspectives even among academics themselves

(Massaro et al., 2021). The current study illustrates some of these multiple perspectives.

A substantial number of previous studies on e-library database use by academic staff in Nigerian universities were centered on the quantitative survey methodology. Some of such studies comprise those of Aina, 2014; Egberongbe, 2016; Amusa and Atinmo, 2016; Nwokedi et al., 2017; Iroaganachi and Izuagbe, 2018. In light of this, Mellon (1986) and Ramsden (2016) suggested that not all answers within the library environment are quantitative. In like manner, as earlier mentioned, Goodman (2011) attested that librarians share that surveys fall short when providing a comprehensive and rich understanding of human and social contexts of users about library service and quality. Goodman recommended that librarians and interested researchers to enhance library services may adopt qualitative studies. These studies include observing users, interacting with users regarding library use, focus groups discussions, and organisation/ institutions' documents (Fatzon, 2016).

Therefore, there is a need to use a frame of culture, human components and social environment of academic staff to understand utilisation of the e-library databases (Pineda, 2014; Lekhanya, 2013). Hence, an ethnographical perspective was used for the study to shed new light on an old subject remaining unsolved and not well understood.

1.4 Objectives of the study

The overriding purpose is to investigate the utilisation of e-library databases by academics in North-Central Nigeria through ethnographic research. Accordingly, the specific objectives are to:

1. establish the perspectives of academic staff on the utilisation of e-library databases;
2. ascertain how utilisation of the e-databases shape the academic life of academics;
3. identify how utilisation of the e-library databases can be enhanced.

1.5 Research questions

1. What ways do academic staff engage with e-library databases in the selected universities?
2. How has the utilisation of e-library databases shaped the academic life of academics?
3. What are the perspectives of academic staff on the low utilisation of e-library databases?
4. What are the nature and characteristics of experiences of academic staff in the use of e-library databases?
5. How do socio-cultural factors affect the utilisation of e-library databases by academic staff?
6. How can utilisation of e-library databases be enhanced?

1.6 Significance of the study

The study significantly contributed to theory by illuminating the predictive influence of the Symbolic Interactionist Ethnography (SIE) on academics' use of online databases. After all, the research made a major/ momentous contribution towards producing a template for enhanced e-databases use by academic staff in universities in North-Central Nigeria. The study was useful to university library administrators; provided new insights to improve services and enhance e-databases use by academic staff through providing the best fit of utilisation interventions to suit cultural and social contexts of the users. Furthermore, the results of the study provided "soft data"- that can give

insights into the improved framework, policy planning, delivery, monitoring and evaluation. The new insights will enhance the use of the e-library databases by academic staff, improving quality research outputs, teaching, and community services.Consequently, the academic products of the universities will have the potential to be of high quality and standard, based on an improvement of our understanding of the utilisation of e-library databases. Also, the ethnographic study was expected to lead to theoretical contributions by shedding new data to extend our understanding of theory in the context of e-library database utilisation. Lastly, bearing in mind that not much has been documented on ethnographic studies in the domain of library and information science (LIS) in the developing world, especially Nigeria, this study complemented the literature of e-library databases use and LIS research in general.

1.7 Scope and limitations of the study

The contextual setting of the study was the academic staff at the University of Jos (UniJos), Plateau State and the Federal University of Agriculture, Makurdi (FUAM), Benue State, both in Nigeria. As earlier indicated, these two federal universities were purposively selected for the study because they are among the oldest universities in the North-Central zone of Nigeria (NUC, 2018). Also, both universities have the required infrastructure as well as the academic workforce to meet the demands of the study. The study was further limited to academic staff (lecturers, Academic Subject Librarians and Systems Librarians) of the two Universities. Still, the study was narrowed to the utilisation of e-library databases by academic staff. Other electronic resources, such as the Online Public Access Catalogue, Institutional repository and other e-books were exempted.

In addition, this qualitative study is on academic staff in universities. In this regard, the results of this study cannot be generalised. Again, the researcher's position as an ASL affected data collection and data analysis in studying the e-library databases' utilisation by academic staff as the researcher approached the study with some knowledge about the phenomenon. In this situation, the researcherwas partial in addressing specific issues due to her experiences. The present researcher's position also affected participants' expressions. For example, they repeatedly left some sentences incomplete, assuming that the researcher knew the remaining story.

1.8 Preliminary literature review

The study reviewed previous studies by drawing from both empirical and theoretical perspectives. The exploration sourced preliminary literature from books, journals, conference proceedings, theses, technical reports, and online databases, such as EBSCOhost, ProQuest, LISA, Elsevier Science Direct, Emerald Insight, Scopus and Sage. It is essential to gain insight into the scholars' views on the subject area, thereby laying the foundations for more robust research.

Most of the literature reviewed was undertaken in Western countries (USA, United Kingdom, Australia, Canada), African Continent (South Africa, Ghana, Tanzania, Zimbabwe, Ethiopia, and Uganda) and Nigeria (Northern Nigeria, North-Central Nigeria, South-Western Nigeria, and South-Eastern Nigeria). Additionally, attention by previous studies on the research performance of academics has largely been on publication output, especially in Nigeria (Okiki, 2013; Ani, 2013; Smith, Crookes & Crookes, 2013; Sarrico & Alves, 2016; Rafi, Ming & Ahmad, 2018; Iroaganachi & Izuagbe, 2018). There are other

academic obligations that e-library databases research by academics could transform.

E-library databases' utilisation by academics contributes immensely to academic staff research work. Nevertheless, based on the researcher's experiences as an Academic Subject Librarian (ASL) and general observation, e-library databases are underutilised by academic staff at the University of Jos, Jos, similar institutions in North-Central Nigeria and many developing countries. Studies earlier reviewed regarding methodology, revealed extensive use of the quantitative survey approach to assess the utilisation of e-library databases by academic staff. These studies lack in-depth perspectives of the participants' experiences and an understanding of human, social and cultural contexts in the use of e-library databases. Thus, additional qualitative insights into understanding academic staff utilisation of e-library databases are necessary (Goodman, 2011; Seadle, 2011; Bryant, Matthew & Walton, 2009; Atkinson, 2015; Ramsden, 2016). Furthermore, barriers reported at length to the use of e-library databases have a technological focus.

This research study will add to the existing literature by producing results that will give a new understanding of the use of e-library databases by academics in universities. The current study addressed the gaps in literature through the research questions as summarised in Table 1.1:

Table 1.1:Gaps in literature and how these are addressed

S/N	Gaps in Literature	Research Questions
1.	Focus by previous studies on the research performance of academics has largely been on publication output, especially in Nigeria. There are other academic engagements that e-library databases research by academics could transform.	How has the utilisation of e-library databases shaped the academic life of academics?
2.	Methodologically, studies on utilisation of e-library databases have extensively utilised quantitative approaches, especially in Nigeria.	What are the perspectives of academic staff on the low utilisation of e-library databases?
3.	Technical factors, such as low internet connectivity; lack of IT skills; dysfunctional passwords as factors affecting the use of e-library databases are reported at length. There is an urgent need to use the lens of socio-cultural contexts to view these barriers and discover new ones for alternative trends to emerge.	How do socio-cultural factors affect the utilisation of e-library databases?
4.	Most recommendations outlined in the literature, especially in the regional and Nigerian contexts failed or did very little to aid utilisation. Other novel suggestions for enhancement of the university e-library databases use are gained by this study.	How can the utilisation of e-library databases be enhanced?

1.9 Theoretical lens for the study

There were two theories considered for the study. These include Sense-Making theory (Dervin, 1992) and Symbolic Interactionist Ethnography, SIE (Tan, Zhu & Wang, 2003). Ultimately, the latter-SIE choice was adopted based on the theory selection procedure approved by Creswell (2014; 2018). Also, the SIE encapsulates the relevant constructs of the theories earlier mentioned.

Accordingly, the SIE came out of Symbolic Interactionism, a theoretical framework and perspective in sociology that addresses the society's creation and interaction through communication among individuals. Symbolic interactionists' attention is on interpreting personal opinions and how individuals make sense of their world from their sole viewpoints. The interactionist ethnography technique can investigate the complex issues of approval or resistance of implementing new and evolving ITs with ease and insight (Tan, Zhu & Wang, 2003). Hewitt (2002) categorised the constructs of SIE into seven basic concepts: Symbols; Objects; Acts and Social Acts; Self and the Control of Behaviour; Roles and the Definition of Situations; Role making and Role taking; and The Place of Emotions (See full details in the section on the theoretical framework).

1.10 Methods

The study adopted the interpretive paradigm. As earlier mentioned, ethnography was the adopted research design for the study. Related studies that have used the ethnographic approach include those of Gourlay, Lanclos and Oliver (2015), Twiss-Brooks et al. (2017), Tewell et al. (2017), and Wray and Foster (2018). It should be noted that although these studies utilised ethnographic methods, none was based on a developing country's environment. As a result, this ethnographic study provided a unique opportunity into academic staff's perceptions on e-library database utilisation, through observation, photovoice, semi-structured interview, and focus group discussions. Full detail of the methodology is found in chapter four of the thesis.

1.11 Thesis outline

The study was divided into the following chapters:

Chapter One: Introduction

The chapter provided a background to the study stressing the significance, aims and objectives, scope and limitations, the definition of key terms, research design, preliminary literature and methods, and the research questions to be addressed.

Chapter Two: Theoretical framework

Chapter two presents an explanation to theories that are associated with the study. The Symbolic Interactionist Ethnography–SIE developed by Tan, Zhu &Wang (2003) is the theoretical approach that underpinned the study.

Chapter Three: A literature review move to the next page.

Chapter three provides empirical and theoretical literature reviewed with specific emphasis on the concept of e-databases use in universities.

Chapter Four: Research methodology

The chapter presents an explanation of the chosen research methodology. The discussion focuses on the critical research paradigms. Also, the chapter provides details of research design, study population, sampling techniques, and the data collection methods and analysis.

Chapter Five: Data presentation, analysis and discussion of findings

Chapter five presents data analysis and the presentation of data findings related to the research questions. The chapter also focuses on discussing and interpreting research findings using the theoretical framework, research questions, and literature. The presentation will be mostly descriptive with visual representations.

Chapter Six: Summary, conclusions and recommendations

The chapter concludes the study by providing a summary of the research findings. Based on these findings, proffer a number of recommendations and make suggestions for further studies.

1.12 Summary of chapter

The chapter provided the entry to the study with a discussion on the different elements of the thesis. The study's motivation stemmed from the researcher's personal experiences as a Subject Librarian and general observation. It has been observed that the e-library subscribed databases are underutilised by academic staff in the University of Jos, Jos and similar institutions in North-Central Nigeria. The study employed ethnography for data collection to have a personal and socio-cultural understanding of complexities surrounding or informing the agenda of academics for e-library database use. The overriding objectives set out to guide the study are to establish the perspectives of academic staff on the utilisation of e-library databases and identify how utilisation of the databases can be enhanced. The contextual setting of the study covered academic staff at UniJos, Plateau State and FUAM, Benue State. The result from the study improved practice, informed policy, influenced the academic environment and extended theory in the field of e-library databases utilisation in universities based on a developing country context. Also, the paradigm and theory that underpinned the study were introduced. A summary of subsequent chapters were discussed as well. Chapter two presents the adopted theoretical framework for the research.

CHAPTER TWO

THEORETICAL FRAMEWORK

2.1Introduction

The chapter presents the theoretical framework for the study. It comprises an analysis of the key theory that underpins the research. A theoretical framework is a general theoretical system with assumptions, concepts and forms of explanations (Neuman, 2011). Bwisa (2015) describes a theoretical framework as the relationship between variables and guide for the research by establishing what has to be measured. According to Pettigrew and Mckechnie (2001), a theory is a lens that inspires and guides research achievements in a tangible way and a rational construct that guides the discussion in research and other academic engagements. The application of theory in research guides the process of the study. The primary function of a theory is to provide a specific form and order to an area of inquiry and thus facilitate empirical data collection and analysis. Ocholla and Le Roux (2011) agreed that a theoretical framework brings to light the research question or hypotheses of a study, line of investigation, and the methodology directing the research. A theory is significant as it provides a particular perspective by which the researcher can understand and interpret the data. For Manda (2002:95), theoretical frameworks are fundamental components of developing theories in any discipline. Theory helps the researcher to discover the constructs in a study and propose relationships to be tested or a specific relationship with other constructs (Pedhazur & Schmelkin, 1991). Finally, a research plan is containing a theoretical framework results in a robust and structured thesis, with an organised flow of ideas (Grant & Osanloo, 2014).

The study aims to improve the utilisation of e-library databases by academics in North-Central Nigeria through ethnographic research. Accordingly, in information science (IS) research, researchers have employed theoretical perspectives in different studies over time to illuminate various facets of a phenomenon. In the same way, the study reviewed relevant theoretical frameworks following a procedure approved by Creswell (2014; 2018). The earlier cited scholar maintained that selecting a theory should depend on its appropriateness, ease of application, and explanatory power. Besides that, the process of theory selection in qualitative research, advocated by the preceding author entails: First, a theory can be used as an extensive clarification for conduct and mindsets. It may likewise be comprehensive, including variables and hypotheses, just like in quantitative research. Secondly, researchers can use a theoretical perspective to become familiar with the phenomenon. Specifically, theory can be created from the data, the same as in grounded theory. Thirdly, explicit theories are not used in qualitative studies in special cases, similar to phenomenology (Creswell, 2014: 98; 2018). Thus, for this study, the theory appeared initially as an orienting lens and was modified and extended based on participants' views. As advised by Schwandt (1993), the previous theoretical formation determines the commencement of all observations in qualitative research.

Accordingly, the study followed the theory selection procedure, earlier mentioned by reviewing some related theories, including those the study did not use. Hence, the study reviewed two theories: Sense-Making theory (Dervin, 1992), and Symbolic Interactionist Ethnography (Tan, Zhu & Wang, 2003). Ultimately, the choice of the latter-SIE was adopted based on its suitability to explore the questions in the current research. While the other mentioned theoretical perspective could also be appropriate in informing the

ethnography method, the SIE choice is premised on the fact that it encapsulates the relevant constructs of the earlier mentioned theory. Moreover, this theoretical perspective undoubtedly brings to light various views connected to different individuals, enabling the researcher to better grasp the intricacies of e-library database use in universities. Furthermore, because the chosen theoretical perspective is unusual in IS empirical research, applying it offered new insights.

Firstly, a brief review of the potential theoretical perspective is presented. Subsequently, an examination of the theory (SIE) used for the research was presented; encompassing the theory's context, core arguments, and main constructs. Critiques of the theory and studies that refuted the critics were as well discussed. Above all, the justification for the chosen theoretical framework was presented together with some previous studies that equally adopted the SIE. Lastly, the SIE constructs were mapped to the research questions of the present study.

2.2 Sense-making theory

Sense-Making Theory (SMT) was propounded by a communication researcher, Brenda Dervin, in 1992. Sense-making is "a set of meta-theoretical assumptions and propositions about the nature of information, the nature of human use of information, and the nature of human communication" (Dervin, 1992:61-62). Though SMT was originally an off-shoot of Dervin's work in communication research, many scholars have employed this approach for research in diverse disciplines (Spurgin, 2006:1). Therefore, researchers that employ the SMT for investigating users' information behaviour can ascertain their approaches, anticipations, attitudes, and concerns about their work (Liu, 2013:1). Because of that, the sense-making approach has the potential for doing methodology. It recommends suitable structuring techniques,

assembling data, and carrying out analyses to obtain substantial theory (Spurgin, 2006). Dervin's (1983, 2008) SMT focuses further on how to devise systems that can be receptive to a person's needs (Dervin, 2008: 6). Rodriguez (2014) agreed with Dervin that the SMT does not enforce precision. The theory however, allows the actor to produce a context of understanding based on his/her viewpoint. More importantly, this theory could ease the understanding of how people adopt or do not adopt information services and resources in the workplace (Rodriguez, 2014: 47; Tideline, 2005:113).

The primary constructs of the theory are Situation, Gap, Bridge, and Outcome. The Situation is the cause of the need for information. The Gap is the question which the actor seeks to address. The Bridge is the solution made up of various helps or sources that enable the actor to overcome his/her problem. The Outcome is the result of a bridge. It could be an answer/solution or another gap or problem (Dervin, 2008). Rodriguez (2014) employed the SMT to study the information behaviour of international students relating to their information-seeking and searching behaviours within a library context. A fundamental drawback of the SMT that makes it fruitless in many areas of IS noted by Rodriguez is that; the person, in theory, plays the role of information seeker instead of an eyewitness. As a result, a researcher has to be resourceful to study sense-making from an information producer or mediator (Kari, 1998). Similarly, authors (Savolainen, 1993a:12; 2006; Tuominen, 1994:67) have criticised the situational view of SMT for its solipsism (i.e., the self is all that exists).

Another gap in employing the SMT was noted by Kari (2001). The study explored the information action in the context of supernatural occurrences and then developed an information action model from the data generated. He

however, discovered the theory offers no methodical guideline for constructing theories. Kari also observed that the fuzziness of SMT has caused misconception and misuse of the theory in a number of researches. Furthermore, Smith (2008) explored the information needs and communicative behaviours of female Afghan refugees in San Francisco. Methodologically, Smith identified a gap in utilising SMT about non-Western people (2008: 307). Specifically, he observed that the behaviour of particular cultural groups further than a Western cultural context is needed for new applications of SMT. The previous author further noted that if people hold principles, such as group harmony, more important, the information-seeking effort might not occur naturally to them (Smith, 2008: 307). Tidline (2005:114-115) earlier confirmed that the SMT stresses an individual rather than a collective understanding of a user group. Given the identified limitations and gaps, the theory is not suitable for this study, as the focus is on a group of professionals (academics) in North-Central Nigeria. Also, the theory does not meet the theory selection criteria.

2.3 Symbolic Interactionist Ethnography (SIE)

Symbolic Interactionist Ethnography (SIE) is the theory adopted for this study. The emergence of Symbolic Interactionism (SI) was a reaction to the views of the majority in the society (such as Talcott Parsons' structural functionalism) that governed sociology at that time (Carter & Fuller, 2016). Its most significant influence was American philosopher George Herbert Mead (1934). However, Blumer (1998:2) played a significant role in developing it into a theoretical perspective. SI is a sociological perspective that gives an explanation to acts and interactions as the results of the meaning people attach to things and social acts (Blumer, 1969).

Other famous researchers who have expanded these ideas are Maines (1977) and Stryker (1981). Likewise, some researchers (Snow, 2011; Turner, 2011) have extended the conceptualisation or essence of SI beyond Blumer's (1969) three emphasis on the intersection of meaning and interpretation. For example, Snow (2011) extended the theory to include four principles: interactive determination, symbolisation, emergence, and human agency. According to Snow, the belief of symbolisation encompasses and merges Blumer's emphasis on meaning and interpretation. The previous mentioned author added that the three remaining principles involved Blumer's conceptualisation, which was not developed. Similarly, Turner (2011) extended Blumer's conceptualisation of interaction processes to explain micro-level social processes and key elements of meso and macro level dynamics. Turner developed a theory of interaction (that filled-in important conceptual gaps in theories) on the dynamics of micro, meso, and macro level social phenomena. The theory expanded Mead's, Blumer's and more recent, symbolic interactionist theorising. It incorporated key ideas from other theoretical traditions outside symbolic interactionism proper. Consequently, SIT has developed into a prominent school of thought that has retained its social science research position (McLaughlin, 2017). Besides, standing the test of time, it has been the foundation for an enormous amount of research (Redmond, 2015).

SIT is among the numerous interpretive approaches in social science research. It is a micro theoretical framework in Sociology that deals with the manner society is formed and sustained through continual interactions among people. The essence of SI possibly came from Blumer (1997: 3). Blumer advocated that the symbolic interactionist approach depends upon the premise that acts occur in a circumstance that challenges the actor and the actor to act by

defining the situation. The term “symbolic” refers to a basic premise that humans live in a world of objects (physical and social objects) without inherent meanings. Instead, the meanings of objects arise out of their interpretation by people during every day social interactions with one another. After all, individuals give meanings to happenings in their environment through symbols that convey the meanings of various objects, and these meanings successively influence people’s actions towards the objects (Swan &Bowers, 1998). A fundamental belief of the symbolic interactionist is that human beings use words and important symbols in their discourse with others. More importantly, symbolic interactionists focus on an individual’s interpretation of perspectives and how they interpret their world from their distinctive viewpoints. Most concepts of SI are related to the concept of meaning.

In confirmation, Blumer (1998: 2) summed up the basic belief of SIT as:

(1) individuals act based on the meanings objects have for them;

(2) interaction occurs within a particular social and cultural context in which physical and social objects (persons), as well as situations, must be defined based on individual meanings;

(3) meanings emerge from interactions with other individuals and with society; and (4) meanings are continuously created and recreated through interpreting processes during interaction with others.

In general, the meaning results from the existing cultural structure of social, linguistic, discursive and symbolic practices (Cojocaru & Bragaru, 2012). Furthermore, the theoretical strengths of SI were proposed by Reynolds (1990:188-127). According to Reynolds, reality is understood as social

production, interaction is symbolic, and humans can engage in self-reflexive behaviour. He emphasised that the group is an important factor in the shaping and motivation of behaviour. Arguing that interactionism regards society as an ongoing process, and social and physical environments set limits on behaviour, but do not determine behaviour.

Hewitt (2002) categorised the variables of SIT into seven basic concepts: Symbols; Objects; Acts and Social Acts; Self and the Control of Behaviour; Roles and the definition of Situations; Role making and Role taking; and The Place of Emotions. It is noteworthy that the significance of this theoretical perspective originated from its emphasis on the importance (to understanding human behaviour) of both symbols and the interpretative processes that support day-to-day interactions (Aksan et al., 2009).

Symbols are culturally derived social objects having shared meanings that are created and maintained in social interaction (Denzin, 2009). An object is anything that can be identified or directed to (Blumer 1969:10). The definition of an object varies from one human social group to another depending on their usage of that object. Blumer differentiated among three types of objects: physical objects, such as a chair or a tree; social objects, such as friends and colleagues; and abstract objects, such as moral principles or ideas. The world of human beings is made up of not only objects but also human beings who interact with the generalised other on the basis of their own social meanings of these objects (Adiabat & Le Navenec, 2011). These meanings of objects are outcomes of social interactions between human beings. Social interaction is a technique that forms and expresses human behaviour. Therefore, human beings actively interpret each others' gestures in social interaction and act based on their interpretations (Ilo et al., 2017). Similarly, through social

interactions, people are aware of what others are doing or are willing to do. Thus, people's behaviours are based on the behaviours of others with whom they interact (Blumer, 1969:17). There are no lasting meanings to social objects; instead, these meanings are constantly changing because they are being defined and redefined through human interaction (Charon, 2007; Smit & Fritz, 2008; Serpe & Stryker, 2011; Carter & Fuller, 2015). Blumer (1969) asserted that the meaning of an object arises from the way human beings prepare themselves to act toward the symbol. Thus, the meaning is not inbuilt in the object, and each object changes for the individual.

Aldiabat and Le Navenec (2011) defined the self as an idea or system of ideas associated with the appropriate attitude called self-feeling (p. 244). Cooley suggested that human beings define and develop themselves in every situation due to imaginative processes and emotions to reflect attitudes of others through what Cooley since 1956 called the looking-glass self. Consequently, during advancement, humans have acquired an ability to define and construct situations through the symbols of their environment (Thomas, 1978). However, the process of defining a situation is to represent the environment symbolically to the self so that a response can be formulated (Lauer & Handel, 1977; Denzin, 2009). In other words, human beings respond to a particular situation through how they define that situation, rather than how the situation is objectively presented to them. Therefore, understanding how people define the situation can help us completely figure out why they behave the way they do in the situation.

Several studies have applied the SIT and found it to be economical and fruitful. However, most of these studies are not in the field of library and information science (LIS). In other words, literature searches indicated few

applications of the SIT/ SIE theory in the field of LIS. Estes and Edmonds (1981) supported the use of SI ideas in policy research. These scholars proved how interactionist theory is helpful for policy research:

Formulating policies through negotiation in a structural context. Also, implementing policies by emphasising multiple interpretations of policy intent and influencing meaning for those who are objects of the policies and differential effects and social relationships (Estes & Edmonds, 1981: 77). Due to symbolic interactionist emphasis on meanings, applying these concepts in policy formulation and implementation ensured that experiences and meanings of those in lower status groups were viewed as significant as those in high-status groups.

In another study, Allen (2009) adopted the SIT to explore the experiences of beginner teachers (1st-year graduate teachers) of an Australian pre-service teacher education programme, in turning theory learned in universities into practice in the workplace. The SIT focused on the meanings that graduates have of their experiences of turning theory into practice. Also, cultural studies research has employed SIT to understand the social adaptation of newly immigrated students (Ukasoanya, 2014). By applying SIT as the framework to observe the interactions between new immigrant students and school counsellors, Ukasoanya suggested that school counsellors could guide new immigrant students through their integration into a new culture. The students were required to know when to adopt new cultural scripts and which aspects of their culture to retain to succeed in the host culture.

An ethnographic study could be deductive or inductive, the latter meaning that it could be theory generating and may not even be necessary to be underpinned by any theory. In an ethnographic study of this nature, it is crucial to identify

the appropriate theoretical point of view at the beginning of the study. It provides the lens that shapes what is looked at and the questions asked (Creswell, 2018). Yin (1994: 28) agreed that in case study research, it is necessary to identify the relevant theoretical perspective from the onset of the study as it is expected to have a bearing on the research questions and the analysis and interpretation of findings. Besides, the focus of this study is not purely on theory generation but also on the use of this approach to inform and possibly extend the SIT.

There is no theoretical approach without shortcomings; yet, researchers have to choose between diverse theoretical approaches despite their internal limitations. Some scholars have challenged many of the criticisms leveled against SIT in general and Blumer in particular because they are misguided or place too much emphasis on a particular aspect of the perspective or of Blumer's work. For example, SIE has been critiqued by Aksan et al. (2015: 904) in the following ways: Symbols may be interpreted incorrectly or differently among different groups of people. It can be difficult to quantify things in SI (i.e., test the theory) since it deals with interpretations and is, as a result, bias by nature. Aksan et al. added that the theory overestimates the power of individuals to create their realities, ignoring the extent to which humans inhabit a world, not of their own making. Plummer (2002) also observed that the theory neglects the emotional dimension of human conduct, focusing strictly on consistent behaviour; and it does not apply to large-scale social structures.

However, proponents of this theory consider the criticism based on the extremely narrow focus of SIT as one of its greatest strengths. For Blumer (1969; 1997), it is not viable to study the structure of society through the use

of variables because this would imply a relationship of causation, which would be unfeasible since whatever thing is capable of being instantly redefined. According to him, fixed social variables are impossible to measure, and any attempts to explain human social behaviour with such constructions are unproductive. Housley and Smith (2017) in response to critiques noted that Interactionist ethnography realises its full contribution to sociological inquiry in finding the general in the specific, the familiar in the strange, and the enduring in the novel thus remaining an undiminished necessity for the study of social life. Maines (1977, 1988) has refuted the critique of both SIT and Blumer's work as purely subjectivist and ideographic and shorn/deprive of interest in social organisation and social structure. According to him, apart from being a theory of human behaviour, this perspective can integrate traditional, behavioural, and humanistic approaches to the study of communication. In his view, the symbolic interaction combines and highlights the significance of communication in determining human behaviour (p. vii). Atkinson (2015: 196) also noted that SIT can do more, not only to observe and describe the organisation of such matters but also to make explicit and critique how 'social data' and 'social reality' are produced in the digital society.

Furthermore, SIT does not claim to be specific enough for use on its own (Tan & Hall, 2007). So any research work grounded in this theoretical perspective requires a strategy of inquiry that is empirically sensitive to the human capacity for symbolic interaction (Prus, 1996). In this regard, this perspective appears to fit best with the broad methodological underpinnings of ethnography. These principles were useful in aiding the researcher to conduct more rigorous research in the symbolic interactionist tradition (Tan, Wang & Zhu, 2003).

Specifically, the researcher must be fully mindful of the criteria for ensuring the severity and credibility of the study. Besides, the theoretical framework and foundation justify the constructs included to describe the overall use of e-databases in university libraries. The theory is strong in that it provides a basis for understanding the establishment of meaning. Staw (1985) maintained that symbolism may have greater prognostic power than conventional observations of variables. Likewise, this perspective is increasingly used to understand and explain diverse contextually bound information practices (Bystrom, 2007). In summation, the above discussions imply that any inquiry of IT may benefit from understanding the influence of social interactions on the use of such technologies.

Consequently, despite the period of criticism for being unscientific and too micro, as mentioned elsewhere, the SIE is considered more appropriate for the problem at hand. Framing my research using the SIE approach will allow participants to describe how they engage with e-library databases, without limiting them to discussing particular fixed-choice and yes-no questions. It could lead to the discovery of previously hidden factors affecting the use of e-library databases. Following this further, Fidishun (2002) affirmed that SIE is a theory that can help librarians to understand how the library staff and users view services, training, policy, and other issues. Since the hub of the theory is on the symbolic definitions of objects and events as they are construed through human interaction, it can be beneficial to librarians in their investigation to understand individual and group behaviour. By examining the interface of an academic's perception with the perceptions of other academic staff in universities, libraries can find better ways to enhance e-library databases use, as part of its objectives, to satisfy its patrons (Fidishun, 2002). Lastly, while it

is debatable if SIT is a good theory, the researcher finds it effective and appropriate in evaluating academics' decisions on using e-library databases.

In addition, many social science disciplines have realised the usefulness of applying SIT as a theoretical perspective to guide ethnographic research about complex social phenomena (Rock 2000; Tan & Hall, 2007). For example, Smith and Bugni (2006) found the use of SIT to be robust. They applied symbolic interactionist ideas to an understanding of social context and the environment and proposed three ways in which SIT and studies of the self may be useful for architecture. The researchers discovered that, firstly, SI recognises the mutual influence of physical environments and the development of the self. Secondly, SIT allows researchers to study the symbolic meanings of designed environments. Thirdly, SIT reveals the influence of designed environments and buildings on our actions and reflexivity (Smith & Bugni, 2006: 124). Again, Smit and Fritz (2008) undertook a study to understand teacher identity in the context of educational change. The SI framework informed the ethnographic study. The SIE theoretical perspective; that is the combination of the SIT and the empirical strengths of ethnography guided the researchers to study the teachers in matters such as the self, their learners and classroom interactions, school context and the broader social environment; which revealed patterned behaviour in their teaching.

Another researcher who embraced the use of SIT is Robinson (2007). Robinson employed symbolic interactionist thoughts to understand how the self is constructed in online environments. Robinson cited research suggesting that role players incorporate their offline personalities into their identities online. He observed that the individual becomes submerged in a new character, thus highlighting the constraint of having one identity associated

with a physical body offline. Robinson added that offline norm is reproduced in online environments. Hence, the current study on the use of e-library databases by academics using the SIE might lead to fresh findings concerning interaction through online media.

Accordingly, the SIE could be highly applicable to this research, since the prime focus of the IS discipline has been on the rich phenomena that emerge from the interactions among information technologies, the users of these technologies, and the organisational and social contexts of such use (Tan & Hall, 2007). The interactionist ethnography approach can also analyse the acceptance or resistance to information technologies' implementation with ease and insight (Tan, Zhu & Wang, 2003). As ever since noted by Prasad (1993), the SIE assists the researcher in determining symbolic meanings, the clarification of these meanings, and how such meanings can lead to enactment of action in the university context.

Furthermore, as a theoretical perspective, SIT does proffer some partial guidance regarding the real conduct of the research (Tan & Hall, 2007). However, Prus (1996) confirmed that the interactionist researcher would benefit greatly from the complimentary use of the ethnographic approach. Equally, many ethnographic studies (which have been critiqued for lack of conceptual depth) may gain an advantage of using SI as a theoretical perspective to guide the research. It is clear that the SIT has the best fit with the methodological underpinnings of ethnography (Tan & Hall, 2007).

The application of the SIE constructs to the context of this study is presented below:

- Symbols: A symbol is a spoken or another kind of gesture that arouses in the one using the same response as it arouses in those to whom it is directed

(Hewitt, 2002). As noted by Charon: "Symbols include words and many objects, and almost all acts around others contain a symbolic element. Words are the most important symbols, making human thinking possible" (2007: 58). Human beings interact with one another by meanings. Mead (1934) wholly used the terms symbols, significant symbols and significant gestures (conscious gestures) to reflect the unique capacity of humans to express an idea through a gesture (such as a spoken word) that arouses the same meaning in another person (Redmond, 2015). Symbols have no meaning if scholars do not share with others (Plummer, 2002). If shared, symbols change the environment by expanding their scope (Hewitt, 2002). This statement implies that academics' e-library database use can facilitate and renew their knowledge, and this is invariably imparted through teaching and other academic activities such as paper presentation at conferences, publishing in reputable/ international journals, and professional and community activities (Kyvik & Aksnes, 2015; Iroaganachi & Izuagbe, 2018; Adetomiwa & Okwilagwe, 2018). Consequently, the academics' research performances will make the universities' academic products to be of high quality and standard. Also, conference attendance can encourage reflective thinking and knowledge acquisition and provide a platform for building networks, making conferences an essential professional development tool for maintaining competencies (Dumbell, 2017). Moreover, professional meetings make a positive contribution to academics' professional development and work (Borg, 2015). Naturally, academics' online database utilisation in conducting academic and professional activities shapes the academic life of academic staff. For this research, the construct as operationalised can reveal the adoption/use, and outcome of academics' utilisation of online databases in the selected universities. Accordingly, this construct was used to frame the

measurement scales and data collection tools (See Appendices 9 and11), for research question two of the study.

- Objects: Object is anything to which attention can be paid and toward which action can be directed (Baghdadi, 2009). According to Herbert Blumer, the nature of an object (physical, social or abstract objects) consists of its meaning for the person for whom it is an object (Blumer, 1969b:11). As earlier stated, the world of human beings is made up of objects and human beings who interact based on their social meanings of these objects (Adiabat & Le Navenec, 2011). These meanings of objects are outcomes of social interactions between human beings. Alternatively, when human beings interact, they take into account what others are doing or planning to do and respond accordingly. In essence, this behaviour can alter an intended answer or replace it (Blumer, 1969). Then, the socio-cultural values shared by members of a society play a vital role in the psychological function of individuals. This statement suggests that social and cultural factors can hinder people from using technologies.

Accordingly, academics e-database use as a result of the environment they live in or due to shared experiences with colleagues/friends is related to the construct, Objects. Thus, the academic staff tends to use the e-library databases based on shared experiences with colleagues. As Galvin (2014) maintained, persons and groups interacting together in a social system form, over time, concepts or mental representations of each other's actions. El-Maamiry (2020) noted that socio-cultural factors influence information use and are essential in adopting new technologies in libraries. These factors are vital in understanding whether a novel technology is viewed as valuable by people. Therefore, social and cultural factors are suitable tools for better approval, utilisation, and implementation of e-library databases. Hence, this construct (objects) framed

the instrumentation that addresses the research question five of the current study (See Appendix 9).

- Acts and Social Acts: Act is the internal process of control that directs conduct towards some goal or object (Hewitt, 2002). To engage in social interaction, individuals must first interpret (assign meaning) one another's acts. The meaning of objects results from how people define them due to their interaction with the object (Baghdadi, 2009). Individuals act toward objects depending on the meaning they carry. As a social object, humans tend to deal with what they are taking in from their environment by making a note of other objects. Humans then begin a process of self-indication by which they attribute meaning to the object, and that meaning guides future action (Blumer, 1969).

Online library database use depends absolutely on relevance to academics' research need(s) at hand. The preceding implies that academics must have problems needing solutions (information needs) before taking concrete steps to use the e-library databases. Moreover, their decision to use the e-library databases depends on whether they are easily accessible. It is also clear from earlier studies (Abubakar & Chollom, 2017; Ankrah & Atuase, 2018; Abdulrahman & Onuoha, 2019) that many users face challenges in e-library database utilisation, resulting in the low use of the resources for research. This construct can reveal academics' engagement with e-library databases. Thus, the explanation of this concept of the SIE focuses on data obtained through an interview conducted with the academic staff. Findings will provide data for research question one (Refer to Appendix 9).

- Self and the Control of Behaviour: This is the human capacity to exercise control over conduct; to manage behaviour with others, and create complex social acts and social objects (Hewitt, 2002). Symbolic interactionism assumes

that humans take complete control of their needs and wishes, other's needs and wishes, and decide the best choice to make (Baghdadi, 2009).

For that reason, an academic staff might prefer to use other sources of information rather than the e-library databases. It could be linked to their human nature, such as a phobia or just resistance to change. This view aligns with Ziefle and Jakobs (2010). They found out that people use technology within a cultural and social context, influencing how humans behave towards technology. Also, academics' preference for particular information sources can be due to past experiences. As Margolis and Liebowitz (1995) observed, history matters since the present and future are connected to the past. SI views interaction as part of understanding the present and formulating the future. Change is constant because of the way individuals interpret their environment and make decisions accordingly. The construct addresses research question three of the present study (See Appendices 7, 9 and 12).

- Roles and Definition of Situations: Acts do not occur in an abstract. They are situated along with expectations and interpretations (Hewitt, 2002). He advocated that people can more or less predict an individual's behaviour for two main reasons: Human conduct is always located; People are aware of the varying roles that are present within a specific social setting. For that reason, people act by their definitions (meanings) of the situations (Serpe & Stryker, 2011). As pointed out by Thomas (1978: 58-59), preliminary to any self-determined pattern of behaviour, there is always a stage of examination and deliberation which is called the definition of the situation. In other words, human beings respond to a particular situation through how they define that situation rather than how the situation is objectively presented to them (Denzin, 2009).

According to Mead, human's characteristic mode is to interact on a symbolic level to find meaning in each other's actions (Blumer, 1969). There is an expectation of how the other participants will interpret actions and guide their behaviours by those pre-established meanings. E-library databases use is positioned along with expectations and understanding. Thus, academics can envisage the behaviour of the subject librarians and make sense of their actions. The use of e-library databases depends on how proactive and competent the subject librarians are. Diaz and Mandernach (2017) attested that collaboration between academic subject librarians and the teaching faculty is vital for promoting services and resources. Similarly, Khan et al. (2015) and Mwaniki (2018) identified information literacy, advocacy and quality monitoring as new responsibilities of academic Subject Librarians. SI helps in studying academics' online library database utilisation because it allows the researcher to understand why respondents reject the e-library databases for other information resources. If academic staff do not make sense of the intended ASLs' actions, uncertainty can arise. The construct explains at what point in time that interaction between the ASLs and academics was misconstrued and why. Was it due to previous negative experiences? Was it a result of inadequate ASLs skills? Are shared experiences, culture, or lack of interest involved? Employing this SIE construct helps in answering research questions three and four of the study (See Appendices 7 and 9).

- Role Making and Role Taking: The central idea of this construct is that the individual can imagine a situation from a perspective other than that afforded by his or her role in the position. People construct activity in a situation that fits their roles. Symbolic interaction occurs in reaction to an action or gesture (Blumer, 1969). A gesture or action has meaning for the person who originally initiates the action and, in turn, for the person responding to it. When both

individuals interpret actions the same way, they understand each other. Mead's triadic nature of meaning divided interactions into three major types (Blumer, 1969):

The first type involves the signification of the person to whom the gesture is directed. The second signifies the intention of the person who makes the gesture. Lastly, the nature of meaning denotes the combined action from the initial gesture and the response to that gesture. A misconception of any of the three kinds of meaning affects communication and obstructs interaction. Blumer added that each party must necessarily take the other's roles. One has to get the opinion of others to render services to them (Mead, 1939). SI assumes that these actions, interpreting actions and responding, are how humans communicate (Baghdadi, 2009).

In light of the preceding, university libraries are expected to restructure their organisational structures to cater to changes in the information environment based on community analysis of the academic faculties (Brewerton, 2012; Jantz, 2012).Hewitt (2002) advised that there is no one generalised order. However, the focus should be on many principles based on expectations, norms, and ideas held in common by a particular social group (Hewitt, 2002). This action can improve academics' e-library database utilisation. Therefore, the data collection tools are designed based on the elements of Role Making and Role Taking to address the research question six of the present study (See Appendices 8, 9 and 10).

- Place of Emotions: Emotions are associated with physical sensations; they are physiological responses to situations. In this regard, Symbolic interactionists maintained that emotion is never separable from the social. It signifies our engagement with others and our cultural memberships (Franks,

2003). Thoits (1995) added that emotions are integrally connected to and inform our actions. Consequently, an individual experiences fear self-consciously, being "afraid" of taking others' views. An academic staff might self-consciously experience fear, seeing him or herself as "afraid" of adopting the e-library databases based on human or cultural nature. Pineda (2014) confirmed that cultural background plays a vital role in accepting and using technology. The author added that technology features have cultural features and thus constitute part of the obstacles affecting the adoption and use of technology. The study applied this construct of the SIE in answering research question number three of the current study. Table 2.1 presents a mapping of the SIE and its constructs to the requisite research questions.

Table 2.1: Relationship between research questions and SIE constructs

S/N	Research questions	Relevant SIE constructs
1.	In what ways do academic staff engage with e-library databases in the selected universities?	Acts and Social Acts
2.	How has the utilisation of e-library databases shaped the academic life of the academics?	Symbols
3.	What are the perspectives of academic staff on the low utilisation of e-library databases?	The Place of Emotions Roles & definitions of Situations Self & Control of behaviour
4.	What is the nature and characteristics of experiences of academic staff in the use of e-library databases?	Roles and definition of situations
5.	How do socio-cultural factors affect/impact the utilisation of e-library databases by academic staff?	Objects
6.	How can utilisation of e-library databases be enhanced?	Role making and role-taking

2.4 Summary of chapter

The underlying principles of the theories reviewed formed the theoretical and conceptual framework within which the research study was constructed. The SIE theory specifically guided the design of the data collection tools and influenced the various aspects by which the use of e-library databases by academic staff in the context of universities in North-Central Nigeria was investigated. The SIE core constructs were explained and the research questions were mapped to the constructs of the theory namely: Symbols; Objects; Acts and Social Acts; Self and the Control of Behaviour; Roles and the definition of Situations; Role making and Role taking; and The Place of Emotions.The vital part of SI is the idea that people use verbal communication and important symbols in interacting with others. Besides, symbolic interactionists' attention is on understanding subjective stance and how individuals make sense of their world from their viewpoints. The other theory reviewed that the researcher could apply to this research is SMT theory. After all, the in-depth analysis of a broad spectrum of theoretical literature leading to the adoption of the SIE was a theory adoption procedure approved by Creswell (2014; 2018).

CHAPTER THREE

LITERATURE REVIEW

3.1 Introduction

The chapter presents a review of the related literature that is significant to the study. A literature review is an examination, intense assessment, and synthesis of existing knowledge pertinent to one's research problem (Hart, 2018). Similarly, Machi and McEvoy (2016) defined the literature review as a written document that advances a case based on an ample understanding of the present knowledge of the topic. The purpose of the literature review is to gain insight into scholars' views on a subject area, thereby laying the foundation of more robust research. Xiao and Watson (2017) admit that literature reviews launch the base for academic inquiries by establishing the importance of the study and a yardstick to weigh the results with other findings. Moreover, a literature review is significant as it helps the investigator gain familiarity with earlier works in the subject area (Gastel, 2012; Wakefield, 2015). It also relates a study to the broader continuing discussion in the literature, filling gaps and extending previous studies (Creswell, 2014; Boell & Cecez-Kecmanovic, 2014; Hart, 2018). It guides data collection and analysis and informs theory advancement and testing (vomBrocke et al., 2015). From the preceding, it is inevitable that, if done properly, literature review can improve the outcome of research projects to a great extent.

Accordingly, within each theme, the literature is explored with a focus on the developed nations, followed by the regional context, and narrows down to the Nigerian environment to see a global trend of e-library database use by academics. The present study explored past studies using theoretical and

empirical perspectives. For instance, the literature was sourced from journals, books, theses, conference proceedings and databases such as ProQuest, LISA, EBSCOhost, Elsevier Science Direct, Emerald Insight, Scopus and Sage.

The chapter is organised in themes derived from the research topic, the critical questions and the theoretical framework. The study's aim was to investigate academic staff's use of e-library databases in North-Central Nigeria (Please see the research questions in Section 1.4, Page 15). The literature was reviewed systematically based on the themes of the research questions (Dewey & Drahota, 2016). Systematic literature review creates a way to assess the excellent level and enormous existing evidence on a question or topic of interest (Viebrock, 2008). It offers a broader and more accurate level of understanding than a traditional literature review (Pati & Lorusso, 2018).

Accordingly, the literature review is divided into five sections. The first section explores the trends of e-library databases research. Specifically, the concept of e-library databases is used to achieve a broad understanding of academic staff's engagement with e-databases for research. The second section covers outcomes/ results of e-library databases use in shaping/ transforming the academic lives of academics. The third section sought academics' reasons for low utilisation of the e-library databases. The fourth section purposely describes experiences of academic staff on utilisation of the e-library databases. The fifth section explores the impact/effect of socio-cultural factors on utilisation of e-library databases. The concluding section explains how the utilisation of e-library databases could be enhanced. The research questions and the constructs of the theoretical framework-SIE that underpins the study informed the choice of the themes.

3.2 Electronic library database research

Due to the fast development of information and communication technology, electronic resources, specifically e-library databases, have become an established part of many library collections, thereby complimenting printed resources. These e-library databases are most likely to contain current information, convenient, provide quick and accessible services to the users. The e-library databases also offer advanced search capabilities, greater storage flexibility, and can be accessed from anywhere and by many users simultaneously (Sonkar, Singh & Kumar, 2014; Ali et al., 2016). For that reason, university libraries spend huge amounts of money on these resources to meet the academic community's needs of teaching, learning and research (Kyvik & Aksnes, 2015; Anyim, 2018). It is therefore important that e-library databases are maximised to contribute to academic excellence and achievement. Otherwise, it will diminish academic potentials and benefits.

Scholars have conducted researches that focus on the factors influencing the optimal usage of e-library databases for research. Moreover, studies on the usage of e-library databases by students in universities are more widely covered in LIS literature than studies on their use by academic staff. Examples of such studies include Mortimore and Minihan (2018); Wong et al. (2017), Sritharan (2018), Ankrah and Atuase (2018), Okumu (2018) and Abubakar and Chollom (2017). These studies found that availability, accessibility, convenience, experience, infrastructure, relevance (usefulness), search skills and training are the major influencing factors.

Mortimore and Minihan (2018) examined necessary audits employed by the Electronic Resource Access (ERA) support team (the "e-Team") at the Georgia Southern University, United States of America. The ERA aimed to identify and address challenges to e-databases accessibility. The study revealed

that these techniques established by the library proactively minimise ERA-related issues for users, enhancing ERA sustainability and provision of access. The preceding, in turn, reduced troubleshooting requests, users' uncertainty, frustration, and dissatisfaction.

Wong et al. (2017) assessed medical students' engagement with online academic databases and journals in Kuala Lumpur University, Malaysia. The aim was to determine the level of their awareness, value, practices, and barriers encountered in online database usage. The authors found that most students were aware of the available academic e-library databases. The study's outcome also revealed the underutilisation of the e-library databases due to students' inclination to other online information sources, as they are easier to comprehend. The study found issues such as the extensive time required to retrieve relevant information from the online library databases, and poor information literacy skills as constraints to e-library database utilisation.

Sritharan (2018) investigated the level of user satisfaction of e-resources and services available at the Library of Postgraduate Institute of Medicine, University of Colombo, Sri Lanka. The study revealed that the majority of the respondents own computers and Internet connections for accessing online resources. As a result, they were satisfied with the available e-library databases and services. The study found tight schedules, insufficient training, and lack of remote access to electronic information resources as significant barriers to their use. The author recommended that the library should organise more sensitisation programs, ensuring library users can access e-resources remotely. Also, the library should publicise/ advertise newly subscribed e-resources, primarily through text messages.

Ankrah and Atuase (2018) explored e-resources use by postgraduate students of the University of Cape Coast, Ghana. The primary purpose was to establish students' awareness and usage frequency of e-resources. The study also determined students' computer literacy level and constraints to e-resource use. The authors found that despite students' high awareness of the available library e-resources, most of them frequently engage with online databases from the General search engine compared to the library's subscribed e-databases. The study discovered poor internet connectivity as a significant constraint to accessing e-resources in the university.

Okumu's (2018) study examined the value (accessibility/ ease-of-use, expediency, familiarity) of e-library databases in fulfilling undergraduate students' academic needs at Moi University, Kenya. The finding revealed that online library database utilisation was affected by the complexity of the library e-databases. The study result further showed that students believed in using the general search engines compared to e-library databases.

Abubakar and Chollom (2017) explored the effect of information literacy and ICT ease of access on e-resource use by postgraduate students in Nigerian University libraries. The study documented low utilisation of e-resources by Masters and Doctoral students. The investigation further revealed that information literacy and access to ICT facilities are crucial for postgraduate students' e-resource use. The study recommended that university libraries in Nigeria frequently organise library sensitisation and provide additional ICT facilities to enhance accessibility. The research's findings offered an understanding of students' use of e-library databases.

With respect to studies on academic staff usage of e-library databases, other scholars such as Walton, Brewerton, Cunningham, Leahy and Parry, 2014;

Rodríguez-BravoPacios, Vianello-Osti, Moro-Cabero and De-la- Mano-González, 2015; Chen, 2019; Samzugi, 2019; Leonard, Hamutumwa and Mnubi-Mchombu, 2020; Nwone, 2017) have also investigated the acceptance and use of online library databases. The findings of the studies revealed differences in the use of library resources.

For example, the study by Walton et al. (2014) examined academics' use of online services (e-library databases, e-journals, e-books, and Library Catalogue Plus) in Loughborough University Library, United Kingdom to improve and boost library services. The study used data from the library's satisfaction surveys of 2009 and 2012. The scholars reported that while most academics frequently used electronic resources, they used Google Scholar more than the library'ssubscribed e-databases due to easy accessibility. The study also revealed that the Loughborough University Library applied Walton et al.'s (2014) recommendation to address electronic resources use issues. Equally, the current study is aimed at evaluating academics' utilisation of library e-databases to enhance their usage. Recommendations proffered from the outcome of the current study, similar to Walton et al., if implemented by libraries in North-Central Nigeria, will enhance the online library database utilisation.

Rodríguez-Bravo et al.'s (2015) study examined resources considered more important for academics in three universities in Spain: University Carlos III of Madrid, University of León and the University of Salamanca. It revealed that academics were more inclined to use printed sources, especially books, for research. The authors also reported that books were mainly recommended in all the universities' curricula. This finding meant available online resources were not germane.

Chen (2019)'s study conducted on the types of documents that academics in the humanities use for research also confirmed academics' preference for books. The study revealed that books were the primary sources academics cited in their publications. Academics in this study, also cross-checked e-books they used with printed versions to confirm a text's accuracy. Even though the university library nowadays may favour e-resources rather than printed sources, Chen suggested that university libraries should continue purchasing printed books. Samzugi (2019) also affirmed academics' preference for printed sources of information. In a study of users' preferences between print and e-resources in selected universities in Tanzania, the findings showed that 163 (50.5%) respondents chose print over e-resources. However, the author found that academics were gradually embracing online databases in the universities studied. Samzugi's study identified the need to include different types of documents in university syllabi and enlarge e-resources library subscription. However, not all studies have found that academics prefer printed versions. For example, Leonard, Hamutumwa and Mnubi-Mchombu (2020) found that most academics in the Faculty of Law at the University of Namibia's (UNAM's) main campus used online library databases for teaching, research, and publications.

In Nigeria, a study by Nwone (2017) investigated professors' information behaviour in federal universities in South-West Nigeria. The study revealed that despite the professors' adoption of online library databases, they depended much on journal articles and textbooks for teaching and research. The study also found that the professors used the information to advance their general knowledge, professional development, and career advancement.

Nowadays, some university libraries allocate more funds on e-resources than printed sources of information. For example, Singh and Pandita (2017) assessed the investment in e-resources of twenty top-ranked libraries of the Institutes of Engineering and Technology in India. Outcomes of the study revealed that the institutes focused more on purchasing e-resources for their libraries, using a large chunk of their budget. The study's focus was on investigating the relationship between the funds spent on electronic information resources and its influence on research in the institutions. Findings from the study revealed the value the libraries place on e-resources.

Several authors have noted that inadequate e-library infrastructure militates against effective electronic services in developing countries (Malemia, 2014; Yebowaah & Plockey, 2017; Abdulrahman & Onuoha, 2019). Asogwa and Ugwuanyi (2015) surveyed electronic infrastructures' functionality and quality of electronic services in Nigerian academic libraries. The study found inadequate funding, fluctuation of power supply, weak telecommunication infrastructures as the main obstacles to electronic services in Nigerian universities. Emasealu and Umeozor (2018) also found irregular power supply, low internet connectivity, insufficient staff training, lack of technical expertise, and inadequate infrastructure as barriers affecting optimal use of e-library databases.

Regarding non-academic staff' use of the library e-databases for research, observation shows they do not frequently use library resources. The previous statement's reason is engagement with university functions and administrative work (Madukoma & Opeke, 2013). However, they occasionally use more printed than online sources of information. For example, Madukoma and Opeke (2013) examined information use and job performance of senior non-

academic staff in Nigerian universities. The investigation revealed that senior non-academic staff in Nigerian universities mainly used print materials, such as books, journals, and policy papers. The study further showed they do not use the library online databases but general search engines and CD-ROM in performing duties. Recently, Lawal and Kannan (2021) investigated non-academic staff's ease of access, utilisation, and fulfillment with information resources and services at the Agriculture University Libraries in Nigeria. The exploration result showed that the available resources (e-databases, e-journals, e-books, and services) and services were inadequate. The findings also revealed moderate accessibility of the information resources due to an insufficient number of librarians. From Madukoma and Opeke's (2013) and Lawal and Kannan's (2021) studies, it is apparent non-academic staff do not regularly engage with e-library databases, unlike academic staff who access the e-resources for research, teaching, and other educational activities.

In short, studies reviewed within this section have examined the trend of e-library database research by academics, students and non-academics. University libraries are presently providing electronic resources and services to their users. It is evident that even when e-library databases are available and accessible in the libraries, users may still not use them. In other words, the availability of e-library databases does not automatically mean utilisation. It is also clear from the preceding studies that many users face challenges in library e-database utilisation, resulting in the low engagement with the resources for research. The studies display library users' leaning to printed sources especially, books for research. Although the library must provide e-library databases for research, it is good to retain traditional sources and operation methods (Baryshev et al., 2020). This practice meets the needs of different users.

Finally, the present research study avoids the technological, financial, and infrastructural constraints reported at length in existing literature but instead seeks to explore the utilisation of the online databases and associated issues, which are much less documented. The rich information gathered through this ethnographic study provides new insights for the university libraries to improve services (Mahapatra, 2017). It could as well change users' thinking towards engagement with the e-library databases.

3.3 Outcomes of e-library database use in shaping academic life

Academics are liable for teaching, research, and community service, representing their occupation and work-life (Kulno, 2016). According to Mägi and Beerkens (2016), university teaching is a profession requiring continuous learning, teaching, and contribution to the formation of new knowledge principally through research. Frequently, academic staff at any university are evaluated based on teaching, research, supervision, publication and community engagements (Kulno, 2016). They are authorised to award undergraduate and graduate academic degrees and do research, disseminate outcomes, and propagate innovation (Kulno, 2016). Even though the workload of most academics involves research and teaching, career advancement usually largely depends on research productivity. Given this, academic staff in Nigerian universities are evaluated for promotion every three years based on their research productivity (output), especially in publications. More importantly, building research cannot be limited to producing research outputs but needs to be recognised as a cultural movement focused on knowledge creation (Fyfe, 2017). Nygaard (2017) observed that publication output alone does not give a full description of a scholar's impact or influence. The present research proves whether use informs the outcomes by the use of e-library databases.

The literature on the relationship between performance in terms of academic function and its relation to an academic's workload was examined within higher education in the UK by Graham (2014). The review results reveal that even as there are assumed connections between workload management and performance, these have not been explored. The current research study seeks to establish a link between workload management and how e-library database usage transforms academic life (academics' performance/productivity) and offer suggestions based on the research questions and objectives.

Cannizzo and Osbaldiston (2015) examined the experiences of work/life balance of academics working in Australian institutions and found that academics are reporting higher work hours than denoted for the Australian professional employees. Furthermore, the survey outcome suggests that longer work hours produce higher research outputs in publications. The result further indicated that pressures on academics to progress through publication statistics causes the idea of work/life weighing scale to become porous, with many academics having very tight schedules. Additional research is required to assemble information through interaction with the academics on how they experience work and how they describe 'life' in the academic environment.

In this regard, academics' responsibilities are increasing to the extent that effective means for the allotment of their jobs are currently crucial (Kenny & Fluck, 2014). The researchers mentioned above studied the efficiency of the workload distribution model at Australian Universities report that an effective workload allocation process entails academic staff to be involved in its development and execution to guarantee its trustworthiness and fairness. The study specifically sought academics' opinions concerning the capacity to manage workloads to create time for research using online library databases.

The scholars noted that despite the inherent difficulties of categorising academic work, nearly all universities in Australia agree as a policy to avoid work overload. The outcome of the study suggests that effectiveness is enhanced when expectations are linked directly to realistic workloads; despite rising pressure on academics to achieve the required task.

On the other hand, collegiality as an academic behavioural norm has been argued to be inadequately formed in a university faculty in Hong Kong (Macfarlane, 2016). Regardless of the importance academics attach to collegiality in higher education, Macfarlane observed how it has become a riff in academic life; as it is being characterised by seclusion and individual competition. This behaviour then calls for an investigation. One such investigation is the current one which employs the lens of e-library database use to understand academics' personal views for better insight.

Equally important, Nguyen et al.'s (2016) study explored the affordance, obstacles, and motivations towards the engagement in research observed by lecturers at a university in Vietnam, found that although most of the respondents were aware of the importance of research, their research productivity was still low. Factors hindering academics' efficient performance/productivity were discovered to be financial support for research activities, teaching load, research collaboration, and research policy and practices. Accordingly, the current study uses the lens of the utilisation of e-library databases to view research activities, practices and collaboration.

Following this further, the use of e-library databases may correlate with academics' research efficiency. It is so because these resources occupy a distinguished place in promoting faculty research activities. Blewitt (2015) maintained that e-library databases research is a veritable instrument for

exploring problems, experiences, the actual situation of events and phenomena, which provides outcomes and proffers solutions to the problems. Given that, a university library must not only be well equipped with the relevant resources but see to its responsibility of ensuring that the use of such information sources is maximised to the benefit of its patrons (Sohail &Ahmad, 2017). The quality of these endeavours is a major determinant of efficiency and productivity in the academic environment. For this reason, quality research in the digital age is unattainable without effective utilisation of quality information resources, in this case, e-library databases.

Globally, some studies have been carried out on the outcome of e-library databases use in the university environment. Rafi, Ming and Ahmad (2018); Mägi and Beerkens (2016); Ani, Ngulube and Onyancha (2015) confirmed that the use of library e-resources influence research productivity and other academic engagements. Equally, the impact of e-library databases on academic research productivity was quantitatively assessed in Pakistan by Rafi, Ming and Ahmad (2018). Data was gathered from the databases of 52 universities offered by Higher Education Commission (HEC) and the literature published on the Institute of Scientific Information (ISI) Web of Science. Data were analysed using simple linear regression. Overall, the findings showed research productivity of the academic staff was related to use of online library databases. While the study provided information on the significant effect of e-library databases use on research productivity (publication output) of academic staff, it did not mention the direct impact of the publications and quality of the journals (journal rankings). Further exploration is needed to address this limitation using the lens of academic staff in universities in North-Central Nigeria to improve research on the utilisation of e-library databases.

Similarly, a comparative assessment of the result of electronic information resources (EIRs) use on academic staff research output was carried out by Iroaganachi and Izuagbe (2018) in selected universities in South-west Nigeria. The objectives set out for the study were to find out academic staff inspiration for using EIRs for research; ascertain the most used, and determine the outcome of EIR use on academic staff research performances. The study covers academics in Federal, State and Private Universities in Lagos and Ogun States, Nigeria. They were: Federal- University of Lagos and the Federal University of Agriculture, Abeokuta; State- Lagos State University and Tai-Solarin University of Education; and Private- Pan Atlantic and Covenant Universities. Results from the study made clear the significance of EIRs use for staff research productivity. Specifically, the research's finding revealed that academics' high acceptance and use of e-library databases was due to their provision of more current information, which can be accessed rapidly and conveniently. The results showed that academic staff mostly used Google scholar, Springer Link, Emerald, MyLibrary e-library databases, which boost conference, workshop participation, community services, and increased research output. Despite that, Iroaganachi and Izuagbe's study omitted the quality aspects of academic research performance. The present study is designed to tackle this shortcoming by improving our understanding of quality from the perspective of academic staff in their utilisation of e-library databases.

In reality, the quality of teaching and other university academic activities may depend on the library e-database's quality of academics use (Adetomiwa & Okwilagwe, 2018). The preceding scholars studied the correlation of e-library databases use and research output of lecturers in private universities in South-West Nigeria. The study reported a positive correlation between e-library

database utilisation and the research output of the lecturers. The utilisation of electronic resources on research productivity of academic staff was also investigated at Nigerian universities by Ani, Ngulube and Onyancha (2015). Using a quantitative approach, 586 respondents (279 from the University of Ibadan and 307 from the University of Calabar) academics were selected for the study. The survey found a correlation between the use of library electronic resources and research productivity at the selected Nigerian universities surveyed.

Adetomiwa and Okwilagwe's (2018) and Ani, Ngulube and Onyancha's (2015) studies focused on the correlation between the use of e-library databases and academic productivity. Even though scholarly publications to an institute of higher learning are important, there are other academic engagements in and outside the university that e-library databases research by academic staff could transform. The current study explores how e-library databases can better shape academics' collegial engagements and community services.

3.4 Utilisation of e-library databases

The digital revolution has brought about a considerable transformation in research globally, as utilisation of e-library databases is reportedly impacting positively on the research process of academic staff (Ghangare, 2016; Gautem & Sinha, 2017; Sohail & Ahmad, 2017; Paithankar, 2018). With this in mind, university libraries, considered as the "heart" of the learned society, provide the available e-library databases and other resources. As a result, several academic staff in the developed world rely on using the subscribed e-library databases for their educational and research requirements (Kumar & Kumar, 2015; Borrego & Anglada, 2016; Rafi, Ming & Ahmad, 2018). However, the

works of (Egberongbe, 2016; Obasuyi & Okwilagwe, 2016;Iroaganachi & Izuagbe, 2018; Owan et al., 2021; Combes, 2021), revealed that the utilisation level of academics related to available online library databases is generally low. Besides that, Subject Librarians Annual Reports, 2016-2017 of University of Jos, and Statistics of the use of e-library databases and back-end data in University of Jos confirm the low use of the e-library databases in the Universities. Also, faculty members' search behaviour in the use of online library databases varies based on search techniques (Msagati, 2014; Nwokedi et al., 2017). Consequently, this leads to some academics use of general search engines instead of the subscribed library e-databases to meet their research needs.

As highlighted previously in chapter one, although Google search engines offer opportunities in addition to those provided by the subscribed library e-databases for information resources, their value for academic research is doubtful (Bates et al., 2017). The preceding scholars maintain that Web search engines are limited because the searcher cannot be sure that Boolean logic principles apply and are insufficient in their functions, such as exporting abstracts, compared to e-library databases. Afterward, Hughes (2018) reviewed Bates et al.'s study by exploring whether web search engines could replace e-databases in conducting research. The results confirmed that web search engines do not necessarily use Boolean logic and, in general, have limited functionality compared to bibliographic databases. Furthermore, although the finding revealed that Google search engines and somelibrary e-databases were similar, their sensitivity scores were weaker. The result also found that precision scores for web search engines were strong, while sensitivity was deficient. Therefore, the author concluded that web search engines should not be a substitute for bibliographic databases.

Ritchie, Banyas and Sevin's (2019) research compared result retrieval across eight online databases (AGRICOLA, AGRIS, BIOSIS, CAB Direct, FSTA, Google Scholar, Scopus, and Web of Science). The study analysed search results based on precision, recall, uniqueness, and relevance. While e-library databases (AGRICOLA, BIOSIS, and CAB) retrieved the most unique and germane contents, Google Scholar also retrieved unique contents, but almost half of that content was irrelevant. This study calls for ASLs to intensify training of academics on e-library database use and conducting reference services for easy accessibility of the online library databases. The initial study's findings indicate the need for academics to be informed of the value of e-library databases due to their quality, such as comprehensiveness, correctness, trustworthiness and suitability, usefulness, relevancy, and adequacy. Certainly, library e-databases provide more satisfaction for academics' professional research. However, many academic staff in Nigerian universities are yet to accept the e-library databases for research. The preceding is the motivation for this current study.

The use of e-library databases for teaching and research ought to be the norm for academics due to their needs for high quality, accurate and timely information. Thus, they need to be aware of the best suitable ways to track and use the e-library databases to support teaching and research (Isibika & Kavishe, 2018). Therefore, the barriers affecting the maximum use of the online library databases must be either minimised or eliminated, and to achieve this, there is a need to get the perceptions/ perspectives of the academic staff to gain a deeper understanding of the reasons for low utilisation of the online library databases.

In the light of findings from the previous studies (Bates et al., 2017; Hughes; Ritchie, Banyas & Sevin, 2019; Isibika & Kavishe, 2018), the university authorities must make every effort to improve on the ICT infrastructure and academics' searching skills to simplify e-library database use.Accordingly, a careful perusal of existing literature has yielded studies that revealed the perspectives of academic staff on the use of library online databases. For example, the change from print to e-resources and how it affected faculty's utilisation of e-databases in the University of Catalonia, Spain was investigated by Borrego and Anglada (2016). The research questions aimed to identify the types of documents used by scholars for teaching and research and the search strategies used to keep up-to-date in their disciplines. The study also investigated academics' preferences for print or electronic resources, and the sources used to access documents. Finally, the authors also determined academics' preferred channels to disseminate their research and their views regarding library services including electronic databases. From the views of academics, the scholars found that while e-library databases were the preferred starting points for bibliographic searches, a significant percentage of scholars relied on Internet search engines. In addition, journal articles were the most used sources of information across all academic disciplines for research and teaching. Also, the main sources for gaining access to documents were the libraries. Moreover, scholarly journals were discovered to be the preferred channel for publishing research outcomes than e-library databases. However, a limitation of the study was that the e-journals covered were selected based on their impact factor. Accordingly, the current research engaged a much more diverse collection of e-journals.

Consequently, the present research uses the lens of perceptions and starting point of e-library searches to analyse the perspectives of the study group.

Equally, the current study improved on Borrego and Anglada (2016) by addressing an enormous scope of e-library collections to elicit rich perspectives of academic staff on their utilisation. As a result, the author encouraged subject librarians to have close interaction with the faculty for opportunities to sensitise the academic staff; especially the newly employed on the use of available library e-databases, for improved teaching and research. Since the use of the e-library databases also depends on how proactive and competent the subject librarians are, building strong relationships between subject librarians and the teaching faculty is crucial for promoting services and resources.

Mulholland and Bates (2014) reported the use and perceptions of academics on e-books' use by academic staff of Further Education (FE) colleges in Northern Ireland (NI). Although the study focused on e-books, it applies to this study. The study revealed that despite the academic staff's approval of e-books for research, poor knowledge of appropriate titles and reading experience affected their use. Accordingly, the present study explored the lens of insufficient understanding of e-library databases by academics to view utilising the resources in the selected research sites. Findings showed that many academic staff did not use the resources for five years. The study recommended more titles and intense academics' sensitisation on e-resources' utilisation. The study further noted that improved incorporation of e-books within teaching and learning in the institution would enhance the e-resources' use. Understanding academics' perceptions, wants, and behaviours areessential for the right choice of library resources as a result of tight budgets and limited study space. However, limited learning spaces in the library should not be a problem since users can remotely access online resources. Even though, data for the current study had been collected before the onslaught of COVID-19, in

recent times, due to COVID-19 pandemics, libraries worldwide are rethinking their services. The pandemic made librarians work remotely, providing e-resources and services to users (Coghill& Sewell, 2020). Libraries globally suspended physical services due to the Coronavirus pandemic and reviewed operations and services with all staff working from home. For example, Campbell, Dumond and Fink (2020) reported that in response to the COVID-19 pandemic, in March 2020, the Health Sciences Library at the Northern Ontario School of Medicine (NOSM) Canada closed their physical spaces and provided exclusively virtual library. Guo et al. (2020) contributed to the debate on the adoption and use of online library databases. The scholars studied 137 Chinese academic libraries. Most Chinese academic libraries change their service by performing remotely online 24/7, and research support services deliverable online; print materials were converted to e-books for conveniences during the COVID 19 pandemic.

Livina and Mole (2021) explored academics' use of e-resources in Nigerian university libraries during the Covid 19 pandemic. The investigation revealed that the library provided users' online information resources during the lockdown period. The result also showed that academics made utmost use of library e-resources. This study further revealed that academic staff had the opportunity of using library resources remotely irrespective of distance. The present research's sites are not exceptions. The selected universities were closed during the COVID-19 pandemic period. Fortunately, the present study's researcher had completed data collection before the pandemic. With the COVID-19 experience and similar future occurrences that may arise, it is beneficial and crucial for academics and other library users to access e-databases remotely, despite library spaces' closure.

The study in South Africa on academics' use of online library databases at the Graduate School of Business and Leadership (GSB & L) Westville campus, UKZN was carried out by Somers (2015). The study further probed whether academics' use of the library e-resources supported their teaching and research. The views of 20 academic staff were sought quantitatively. The study's findings showed that a majority of the academic staff utilised the resources for teaching and research purposes. The study further revealed that EbscoHost, Science Direct, e-Journals, and Google Scholar were discovered to be the most used e-library databases. On the other hand, Lexis Nexis Academic, Springer, Index to South African Periodicals, Sage and Web of Knowledge were underutilised. Ultimately, the authors pointed out that academics engagement with the electronic information resources resulted from their choice of electronic articles to printed sources. Besides, the study found limited off-campus access, non-functional passwords, poor internet connectivity and insufficient training in the use of e-resources to be the main constraints to use of the online library databases. These are technological challenges to the use of the resources, which have been reported at length. By way of contrast, this study explores the human, social and cultural factors affecting the use of the e-databases. Somers' (2015) study likewise proffered some suggestions based on the results of the study to ensure the underutilised library e-library databases are maximised. Yet, there are other novel ways on how the utilisation of e-library databases could be enhanced, which this study will eventually offer.

Gautam and Sindha's (2017) finding confirmed academics' inclination to the printed sources, which can be linked to academics' human nature, such as a phobia or only resistance to change. In a study of academics' usage pattern, the extent of use, and preference of the available library e-databases at the

Allahabad University library, India, the scholars found out that younger academics have accepted the e-library databases compared to the elderly among them; who preferred the traditional printed resources. Through observation and interviews with the academics, the present research will further confirm this finding and discover reasons for resistance to library e-databases.

Through a mixed method, Isibika and Kavishe (2018) surveyed the level and perceived quality of use of subscribed e-resources of academics and students in the Mzumbe University (MU) Library Tanzania. Key findings from 60 of the academics and students announced the use of the e-library databases to be fair. Furthermore, low internet connectivity and inadequate searching skills were found to be the major barriers to utilisation of the library subscribed databases. Recommendations advanced from the study were the library should organise frequent training for library users to equip them with the necessary skills for e-library databases' use. In addition, marketing of online resources by the library was also emphasised for enhancement of e-library databases use. The current study avoids the over-reported technological, financial and infrastructural limitations associated with developing countries such as Nigeria. Rather, it explores context-specific issues of a human, social and cultural nature that impede utilisation even when limited or abundant e-library database services are available. There is very little known in the literature on the complexities of human, social and cultural components in the use of online databases (Izuagbe, 2021). The alternative approach adopted is aimed at revealing new data currently outside the scope of scholarly analysis.

The result of a doctoral study that investigated the use of online library databases for research by Dadzie (2015) is similar to some previous studies'

findings. As an illustration, the study sought academics' views in the University of Ghana, Kwame Nkrumah University of Science and Technology, and the University of Cape Coast revealed the e-library databases were not highly used by academic staff. As a result, the author encouraged subject librarians to have close interaction with the faculty for opportunities to sensitise the academic staff, mainly the newly employed, on the use of available library e-databases, for improved teaching and research. Since the use of e-library databases also depends on how proactive and competent the subject librarians are, building strong relationships between subject librarians and the teaching faculty is crucial for promoting services and resources. Resultantly, the present study explores participants' reactions to the suggestion by Dadzie (2015) on the impact of constant interactions and sensitisation programmes on the utilisation of e-journal tools. The current study also goes further to look at how the use of the e-library databases shapes the academic staff's academic life.

On the contrary, Larson's (2017) survey of online database usage among faculty members in the University of Education, Winneba, Ghana revealed that most faculty members used the e-library databases for research and other educational purposes. Nevertheless, few of the online library databases such as BIONNE Online journal, Database of African Theses and Dissertations (DATAD), Inscribe, and Kudos were on no account used. Barriers reported to the use of e-library databases have a technological focus. Nevertheless, other factors can also be of influence on the use of e-library databases. In short, Larson (2017) called for more investigation led by a need to explore utilisation using the lens of proactivity by subject librarians for enhanced use of the e-library databases.

Similarly, Yusuf and Farouk (2017) explored academics' views on using e-library databases in a federal university in Northern Nigeria. Outcomes of the study revealed that about 60 (55%) of faculty members made partial use of the subscribed library e-databases. The study further revealed that academics mostly use Elsevier Science Direct and JSTOR, followed by Indiana University press and the Nigerian Virtual Library. Academics rarely used EBSCOhost, AGORA, and HINARI online library databases. The study recommended intensive training. Many libraries have been conducting a series of training over a long period but still experience low use of e-library databases. This research study will give more recommendations through the new insights gained from the rich information gathered from the respondents. Another study by Tella et al. (2018) corroborates the low use of online library databases by academic staff in universities. In a study on academic staff use of electronic resources at the University of Ilorin, the authors observed low usage of the subscribed library databases in North-Central Nigeria. The focus of that analysis was not human, social and cultural components in the landscape of online library databases. The majority of the academics relied more on search engines to access electronic information resources. The findings reported by Tella et al.'s study and other previous studies with similar outcomes were the motivation for the present study; to understanding the root cause of low use led by human and socio-cultural components and give recommendations for improvement on the use of e-library databases.

Edem (2016) substantiates the low utilisation of e-library databases in Nigerian Universities. In a study of academics' utilisation of The Essential Electronic Agricultural Library (TEEAL) e-databases in the Faculty of Agriculture, University of Calabar, Nigeria, the scholar found low use of the library e-databases, despite the high awareness level of the academics. The relevance of

Edem's (2016) research to the current study guides the formulation of an alternative approach using ethnography to monitor the underlying relationships between contexts such as high user awareness of e-library databases and resultant low/high use of the tools. Moreover, Edem (2016) found that most academic staff employed TEEAL for research, publications, and information on current developments in the discipline. Resultantly, the present study must focus on a broader spectrum of outcomes by academic staff to include teaching and learning and the utilisation of e-library tools for community engagement.

The survey on the use of electronic resources of law lecturers in public universities in South-West Nigeria by Amusa and Atinmo (2016) submitted that the e-library databases needed in the field were insufficient, generally low utilisation of the e-resources. The study found inadequate sensitisation programmes and scarcity of computers to be the main constraints to maximum e-resources use. The study suggested more e-resources required in law to be subscribed to by the University libraries. Likewise, libraries should ensure access to the e-resources in the various faculties due to the academics' tight schedule. However, scholars (Kwadzo, 2015; Zha, Zhang & Yan, 2014) documented that even where sufficient e-library databases are available and accessible in the libraries, there is evidence of low use. In other words, the availability of e-library databases does not automatically mean utilisation. This current study seeks to cover beyond insufficiency and scarcity to explain the underlying reasons for low use. The research is crucial as e-library database-driven research by the academics can renew their knowledge, and is in turn, imparted through teaching and other academic activities (Kyvik & Aksnes, 2015). Amusa and Atinmo's (2016) study did not cover how the use of e-library databases influences the academic environment. The current study goes

further for a more in-depth understanding of how the resources transform academic activities in the selected universities.

3.5 Experiences of academic staff in the use of e-library databases

User experiences (UX) of technologies are fundamental to user studies, design, affordance, sustainability, efficiency and the evolution of best practices (Pineda, 2014). Kummer, Recker and Bick (2017) confirmed that UX and technology acceptance related viewpoints can complement each other to get a more holistic understanding of the factors affecting the success or failure of technology adoptions, in this case, e-library databases. Partala and Sarri (2015) in an investigation of the main UX in successful and unsuccessful technology acceptance observed that UX can be affected by usefulness, output quality, need fulfillment, and negative emotions in unsuccessful adoptions.

UX is a valuable method in supplying profound insights into users' desires about the library and their dislike (Appleton, 2016). Priestner and Borg (2016) opined that libraries' standard quantitative measures employed (such as statistics on holdings, loans, renewals, e-database use, downloads.) cannot unveil the quality of the interaction experienced by the library user and the value the engagement has on the user. In light of that, the previous authors maintained that the focus in UK higher education (HE) on UX led to heads of libraries investigating how and why users use libraries to understand their information needs. It is critical to understand the experiences of technology users, for the provision of adequate information services, which will promote the utilisation of the technological artefacts/ tools (Sivathaasan & Chandrasekar, 2013).

Accordingly, studies on the experiences of academics in universities on utilising e-library databases have been carried out by several authors. For

instance, the experiences of lecturers and students on the usefulness of electronic resources and services were explored by Sohail and Ahmad (2017) at Fiji National University (FNU) Library, Saudi Arabia. The results indicated many academics and students were quite satisfied with the e-resources in carrying out their research, despite several limitations, such as sluggish downloading speed and obstruction of the website. Eight out of the sixteen campus libraries of FNU were chosen for the survey. In like manner, while studying user satisfaction with electronic resources in two universities of Pakistan, Ahmed and Amjad (2014) found that researchers were satisfied with the library e-databases despite some barriers they faced in using the resources.The study respondents were academics from the Faculty of Arts, at the Islamia University of Bahawalpur, and Bahaudd in Zakariya University of Multan, Punjab, Pakistan. Sohail and Ahmad's and Ahmed and Amjad's studies will help change the direction of online library database services in university libraries and match them with the shifting demands of the use. The current study from the respondents' perspectives will have a deeper understanding of the users' information needs and provide some strategies for effective use of the subscribed library online databases.

Ncwane (2016) examined the level of academics and other staff's satisfaction with the Mangosuthu University of Technology's Natural Sciences Library, Umlazi, Durban (MUT-NSL), South Africa. The study aimed to assess the quality of the collections, library facilities – online databases, and staff services. The study's findings pointed out users' expectations of service quality delivered at the MUT-NS Library were inadequate. As a result, the users were not satisfied with the library services. However, the study's findings also revealed that the inadequacies in the services depend on individual services. The results were used for service improvements and to

make informed decisions concerning the quality of service offered at the MUT-NSL. Likewise, this study focused on discovering the insufficiency of library services and made suggestions for improvement to ensure library users have a highly positive experience.

Yebowaah and Plockey's (2017) findings concurred with Ncwane (2016), who found out that academics in the University for Development Studies, Wa Campus Ghana, were not satisfied with the e-library databases. The study found barriers causing experiences such as displeasure with the e-library databases: low internet connectivity, inadequate skills, and library staff assistance. The finding is related to the adopted theory-SIE construct, Roles, and Definition of Situations, which states that the use of the e-library databases is positioned along with expectations and understanding. Moreover, user experiences suggest that the use of resources depends on how proactive and competent the subject librarians are. It also illuminates interesting questions for greater exploration along with some recommendations. The current study is looking beyond finance, technological, technical support factors and structures often reported in the literature. The study prioritises socio-cultural factors and individual e-library database use experiences of academic staff not currently under the eye of scholarly analysis. This decision can provide better understanding of the reasons for low use of e-library databases and to forecast a new approach leading to higher uptake of the tools.

A study by Lwoga and Sukums (2018) corroborated previous findings cited above. The study explored the experiences of lecturers of the Faculty of Health Sciences, Muhimbili University of Health and Allied Sciences (MUHAS) Tanzania on their use of e-resources. The study specifically examined academic staff's experiences with information literacy (IL) tools/proficiencies

and whether the skills allowed them to use electronic information resources in their libraries. The survey used a questionnaire to gather data from 135 faculty members. About 50% of academics were not satisfied with the e-library databases and opted for Google search engine and Wikipedia instead. Most of the faculty members' information literacy competencies (such as information search techniques, reference management, critical appraisal, and Web 2.0 technologies) were inadequate. The lack of use of online library databases by the academic staff may result from previous negative experiences. Yebowaah and Plockey's (2017) and Lwoga and Sukums's (2018) studies gave a broad picture of users' experiences of e-resources utilisation in a university environment. The results of these studies can help university libraries appraise and update their policies and practices associated with utilising e-library databases.

A study on academics' experiences using e-library databases in the Federal University of Technology, Owerri South-East Nigeria, conducted by Chima-James, Opara, and Ogaraku (2018) likewise revealed academics' partial satisfaction with the e-library databases. The survey found few academic staff have adopted the e-library databases for research and informed current trends in their fields. As a result, the use of the library online databases by academics was low. Reflecting on the findings, suggestions for improved e-library database use were the training of the academics, constant power supply, fast Internet speed, and subscription of additional e-databases by the University Library. Chima-James, Opara, and Ogaraku's (2018) ideas are similar to the present research by giving suggestions for enhancing the use of the e-library databases. By contrast, their suggestions have been reported at length by previous studies. This study explores an alternative approach to reveal how socio-cultural factors influence e-library database utilisation. The study,

through the full understanding from the voices of academics, will proffer recommendations.

On the whole, the studies above reported the status of the subscribed e-databases utilisation by academics in universities globally. Nevertheless, most of the reviewed literature employed quantitative approaches; which lacked in-depth perspectives of the participants' experiences and an understanding of human, social and cultural contexts in the use of e-library databases. Indeed, not all research questions can be answered through quantitative approaches. For example, data collected from a library's e-database can explain how many articles were downloaded within a certain period time but cannot tell the researcher the motives for downloads, or whether they were consequently used. Also, barriers reported to the use of e-library databases were technologically focused. Conversely, other factors such as human and socio-cultural factors, which are fundamental to this study, can also be of influence to the use of e-library databases.

3.6 Socio-cultural factors and the use of e-library databases

Authors have proffered Socio-cultural factors to enhance the utilisation of e-databases and other technological tools. However, an in-depth analysis of previous literature shows that very few studies used the landscape of socio-cultural factors to view e-library databases (Izuagbe, 2021).

Human behaviour refers to the actions or reactions of people about the environment (LeCompte & Schensul, 2010). This behaviour could be conscious or unconscious, overt or covert and voluntary or involuntary. Culture reflects the common set of values that characterise society in the forms of family, education, and social organisation (Bashayreh, Assaf & Qudah, 2016). Gjuraj (2013) observed that culture is considered an environment in

which a group of people live and work together in contemporary society. As a result, people obtain beliefs and values from the people around them. Boothby, Clark and Bargh (2014) noted that sharing both pleasant and unpleasant experiences with a person magnifies one's experience in life. In the light of this, a particular society or community might accept specific values while rejecting others owing to the nature of an individual or group of individuals on the one hand, and due to the social background of the wider society/community on the other hand (Dhiya & Hussain, 2014: 37).

Clearly, then, the socio-cultural values shared by members of a society play a vital role in the psychological functioning of individuals. Consequently, the relationship between values based on the attitudes of an individual or distinct group and any change that occurs in the values described above will have significant effects on such an individual or group (Tarhini et al., 2017). As a result, the present study employed cultural contexts in the utilisation of e-library databases by academics in the selected universities in Nigeria.

Undoubtedly, there is a relationship between cultural factors and technology adoption (Pineda, 2014). It demonstrates that cultural background plays an important role in the acceptance and use of technology. As Western culture has played a significant role in developing new technologies, ICT may be presented to developing societies in forms that are not necessarily appropriate for their cultures (Dhiya & Hussain, 2014). These features affect personal interaction with the system and arise in IT phobia, emotional factors, reliability, and compatibility (Bashayreh, Assaf & Qudah, 2016). Therefore, understanding socio-cultural factors is crucial in developing e-library databases utilisation strategies for academics in universities (Borkovich, Breese-Vitelli & Skovira, 2015).

Meanwhile, the rate of technology adoption varies between categories of users: youths, adults, educated, illiterates, and well-to-do (Chang et al., 2014). Nevertheless, it is to be noted that the younger people are generally adopting globally the new technologies for social rather than formal purposes (Li, Snow & White, 2015). Furthermore, there is a difference in the pace of technology adoption across countries due to the multidimensional nature of technology adoption and innovation (Funamori, 2017; Eseonu & Egbue, 2014). For example, there is a readily notable difference in technology adoption in developing countries than the developed world. It implies that technology adoption may be reflective of cultural differences. Moreover, system features have characteristics that affect cultural features and thus amount to part of the hindrance to technology adoption and use (Pineda, 2014). The current study explores the interaction between systems (e-library databases) and cultural features as obstacles in adopting and using e-library databases by academics of universities in the North Central zone of Nigeria.

Borkovich, Breese-Vitelli and Skovira (2015) proved the influence of socio-cultural factors on technology adoption. Their study was based on the group's organisational behaviour in a digital environment, which sought to understand the success or failure of technology projects. The focus was to examine the significance of organisational culture upon technology adoption. The research set out two hypotheses to achieve the objective: Organisational culture influences the success or failure of technology adoption in the workplace; and understanding and incorporating organisational culture into the technology implementation process favorably increases successful technology adoption. The study confirmed that organisational culture has a great impact on technology adoption. Hence, the hypotheses were upheld. In the light of this, the study submitted that heads of organisations and institutions should

meticulously comprehend modern technology in connection with the organisational culture and be able to encourage members of its importance and benefits. The study by the earlier cited authors further maintained that academic staff in Universities must embrace a culture of online library databases for better research performance. On the other hand, actors in the information technology sectors were advised to integrate the socio-cultural work environment as a premeditated benefit. Accordingly, the integration of the use of e-library databases within the socio-cultural landscape of academics in the selected universities was analysed in the present study for new insights currently outside the eye of academic analysis.

The literature on the impact of culture on technology acceptance and use abound, but mainly in the context of Western countries, with more attention on students. As evidence, the literature on the influence of culture on innovation was reviewed by Tian et al. (2018). The scholars assessed peer-reviewed articles written in the past 37years (January 1980-January 2017). Two clusters of culture (organisational culture and national culture) were developed from 61 identified primary studies. Findings from the analysis confirmed that cultural factors either aided or impeded the adoption and use of new technology. The study brought to light the multifaceted and distinct relationship between culture and innovation. The review further proffered suggestions for managers and academic institutions. It is also provided for scholars, such as the present researcher, a current research backdrop and opportunity for improvement in e-library databases. As a result, the current study was designed to understand the impact of socio-cultural factors on e-library databases' utilisation in universities.

The introduction of information systems or technologies has been overwhelmed by failure because of user resistance or total rejection (Arpacy, 2015). The utilisation of e-library databases is an example, with many studies indicating low utilisation by academics in support of research and other academic activities. Some studies have been carried out on the influence of socio-cultural factors on technology use generally and e-library databases in particular. Examples are the studies by Arpacy (2015); Olasina (2018); and Lwoga and Sife (2018).

A comparative study of cultural differences on mobile learning adoption of undergraduate students in Canada and Turkey was conducted by Arpacy (2015). Though the research was on students and phones for learning, it is relevant for this study. The questionnaire was administered to 190 and 163 students randomly selected in Turkey and Canada respectively to gather data. By extension, performance expectancy, effort expectancy, and experience were discovered to have a significantly positive effect on the adoption of mobile learning through phones in both countries. While facilitating conditions, (such as available organisational and technical infrastructure) were a significant predictor in Canada, social influence had a much more substantial and significant effect on the adoption in Turkey. The study affirmed that cultural differences influence the adoption and use of technology. For that reason, the study recommended that service providers, content and application developers, and device manufacturers be mindful of cultural differences for the successful acceptance and use of technology. Arpacy's (2015) survey was limited to Canada and Turkey. Likewise, it was a quantitative study of students, disregarding academics. Further studies are needed in other countries, especially the developing world, to augment the findings. Besides that, additional qualitative researches are required to confirm the results. The focus

of the studies mentioned above was also on mobile phones hence, the study can be extended to the use of other technologies, especially e-library databases. All these gaps are part of what this current study fills.

Similarly, a survey on the impact of human and social factors on the decision of undergraduate students' acceptance of e-learning at the University of KwaZulu-Natal, South Africa, was carried out by Olasina (2018). Theory of Acceptance and Use of Technology (UTAUT) underpinned the study. The study's major findings were social influence, attitude and perceived usefulness and stress, satisfaction and fatigue were critical to behaviour intention to accept e-learning, and previous e-learning experience and behavioural intention demonstrated how the human and social factors influenced the e-learning acceptance culture. The study concluded that better integration of human and social factors to e-learning would minimise its challenges. Although the study was on students' acceptance of e-learning, it is related to this study. The current research uses an alternative- ethnographic method to interpret and reinterpret human and social factors in the utilisation of e-library databases by academic staff in North-Central Nigeria.

An assessment of whether quality antecedents and human characteristics could influence the continued utilisation of electronic resources (e-resources) was conducted by Lwoga and Sife (2018). The study consisted faculty members in selected public universities in Tanzania. A total of 204 academic staff participated in the study. Findings reported higher educated and older academics with large expertise or experience in the use of e-resources are probably to continue using the e-resources. Information quality was found to have a positive relationship with continued usage intention of e-resources, while service quality had an indirect impact on continued usage intention

through information quality and system quality. Based on the DeLone and McLean data systems success model, the study integrated quality factors (information, service and system quality) and individual characteristics as antecedents to the continued usage intention of e-resources. The research comprehensively documented empirical findings on the impacts of quality factors and individual characteristics on e-resources use in a developing country. The study revealed results that are useful for enhancing the usage of e-resources by faculty in other institutions with similar conditions. This present research further analyses the social factors influencing the use of the online library databases by interviewing the participants, since academic staff tend to use the e-library databases based on shared experiences with colleagues. The preceding is related to the construct Object in the adopted theory-Symbolic Interactionist Ethnography-SIE (see the previous chapter for the details on the theoretical framework).

On the whole, one can thus infer that this scenario challenges online library database interaction with researchers and designers to acquire a better understanding of the human and socio-cultural requirements of academics' needs for e-library databases in their academic pursuit.

3.7 Utilisation enhancement of e-library databases

Providing access to e-library databases means that users require the skills to navigate this new resource system. The complex nature of the conception indicates an ability to use the library e-databases effectively and implies the capability to use and apply Information and Communication Technology (ICT). Meanwhile, reasons most often advanced for the low utilisation of e-library databases in university libraries include lack of search skills,

inadequate ICT infrastructure, and at times the sheer attitude of users (Mwaniki, 2018).

Thus, library professionals must ensure that such e-library databases are effectively explored through training and employment of proactive marketing strategies. Information literacy has become a crucial set of skill in academic work. In line with this, Ali and Richardson (2018) recommended that university libraries need to embark on information literacy training so that patrons can maximise the available e-library databases. As a result, subject librarians have become increasingly involved in the teaching of study skills, centred on using e-library databases and closer involvement with academic departments (Frandsen et al., 2017; Hoodless & Pinfield, 2016).

Consequently, there have been expectations that university libraries would drastically restructure their resources and services in reaction to changes in the information environment with attention towards providing access instead of availability (Chanetsa & Ngulube, 2016; Chiparausha & Chigwada, 2018). Conversely, libraries still operate their old structure (Hoodless & Pinfield, 2016; Khan et al., 2017). Furthermore, the functions of Academic Subject Librarians (ASLs) are not limited to academic liaison or user education but also several new duties, such as promotion of resources, follow-through, systems development, and e-resource management (Pickton, 2016; Khan et al., 2017; Mwaniki, 2018). In addition, a well-built relationship between ASLs and teaching faculty is vital for promoting library e-database use. Strong collaboration with faculty is vital despite the challenges confronting ASLs ranging from new technologies to financial difficulties (Diaz & Mandernach, 2017).

There exists a substantial body of literature that provides ways the use of e-library databases could be enhanced. For example, Frederick (2016) assessed the installation of the column data deluge and open knowledge at the University of Saskatchewan, Canada. The author reported the idea brought changes, developments and new beginnings for libraries in linked data, open data, metadata, open access publishing, and other related movements. The overall trend for librarians was toward developing and adopting new ideas, methods, approaches, and services to support findings and sharing data in an increasingly large and complex online context.

Diaz and Mandernach (2017) discovered the qualities that assisted subject librarians to build-up relationships with faculty in support of library services in a State University in Ohio. Drawing upon the experiences of a group of subject librarians and academic staff at the university, the scholars reported how liaison librarians built opportunities for enduring relationships and how they assessed the successes or failures of those interactions. The authors pointed out the importance of such skills as patience, expertise, follow-through, responsiveness, and individuality if subject librarians build solid relationships and fruitful collaborations. These attributes of the subject librarians mentioned, if embraced, will be useful in improving the utilisation of e-library databases by subject librarians in Nigerian Universities. Finally, some preliminary observations were made on the teaching faculty's understanding of the librarians' relationship-building efforts. This current study will additionally boost the relationship between the faculty and the libraries.

An assessment of the 'top-down' and 'bottom-up' approaches in use, to facilitate academics' research in one academic library in the UK was carried out by Pickton (2016). The measures taken by the library staff led to a major

increase in research activities. These consequently enhanced the library services, with some innovative practices being shared with the professional community through conference presentations and publications, and the resultant rise in profile and reputation for individuals, the department and the university. The study offered a wide range of ideas and practical suggestions for encouraging and facilitating academics' research in an academic library. These include incorporating research activity into job descriptions and annual performance reviews; facilitating peer support for research; and providing competitive research awards, research training opportunities and funding for staff presenting at external events. This initiative is rare. The practices described in this study could be useful to other academic and university libraries and, if imitated, have the possibility of boosting librarians' engagement in research activities, promotion of research practices of academics and inspiring interest in library services. Accordingly, the current study in the landscape of academics in universities in North-Central Nigeria employs the rare initiative of activities such as job descriptions, annual performance reviews, peer support, competitive platforms to provide a rich understanding of the utilisation of e-library databases.

Universities are facing many challenges resulting from the present technological environment. Academics' ways of engagement with e-library databases are complex and varied. There are also varying digital literacy skills among academics (Hallam, Thomas & Beach, 2018). The earlier scholars presented a university-wide approach to skills development in tackling some of the problems of e-resources use at the University of Queensland, Australia. The library champion/piloted a digital literacy framework; that covers collaboration, alignment, innovation, sustainability, and evaluation. The initiative shaped the University's academic policies and practices in teaching

and learning, digital scholarship, and research. Newland and Handley (2016) reported the University of Brighton, United Kingdom's digital literacies promotion. The initiative was possible by constructing a Digital Literacies Framework (DLF), supporting main academic work areas (Learning and Teaching; Research; Communication and collaboration; and Administration). The University's two ways of engagement with the DLF promoted were formal professional development schemes and a 'School-based' approach. ASLs can serve as digital facilitators, connectors, and collaborators, making a meaningful contribution to academic life (Hallam, Thomas & Beach, 2018).

Hallam, Thomas and Beach's (2018) and Newland and Handley's (2016) digital frameworks presented are examples of how university libraries can enhance their e-library database services within a socio-cultural context. Consequently, the current research engaged academics on their reactions to possible interventions by blogs, virtual tools, Moodle, Orbis, Storyline 360, and Blackboard to enhance the use of e-library databases.

Furthermore, studies have reported reference services as an essential mechanism for enhancing library e-database usage. However, according to the Pew survey, most library users in the US do not take their queries to reference librarians (Pew Data, 2013). Deng and Zhang (2015) concurred that though reference librarians' roles are helpful, library users hardly sought their services. Bandyopadhyay and Body-Byrnes's (2016) study stemmed from decreasing reference transactions observed in many academic institutions, including Adelphi University, Garden City, New York, USA. The authors explored the need for reference services in modern academic libraries due to high demands for electronic resources and user information needs and expectations changes. Literature was perused through a series of reflective

questions to document and analyse academic libraries' current trends in reference services. Findings from the exploration declared the importance of human-mediated reference services in academic libraries. It also buttressed the need for skilled, professional librarians to provide effective and efficient reference services in a digital environment. The debates in this study are helpful for library and information professionals as justification for the need to hire skilled, knowledgeable reference librarians to provide reference services in a digital environment.

Recently, Sinhababu and Kumar (2021) added their voices to the debate on the significance of library reference services in enhancing information resource utilisation by users. The advent of new technologies brought about changes in library services, which prompted reference librarians (ASLs) to embrace the internet in transforming the physical desk-based reference services (TRS) to Virtual Reference Services (VRS). The authors reported that while the adoption of VRS in India is scarce, some libraries are practicing it through email. Abubakar (2021) supports virtual reference services (VRS) in libraries. The services can increase interaction between library users and ASLs. The scholar analysed the literature on VRS from diverse e-databases (such as EbscoHost, Elsevier, Emerald, Google Scholar, JSTOR, Science Direct, and Taylor & Francis Online). The author found some frequently employed VRS ICT tools that can reduce the effect of the COVID-19 pandemic in meeting library users' information needs. While the author notes the plethora of VRS implementation challenges, he recommended using social media apparatus such as Facebook Express WiFi, Facebook Free Basic Model, and Twitter in the university libraries' VRS. These tools no doubt have the potential of real-time information space in the COVID-19 pandemic era.

This present study critically looks at the current trends and practices in reference services through the published literature to determine the future need for reference services in promoting online library database utilisation. It demonstrated why professional librarians' skills, knowledge, and expertise are essential to provide efficient reference services in the digital age. These results are for university libraries to better re-situate reference services to enhance academics' e-library database utilisation in this modern information environment.

In Australia, an approach taken by Griffith University library, Nathan, in using data visualisation to increase the academic/library staff collaboration was reported by Yamaguchi (2018). The author reviewed the literature as the foundation for the case study, which presented observations and reflections from their experiences with infographics. The results forwarded the utilisation of knowledge visualisation, specifically infographics, to show data about relatively low student engagement from a designated school with the Griffith University Library, leading to increased communication between the faculty and the library. Besides, the Library has inflated its use of infographics to demonstrate library impact to each educational and non-academic audience. This case study can be helpful to librarians because of its benefits in partnering with academics in terms of major university drivers, like student success and student retention. In other words, it provided an example of the use of infographics as an effective communication strategy in an academic library.

A vast number of recommendations for e-library database use enhancement outlined in the literature, especially in the regional and Nigerian contexts, were unsuccessful in aiding utilisation given the low statistics of use (Tella et al.,

2018; Eiriemiokhale, 2020). The current study presents other novel suggestions for e-library database use improvement.

3.8 Summary of chapter

This chapter reviewed literature from various countries and regions and found that diverse factors influence the utilisation of e-library databases in university libraries. This diversity could be due to disparities in cultures, geographical locations, and technological adoption in various universities and countries globally. The literature review also confirmed academic staff's preference for printed sources and search engines compared to library e-databases. Extant literature also corroborated the expected very low utilisation of e-library databases by academic staff in Nigeria. There was additional evidence on academics' lack of satisfaction with the e-library databases due to negative experiences. The barriers often reported in the literature have a narrow technological focus, whereas barriers are also resulting from human, social and cultural components often missing from scholarly analysis. There is an urgent need to use the lens of socio-cultural contexts and personal experiences of the academics to view the underlying components of barriers and discover new ones/ interpretations for alternative trends to emerge in the use of e-library databases. As a result of the relevance of the human and socio-cultural factors in using online library databases, it is crucial to humanise their use and apply ethnography for this research. Certainly, ethnography has the potential to provide a comprehensive and rich understanding of the human, social and cultural contexts of the academics' utilisation of the e-library databases to shed new light. The reviewed literature also showed previous studies relied on quantitative survey methodology, which lacks deep insight into participants' experiences. Quantitative methods cannot adequately uncover all answers/results in the library environment. In addition, a large number of

recommendations for enhanced e-library database use outlined in the literature, especially in the regional and Nigerian contexts, reveal an urgent need for further research and interventions. The next chapter presents the research methodology applied in investigating the study's research problem.

CHAPTER FOUR

RESEARCH METHODOLOGY

4.1 Introduction

The term research methodology is frequently used as a general heading for carrying out research (Gog, 2016). Research represents a systematic approach to determine the research question. Usually, the choice of methodology is influenced by the adopted theoretical perspective (Gray, 2004: 16; Connaway & Powell, 2010:32). The term methodology describes how to advance from the findings of empirical exploration to make inferences regarding reality (Jackson, Drummond, & Camara, 2007; Teddlie & Tashakkori, 2009: 21). Saunders, Lewis and Thornhill (2012: 3, 4, 674) defined research methodology as the theory and basis of a philosophical assumption that builds how research should be carried out.

The purpose of the research methodology chapter is to provide basic assumptions about the nature of the phenomenon being examined, what constitutes justifiable research and which research methods fit a particular research venture (Myers, 1997). As a result, methods emerge from the methodology and provide the means and measures to analyse data. Polit and Beck (2004: 15) and Teddlie and Tashakkori (2009: 21) maintained that the researcher uses techniques to structure a study and gather and analyse information relevant to the research questions. They include specific strategies and procedures for implementing the chosen research design which is determined by the overall methodological orientation (Rajasekar, Philominathan & Chinnathambi, 2013; Kothari, 2009). Generally, the research methodology chosen for a particular study depends on the kind and

characteristics of the research problem, its freshness in research terms, and the available time and resources to carry out the research (Wilson, 2002; Noor, 2008). Additionally, Creswell (2018:40) stated that the researcher's experience and the audience for the study must also be considered. Accordingly, the researcher's experience as an ASL and in-depth views of academics' experiences needed to solve the problem at hand informed the methodological choices in the current study.

More importantly, Tan and Hall (2007) opined that in an ethnographic study conducted under the interactionist concepts and tradition, the research method ought to agree with the ideas of symbolic interactionism. With this in mind, the Symbolic Interactionist Ethnography (SIE) theory employed for this study figured out the research questions that influenced the study's methodological choices. Consequently, this study being mindful of academic staff's use of e-library databases, was able to select suitable methods to explore how the resources are used for research.

The chapter explores and justifies the different elements that make up the research methodology of the study. It begins with the philosophical foundation of research. Four main research paradigms were reviewed. Again, the chapter discusses the Interpretivism as the key methodological paradigm. While embedded in rich conversations with study participants, the current researcher considers the academics' use of e-library databases in universities from a different ontological and epistemological perspective than prior literature on the topic. It is crucial for the study to include the profiles of academic staff, Systems Librarians, and the researcher (See Sections 4.4.1 & 4.6.1 of this chapter for the full details).

The researcher, an Academic Subject Librarian (ASL), was embedded into academic faculties in one of the universities (University of Jos, UniJos, Nigeria). The practice was possible through engagement in teaching information/digital literacy, participation in Faculty Board meetings, and sensitisation on the use of e-library databases at the Faculty of Social Sciences. Additionally, the researcher had previously developed a good relationship with both the ASLs and some academic staff at the selected universities during conferences and workshops. For this reason, it was easier for the researcher to switch roles from an ASL, a teacher, to an ethnographer for data collection.

On the other hand, academic staff in Nigerian universities resume work by 8a.m. and close by 4p.m. The research sites, the University of Jos (UniJos) and the Federal University of Agriculture Makurdi (FUAM) are federal universities in Nigeria. UniJos's Bauchi Road Campus is located on Bauchi Road, while the Naraguta Campus is located along FarinGada Road Naraguta, Jos Plateau State. The FUAM is a university of agriculture, located in North Bank, Makurdi, Benue State (Please see details in section 1.1.2 of chapter one, and section 4.5 of this chapter). The researcher was immersed in unobtrusive and participatory observation of the academics' use of the e-library databases, in the universities for a year. Such 'immersion' allowed the researcher to personally gather rich data of academic staff's teaching and research activities using e-library databases, onsite; when at work and online; when at home.

Specifically, their use of the e-library databases in the libraries was analysed by observing the learning/study spaces reserved for academics in the libraries, and the interaction between the ASLs and the academics. Also, user experiences and library websites were analysed (See Section 4.9.1 and Appendix 7). The notes recorded academics' research behaviours, activities,

and events observed. The field notes as well documented the researchers' perspectives/ role in the research process/ events observed.

Finally, the chapter further describes ethnography and the rationalisation for its use in the present study. As a result of research design choice, the study presented the researcher's positionality. Also, the chapter describes the participants and sampling methods; data gathering methods; credibility and trustworthiness of methods used; collection procedures and analysis. Ethical issues were as well examined.

4.2 Research paradigms

Paradigms are fundamental assumptions and beliefs professing the world and the cognitive structure that directs the researcher's behaviour (Denzin & Lincoln, 2005; Jonker &Pennink, 2010). Saunders et al. (2016: 124) defined research paradigms as 'a system of beliefs and assumptions about the development of knowledge.' It also explains understanding social phenomena that researchers ought to understand as it influences the research's interpretation (Bryman, 2004; Case, 2012; Babbie, 2012). In light of this, Miskon, Bandara and Fielt (2015) suggested that every sound research emerges amid a notion of a research paradigm as an umbrella for analysing and interpreting the data. Four concepts characterise paradigmatic orientations within each paradigm. These concepts are ethics (moral imperatives shaping how one comes to know), ontology (what can be investigated by the researcher), epistemology (the knowledge the researcher intends to identify about it), and methodology (the ways of generating evidence) (Lincoln & Guba, 2000; Grix, 2004:68; Pickard, 2007).

Studies of human behaviour usually require the adoption of a research paradigm to improve the study's credibility. Moreover, applying

research paradigms in research vary among researchers based on their choices and the nature of the problems to be explored. Accordingly, many philosophical paradigms exist today due to advancements in people's thinking and various means of expounding the incidences and implications of occurrences in the world (Adom, Yeboah & Ankrah, 2016). Additionally, the differences in the application of research paradigms in information research do not rely on philosophical assumptions alone but the practical effects of the investigation and the interpretation of the findings (Kwakukankam, 2019).

Guba and Lincoln (1994) categorised paradigms into positivism, post-positivism, constructivism, and critical theory. Grix (2004: 68) puts forward the main philosophical paradigms used in Social Science research as Positivism, Pragmatism, Critical-Postmodernism, and Interpretivism paradigms. Kwakukankam (2019) suggested that despite the usefulness of applying research paradigms in information research, researchers should be cautious of the limitations of the paradigm they would adopt for a study. With this in mind, the current research adopts the Interpretivism stance.

Interpretivism is a paradigm within an epistemological position that treats reality as frail. Knowledge as personal and the truth lies within the meanings of a person's reality as he/she interacts with that 'reality' (Shisanya, 2019: 46). According to Charmaz (2006), interpretivism assumes multiple realities, facts, and values linked to social life. Therefore, the ontological assumptions of interpretivism are that social reality is interpreted differently by various people, leaving multiple perspectives of an incident. The researchers' interpretations of the research are shaped by their experiences; personal, cultural, and historical experiences, and backgrounds (Willis, 2007). The researcher's intent, in that regard, is to make sense (or interpret) the meanings

others have about the world. Also, interpretive methodology tends to support qualitative methods such as case studies and ethnography (Willis, 2007: 90).

Interpretivist research has been critiqued to have abandoned the scientific methods of confirmation and thus, results cannot be generalised to other circumstances. For this reason, many positivists query the interpretivist research. Interpretivism has also been critiqued in that its ontological assumption is subjective rather than objective. But Shisanya (2019) responded that all research is subjective. According to the earlier cited scholar, when a researcher selects a paradigm, he/she is being subjectively oriented toward one way of doing research (49-50). The aforementioned author added that one cannot dissociate oneself from his/her own perspective as a researcher.

The reported limitations of the interpretive paradigm are minimised in the current study by adopting the approach by Scotland (2013). The approach takes a position that interpretive research approach is good since it provides rich evidence, offers credible and justifiable accounts and can be used by someone in another situation (transferability).

Ultimately, the interpretive paradigm was adopted based on its suitability to explore the questions in the present research. Since this study is concerned with academics' detailed experiences of using e-library databases to conduct research, the interpretive research paradigm is a suitable yardstick for understanding and exploring their beliefs, opinions and thoughts (Denzin & Lincoln, 2005; Thanh & Thanh, 2015). Besides, as the paradigm's assumption values the importance of context in which social phenomenon takes place, it matches the nature of the problem at hand. For that reason, it allows the researcher to understand academics' beliefs, practices and behaviours from

their perspectives (Lincoln & Guba, 1985; Dimitriadis, 2003; Denzin & Lincoln, 2005).

Also, in comparison with positivist, post-positivist and critical paradigms, the ontological assumptions of the interpretivist paradigm were more appropriate and well-suited with the research problem under inquiry. Positivist paradigm, for example, is detached from the social context in which a particular phenomenon is studied and it views social reality as completely objective (Shisanya, 2019). Additionally, the present study requires a methodological approach that allows both researcher's and participants' values, experiences and perspectives to be part of the research process. In essence, using the interpretivist perspective brought together the researcher's personal experiences and background as an ASL and the academic's values, experiences and views on the utilisation of e-library databases, to address the present problem. Again, the Interpretivists believe in fully engaging the learners in the teaching of study skills. In this regard, to provide access to e-library databases, academic staff require the skills (digital literacy) to navigate this new system. Academics' engagement with the e-library databases would enable them to discover their values and use them maximally for research.

Besides, the research problem and questions in this study required the researcher to align with the adopted paradigm. By this means, it allows for the social construction of meanings gathered from observation of academics' communication with the online library databases. That is, the interpretivist perspectives were apt to uncover the experiences, underlying patterns, context-specific issues, and barriers affecting the maximum use of e-library databases by academics. For instance, Lim's (2015) study underpinned by the interpretivism, explored how academics in the 'School of the Future' in

Singapore engaged with information and communication technology (ICT) in teaching and research. The study discovered from the context of everyday classroom practices, academics' experiences, ICT adaptation and challenges faced in using the resources.

Furthermore, the paradigm is suitable for this research because it allows the researcher to apply multiple methods, divergent worldviews, and different assumptions, as well as diverse forms of data collection and analysis (Morgan, 2013). Again, the interpretive paradigm accepts multiple viewpoints of different individuals from different groups. As a result, it can lead to a better understanding of reasons for academic staff's low use of the e-library databases and ways the use can be maximised. Also, as a theoretical perspective, the interpretivist paradigm is useful for updating the blueprint toward enhancing the use of e-library databases. In short, the paradigmatic framework for the research is interpretive.

4.3 Research approach

The types of ideas held by researchers will always direct the choice of either a qualitative, quantitative, or mixed methods approach in their research(Creswell, 2018: 40). As expected, the present study adopted the qualitative research approach to answer the research questions of the study.

Qualitative research entails the elucidation of the meanings, metaphors, and symbols of the social world, aiding the researcher to perceive how members of a group interpret a situation (Asher & Miller, 2011). It can also be used to increase a researcher's understanding of group members' behaviours. Qualitative research claims to describe the life world, from the people who participate. By so doing, it seeks to contribute to a better understanding of social realities and draw attention to processes, patterns, and structural features

(Flick, von Kardorff & Steinke, 2004). According to Flick (2009: 14), qualitative research has the following features: “The correct choice of appropriate methods and theories; the recognition and analysis of different perspectives; the researchers' reflections on their research as part of the process of knowledge production; and the variety of approaches and methods.”

Hammersley (2018) critiqued the survey research, which is the dominant methodological approach in information systems research, as eliminating the most significant elements of human life, thereby producing a distorted or inconclusive picture of the world. Specifically, quantitative approaches lack in-depth perspectives of the participants’ experiences and an understanding of human, social, and cultural contexts in the use of e-library databases. As mentioned in chapter one (See Background of the study, section 1.3), Goodman (2011) recommended that librarians and researchers interested in improving the use of library resources may consider field studies. In this case, the ethnography approach is more appropriate/rewarding to yield much richer data on human, social and cultural contexts than survey answers and other methods.

Also, recently there has been a lot of debate on using qualitative methods for studying culture/cultural audience (Press, 2018). Methods and strategies used as data collection tools in qualitative research are narratives, interviews, observations, ethnography, case studies, and phenomenology (Connaway & Powell, 2010). Despite its richness and a means for discovery, qualitative research has been critiqued as deficient in scholarly rigour (Berg, 2007: 3; Gioia, Corley, & Hamilton, 2012).

However, Cook, Kuper, Hatala and Ginsburg (2016) absolved the role of qualitative assessment as part of a wide-ranging agenda of assessment and

interpreted the notion of validity to judgments arising from qualitative assessments. Cook et al. (2016) identified responsiveness, reflexivity, purposive sampling, thick description, triangulation, transparency and transferability as standards for rigour in qualitative research.

Bangura (1994) observed that the survey research approach is limited to producing some vital data because it is unfriendly, lacks chances for questioning, and gives no opportunity for dialogue. The scholar added that the approach pays no attention to respondents' social and personal contexts of meaning. Therefore, thoroughness and dedication to scholarly rigour are critical issues for the qualitative method of inquiry, to discover the fact, and the truth about the phenomenon (Bangura & Hopwood, 2014).

Specifically, academic staff can express their needs, concerns, and aspirations through verbal and non-verbal communication (rather than relying on experiments) through this method. Thus, leading to a high degree of practicality to examine academic staff utilisation of the library online databases holistically and in-depth (Baillie, 1995). Furthermore, it is suitable for studying areas previously not well understood (LeCompte & Schensul, 1999). Naturally, research conducted using the qualitative approach, such as ethnographic design, will enable the researcher to observe and listen and document ideas and experiences. It leads to obtaining ample data, providing in-depth accounts of the phenomena or experiences, within their context (Reeves et al., 2013). In essence, it enables academics to be studied in a natural setting and viewed in the context in which it occurs (Baillie, 1995). Moreover, it generates a deep understanding of academics' beliefs, values, and academic life (Rosenbaum, 1991). Furthermore, qualitative methodologies are more interpretative, historical, and ethnographic compared to the quantitative

approaches (Bangura & Hopwood, 2014). Ultimately, this approach can facilitate the in-depth understanding of ASLs' roles in academics' use of the e-databases and the academics' feelings regarding the library services rendered. The researcher, academic staff in one of the institutions, was embedded in the study. As mentioned in chapter two, in qualitative research, theory and conceptual insights arise from the data (Bangura, 2019). For the present study, the theory appeared at the start as an orienting lens.

4.4 Research design

The research design refers to an action plan of a study, which consists of clear steps/procedures to the conduct of the study to answer the research questions (Babbie & Mouton, 2001: 72; Cheek, 2008). Bickman and Rog (2009: 11) viewed a research design to be of high quality, and there must be a link between the research questions, objectives and the way the research design supports the right data collection sources and research methods, sampling methods, reliability and validity of the findings.

Accordingly, ethnography is the adopted research design for this study. Also, Ubriani, Smith and Katz's (2007) position justified including the research design in the title of the current research. Hammersley (2018) confirmed that journals in various fields employ ethnography in their titles. The goal of adding the research design in the title is to bring to scholarly focus issues of originality, creativity, cross and inter-disciplinary nature of the Information Science discipline, and add scope and breadth to research. Equally, the adopted research design is included in the study's title because the choice of ethnography is uncommon in the area of study. It is fundamental to indicate the point of departure from related studies driven by quantitative approaches.

Also, it is a methodological innovation aimed at originality, generating new ideas and data not currently in the eye of scholarly analysis.

Ethnography is the study of people in naturally occurring settings or 'fields' employing methods that capture their social meanings and ordinary activities (Wilson & Chaddha, 2009). Asher and Miller (2011: 3) defined ethnography as a collection of qualitative methods centered on the close observation of the social performances and interactions that intensely examined the context in which activities occur. Likewise, Draper (2015) and Sharman (2017) maintained that ethnographic methodology focuses on discovering and describing people's behaviour, either as individuals or as a group, based on their social and cultural practices in a specific context. Such approach made it possible for the researcher to discover the socio-cultural factors that affect academics' use of e-databases. Moreover, it involves understanding the meanings, descriptions, and signs of the social world (Asher & Miller, 2011: 2). As a result, the method requires a detailed study and long-term commitment with a research site to gain insiders' perspectives (Asher & Miller, 2011; Lanclos, Murrey & Asher, 2016). The process enabled a deep understanding of academics' perspectives on low use of the online library databases.

Also, its data is typically composed of observations, texts, images, audio and video materials, and physical artifacts, which the researcher uses to create an interpretive understanding of social and cultural processes (Emmelhainz, 2016). Accordingly, ethnography contains elements, such as mindsets, views, feelings, spoken and unspoken ways of communication, behaviorsor of individuals with colleagues, and technology and space (Emmelhainz, 2016). The researcher observed academics engage with the e-library databases.

Admittedly, ethnographic methods are excellent in shedding light on detailed descriptions of people's experiences about social and cultural processes and practices (Eldermine & Tang, 2016; Ramsden, 2016; Twiss-Brooks et al., 2017). The technique will enable the researcher to explore the academic staff's experiences on the use of the library e-library databases.

Previously, ethnographic research has been a means of observing and documenting behaviour, way of life and cultures within social sciences, especially the fields of sociology. Afterwards, the methodology was revamped and modified by each discipline to ease understanding different communities and groups (Goodman, 2011). Similarly, this research is different from Bronisław Malinowski's (1922) original type, as it adapted the methodology to suit the environment of e-library database research in the field of Library and Information Science.

Ethnographic studies are developed using qualitative research tools, such as diaries, interviews, surveys and observations, which provide researchers with rich detailed information to establish a description of a group of people (Rashid, Caine & Goez, 2015). Nowadays, ethnographic research, especially in libraries, is increasingly concerned with the use of online resources (Hallett & Barber, 2014).With this in mind, the observations need not be only on-site (Hallett & Barber, 2014; Lopez-Dicastillo & Belintxon, 2014). Hallett and Barber (2014) affirmed that as the internet increasingly frames lived experiences, researchers need to consider integrating data from online spaces into "traditional" ethnographic research. Then, data on participants' behaviours can be obtained from the physical and virtual spaces and from documents (Waycott et al., 2016). The technique is as well employed by the current study,

to gain a deeper understanding of the use of e-library databases by academic staff.

Library studies that employed ethnographic approach exist. Seadle (2011) agreed that ethnographic research has increased to a large extent. Andrews, Hines and Wright (2016), Appleton (2016), Lanclos, Murrey and Asher (2016), in like manner, confirmed the increase in the use of ethnographic methods in general areas of libraries but not in the domain of library database research. However, Carlsson, Hanell and Lindh (2013) and Ramsden (2016) maintained that even though researchers in Library and Information Studies (LIS) have adopted ethnography for studying an extensive range of occurrences, the methodological trends, as well as its wider applicability within the field is rare. Recently, particular studies that have adopted the ethnographic method include Farada (2016), Sharman (2017) and Wray and Foster (2018).

There are different types of ethnography. Examples are critical ethnography, sensory ethnography, auto ethnography, institutional ethnography, team ethnography, rapid ethnography, micro-ethnography, digital ethnography and interactionist ethnography (Reeves et al., 2013). The current study adopted the interactionist ethnography of two case studies. The interactionist ethnography aligns with the research philosophy and the theoretical framework employed for the present study. After all, being guided by the interactionist perspective facilitates research that explores academic staff research using the online library databases. In this case, through the use of the interactionist ethnography approach, the researcher discovered complex issues attached to academics' acceptance versus the resistance to e-library databases and changes to be made

by the library to meet their expectations, which can lead to the enhancement of e-databases use (Prasad, 1993).

On the other hand, a case study investigates a phenomenon within an actual life context when the boundaries between the incident and context are not visibly clear and in which various sources of evidence are employed (Yin, 2003:13). Accordingly, the chosen research approach is an ethnographic study of two case studies. Chavez (1997) observed that ethnographies are also sometimes called case studies. Parker-Jenkins (2018) acknowledged that in several instances/situations, researchers do not conduct ethnography as understood within a traditional sense but instead engage in a case study, drawing on ethnographic techniques.

Ethnography of multiple case studies has been widely used in previous relevant studies (Hyldegård, 2006a; Farada, 2016; Parker-Jenkins, 2018). Murchison (2010) confirms that the use of several cases in ethnographic studies aids researchers to discover variations and differences within and across cases. Dellwing and Prus (2012), Fusch, Fusch and Ness (2017) concurred on using an ethnographic approach bounded within a case study procedure. Besides, the latter observed the benefit and feasibility of this approach for a student researcher with limited time and funds. Also, the case study method is suitable for the conduct of this study since it focuses on the utilisation of e-library databases in the libraries of two universities. For this study, the method will be useful in providing the desired results through a thorough and in-depth process of data collection.

Yet, ethnographic research has been critiqued for lacking scholarly rigour (Lecompte, 2002; Lanclos, Murrey & Asher, 2016). However, the ethnographic methodology's disloyalty to the positivists and ensconced notion

of research rigour provided an alternative means of uncovering the reasons for academics' low use of the e-library databases. Besides, the current study emanated from the failure of previous quantitative research approaches to provide solutions/answers to the present problem. Moreover, the present study devised strategies to overcome/address the challenges to basic beliefs (to do with the notion of culture, people, the study site and the researcher position) of ethnography, to match the veracity of the modern technological university environment (See Section 4.9 of this chapter).

4.5 Researcher positionality

For this study, the researcher must reflect her positionality in the research earlier (Madison, 2012). As previously mentioned, this study's motivation stemmed from the researcher's experiences as a Subject Librarian. The researcher has been an ASL for ten years at the University of Jos, Jos, Nigeria. The researcher was at the Centre for Continuing Education (CCE), as Librarian, for five years and was later appointed the Social Sciences Librarian, a position she held before proceeding for her Ph.D. programme. Specifically, part of the researcher's responsibility as a Social Sciences Librarian was constant interaction with the faculty to ensure the library resources' maximum use, especially the subscribed library databases. The researcher was mainly involved in selecting the e-library databases, advocacy, information skills training, teaching information literacy, and providing research assistance/inquiry support to academics and students. Also, collaboration/ working closely with the technical staff to ensure the utmost access to the resources. The available e-library databases for the Social Sciences faculty in UniJos are Elsevier Science Direct, EBSCO HOST, Emerald Insight, JSTOR, Scopus, Oxford Journals, and Questia.

From experience and Nwokedi et al.'s (2017) study on online usage patterns of Elsevier database amongst academics of Environmental Sciences, University of Jos, there was underutilisation of the e-library databases by academic staff at the University of Jos, andsimilar institutions in North-Central Nigeria. As earlier mentioned, the library staff developed information literacy programs. Knowledge of such skills is vital to the success of academics' research. The problem, however, remains despite efforts to remedy the situation. It was these documented observations that inspired the current study. As Mason (1994) noted, there is a need to detect and attend to those practice incidents when they occur and keep them for re-questioning in the future. Bold (2012) also emphasised that regardless of the researcher's importance as an insider, exploring the 'self' as part of the research process is lacking in higher educational institutions.

To address the gaps identified in the literature and contribute to the scholarship on academics' e-library databases use experiences, the study adopted an ethnographic study to understand their beliefs, practices, and behaviours from their perspectives (Dimitriadis, 2003; Denzin & Lincoln, 2005). At first, because the researcher is not an anthropologist, she sought professional advice from a staff member from the Sociology and Anthropology Departments of the University of Jos, Nigeria. The discussion significantly improved the project plan. As Asher and Miller (2011:5) advised, if a researcher is not knowledgeable in using ethnographic methods, it would be helpful if he/she seeks advice from an experienced ethnographer to avoid possible hitches. The researcher's Master's Degree on "Adaptations to changes in cataloguing information materials by academic and special libraries in Plateau State, Nigeria" also provided rich information on the use of observation as a data collection tool.

Besides, as an ASL, the researcher was strategically positioned to study academics' use of the e-library databases. The researcher's constant interaction with the faculty enabled utilising ethnographic methods appropriately to influence established relationships to obtain actual data on academic staff's information needs instead of relying on assumptions. The researcher's existing relationship with many of the academics also proved helpful for the study because it provided many opportunities to interact informally with them. According to Reeves (2013), the ethnographer's insider position is paramount in finding out the phenomenon as much as possible. Conversely, Creswell (2014) argued that studying the researcher's organisation or immediate workplace often compromises the researcher's ability to reveal information and raises a disparity of power between the researchers and the participants.

However, an insider's position and familiarity can distort limits, imposing their values, beliefs, and perspectives by a researcher, which leads to biases (Drake, 2010). The researcher's position as an ASL affected data collection and data analysis in studying academics' e-library databases because the researcher approached the study with some knowledge about the phenomenon and addressed specific issues more simply. It also affected participants' expression. They repeatedly left some sentences incomplete/hanging, assuming that 'the researcher knows the rest of the story' (e.g., you know academics' response when they are invited for training on the e-library databases use).

As a result of the researcher's insider position, she had to be constantly vigilant and thoroughly reflected on how her presence would shape the conversation. In that case, the researcher clarified that their shared experience was different from the onset, as she wanted to learn theirs. Moreover, the

researcher was better equipped with insights and the ability to understand specific data aspects. Chaudhry (2000) noted that a researcher's 'dual identity' as a member of the community being studied shapes the research process.

Creswell (2014) added that when researchers collect data at their workplace, the information may be convenient and easy to collect. Being familiar with online library databases by academic staff, it was easy for the researcher to ask questions and deeply grasp the responses. Besides, the researcher made a great effort to keep her thoughts separate from theirs. For example, the researcher ensured that she did not push participants in particular directions but allowed them to tell their stories. The researcher also heard the non-verbal and dug out clues that other researchers may fail to spot.

To this end, though the researcher's relationship with the academic community could be perceived as bias or a limitation to the research, it was a part of the university environment that enabled access to the academic staff (despite their tight schedules). That position consequently allowed the gathering of detailed information concerning social and cultural meanings academics ascribe to the use of the e-library databases. The academics knew that their contributions could lead to the enhanced use of e-library databases. As a result, they participated in the research voluntarily since they would benefit from the study. However, despite several attempts, some of them refused to be interviewed. Reasons given for non-participation were busy schedules.

Again, the researcher interviewed academics from the selected universities across faculties. From their responses, it was evident that the information given was genuine. Furthermore, all the ASLs invited for the focus group discussions accepted and fully participated. Knowing the researcher is a colleague, and the study's outcome can improve e-library databases use, all

contacted were pleased to participate. Moreover, the group discussions provided avenues for them to share their experiences. From the in-depth dialogue that took place, the researcher gathered more rich and detailed information from the participants due to their long years of experience in collaboration with the academic faculties.

In short, the researcher was in the field for one year. Her stay in the selected universities amounted to 170 days (see the full details in section 4.8.1). The researcher participated in work tasks that constituted the core of the ASLs. The procedure gave her both an identity as an insider (group member) just as an outside researcher, allowing her to relate closely with the participants. As a result, the researcher observed academics' use of the e-library databases deeply, both remotely and online. Comprehensive information was also uncovered. The researcher was involved in an obtrusive observation of how the academic staff engage with the e-library databases. Finally, the researcher took notes of all the information generated from the interviews, focus group discussions, and observations of the academics' interaction with the online databases in the university environment. Additionally, during the fieldwork, the researcher was engaged in data analysis to elucidate her thoughts from the concepts and themes that cropped up. As Creswell (2014) asserted, data collection and analysis are done simultaneously in ethnographic research.

4.6 Site Selection

Nigeria is divided into six geopolitical zones: North-Central, North-East, North-West, South-East, South-South, and South-West (Ibrahim & Ibrahim, 2014). The study chose North-Central Nigeria based on convenience sampling. The choice of the North-Central zone of Nigeria was more convenient for the

researcher, academic staff in one of the selected universities in the zone. The site selection facilitated access to the participants.

The zone consists of six states, including the FCT- Abuja, Benue, Kogi, Kwara, Nasarawa, Niger and Plateau. Although there are seven (7) federal universities in the North-Central zone of Nigeria, this study was limited to two universities based on convenience sampling.The adopted research site selection procedures involved a study population comprising academic staff from two selected universities in the North-Central zone of Nigeria: University of Jos (UniJos), Plateau State, and Federal University of Agriculture (FUAM), Makurdi, Benue State. The research site selection criterion involved a choice of the oldest universities in the North-Central zone of Nigeria. Also, the choice is in line with the adopted theoretical and methodological choices for this study. Besides, the choice of the two universities was premised upon the fact that both universities have the required e-library database infrastructure, basic facilities and installations needed, and the academic workforce to meet the demands of the study. Moreover, the selected research sites meet the purpose of the research. In other words, for the researcher to be meticulous, for convenience, as well as limited availability of resources, only these two universities were covered.

4.6.1 University of Jos (UniJos)

The city of Jos is situated on the northern edge of an upland known as the Jos Plateau. Jos is located 300km away from Abuja, the Federal Capital and centre of Nigeria, with the University of Jos drawing students from across the country. UniJos has twelve faculties and runs a three-campus system. The library operates at the three locations (Please refer to section 1.1.2 in chapter one of the thesis). The university has transformed governance, teaching,

learning and research through the integration of ICT in the delivery of all services (UniJos, 2013).

For some years, the library has embraced innovation, particularly in Information and Communications Technology (ICT), to improve and expand its services. Presently, the library provides effective access to the university community, using digital technologies. Specifically, it hosts a wide range of local and national activities including on-site training (UniJos, 2013). A major transformation of the library has been the digitisation of its collections. In 2009, the library adapted Open Source, DSpace software, to set up a repository. It was the first Institutional Repository in Nigeria (http://dspace.unijos.edu.ng). The Repository provides access for research publications, intellectual outputs and archival materials of the university (UniJos, 2013). The Institutional Repository is organised according to faculties for easy access by researchers.

Additionally, in the last ten years, the library has built the ICT capacity of staff at all levels by educating the staff to use ICT resources (UniJos, 2013). The process enables adequate access and use of resources, which is a requirement for excellence in teaching and research. Consequently, through series of trainings, all library staff have relevant ICT skills. More importantly, the skills enable the ASLs to harvest appropriate resources for their subject areas and can in turn teach their users/ researchers. Besides, a Webmaster was engaged in 2008. It populates and updates the library's website http://www.unijos.edu.ng/library/,with relevant resources. The Webmaster works with ASLs to harvest resources. She assists in subscriptions renewal of databases, troubleshoots and communicates with Internet service providers. Also, the Webmaster occasionally alerts the ASLs of new online resources.

The library has as well established some computer laboratories to boost access to its resources. Finally, as a result of the library's adoption of ICT, it has tapped into important regional and international digital resources (Akintunde, 2016).The online resources support excellence in teaching and research. The available e-library databases in UniJos library are listed below:

i. Access to Global Online Research Agriculture (AGORA)
ii. ACM Digital Library (DL)
iii. African Digital Library (ADL)
iv. ARDI-Research for Innovation
v. BioOne Online Journal
vi. EBSCO HOST
vii. EconBiz
viii. Elsevier ScienceDirect
ix. Emerald Insight
x. Global Online Access to Legal Information (GOALI)
xi. Health Internetwork Access to Research Initiative (HINARI)
xii. IEEE Xplore Digital Library
xiii. IMF eLibrary
xiv. Internet Archive
xv. Journal Storage Project (JSTOR)
xvi. Online Access to Research in the Environment (OARE)
xvii. Oxford Journals
xviii. Proquest E-Book Central
xix. Proquest Research Library
xx. Questia-The Online Library of Books and Journals
xxi. Semantic Scholar
xxii. Scopus

xxiii. The Database of African Theses and Dissertations (DATAD)

xxiv. TEEAL Database

xxv. The National Academies Press (NAP)

xxvi. The Virtual Health Library (VHL)

xxvii. World Digital Library-Journal Collection

4.6.2 Federal University of Agriculture, Makurdi (FUAM)

FUAM is located at Makurdi, Jos road, Benue State Nigeria. The library established 1988 and was later named after Francis Suleimanu Idachaba. The University has 10 Colleges. As a result, the library has 10 College Libraries, a Veterinary Teaching Hospital Library and two School Libraries for the maximum benefit of the entire university community.

Recently, the FUAM library embraced the emerging ICT. According to Ukih (2012), many of the library services have been digitised, with strategies put in place to ensure the available e-resources are well utilised (See Section 1.1.2 of chapter one of the Thesis). Finally, the library has subscribed to VSAT Internet services to allow users to search various catalogues worldwide through Google, Yahoo, Mama, Mozilla Firefox, ask.com, devilfinder.com, msn.com and other web search engines. The e-library databases subscribed by the FUAM library for teaching and research are listed below:

i. AGORA

ii. AJOL

iii. HINARI

iv. OARE

v. Research for life

vi. Research for Global Justice GOALI

vii. UAM Digital Library

viii. QUESTIA

ix. EBSCOHOST

x. TEEAL

4.7 Population of the study

The academic staff population in Unijos is 1,331 (NUC, 2017), while FUAM is 543 (FUAM Students Prospectus, 2017). In short, the population of the academic staff of the two universities is 1,874. In the context of this study, academic staff include lecturers, ASLs and Systems Librarians of the selected universities. While the focus of the study is on lecturers, the study included ASLs and Systems Librarians because they play significant roles in academics' use of the online library databases (Please see Background Section 1.2).

Below is a profile of the different categories of the study's research participants:

- **Academic Staff**

University academic staff do complex work in a demanding environment. Conventionally, academic staff in universities are responsible for activities like teaching, research, and community service. While the primary emphasis is on teaching and research, the secondary emphasis is on community service and administration. Resultantly, academics are increasingly challenged by accountability and workloads. Despite that, Adetomiwa and Okwilagwe (2018)

asserted that their effective performance may depend on the use of e-library databases for research.

- **Academic Subject Librarians (ASLs)**

  The ASLs are those librarians who oversee a university's Subject Libraries (Shelley, 2014). ASLs are knowledgeable in their subject areas/ disciplines in addition to librarianship. As ASLs, they embed themselves within their faculties to ensure the optimal use of the library resources. They are also involved in selecting print and e-resources, promotion, teaching digital/ information literacy, training on the use of e-library databases, and providing research assistance to both academics and students.

- **Systems Librarians**

  The technological changes in libraries compelled the need for systems librarians. The inadequate ICT proficiency of ASLs has reduced their ability to perform duties such as troubleshooting and Helpdesk. Hossein, Farajpahlou and Danesh (2009) noted that ASLs require computer experts since they may not have the necessary IT skills. Systems librarians are computer professionals and librarians simultaneously. They focus on maintaining library databases and are more incorporated in the library.

4.8 Sampling procedures and sample size

Sampling is a vital aspect of data collection and analysis activities (Tucket, 2004; Reeves et al., 2013). It is the process of selecting the right group, settings, incidents, or behaviours to observe or study (Bertram & Christiansen, 2014: 59). Based on the study's research philosophy, sampling of participants, activities, and interactions should preferably be done on a purposeful, not opportunistic, basis. Atkinson and Pugsley (2005) affirmed the benefit of using purposive sampling. That option will generate a more thorough representation

of the issue being investigated; since it is clear more consideration was made before the selection.

Also, consider that academic rigour is demanded of qualitative researchers in recent times (Bradshaw & Stratford, 2010; Hadi & José Closs, 2016). Unfortunately, there are misconceptions that sample size considerations tend to be dichotomised with large sample sizes and probabilistic techniques associated with a quantitative approach, whereas small samples and non-probabilistic sampling procedures are associated with qualitative approaches. According to Onwuegbuzie and Collins (2007), the common thinking earlier mentioned is too simplistic and misleading. Infact, qualitative research can involve probabilistic sampling and vice versa (Leech & Onwuegbuzie, 2002; Carresse et al., 2002; Onwuegbuzie & Collins, 2007).

Both probabilistic and non-probabilistic samplings were used to select participants for this study. The use of probabilistic samples enabled generalisation of the findings drawn from the sample to the whole population of the study (Leech & Onwuegbuzie, 2002). The process also allowed the researcher to determine bias and error in the data generation (Frey et al., 2000). It as well enhanced the credibility of the study. However, generalisation is not sought by the researcher of this study, and the focus is less on sample size and more on sample adequacy (Bowen, 2008). Bowen argued that the adequacy of sampling relates to the demonstration that saturation has been reached, which means that depth, as well as the breadth of information, is achieved. Kuzel (1992) and Gaskell (2000) confirmed that sampling in qualitative research is concerned with the richness of information and the number of participants required, therefore, it depends on the nature of the topic and the resources available. Morse and Field (1995) and Jalongo and Saracho (2016) noted the

two main considerations that guide the sampling methods in qualitative research are appropriateness and adequacy.

Accordingly, the researcher adopted both the stratified and purposive sampling methods for a qualitative - ethnographic study as approved by Leech and Onwuegbuzie (2002), Carresse et al. (2002), Onwuegbuzie and Collins (2007). Stratified sampling is a probability sampling method in which the population is divided into categories (strata) according to one or more common attributes (Neuman, 2006). Random sampling is then used to select cases from each category. The stratified random sampling produces samples that are representative of all subgroups or strata. Besides, it reduces the probable sampling error (Babbie, 2004). Simultaneously, purposive sampling involves identifying and selecting individuals or groups of proficient and well-informed individuals on a phenomenon of interest (Bhattacherjee, 2012).

The stratified sampling strands involved the academic faculties forming the strata in which they were randomly selected across the faculties. In short, the choice of proportional stratified sampling enhanced the distribution of academics among the different disciplines. The ASLs and systems librarians, on the other hand, can give rich information on the online library databases use from their experiences in providing services to academics.

Accordingly, two academics (lecturers) were conveniently (convenience sampling) selected from 22 faculties (12 faculties in UniJos and 10 in FUAM) of the selected universities for the study, forming a total of 44 academics/ lecturers (Please refer to section 4.5 for the details on faculties). Since it is impossible to use the whole population, the study selected the two academics across faculties based on easy accessibility and their readiness to participate (Etikan, Musa & Alkassim, 2015). This selection met this study's needs.

Furthermore, the study purposively selected 6 ASLs and 1 Systems Librarian from each of the university libraries, giving a total of 12 ASLs and two (2) systems librarians, respectively. Thus, 58 academics from the two institutions participated in the study. The sample sizes are given in Table 4.1 below:

Table 4.1: Sample sizes for each institution

S/N	Universities	Academics (Lecturers)	Academic Subject Librarians	Systems Librarians	Total
1.	UniJos	24	6	1	31
2.	FUAM	20	6	1	27
Total		44	12	2	58

The sample size of 58 academics is premised on the framework for determining sample sizes for ethnography by Morse (1994) and Creswell (2017). The researchers approve 30-60 participants for ethnographic research. The study's total population is considered suitable due to an ethnographic study's in-depth nature, which requires intensive observation and more extended interview periods (Asher & Miller, 2011; Reeves et al., 2013). The sampling is adequate to answer the research questions of the study (Marshall, 1996).

4.9 Data collection procedures

In qualitative research and ethnographic study, negotiating entry and building trust/confidence with the research participants is crucial in the data collection process. Madison (2005) stressed the importance of the researcher to be effective, apt and ethical prior to, during and after data gathering. It was easier for the researcher, an ASL in one of the universities selected, to build rapport with academics to establish contacts and discuss entry into the field. The researcher's position also aided the establishment of trust with respondents and

the university authorities. As Emary (2015) observed, for a 'librarian ethnographer' to have access to culture, rapport ought to exist. DeWalt and DeWalt (2002) added that more information can be gathered if there is more trust between the researcher and the participants. Additionally, librarians engaged in teaching, research and embedded into their faculties are well-positioned to easily switch into ethnographic data collection (Emary, 2015).

Ultimately, the recruitment procedure of participants was driven by the University Deans and Heads of Departments (HODs) with whom the researcher held meetings, for the academics to buy into the project. Finally, the researcher met over several months with academics during faculty boards, departmental meetings/conferences, seminars, university-wide training sessions for academics facilitated by ASLs, university-wide meetings with academics, congregation, academic staff union meetings, and other events which maximised participation. Likewise, the recruitment process involved meetings with faculty and ASLs in their offices, at meetings, regular online database training sessions held for faculty in the libraries scheduled with staff directly and via their line managers.

4.10 Data collection methods

The administration of research instruments/tools to the respondents is described as data collection (Bhandarkar & Wilkinson, 2010).The current study is guided by the interactionist perspective and focuses on actual practice, which facilitates research that pursues academic knowledge and practice-oriented insights (Rock, 2001; Reeves, 2013). As previously mentioned, the interactionist ethnography approach can help the researcher to discern symbolic meanings in various contexts and how such evolving meanings can lead to action (Prasad, 1993). Furthermore, Fetterman (1998) stated that in

ethnographic research, information is gathered not only from the insider's perspective (emic data) but also to make sense of all the data from external, social, or scientific perspectives (an etic account).

Hence, the current study employed observation, photovoice, semi-structured interviews, and focus group discussion on generating data from academics. The study also examined documents-Institutional repository (IR). The triangulation of these data collection tools was to produce rich, robust, and comprehensive data that can uncover multifaceted and thick descriptions for more in-depth interpretation/understanding of the phenomenon (Pandey & Patnaik, 2014). In essence, the researcher's adoption of multiple sources of proof was to seek convergence and corroboration through the use of different methods (Bowen, 2009: 28). The confluence of evidence increases the credibility of the findings (Fusch, Fusch & Ness, 2018; Flick, 2018).

Researchers have the notion/impression that they must use usual/conventional methods to conduct research. As a result, they do not try new ways since novelty may not be received well by reviewers (Linder, 2018). For example, Metcalfe (2012) observed that it is rare to see published higher education research include photovoice and other visual methods. At the same time, images induce new understandings about individuals' experiences in social settings (Denton, Kortegast & Miller, 2018). Attempting new methods and creating new avenues/ways for understanding academic cultures can be rewarding/satisfying and can unearth fresh ideas and occurrences (Linder, 2018). As Lofus, Higgs and Trede (2001: 10) noted that "one of the exciting things about being involved in qualitative research is that we can give ourselves permission to open up new intellectual spaces and be creative."

In line with that, the present study adopted novel methods to stretch our imaginations and help view data collected previously using other methods differently. Moreover, apart from using an ethnographic perspective, the study employed the inclusion of new data collection tools within the framework of an ethnography to collect data from online and physical life environments (Hallett & Barber, 2014), leading to insightful findings. After all, the new methods demonstrate the potential to reuse and re-interpret new meanings, challenge assumptions, and improve our understanding of ambiguous human, social, and cultural factors.

The process for data collection of this study started in July 2018 and ended in June 2019. Data generated from observation addressed research questions 3 and 4 of the study. While photovoice generated rich data to answer research question 6, the interview with academics provided data to answer all research questions of the study. Finally, the FGDs with ASLs generated data on research question 6 of the study. Table 4.2 below presents the sample sizes per data collection tool for the universities.

Table 4.2: Sample sizes for each institution/data collection tool

S/N	**Methods**	**University of Jos (UniJos)**	**Federal University of Agriculture Makurdi (FUAM)**	**Total Number of Academic Staff**
1.	Photovoice	6	5	11
2.	Interview	19	16	35
3.	FGD	6	6	12
Total		31	27	58

4.10.1 Participant observation

Participant observation is sometimes referred to as fieldwork. It is the fundamental methodological approach involved in ethnographic research (Atkinson & Hammersley, 1998). It involves gaining access to social worlds and producing written accounts of them to study, experience and represent the daily life and meaning of the actions of those explored (Emerson et al., 2001). The symbolic interactionist lens guided the observation. These views on data collection are that reality can be obtained and filtered only through interaction between the researcher and respondents in naturalistic settings where behaviour can be observed (Tan & Hall, 2007).

Participant observation is advantageous, as it allows the researcher to get much closer to the participants' lived experiences in their natural settings (Prus, 1996: 19; Bryman, 2012). As a result, the researcher is better able to understand and capture the context within which they interact (Bryant, 2016). Bryant added that the researcher might see things that normally escape the participants' knowledge using a different method. The practice also provides an opportunity to discover things that people may be reluctant to talk about during an interview (Tewell et al., 2017). As a result, first-hand information will permit the researcher to have access to multiple viewpoints of human-human as well as human-IT interaction behaviours (Merriam, 2009:117). From the criteria/ principles mentioned by Byant (2016), Tewell et al. (2017), Merriam (2009:117), the ethnographic approach employed for this study can uncover the factors responsible for the low use of the online databases by academic staff, from multiple perspectives of academics on their e-library databases use experiences.

Conducting observations, however, have many challenges that need to be dealt with during the whole research process to assure research quality. The challenges include access to the participants, obtaining informed consent, and being adopted during data collection by the researcher. Other barriers are establishing a trusting relationship with the participants, the effect that the feeling being observed may have on participants' behaviours and identifying the researcher's influence during the research process (Hammersley & Atkinson, 1995). Nevertheless, as previously mentioned, the researcher's position, an ASL, aided the establishment of trust with respondents and the university authorities. Furthermore, Emary (2015) maintained that because ASLs are always in contact with the faculty, observing and describing library users will be less challenging (See Section 4.7).

Afterward, the current researcher was immersed in participatory observation of the academics' use of the e-library databases in UniJos and FUAM for one year-July 2018 to June 2019 (Please refer to Sections 5.5 and 5.6 of chapter five). Specifically, the researcher spent 90 days in UniJos, and 80 days in FUAM. The researcher took field notes of academics' daily activities (Emerson, Fretz & Shaw, 1995). Such 'immersion' allows the researcher to personally experience the academic staff's research activities (Emerson et al., 1995: 2). For example, the researcher observed academics' user experiences during the regular library online database training and their interaction with ASLs. Jensen et al. (2019) pointed out, long-term researcher immersion in organisational settings, and cultures using various qualitative methods to gather rich and detailed explanation of organisational communication.

However, methodological challenges stemmed from the large degree of online environment (Rotman et al., 2012; Lopez-Dicastillo & Belintxon, 2014). The

situation did not limit the researcher's immersion in the context since observation was not only carried out onsite/ physically. Moreover, strategies and methods for effective observation of the academics were designed**.** Some strategies employed were analysis of statistics of use of websites as per the use of online library databases collected at the backend, learning spaces reserved for academics in the libraries, the interaction between the ASLs and the academics (See Appendix 7). Data generated from observation addressed research questions 3 and 4 of the study (Refer to Appendix 13).

4.10.2 Photovoice

Over the years, studies incorporate photographs and other visual tools in social science research in diverse ways for documenting social or cultural phenomena (Berbe´s-Bla´zquez, 2012). Photovoice is a community-based participatory action research technique intended to discover the reasons for community problems and jointly address them (Strack, Lovelace, Jordan & Holmes, 2010; Nykiforuk, Vallianatos & Nieuwendyk, 2011:103). The focus of photovoice is to change, empower individuals, and engage groups and the entire communities to promote positive systems change (Berbe´s-Bla´zquez, 2012; Srack et al., 2010). In short, photovoice involves using images/photographs for understanding participants' experiences and perspectives on meanings they have on activities, roles, and their environment (Lal, Jarus & Suto, 2012). Integrating academics-generated visual data in this research allows the researcher to interpret and understand the problem through their perspectives (Given, Opryshko, Julien & Smith, 2012).

Photovoice methodology is suitable for the present study since it can allow academics to reflect on their experiences of e-library databases use and combine images and words to communicate their dissatisfaction and needs

(Pink, 2001; Pink, Keurti & Afonso, 2004). Rudkin and Davis (2007) confirmed that photos/ images in research using photovoice serve as a means to obtain the community's perspectives through the eyes of people that reside therein, in this case, academic staff. Similarly, using the ethnographic techniques that combine photography, discourse, and experiential knowledge, academics can ponder and speak about the challenges faced in their engagement with the online databases, reasons for low use of the online databases, and how the user can be enhanced (Sutton-Brown, 2015).

Photovoice is beneficial for this research as it allows participants to engage more deeply in the research process by being in charge of the study's images (Hannay et al., 2013; Sutton-Brown, 2015; Bedi & Webb, 2017). Photovoice is valuable because it empowers research participants to become more aware of their surroundings, see themselves as researchers collecting data, analyse those data, and help solve problems (Evans-Agnew & Rosemberg, 2016). In this case, it provides an opportunity and resources for academics to add their voices to influence/ shape the university policies regarding the provision of e-databases (Goodhart et al., 2006). Finally, this research method is appropriate to explore academics' engagement with e-library databases (Given et al., 2012).

Although photovoice has excellent potential as a participatory research method, there are also limitations. Berbes-Blazquez (2012) observed that:

1. taking photos of community services is difficult, so the method requires substantial time and commitment from researchers and participants;
2. sometimes, vital aspects of the community are difficult to capture on film, which may limit the scope of the issues covered;

3. it is necessary not only to consider pictures taken, but other issues left out of the photos; and
4. above all, the rich data produced using photovoice can be challenging to communicate/express in a clear-cut mode to policy-makers unless harmonised with other proofs.

The study used photovoice with other data collection tools (observation, semi-structured interviews, and focus group discussions) for triangulation. Additionally, the existing rapport between the researcher, an ASL, and the academics, over several visits, was motivated to participate in the research despite their tight/ busy schedule. Also, downloading technology-frustration and technology-satisfied photos from Google photos rather than going around the university community to take photographs minimised the challenges earlier mentioned in numbers (1), (2), and (3). Sections 4.7 and 4.8 of this chapter provide details of the steps taken to overcome the challenges.

In most of the studies reviewed, research designs involved modified photovoice methods compared to how Wang and Burris (1997) originally conceptualised it. For example, Given et al. (2012) used the modified version of photovoice to assess students' information literacy (IL) skills as they transition from high school to university. Nykiforuk, Vallianatos and Nieuwendyk (2011) used the modified version by conducting individual interviews with participants instead of focus groups to facilitate a more profound exploration of their research question. According to the preceding scholars, the use of the methodology helped enhanced the trustworthiness of the data.

Similarly, the current study employed the modified version of the photovoice method. The modified version was highly suitable for this study based on the

participants' nature (academics). In addition to academic staff taking their photographs, relevant technology-based photos were downloaded from Google photos by both the academics and researcher (Berbes-Blazquez, 2012). Also, low-cost cameras were made available for study participants to take photos of incidents and events related to e-library databases. The pictures were shared with respondents and helped facilitated rich discussions around the images and experiences captured. The researcher and academics used insights gained from the process to affect policy and social change, leading to better academics' use of the e-library databases (Given et al., 2012; Nykiforuk et al., 2011). The new illumination could enhance the use of the e-library databases by academic staff; hence better quality research outputs, teaching, and other academic activities.

In this study, the researcher met with the academics in groups to discuss the photos downloaded. In the first meeting, the researcher introduced photovoice, and the academic staff were allowed to download photos with laptops. In the follow-up meeting, there was a dialogue about the photos. After discussing the photos, participants and the researcher developed themes (Please refer to Appendix 8 for the Photovoice Guide). Above all, the researcher played an active role by putting her voice in the photos and reflecting on her observation of participants.

Employing the photovoice method for this study also provided a novel way to triangulate the study results. The study used several data collection methods: verbal image information, group discussion, and individual reflection in taking photos. Moreover, the use of data generated from photovoice in ethnographic inquiry may fill the void and enhance understanding of the lived experience created by limitations of the usual observation and spoken words (Plunkett et

al., 2012; Lal, Jarus & Suto, 2012; Carlsson, 2001). Ultimately, the use of the photovoice was part of this study's originality and methodological innovation. It as well generated rich data to answer research question 6 of the present study.

4.10.3 Semi-structured Interviews

Interviews are considered the basis of qualitative research because they provide researchers with an interactive opportunity to build contextual links between research questions and data through dialogue (Gorman & Clayton, 2005: 41). Dervin (2008) observed that the interview method could provide a deeper understanding of solving/ resolving participants' choice of information resources. Several scholars (Fontana & Frey, 2005; Denzin & Lincoln, 2005) emphasised that ethnographic interviewing positions a person-to-person rapport between interviewer and interviewee and a desire to understand rather than explain. To this end, the researcher has to be embedded in interacting with the participants (Cohen, Manion & Morrison, 2000: 267).

An ethnographic interview is a method of interviewing that does not only use a pre-determined set of questions but engages the participant in discussion to obtain their understandings and interpretations (Liamputtong & Ezzy, 2005:332). Participants' active involvement characterises these interviews to discuss a particular topic relevant to the research questions or topic explored. For instance, the researcher facilitated the discussion to understand academics' experiences of the online library databases utilisation from their viewpoints.

Often, in-depth interviews are complimentary to participant observation in that the observation provides insight into everyday life while interviews provide insight into articulating and explaining daily social life (Creswell, 2003). The interview is a central source of data in this study to discover the experiences

and perceptions of academic staff engagement with the online library databases (Hammersley, 2012; Dutta, 2014). Another benefit of the interview is that the researcher can access the data/information stored in the individual participant in their original or exact version (Ryen, 2013: 18). Also, detailed information was generated from participants since the researcher could probe for details connected to a particular response (Mukherji &Albon, 2010).

Similar studies employed the interview method and found it to be robust. An example is Blake and Gallimore's (2019) ethnographic research conducted at the University of York to understand academic staff's UX. Semi-structured interviews and cognitive mapping enabled gathering in-depth information rather than a survey or other methods. In the end, the research led to practical recommendations on academic life and key motivations, frustrations, and aspirations of academics.

The researcher conducted in-depth face-to-face semi-structured interviews with the academic staff (lecturers) and Systems Librarians of the two universities in their offices. The interview method enabled the researcher to collect comprehensive information about the topic (Phella, Bloch & Seale, 2011). The interview also allowed the researcher to immerse herself quite intimately in academics' use of the e-library databases (Hockey & Forsey, 2013). As Forsey (2010a) attested, much of what passes as ethnography is based upon what we hear rather than what we see.

Accordingly, the design of the semi-structured interview guide for the current study probed questions on available e-library databases in different fields, frequency of use, ways of engagement with the online library databases, previous experiences, search skills, and challenges in the use of the resources. Others include training received from the library, shared experiences with

colleagues, preference for other resources, assistance by ASLs, troubleshooting request, Helpdesk, and ways the library can improve e-library database use (See Appendices 9 and 12). The researcher recorded the discussion during the interviews using an android phone to enhance credibility. The process preserved the accuracy of the recorded conversation. Notwithstanding, the researcher took notes in case the phone becomes faulty (Bryman, 2012). Most of the interviews lasted an hour. Finally, the interview with academics provided data to answer all research questions of the study.

4.10.4 Focus Group Discussion (FGD)

Focus group discussions (FGDs) are a particular type of group used to gather information from members of a clearly defined target audience concurrently. A study uses focus groups to collect information needed for decision-making (Rennekamp & Nall, 2000). Since participants add on others' comments while responding to questions, it augments the richness to the dialogue that could not be attained through an individual interview (Dilshad & Latif, 2013). According to Bangura (1994), the focus group approach helps link the problem's conceptualisation to collecting and analysing data (Bangura, 1994). In this study, the opinions of ASLs on online library database use from their experiences of long years of practice indeed provided rich data.

Moreover, the group discussions provided diverse views about academics' engagement with the e-library databases and how their use can be enhanced. Nevertheless, Cohen, Manion and Morrison (2000) observed that focus groups are problematic to organise and the responses hard to code. However, data were analysed thematically in this study. The researcher employed verbal descriptions/narratives and explanations rather than quantitative measurement and statistical analysis.

The researcher held focus group discussions with six ASLs from each of the selected universities. The method enabled the researcher to confirm some issues, occurrences, and activities gathered during observation and interview. Conducting focus group discussions was suitable for this study. The researcher conducted two FGD sessions with ASLs in UniJos and FUAM. The questions that guided the FGD include available e-library databases in various fields and whether they are sufficient, frequency of use, and academics (lecturers) ability to use the online library databases. Others are ASLs' search skills, challenges experienced when assisting academics in using the e-library databases, and how they were solved. The study further designed the FGD guide to get ASLs' views on the nature of information/digital literacy program, ASLs' positive and negative experiences when using the resources, and the relationship between the library and the faculty. Others are the excellent library training, whether e-library database use is still a problem and how users could be improved (Please refer to Appendix 10).

The FGD in UniJos was held in August 2018, while that of FUAM was held in October 2018. It was a once-off discussion and lasted an hour. The discussions were only audio-recorded after consent was sought, as indicated on the consent forms. Also, though challenging because responses kept flowing from one participant to the other, the researcher was able to take notes. The researcher did not experience the challenge of a particular participant(s) dominating discussions. The reason was that, as the moderator, the researcher managed the discussion to ensure that all participants contributed to the conversation. The researcher discouraged dominant participants through spoken and non-spoken cues (Escalada & Heong, 2014). Also, participants probed others' responses/answers, which generated rich information from the conversation that could not be gathered through individual interviews (Escalada & Heong,

2014; Rennekamp & Nall, 2000). Onwuegbuzie et al. (2009) suggested the framework on the order in which each participant responds in a FGD was helpful. The procedure enabled the researcher to elicit the views of all the ASLs on academic staff's use of e-library databases, possible reasons for low use, and the library's roles to ensure the maximum use of the e-library databases. The researcher gave ASLs food and drinks to show gratitude for their time and for their willingness to participate. To this end, the FGDs generated data on research question 6 of the study.

4.10.5 Documents Analysis

Bowen (2009: 27) defined document analysis as "a systematic procedure for reviewing or evaluating documents-both printed and electronic (computer-based and Internet-transmitted) material." Documents are social data generated, shared, and used in socially organised ways (Atkinson & Coffey, 1997: 47). Also, documents provide a type of voice on past events and activities that shed light on these events, activities, and participants (Briggs, Coleman & Morrison, 2012). According to Corbin and Strauss (2008), document analysis entails that data be analysed and interpreted to bring out the meaning, gain understanding, and develop empirical knowledge. Examples of documents used for research include attendance registers and minutes of meetings, manuals, books and brochures, diaries, journals, and curriculum vitae. Others are event programmes, letters and memoranda, newspapers, organisational and institutional reports, institutional website data, and various public records (Bowen, 2009: 27-28; Briggs, Coleman & Morrison,2012).

There are many benefits to using document analysis for research. Document analysis is less costly than other research methods. Documents are 'unobtrusive' and 'non-reactive'; in other words, they are not influenced by the

research process. Kerr (2010) and Merriam (1988) maintained that since document analysis opposes the concern related to reflexivity, the researcher's presence does not change what is studied. There are, however, also several limitations inherent in documents. Documents are produced for some purpose other than research. They usually do not provide sufficient detail to answer a research question. Documentation is sometimes difficult to retrieve. As noted by Yin (1994: 80), organisations can intentionally deny access to documents. However, due to its efficiency, document analysis has benefits that outweigh the limitations.

The study used document analysis to collect data from the Institutional Repository (IR). The study evaluated the IR to find out academics' research performance. The IR provided the statistics of citations of online journals and types of journals (See full details in the Documents Guide in Appendix 11). Also, refer to section 4.8 of this chapter for the benefit of using multiple data collection methods.The study presents sources of data and the requisite research questions that guided the data analysis in table 4.3 below:

Table 4.3: Data sources for analysis

S/N	Research questions	Sources of Data
1.	In what ways do academic staff engage with e-library databases in the selected universities?	**Interview**-Academics
2.	How has the utilisation of e-library databases shaped the academic life of the academics?	**Interview**-Academics **Documents**-IR
3.	What are the perspectives of academic staff on the low utilisation of e-library databases?	**Interview**-Academics, Systems Librarians **Observation**-Academics **Statistics**-Lib. Website
4.	What are the nature and characteristics of the experiences of academic staff in the use of e-library databases?	**Observation**-Academics **Interview**-Academics
5.	How do socio-cultural factors affect/impact the utilisation of e-library databases by academic staff?	**Interview**-Academics
6.	How can the utilisation of e-library databases be enhanced?	**Interview-**Academics **Photovoice-** Academics **FGD-**ASLs

4.11 Credibility and trustworthiness

Credibility and trustworthiness are necessities in qualitative research. The research's trustworthiness entails the researcher employing appropriate adequate methods that can be repeated and have rightly reported the findings (Williams & Hill, 2012). The study can determine the research's trustworthiness by the degree of truthfulness and the depth of coverage in the data collection process (Konradsen, Kirkevold & Olson, 2013). Williams and Hill (2012) supported using the three criteria suggested by Morrow (2005) to ensure trustworthiness/ rigour in qualitative research. The criteria include (1) establishing the data's integrity; (2) balancing the tension between subjectivity/ reflexivity; and (3) communicating the findings/applicability to

research and practice. The study used Lincoln and Guba's (1985) criteria for trustworthiness (credibility, dependability, transferability, and confirmability).

4.11.1Credibility

Credibility is the assurance placed in the reality/ accuracy of research findings (Anney, 2015). The study employed strategies such as prolonged engagement, triangulation, peer debriefing, and thick description to ensure the finding's credibility (Pandey & Patnaik, 2014).

Prolonged and persistent engagement with participants to ensure deep and close involvement was another way of ensuring the dependability of measurement in the case studies. Meanwhile, prolonged engagement refers to the time the researcher spends in the field to immerse with participants in their social world (Onwuegbuzie & Leech, 2007). The activity enables the present researcher to gain insight into the study's context and understand participant perspectives, reducing/offsetting the researcher's bias. The persistent observation helps in discovering participants' qualities and unusual characteristics. For example, the researcher immersed herself in universities for one year. The practice allowed the researcher to interact with the academic environment and generated much data to eliminate potential biases or presumptions. The prolonged stay in the field increased the participants' trust and provided a greater understanding of their culture and context (Onwuegbuzie & Leech, 2007). Chibangu (2013) noted that the longer the immersion, the better the gained ethnographic experience.

Triangulation is employed in research to ensure that an explanation is rich, robust, and all-inclusive (Pandey & Patnaik, 2014). In the current study, trustworthiness is performed by triangulating data collection methods so that one data collection method informs the other in line with the criteria for

trustworthiness. The strategy adds rigour, breadth, complexity, richness, and depth to any inquiry (Flick, 2002, 2007).

The researcher combined observation, photovoice, interview, FGD, and document analysis to understand the phenomenon better. The researcher checked findings generated by the different methods, and the point of divergence provided more insights (Bowen, 2009). The study triangulated findings by generating data from academics (lecturers) through interviews, photovoice, observation, and document analysis for clarification. The study also compared findings from data gathered from academics (through all the data collection methods mentioned above) and through FGDs conducted with ASLs on the use of e-library databases. Moreover, the study compared the opinions of participants from UniJos and FUAM. According to Shenton (2004), triangulating via data sources helps verify individual views and experiences against others. The study eventually created a rich depiction of participants' attitudes, needs, or behaviour. These processes aid the reduction of biases, which enhanced the study's credibility.

Peer debriefing/examination occurs when the researcher seeks advice/feedback from experts or experienced colleagues to improve the findings' quality (Houghton et al., 2013; Anney, 2015). Billups (2014) pointed out that peers can attend to questions of bias, verity errors, conflicting interpretations, convergence between data and phenomena, and the appearance of themes, to strengthen credibility. Billups (2014) advised researchers to use individuals from the academic environment where the research participants were drawn for the practice. In essence, the individuals who know the target population are likely to identify contradictions or errors in the findings quickly. The author mentioned above stated that a brilliant way to strengthen the research findings'

truthfulness is to associate with faculty, especially those the research will be of benefit. Resultantly, the researcher sought assistance for a review from two senior colleagues (lecturers) in the University of Jos, Jos Nigeria (one of the research sites), who had conducted previous similar studies. The review and examination of the research process, data analysis, and conclusion helped clarify the study's findings' accuracy.

Another crucial means for achieving credibility in this research is thick description (Geertz, 1973). Leeds-Hurwitz (2015) defined thick description as a detailed portrayal of real behaviour (naturally from ethnography), sufficient for the person who reads to have a comprehensive understanding of patterns and context. Nowell et al. (2017) stated that thick description comprises the researcher's field notes with broad detail and clear descriptions of recorded dialogues, observations, and interpretations during data collection.

Thick description can increase credibility through thorough descriptions and representations of interactions and communicative processes as they happen in the field (Tracy &Hinrichs, 2017).The researcher provided adequate information from the research design, methods, the researcher's role, and positionality to the final report of the study's findings. The broad descriptions provided the details for the investigation to be repeated by other researchers in similar contexts (Leeds-Hurwitz, 2015). For example, throughout the discussion of findings, quotes signify significant verbatim speeches to explain a link between the data and results. The study also incorporated photographs, tables, and charts in the discussion where appropriate.

4.11.2 Dependability

Dependability refers to the consistency/ reliability of research findings (Nowell et al., 2017). It deals with whether a study is consistent over time and

across circumstances (Miles, Huberman & Saldana, 2014). The scholars mentioned earlier stated that the same research process to produce similar fundamental findings relies on external or inquiry audits, known as peer debriefing. It is an essential strategy for reactionto judge preliminary findings' truthfulness (Berger, 2015).The researcher used such strategies as researcher positionality, triangulation, and peer debriefing to ensure dependability. The study presented these strategies in sections 4.4.1 and 4.9.1. In addition, the study used two case studies to ensure the accuracy and replication of the study. The cases also help in testing how the instruments were reliable and consistent across all case studies.

The study also used an audit trail in keeping a diary for self-checking the trustworthiness procedure. An audit trail provides readers with facts about the researcher's choices/decisions (and the rationale for such decisions) regarding the study's theoretical and methodological issues (Nowell et al., 2017). Sandelowski (1986) affirmed that 'a study's findings are auditable when another researcher can follow the decision trail.'Furthermore, the researcher documented her reasoning and judgments. The audit trail also recorded data collected and analysed in detail how the study developed categories and decisions throughout the investigation. The researcher kept raw data, field notes, and transcripts to aid in tracing and cross-referencing data (Halpren, 1983; Mertens, 2010:261).

4.11.3 Transferability

Qualitative research aims not to generate statistically generalisable results, yet it can produce findings that could guide researchers to study similar settings (Trochim, 2006). As Lincoln and Guba (1985: 306) observed, "by describing a phenomenon in sufficient detail, one can begin to evaluate the extent to which

the conclusions drawn are transferable to other times, settings, situations, and people." Transferability requires the use of thick, rich descriptions. How the study carried out the thick description was presented in section 4.9.1 above.

Accordingly, since the study's contextual setting was the academic staff at UniJos and FUAM, the thick description guide future researchers to conduct similar studies in other states of the zone or other geopolitical zones. Furthermore, additional qualitative research can be carried out in different contexts, using different participants. Also, from the detailed/ in-depth description of the unique theoretical perspective (SIE) and a new data collection tool (photovoice), other authors can apply the methods in similar contexts to compare academics' online database utilisation with this study's results.

4.11.4 Confirmability

Confirmability means the extent to which researchers or others can confirm the results of a study by reading or reviewing the research results to ensure that they reflect the participants' understanding, rather than the researcher's possible biases (Cohen et al., 2007; Kakuru, 2019). A qualitative inquiry can maintain confirmability through triangulation, audit trail, and a reflexive journal (Bowen, 2009). The researcher recorded the research processes and findings in a diary for establishing confirmability through audits (Hsieh & Shannon, 2005). The researcher used triangulation methods to minimise the effect of researcher bias (See Section 4.9.1 of this chapter for details on triangulation and audit trail).

4.11.5 Pretest

The fundamental purpose of conducting a pre-test is to examine the feasibility of an approach that a larger-scale study intends to use (Kraemer, 2011:626).

The interview tool was pre-tested on five academics that did not participate in the main study to minimise bias. It was the pre-tests that informed the revision of the question items in the tools. The researcher included the critical issues omitted, such as academics' awareness of the limitations of the Google search engine and the advantages of using the e-library databases compared to the Google search engines. Burnard et al. (2008) observed that interview schedules may be slightly altered in light of findings, where additional clarification may be required.

The researcher also evaluated documents (the IR) that were pertinent to the study. Similarly, two experts from the Departments of Sociology and Anthropology Studies and Library and Information Science at the University of Jos, Nigeria validated the instruments. The pre-tests framed administration procedures and response rate maximisation techniques that supported the trustworthiness of research data (Creswell, 2014).

4.12 Data Analysis

Qualitative data analysis entails coding data into themes, followed by categories toform conclusions (Hewitt-Taylor, 2013). Data collected from a study underpinned by an interpretive paradigm involves two stages. Qualitative data analysis has two principles (Connaway & Powell, 2010: 222) and these are (1) Analysis is a continuing process from the research design to the end of data gathering; (2) Theory or model that may develop, must come naturally from the data analysis rather than from a previous statement. The study employed a constant comparative method of analysis.

The constant comparative method was initially developed for use in grounded theory. The methodology is now more widely applied as a qualitative analysis method in research (Leong, Joseph & Boulay, 2010). The process requires the

researcher to compare one piece of data against all other data that are either related or different, gradually discovering the prominent differences (Hewitt-Taylor, 2013). Coding then is the practice of placing names or labels against pieces of data. The piece may be words or chunks of data.

The study's focus is not to include all aspects of grounded theory; instead, it employed the constant comparative method as a deductive and inductive tool. The constant comparative technique facilitated the theoretical interpretation of the study's findings by profoundly assisting the data collection and analysis process (Charmaz & Mitchell, 2001).

Bhattacherjee (2012) pointed out the two stages as observing phenomena from participants' perspectives and understanding the real meaning of participants' experiences. In general, qualitative data analysis involves blending the respondents' views with those of the researcher. The researcher may authenticate or disprove emerging themes. The decision is acceptable due to the flexibility of the qualitative research method (Uden, 2007).

The study analysed data using thematic content analysis. The thematic analysis enabled pattern identification within the data, with themes that emerged becoming the categories for analysis (Fereday & Muir-Cochrane, 2006). The study employed a constant comparative approach in the analysis. The comparative analysis guided the data coding, from open coding, focused coding to emergent categories or themes on the use of e-library databases by academic staff in the libraries studied. The study developed meta-claims from a cross-case comparison of findings from the individual libraries explored. Finally, the researcher checked data analysis by evidence of systematic processes such as organising, coding and writing, theorising, and reading, which led to the development of a final thematic chart (Tuckett, 2014).

The software programmes were not used in data analysis because ethnographers have discovered such programmes weaknesses (Reeves et al., 2013). The scholar mentioned above gave reasons most cited for non-use of the software packages, as they are formed to analyse large amounts of data. There is also an emphasis on quality and breadth over meaning and depth. The focus on ethnography in creating a thick description of a phenomenon may mean that software programmes contradict the purpose and defining features of ethnography (Reeves et al., 2013). Moreover, the emphasis on codes engages qualitative researchers to reduce data points even though a significant data analysis component can focus on finding relationships, and connections, as a contextualised understanding of the data (John & Jonson, 2000).

The study presented findings from all the data collection tools simultaneously in the narrative and incorporated thematically with some images, tables, and figures. The study transcribed verbatim the interview and FGD data. The researcher coded notes from all the data collection tools- observation, photovoice, interview transcripts, FGDs notes and documents (IR). The analysis involved attaching a code to sentences and sections to build up concepts connected to e-library database use.

The researcher used narrative/description for coding. Generally, these codes represented a theme or idea with which each part of the data is associated (Burnard, Gill, Stewart, Treasure, & Chadwick, 2008). The researcher took notes about decisions reached and details about the coding process during data coding, analysing transcripts, identifying themes within those data, and gathering together examples from the text.

The study followed Strauss and Corbin's (1998) and Fram's (2013:3) process of the Constant Comparative Analysis, including open, axial, and selective

coding. Open coding is the analysis procedure where the study discover concepts/ideas and categories in the data (Strauss and Corbin 1998:101). Axial coding links categories to subcategories (Strauss & Corbin, 1998; Burnard et al., 2008). Selective/final coding is "the process of integrating…" (Strauss & Corbin 1998:143).

Apart from the preceding, the study uses the constant comparison method to connect several data collection tools administered on particular participants. It also used the approach for case comparisons to understand academics' use of e-library databases in North-Central Nigerian university libraries.

4.13 Ethical consideration

Ethnographic research uses a naturalistic setting, where the researcher collects data by observing events unravel. Regardless of the benefit of utilising this methodology to get the participants' views of the phenomenon, it has some ethical implications when researchers fail to meet ethical standards (Bryant, Liebeskind, & Gestin, 2017). Hence, ethnographic research must value and respect the people and communities they interact with, ensuring that techniques used for observation and other data collection methods do not interfere with, insult, and were according to ethical guidelines (LeCompte & Schensul, 1999: 3; Goodman, 2011: 2).

All ethical issues were adhered to based on the University of KwaZulu-Natal's policies and guidelines, given the importance of ethics in research. Approval to carry on with the selected universities' study was granted (See Appendices 3 and 4 for the letters of Approval from the two universities). Ethical clearance was also obtained from the Ethical Clearance Department of UKZN (See Appendix 5) before proceeding to the field for data collection.

At the beginning of the study, the researcher informed participants that participation in the study was voluntary, and they were free to reject or pull out at any stage. Before participating in the study, the researcher advised participants to read and sign the consent forms carefully (See Appendix 6). The consent forms indicated how confidentiality would be protected. Furthermore, the researcher told participants that UKZN would maintain all records for confidentiality and anonymity reasons. The researcher took measures to ensure the study's findings' correct presentation without revealing participants' identities. Also, in writing the final report and presentation of research findings, the researcher maintained the anonymity of participants. The informed consent letter explained the purpose of the research and what participants could expect to gain from the study.

The researcher sought permission through written letters to the Deans of faculties and the University Librarians of the two universities. After permission was granted, the researcher informed academics of the study's purpose (See Approval Letters as Appendices 3 and 4). The researcher gave consent forms to those that agreed to participate in filling and fixed appointments for interviews. Participants that accepted filled the Consent form and fixed dates for the photovoice dialogue.

Accordingly, the researcher asked interested participants to complete and sign the informed consent forms. The researcher told participants to indicate by ticking their willingness or not to be audiotaped, and, or videotaped. Participants interviewed were reassured of confidentiality and anonymity. In the case of FGDs, the researcher developed a depiction of the group instead of an individual. Again, pseudonyms were used for the academic faculties and ASLs to ensure anonymity. The researcher used pseudonyms- Alphabets and

numbers for participants. Cohen, Manion, and Morrison (2011) emphasised that it is not right to use participants' names to ensure anonymity. Fortunately, all the invited participants took part in the data collection from the beginning to the end of this study.

The researcher was intensely involved in participant and unobtrusive observations. Issues such as authorisation, privacy, and security of data were considered (Bryant, Liebeskind & Gestin, 2017). As a participant-observer, the researcher interacted with the academics, analysed the library websites for statistics of use of the online library databases at the back end, and learning spaces reserved for academics in the libraries. The unobtrusive observation involved watching academics experience e-library database use, studied the complaints academics came with and examined troubleshooting requests academics brought to the Help desk. The study also considered ethical issues while conducting document analysis.

4.14 Summary of chapter

The Interpretive paradigm underpinned the study. The study adopted the qualitative approach, framed through the lens of interactionist ethnography. The ethnographic approach was purposely bounded within two cases, design with explanatory and descriptive features. The study population comprised academic staff from two selected universities in the North Central zone of Nigeria: University of Jos (UniJos), Plateau State, and Federal University of Agriculture (FUAM), Makurdi, Benue State. The study employed purposive and stratified sampling methods, which informed the selection of 58 academics who participated. The study used observation, semi-structured interviews, focus group discussion (FGD), and innovative methods such as photovoice, and documented records (IR) to generate data. The confluence of proof

increases the credibility of the findings. The study used a constant comparative method to analyse findings. The study presented findings from all the data collection tools simultaneously in the narrative and incorporated thematically with some images, tables, and figures. The chapter ended with adherence to ethical issues in the research. The next chapter provides analysis and interpretation of field data.

CHAPTER FIVE

DATA PRESENTATION, ANALYSIS AND DISCUSSION OF FINDINGS

5.1 Introduction

The chapter presents data findings from the selected universities to understand the utilisation of e-library databases by academics (See the full details of site selection in section 4.5 of chapter four). Data analysis in qualitative research is often combined with discussion of findings (Burnard, 2008; Evans, Gruba & Zobel, 2014; Labani, Wadhwa & Asthana, 2017). Correspondingly, the present study combined the data analysis and interpretation of the findings. If a study discussion is in a self-contained chapter, the researcher needs to reproduce the findings; usually from the interviews, observations, and documents, presented in the data analysis chapter before discussion (Monash University, 2020). For this reason, this study analysed, interpreted, and discussed qualitative data collected in this chapter to avoid repeating the same in a separate chapter on the discussion of findings. Also, this presentation framework enabled the researcher to present data in a precise, reliable, and exhaustive manner to attain the rigour and credibility that makes the study's results trustworthy (Bengtsson, 2016).

5.1.1 Overview of data analysis and interpretation

The purpose of the study is to improve our understanding of utilisation of e-library databases by academic staff in North-Central Nigeria. The study addressed the following research questions:

(1) What are the ways academic staff engages with e-library databases in the selected universities? (2) How has the utilisation of e-library databases shaped

the academic life of academics? (3)What are the perspectives of academic staff on the low utilisation of e-library databases? (4)What are the nature and characteristics of the experiences of academic staff in the use of e-library databases? (5) How do socio-cultural factors affect the utilisation of e-library databases by academic staff? (6) How can the utilisation of e-library databases be enhanced?

As discussed in the previous chapter, the inquiry combined ethnographic methods such as observation, photovoice, semi-structured interviews, and focus group discussions(See Table 4.3 in section 4.8 of Methodology chapter). The study also analysed documents (Institutional Repository) for triangulation. To ensure anonymity, the researcher used pseudonyms for the participating universities, which formed two case studies. Mainly, U1 represents University one and U2, University two (Please refer to Sections 4.5.1, and 4.5.2 of chapter 4). The study participants were the academics in two federal universities in North-Central Nigeria. For complementary and validation purposes, the study includeda small sample of Academic Subject Librarians (ASLs) and Systems Librarians, also categorised in the study's context as academic staff. The study embedded the ASLs and Systems Librarians because of their crucial roles in the teaching and learning processes (See participants' profiles in section 4.6.1 of the Methodology chapter).

As mentioned in chapter four, the study adapted Strauss and Corbin's (1998) and Fram's (2013:3) process of the Constant Comparative Analysis for data analysis. The constant comparative technique facilitated the theoretical interpretation of the study's findings by profoundly assisting the data collection and analysis process (Charmaz & Mitchell, 2001). The thematic analysis enabled pattern identification within the data, with themes that

emerged becoming the categories for analysis (Fereday & Muir-Cochrane, 2006).In some situations, the themes overlap, answering more than one research question. The process is acceptable due to the flexibility of the qualitative research method (Uden, 2007). Also, throughout the discussion of findings, quotes are used to signify significant verbatim speeches. The study also incorporated photographs, tables, and charts in the discussion where appropriate.

Though the study presents qualitative data findings, quantitative data presentations provide summaries of the data generated. LeCompte and Schensul (2010) stated that ethnographers employ all kinds of data to answer the research questions. Moreover,it is beneficial for researchers who utilise the interpretive paradigm for research to employ numbers to depict the trends they see in their data (Linder, 2018). Additionally, the inclusion of qualitative and quantitative data makes an ethnographic study more robust (Bernard, 1995).

The software programmes were not used in data analysis because ethnographers have discovered such programmes' weaknesses (Reeves et al., 2013). The scholar aforementioned gave reasons most cited for non-use of the software packages, such as they are formed to analyse large amounts of data. The focus on ethnography in creating a thick description of a phenomenon may mean that software programmes contradict the purpose and defining features of ethnography (Reeves et al., 2013). Moreover, the emphasis on codes engages qualitative researchers to reduce data points even though a significant data analysis component can be more focused on finding relationships, and connections, as a contextualised understanding of the data (John & Jonson, 2000).

Qualitative data analysis is the most challenging and crucial stage of qualitative research (Thorne, 2000; Basit, 2010). However, if the researcher systematically analyses in an exact, reliable, and exhaustive way, it can be communicated clearly to readers (Malterud, 2001; Nowell et al., 2017). Accordingly, the interpretation and discussion of findings from all data collected were done simultaneously in the narrative and incorporated thematically. In other words, the study analysed all data using thematic analysis. The study discusses and interprets data according to the themes of the research questions and literature reviewed. The constructs of the theoretical framework-SIE that underpins the study informed the instruments' design and guided the emergence of themes. On the whole, all themes and categories/ codes are rooted in the data. The Comparative Method for Themes Saturation (CoMeTS) was used (Constantinou, Georgiou & Perdikogianni, 2015). The method included comparing the themes from all interviews and organising the interviews' sequence often to ensure saturation.

To this end, the chapter begins with the presentation of research findings based on the study's research questions. The researcher reviewed all of the data, analysed and organised it into themes and categories that cut across all data sources (See Appendix 14). The themes are Academics' engagement with the e-library databases, Research, teaching and other academic activities, cultural influences, use of non-library information sources, and negative experiences. Other themes include previous experiences, socio-cultural influences, academics' (lecturers) views on improved e-library database use and ASLs' views on utilisation enhancement of e-library databases. Themes and categories were aligned with the study's six research questions. The study will address the research questions through related themes. The advantage of this approach is to produce findings grounded in real data without imposing

envisaged categories. Thereafter, the findings will be presented under each theme and category using direct quotations and corroborate this with the relevant literature (Gibbs, 2018). The use of quotations is essential to explain a link between the data and results, which signifies the trustworthiness of findings (Polit & Beck, 2012; Elo et al., 2014). The researcher analysed data from various sources separately. The method allows the maintenance of the actual meaning of the data throughout the analysis process (Miskon, Bandara & Fielt, 2015). Besides, the study compared findings from all sources of data collection and cases. Murchison (2010) confirmed that several cases in ethnographic studies aid researchers in discovering variations and differences within and across cases.

Since the study combined data analysis and interpretation of findings in this chapter, the discussion of findings is segmented and presented after each analysis. The researcher adopted this approach for the findings to be transparently communicated to the readers. It also made the presentation of results less cumbersome. Lofland (1974) stated that although data analysis strategies are similar across qualitative methods, there are diverse ways to report findings. Nowell et al. (2017) noted that each qualitative research approach has specific procedures for conducting, documenting, and analysing data for easy traceability and verification of readers' findings. Similarly, Ndlovu (2016) used this approachfor a Ph.D. research in the Faculty of Education, UKZN South Africa.

Table 5.1: Visualising findings

Themes	How many times it was mentioned across all Interviews	How many participants mentioned it
1	18	16
2	13	13
3	15	11
4	10	8
5	10	8
6	7	5
7	25	16
8	22	22
9	18	12

Table 5.1 shows a summary of how themes emerged from the current study's interviews andfocus group discussions with academics (See Appendix 14). It is fundamental to use data in Table 5.1 to illuminate early-on how the themes were reached.

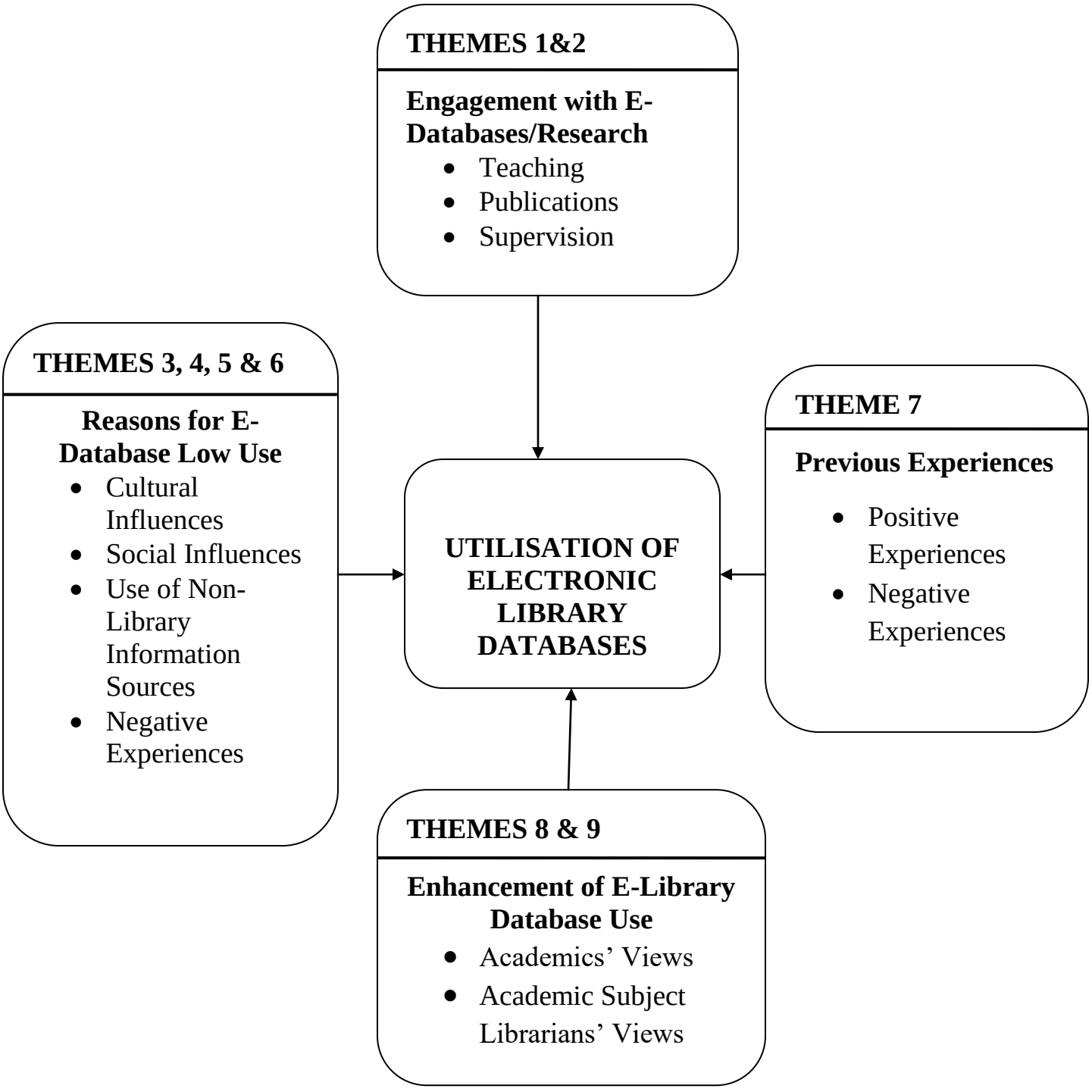
The study presented the participants' profiles in section 4.6.1 and table 2 in section 4.7 of chapter four. Find a summary of participants' demographic characteristics in table 5.2 below:

Table 5.2: Demographic characteristics of participants

Typesofrespondents	**Case studies**	**Sample gender**	**Total**
Academic staff (lecturers)	Case 1: 24 Case 2: 20	Case 1: 18 Males 6 Females Case 2: 12 Males 8 Females	Males 30 Females 14
Total 44			
Academic Subject Librarians	Case 1: 6 Case 2: 6	Case 1: 2 Males 4 Females Case 2: 3 Males 3 Females	Males 5 Females 7
Total 12			
Systems Librarians	Case 1: 1 Case 2: 1	Case 1: 1 Male Case 2: 1 Female	Male 1 Female 1
Total 2			

Source: Field data (2019)

Figure 5.1: Model showing the relationship between themes



Finally, the themes in Figure 5.1 frame the presentation of the results, interpretation, and discussion provided next.

5.2 THEME 1: Academics' engagement with e-library databases

The study's first research question was on the ways academic staff engages with e-library databases in the selected universities. This study examined not only ways academics engage with the online databases but also the specific e-library databases they use and their frequency of use to comprehend academic staff's engagement with the e-library databases. To address the question, the researcher conducted semi-structured in-depth interviews with twelve and ten academic staff from case studies 1 and 2, respectively, in their offices. Twelve and ten academics were selected across the available twelve and ten Faculties in case studies 1 and 2 (See Interview Transcripts in Appendix 15). Case study 1 designated (U1) was explored first. Some of the significant statements are outlined in table 5.3A below:

Table 5.3A: Academics' engagement with e-library databases-U1

Significant statements
"I am not too digital, but I occasionally access e-journals from the Law Pavilion for the current status of colleagues' research." "I make it mandatory for my students to be conversant with the materials." "I try to access them once in a while from my office and at home." (Participant 1, U1)
"Although I am aware of the library e-databases, I do not use them neither do I submit on the e-library databases' portal for publication." "I am more interested in using printed sources." (Participant 2, U1)
"I access Elsevier and Scopus daily from Library-based workstations using my laptop/ smartphone." "I use the e-library databases basically for publications, Ph.D. Thesis, and sometimes for teaching." (Participant 3, U1)
"JSTOR is the available online library database in my field but has never used it" "I do not use the e-database, since I attempted using and got frustrated." (Participant 4, U1)
"I access JSTOR and Elsevier occasionally from the library workstations using my laptop." "I use the e-library database mostly for teaching". "I also refer students to use them." "I submitted a manuscript to be published on the e-databases portal once." (Participant 5, U1)

Academics from case study 2 (U2) were also interviewed on their engagements with the e-library databases. Some of the notable statements from their responses are indicated in table 5.3B:

Table 5.3B: Academics' engagement with e-library databases-U2

Significant statements
"I use EBSCOHOST and Elsevier library databases weekly from my office desktop/laptop and sometimes Library-based workstation, to get information to enrich my lecture notes. I refer students to important ones for further reading. I save to my device and sometimes print hard copies. I do not use the graphics as they take too long to open. I do not submit manuscripts for publication on the submission portal of e-library databases." (Participant 1, U2)
"I use Elsevier and Scopus daily using my laptop or phone for publications and Ph.D. research. I do not use the Graphics and Audio versions. I also do not publish through the e-library database portal." (Participant 2, U2)
"I use EBSCOHOST and Elsevier e-library databases weekly to get information to enrich my lecture notes and refer students to important ones for further reading. I access them from the office desktop/ laptop and occasionally from Library workstations, print hard copies, and save some on CD." (Participant 3, U2)
"I access EBSCOHOST and Elsevier library database monthly from office desktop and Smartphone for teaching. I encourage my students to use them as well." (Participant 4, U2)

The academics' statements in tables 5.3A and 5.3B signified that most of them from the two case studies accessed the online databases, mostly from their offices. Only a few of them accessed from library-based workstations. Most of the academics accessed the e-library databases using their laptops, smartphones, and desktops. The study also revealed that most academics only

engage with the e-library databases occasionally, mainly for research and developing lecture notes for teaching. On the frequency of use, just a few academic staff declared they use the online databases continuousy. The findings indicated that academics, including those who do not use the e-library databases, encourage their students to do so. The findings showed that almost all the academic staff do not submit on the e-library databases portal for publication.

5.2.1 Discussion of findings on research question one "What ways do academic staff engage with e-library databases in the selected universities?"

The interview results presented in section 5.3 above revealed that mostacademics access the e-library databases for research from their offices. In contrast, a few of the academics access the e-resources from their homes. A small number of academics access online library databases through the library work station.

The use of the office to access the e-resources is predictable as the office is their workspace that provides a suitable environment for the academics to prepare for lectures. After official hours, the office is also a more conducive place for academics to engage in research. Again, since there are not enough study spaces reserved for academics in the library, it will be more convenient for them to carry out their research in their offices. As Walton et al. (2014) noted, limited learning spaces in the library should not be a problem since users can remotely access online resources. Similarly, Nwone (2017) found that academics make less use of the library to access information since most of them may want their private space, which the university library may not provide.

Concerning the finding that most academics access e-library databases from their offices, the implication is that they cannot use the e-resources when universities are closed. Therefore, academicsneed to connect with online databases, not only from within the universities but from anywhere. For that reason, libraries worldwide are rethinking their services in recent times, especially due to COVID-19 pandemic. The pandemic forced librarians to work remotely, providing e-resources and services to users (Coghill & Sewell, 2020). Campbell, Dumond and Fink (2020) reported that in response to the COVID-19 pandemic, the Health Sciences Library at the Northern Ontario School of Medicine (NOSM) Canada closed its physical spaces and provided an exclusively virtual library. Also, Guo et al.'s (2020) study of 137 Chinese academic libraries showed that most Chinese academic libraries changed their service by performing remotely online, including remote access. As earlier mentioned, with the COVID-19 experience and similar future occurrences that may arise, it is beneficial and crucial for academics and other library users to engage with e-library databases remotely.

Academics' level of engagement with library e-databases for teaching and research using their laptops, office desktop computers, or smartphones shows the availability of digital devices. Many universities in Nigeria have different levels of engagement with information technology and, as a result, have provided official desktop/ laptop computers to faculties. Also, most academic staff engage with personal laptops, smartphones, modems, and other digital devices. Few academics indicated the use of smartphones for engaging e-library databases. The decision is due to their portability, which can be used as alternatives when the laptop is not accessible at a particular point in time, especially when there is a pressing need for the information to meet academic requirements. In light of the study's findings, the university authorities must

make every effort to provide infrastructural support structures to improve academics' engagement with the e-library database.

This finding has implications on SIE constructs- Acts and Social Acts, which symbolises academics' decision to use the online library databases, depends on whether they are easily accessible. The finding implies that Academic Subject Librarians (ASLs) must be proactive in providing convenient and effective service. McTavish and Robertson (2020) explored Canadian academic librarians' roles and their skills and competencies regarding online learning during the COVID-19 pandemic. The research revealed that the advent of the COVID-19 pandemic in Canada brought significant changes in universities and other higher institutions. The higher academic institutions decided to enlarge their online learning courses, impacting the workers and changing library provision, spaces, and responsibilities. The investigation showed that ASLs became online teachers to provide virtual services. The study further indicated that the librarians work across a wide range of library ecosystems, and most of these librarians acquire momentous technological and instructive competencies while in the role. The study's finding is crucial for university libraries' ASLs' training on e-database use. The skills gained from the training programmes will prepare them for useful library services. Equally, Ifijeh and Yusuf (2021) investigated the recent global trends in online education, and the significant roles libraries can play. The authors recommended libraries should have responsive library website design, and ASLs should acquire new skills in Nigeria. Hence the need to use a frame of culture, human components and social environment of academic staff to understand e-library database utilisation. This result can motivate academic staff to engage more with the online library databases to perform their academic duties.

The frequency of engagement with online library databases revealed that most academics do not regularly access the e-library databases for research. Evidence from the findings also showed academics in U2 engage with online library databases more than their colleagues in U1 (See Interview Transcripts in Appendix 15).The study uncovers the reasons for underutilisation of the online databasesby answering research question 3 of the study under themes 3, 4, and 5 in section 5.4 below.

The foremost issue concerns the effect of engagement on academics' research productivity. The study's findings (from the interview) also revealed that almost all academics in U1 and U2 do not publish their research outcomes through the e-library database portals. This situation is unsurprising due to insufficient training, a lack of a self-help support system, a lack of peer support, the absence of an engagement culture, and a lack of discussion forums for e-library database users to share experiences. For example, a similar study by Nwone (2017) that investigated the professors' information behaviour in selected federal universities in South-West, Nigeria, found that professors publish research results in commercial journals instead of e-library database portals.

Academic engagement can impact various university activities, as it encompasses several organisational and environmental factors connecting student/staff/organisational success. Additionally, engagement is an element of the congenial/collegial environment in which institutions can exert significant influence. Thus, academic engagement is determined by individuals' characteristics and organisational and institutional context in which they work.

Most studies' correlation between engagement and productivity suggests that academic engagement goes hand-in-hand with academic productivity (Liu,

2020; Christensen, Dyrstad & Innstrand, 2020). Furthermore, the correlation between academic success and engagement demonstrates that engagement is complementary to academic activities-teaching, publishing, and learning (Christensen, Dyrstad & Innstrand, 2020; Frankel et al., 2020). This statement means highly motivated and successful individuals are involved in academic engagement. So, individuals' good research performance makes them engage more (Abdel-Gaber & Abdel-Aleem, 2020). Therefore, cultivating academics' engagement by ASLs is crucial to ensure maximum online library database utilisation.

5.3THEME 2:Research, teaching and other academic activities

The second research question covers the outcomes of e-library databases use in shaping the academic lives of academics. The aim was to obtain an in-depth understanding of how online library databases transform academic activities in universities. A combination of semi-structured interview and document analysis tool was used to generate this theme(See Table 4.3 in chapter four for the mapping of data collection tools to the research questions).

5.3.1 Results from Interview

As earlier stated, in some instances, the themes overlap, answering more than one research question. Table 5.3 in section 5.2 above provided some data to answer this research question. The study presents other significant replies from academic staff in table 5.4 below:

Table 5.4: Outcome of academics' use of e-library databases

Significant Statements
"I employ Agora to prepare lecture notes for teaching." (Participant 1, U1)
"I use EBSCOHOST and Elsevier library databases to get information to enrich my lecture notes." (Participant 2, U1)
"I use Elsevier and Scopus for publications and Ph.D. research."(Participant 3, U1*)*
"I use Elsevier e-database basically for teaching." (Participant 4, U1*)*
"I access JSTOR and Elsevier occasionally and use them mostly for teaching." (Participant 5, U1)
"I use EBSCOHOST and Elsevier e-library databases to get information to enrich my lecture notes and refer students to important ones for further reading."(Participant 1, U1)
"I access EBSCOHOST library database weekly from office desktop and Smartphone for teaching." "I encourage my students to use them as well." (Participant 2, U2)
"I access EBSCOHOST e-library database to prepare lecture notes."(Participant 3, U2)
"I access Elsevier and Scopus e-databases mostly for publications, Ph.D. Thesis, and sometimes for teaching." (Participant 4, U2)

Academics' responses in tables 5.3 and 5.4 above indicated that most of those that adopted the online library databases used them for teaching (development of lecture notes) followed by student supervision andmentorship. Only a small number pointed out they use the e-library databases for publications and Ph.D. research. None of the participants indicated the use of online library databases for collegial engagement and community service.

Moreover, since the study's results indicated academics' leaning toward printed sources for teaching and research (which is their primary responsibility), it is evident that they will not use the online library databases for other academic activities.Whilethe workload of most academics involves research and teaching, career advancement usually largely depends on research productivity.

5.3.2 Results from Document analysis

The study also analysed documents to address research question two of the study. The researcher assessed documents, such as Institutional Repository (IR), for this theme (See Section 4.9.5 of chapter four and Appendix 11). In terms of limitations regarding document analysis, U2 is yet to develop IR. As a result, the study analysed only IR in U1.

IR is an online store for gathering/ capturing, safeguarding, and disseminating digital forms of the institution's intellectual/ academic output (Cho, 2014). This study analysed e-library databases in academics' publications uploaded on the IR of U1. Publications of six out of the twelve academicsinterviewed in U1 were analysed on the IR to confirm the interview results. The study presents some of the publications below:

P1 (2017).Genetic affinity and breeding potential of phenologic traits of acha (fonio) in Nigeria. *Journal of Scientific and Engineering Research*, 4(10), 91-101.

P2 (2018). Some attempted strategies towards the control of Avian Coccidiosis: A review. *Direct Research Journal of Agriculture and Food Science*, 6(6), 128-138.

P3 (2014). The impact of capital flight on educational development in Nigeria. *International Journal of Advanced Studies in Business Strategies and Management*, 2(1), 71-80.

P4 (2015). A methodology for assessing the quality of corporate governance in Nigerian banks. *International Journal of Development strategies in Humanities, Management and Social Sciences*, 5(2), 92-193.

P5 (2011). Content and patterns of usage of Websites of Corporate Organizations in Nigeria. *Journal of Communication and Media Research*, 3(1), 113-124.

P6 (2017). Correlative assessment of the bacteriological and physicochemical parameters of water sources in Magama and Bolgang villages of Langtang South, Plateau State, Nigeria. *Researcher*, 9(7), 1-10.

Among the six academic staff publications evaluated, all cited mostly journals with few books in the published articles' references. These could be printed or electronic formats. Also, the authors cited only a few online information sources.

5.3.3 Discussion of findings on research question two "How has the utilisation of e-library databases shaped the academic life of academics?

Concerning research question 2 on the outcome/result of e-library database used for research, the study found that academics who have adopted e-library databases use them to conduct research and develop lecture notes for teaching and learning. Abera (2019) and Leonard, Hamutumwa and Mnubi-Mchombu (2020) studies found a slight difference compared to this finding. While the first scholar found academic staff use online resources for communication and research (other than teaching), the latter reported that academics use e-resources for research, publication, and teaching. However, the study's finding is consistent with Abdel-Gaber and Abdel-Aleem's (2020) study. The scholar's study in Saudi Arabia on academics' use of e-resources at the Princess Nourah bint Abdulrahman University revealed that most academic staff utilised the resources for teaching and research purposes. This

observation is similar to Bellary and Surve's (2019) finding. The scholars found that faculty members access e-resources for research, teaching, and learning purposes. Likewise, Eiriemiokhale and Idowu's (2021) study that explored the ease of use and value of e-databases by university academics in South-West Nigeria discovered that e-library database use enhanced the quality of their research and teaching and aided the writing of proposals for research grants.

Koranteng (2020) confirmed ICT's potential to improve educational efficiencies and address educational shortcomings in the developing world. The scholar's investigation of South African Faculty of Commerce found that school teachers learning outcomes was driven by ICT (in this case, e-library database) use. The findings indicated that teachers' ICT utilisation boost their teaching capacity by improving instructional materials, and teaching. This finding is expected since academics' responsibilities are mainly teaching and research. Academics need the information to prepare for teaching and conduct research. As Mägi and Beerkens (2016) and Jabbarova (2020) noted, university teaching is a fundamental responsibility of academic staff, requiring continuous learning through research to disseminate outcomes of new knowledge.

In this present study, only two academics indicated an online database used for publications (research output). Previous studies found that research output, in the form of scholarly publication, is dependent on e-library database utilisation among academic staff (Ani, Ngulube & Onyancha, 2015; Mägi & Beerkens, 2016; Rafi, Ming & Ahmad, 2018; Iroaganachi & Izuagbe, 2018; Adetomiwa & Okwilagwe, 2018). However, this finding disagrees with that. The use of e-library databases mainly for teaching revealed by the present study's findings

showeda low adoption and use of the library's e-databases by academic staff. This result further demonstrates a lack of interest in using online library databases.

The current research's finding from IR seems conflicting. For example, a participant who indicated an inclination to printed sources in the interview included many online resources in the publication references. This finding implies the online sources cited by the participant were online journals accessed using the general search engine.

Supposing an academic staff with inadequate search skills is confident in accessing materials through the Google search engine and cannot use the library e-databases, there is a problem. The use of the e-library databases depends on ASLs' proactivity and competence. Mwaniki (2018) and Eiriemiokhale and Idowu (2021) suggestedthat information/digital literacy, advocacy, and quality monitoring are critical for ASLs to ensure easy academics' commitment e-library databases.

Regarding the result of online database utilisation, Garcia et al. (2020) examined the impact of long-standing university-industry collaboration on academic research output in Brazil. The study found that research groups that collaborate continuously with industry have better scientific performance (for this research, through e-database use), revealing that lasting collaborations between university and firms positively affect academic productivity. On the other hand, Butler and Spoelstra (2020) observed that academic research (in this case, using library e-databases) and publishing is becoming problematic. The scholars observed that there is a difference between academics publishing and inherent momentous research (proper research). Above all, the study encourages academics to rethink thechoice of publishing that can shape the

academic environment.As Bazeley (2010) earlier noted, academic performance is not only related to research productivity (publication output) but to bring about a range of outcomes such as product, impact and reputation. Obviously, online library database use can enhance academics' productivity.

In this age, the pressure to publish dominates academics' thinking. Yet, building research cannot be limited to producing research outputs but needs to be recognised as a cultural movement focused on knowledge creation (Fyfe, 2017). Research publication, is dependent on the growth of a research culture among academic staff. Consequently, it is critical to understand human aspects of e-library database use. As mentioned elsewhere, Nygaard (2017) observed that publication output alone does not give a full description of a scholar's impact or influence. Academics must engage in other activities such as collegial engagements, community services, journal editorship, and advisory.

This present study's finding is similar to SIE theory's construct-Symbols. The construct suggests words (information/ knowledge) have meaning only if people share them (Plummer, 2002). Information, if shared, shapes the nature of the environment by expanding its scope (Hewitt, 2002). This statement implies that academics' e-library database use can facilitate and renew their knowledge, and this is invariably imparted through teaching, mentoring and other academic activities such as paper presentations at conferences, publishing in reputable international journals, and professional and community activities. Mentorship is a means of promoting educational maturity (Hunter & Martins, 2021). Universities' mentoring programs could facilitate students' development by providing them with confidence. Also, conference attendance could encourage reflective thinking and knowledge acquisition and provide a platform for building networks, making conferences an essential professional

development tool for maintaining competencies (Dumbell, 2017). Naturally, academics' online database utilisation in conducting academic and professional activities shapes the academic life of academic staff. Consequently, the academics' research performances will make the universities' academic products to be of high quality and standard.

5.4 THEME 3:Cultural influences

The study designed the third research question to obtain the perspectives of academics reasons for the low utilisation of e-library databases: "What are the perspectives of academic staff on low utilisation of e-library databases?" The study developed some of the interview questions to obtain academics' perspectives on low use of e-library databases. The three themes that appeared prominent under this research question were: cultural influences, non-library information sources, and negative experiences (See Appendix 13). The study used observation, semi-structured interviews and ASLs' reports to obtain academics' views on the library's low use of online databases(See the mapping of data collection methods to research questions in section 4.3 of chapter four for the full details). The study obtained the perspectives of academics on this theme through observation and semi-structured interviews.

The researcher observed academics' use of learning/study spaces reserved for them in the libraries primarily to use e-library databases. Equally, the study conducted observation by analysing the statistics of websites' use as per the use of online databases collected at the backend. The study first observed the open study spaces for academic staff.

The researcher immersed herself in unobtrusive and participatory observation of the academics' use of the e-library databases in U1 and U2 in the university libraries for one year- July 2018 to June 2019 (Refer to Section 5.5 and 5.6 of

Chapter Four for the full details). The study space is reserved for both academic staff and postgraduate students. To identify the number of academic staff who use the study space, the researcher distributed forms designed to differentiate academics from postgraduate students. The researcher observed the academic staff members' use of the learning space through that strategy forsix months. The researcher observed the academic staff's use of the study space from 10:00 am to 2:00 pm daily.

5.4.1 Study space

The libraries provide different study/ learning spaces for users.In U1, there is a computer lab (Figure 5.2) and large open study space with comfortable seats (Figure 5.3). The library also provides a small open study space reserved for academics and postgraduate students (Figure 5.4).

Figure 5.2: Computer Lab-U1 (UniJos)

Figure 5.3: Open study space- U1 (UniJos)

Figure 5.4: Open study space for academics and postgraduate students-U1 (UniJos)

On the other hand, in U2, the library has a computer lab (See Figure 5.5) and a small study space for academic staff and postgraduate students (See Figure 5.6).

Figure 5.5: Computer Lab-U2 (FUAM)

Figure 5.6: Study space for academics and postgraduate students-U2 (FUAM)

The U1 library designed the study space (See Figure 5.3) to provide library users with places they can study individually or in groups. It is the only area of the library where users are allowed to hold discussions. The library designated other learning spaces as quiet study areas. On the other hand, both study spaces in U2 (See Figures 5.5 and 5.6) are for silent reading.

Furthermore, the workstations of the two universities are primarily for an online search. The learning spaces were highly accepted, especially by undergraduate students whom the researcher observed were always busy with academic work. Also, there are power outlets for those who wish to use their laptops. The library provides laptop access and internet connectivity, which captivates the users. The researcher noted that the open learning environment was rewarding, as it provides university community members places for mutual learning. Nevertheless, the researcher observed that the spaces were not usually used by academic staff.

5.4.2 Context-specific events/activities

Apart from the online database search, many academics in the two universities prepare lecture notes and mark students' scripts. Others search for printed books and Journals. The researcher also observed that only a few academic staff used the study space to access online databases (See Appendix 13). The study further discovered that most of the academics that used the space are those on further studies, doing Masters or Ph.D. For example, out of thirty academics that used the space daily, over twenty were training for higher degrees.

The researcher observed a gender disparity, as she found more male academic staff in the study space almost every time than females (for example, on an

average daily ratio of 7:3). During the examination period, academics seldom used the learning space, as they were busy with invigilation. So the researcher concentrated on using other data collection tools during that period. Finally, at the end of the observation period, 510 academic staff used the learning space in U1 and 182 in U2.

The study presented the researcher's thoughts and roles as an ASL in section 4.4.1 of chapter four. As previously explained, the researcher has been an ASL for 10 years and was in constant interaction with the faculty to ensure the library resources' maximum use. For this reason, she was comfortable working in the field. Emary (2015) noted that because ASLs are always in contact with the faculty, observing and describing library users is less challenging (See Section 4.8.1).

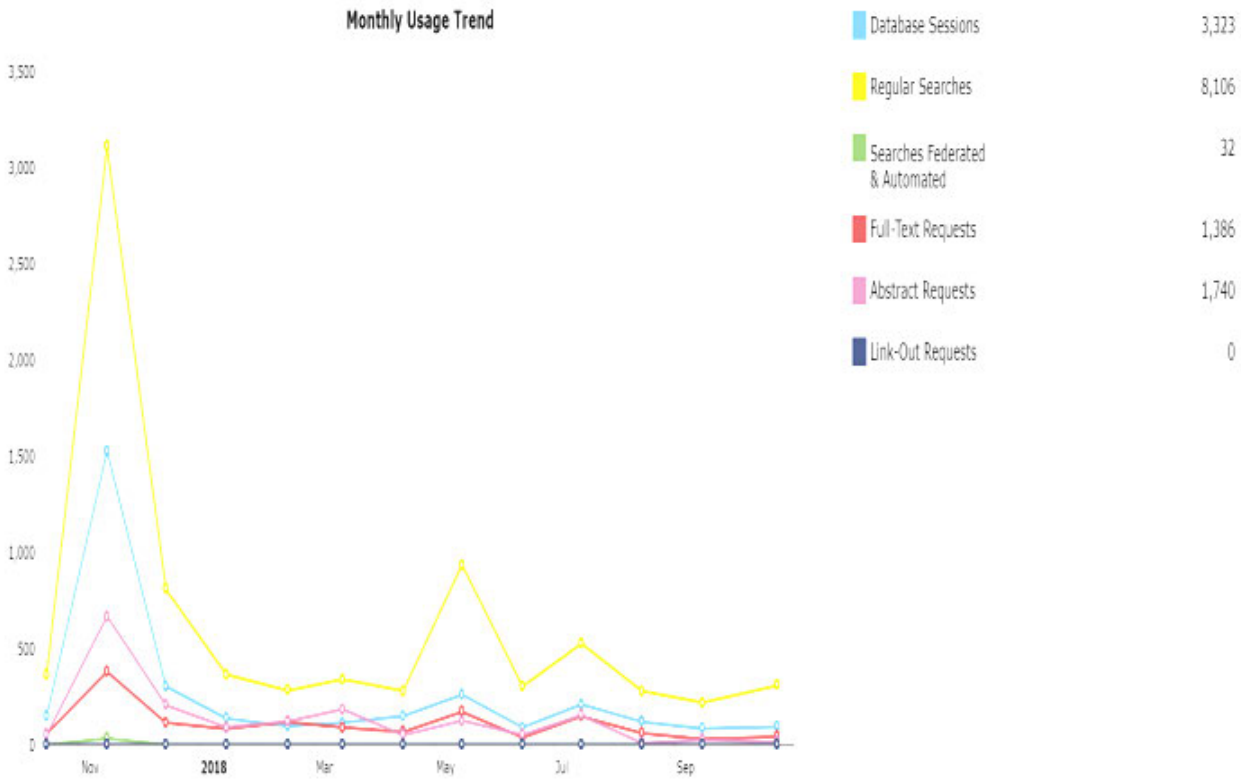
Afterward, the researcher analysed the data analytics of online databases, specifically, EBSCOHOST obtained from the U1 Library website presented in table 5.5 below (See Appendix 17 for Statistics of use of the online databases). The e-library database Report below covered twelve months (1st October 2017 to 30th September 2018).

Table 5.5: Monthly usage trend of EBSCOHOST in U1 Library

Interface	Database Sessions	Regular Searches	Searches Federated and Automated	Full-Text Requests	Abstract Requests	Linking-out Requests
EBSCOhost Research Databases	855	2145	0	402	314	0
Web Service	8	8	8	8	8	8
EBSCOhost Research Databases	1024	1024	1024	1024	1024	1024
Web Service	8	8	8	8	8	8
EBSCOhost Research Databases	501	501	501	501	501	501
Web Service	8	8	8	8	8	8
EBSCOhost Research Databases	906	906	906	906	906	906
Web Service	8	8	8	8	8	8
EBSCOhost Research Databases	5	5	5	5	5	5
Total	**3,323**	**3,323**	**3,323**	**3,323**	**3,323**	**3,323**

The graph below shows the monthly usage trend of EBSCOHOST presented in table 5.5 above.

Figure 5.7: EBSCOHOST usage trend



The statistics from the utilisation of the online library databases are for all the libraries.

Evidence from Table 5.5 and Figure 5.2 further confirmed the underutilisation of the e-library databases.

5.4.3 Results from interview

The interview results analysed also address research question three. The researcher sought academics' perspectives on how cultural factors influence the use of online databases through an in-depth face-to-face, semi-structured interview. The researcher conducted the interviews with the two universities' academic staff (lecturers) in their offices (See the details of the design of the Interview Guide in Appendix 9). The researcher asked participants to indicate

their preference for either printed or online databases and reasons for their choices. Academic staff from the two case studies indicated similar responses that they prefer printed sources, mostly books. The researcher extracted some of the two case studies' significant responses (The full details of the responses can be found in Appendix 15). Some significant statements from the interviews that apply here are below in Table 5.6:

Table 5.6: Academics' information resources preferences and reasons

Significant statements
"The library's printed books and journals are good for teaching/research, so I use them considerably more than the online databases as they are easier to handle. In other words, I can use printed resources without accessing a computer and internet." (Participant 1, U1)
"I prefer the text format. Although the library provides printers for users to print the e-databases when needed, I do not have an interest because the online databases are not always relevant." (Participant 2, U1)
"I prefer books; just traditional printed." (Participant 3, U1)
"I prefer to remain as before. I desire only text-books and journals because it is difficult to access the e-library databases." (Participant 4, U1)
"*I do not use the e-databases because my colleagues do not use them*." *My colleagues' lack of interest in online databases makes me think they are not valuable for research."* (Participant 5, U1)
"I prefer the text publications and even if I access the e-library databases, I print hard copies."(Participant 1, U2)
"I frequently use text materials and occasionally use the general search engine."(Participant 2, U2)
"Although I am aware of the library online databases, I do not use them."

Instead of staring the screen of a computer for long, waiting for the internet to be good, I use text books because of their simplicity."(Participant 3, U2) *"Preference of status quo and familiarity with old order makes me more interested in using printed sources."* (Participant 4, U2)

5.5 THEME 4: Use of non-library information sources

The study also used this theme to answer research question 3 of the study. The researcher asked academics in the interview whether they prefer other sources of information to the online databases and gave reasons(Please refer to Appendix 15 for the Interview Transcripts). The study presents some responses in table 5.7 below:

Table 5.7: Academics' use of non-library information sources

Significant statements
"I am confident using the general search engine for research. Since I get materials needed online, so there is no difference with the library's e-databases." (Participant 1, U1).
"*I use mostly books because I am analog, but I occasionally use the general search engine because I find it easier to use."* (Participant 2, U1)
"Apart from the printed sources, I am more comfortable using the general search engine for research. Using Google search engine is fast and reliable than the e-databases. Moreover, my friends in the faculty, apart from books, use Google search engine." (Participant 3, U1).
"I prefer using printed books and journals. I sometimes use the general search engine for online materials because my colleagues use them." (Participant 1, U2). *"If I do not get the needed information in printed sources, I go for the Google search engine, as it is commonly used for research in my faculty."*(Participant 2, U2).

Data in table 5.7 above elaborate more on academics' preference for Google search engine.

Regarding preferred online resources for credible research, none of the participants seemed to understand the advantages of e-library databases over the general search engine. One of the academics explained:

"I am not aware of the advantages of e-library databases over the general search engine."

Another stated that *"I do not know the difference between Google search engine and e-library databases. But I know there is insufficient information from e-library databases; I get enough on the general search engine."*

5.6THEME 5:Negative experiences

This theme also addressed the study's research question 3. The researcher employed semi-structured interviews to gain academics' perspectives on this theme. In the interview conducted, academic staff were requested to indicate their reasons for the low use of the library's online databases. Participants were also asked if negative experiences were part of the causes for the underutilisation of the online databases (See Appendix 9 for the full details of questions asked). The data collection tool was as well designed to understand the relationship between the library and the faculty and whether ASLs usually render proper assistance in terms of the use of online databases (See Interview Transcript in Appendix 15).

Most academics stated negative experiences such as slow internet speed, download/upload problems, page crashes, inability to load web pages and poor searching skills as the significant reasons for the low/non-use of the e-library databases. Also, many academics mentioned shared negative experiences with colleagues affected their e-library databases use. Again, several academics,

especially in U1, indicated multiple Campuses as the main barrier to using the e-library databases. For example, in U1, the Faculty of Law has moved from the Bauchi Road Campus to Naraguta Campus, while the Law library is still in Bauchi Road Campus. Although academics can access the e-databases remotely, theymight need some assistance from the ASL. So, an academic staff that wants to see the Law ASL must go to that Campus. That experience can discourage the staff from using the library's online databases. A small number stated inadequate assistance from the ASLs in the use of e-library databases. An explanation of the previous statement after further probe of a participant's response is:

"I went to the library to use the online databases. I did not get the relevant e-library databases to meet my information needs. I met the ASL, but he was not able to assist me appropriately."(See Table 5.8 and Appendix 15 for the Interview responses).The study presents some academics' responses on this theme in table 5.8 below:

Table 5.8: Academics' negative experiences in e-library database use

Significant statements
"I got stuck when using the online databases. I was unable to retrieve the needed/relevant resources, and the library staff was not able to assist, so I became frustrated." As a result, I lost interest in using the e-databases." (Participant 1, U1).
"Multiple Campuses in our University is a barrier to use of the e-resources. My office is in Naraguta Campus, while the ASL is in Bauchi Road Campus. Anytime I encounter problems using the e-library databases, I have to meet the ASL, and it is a long-distance from my office." (Participant 2, U1)
"The first time I attempted using the e-library databases, the information gotten was inadequate, so I use them very rarely." (Participant 3, U1)

"If you are not conversant with the e-library databases, you cannot use them. Since I am not ICT literate, I do not use them."(Participant 4, U1)

"My colleagues in the Faculty do not use the e-library databases. The negative experiences shared discouraged me from using the e-databases. One of them told me how he spent hours trying to get the needed information but could not." (Participant 5, U1)

"It was not easy the first time I used the e-library databases; it was difficult to select the information that matches my needs from the ones that do not." (Participant 1, U2)

"It is not easy using the online databases due to bad internet connectivity. Anytime I try using the e-databases and experience that challenge, I get discouraged." (Participant 2, U2)

"The negative experience that I encountered was search results were not relevant to the inquiry, and internet connectivity was very slow." (Participant 3, U2).

Participants from the two case studies indicated a cordial relationship between the library and the faculty. Some respondents indicated a lack of synergy between the library and the faculty. The study presents some academics'quotes on their relationship with ASLsin table 5.9 below:

Table 5.9:Academics' relationship with ASLs

Significant statements
"I have a cordial relationship with the ASL. We relate well, and she is always available to assist in the use of the online databases. She also attends Faculty Board meetings." (Participant 1, U1)
"The library has done well enough. The ASL is friendly. He goes extra miles to ensure you are satisfied." (Participant 2, U1)

"There is a lack of synergy (keeping the faculty updated on new developments and prompt notice of library training on e-database use) between academics in my department and the library. The divide has to be broken for the ASL to meet them individually." (Participant 3, U1)

"We have a perfect relationship. I am interested in visiting the library because the ASL has a pleasant behaviour. The ASL welcomes suggestions on how to improve their services." (Participant 1, U2)

"The ASL is always available for assistance. That attitude encourages me to use the online databases." (Participant 2, U2)

5.7 Discussion of findings on research question three

The study explored the underlying reasons for resistance to online database usage from observation and academic staff interviews. As expected, the online library database use statistics further confirm low usage of the e-library databases (Refer to section 4.6 in the Methodology chapter for the population of the study and Appendix 17 for Statistics of e-library database use).Similarly, many studies such as Gautam &Sindha (2017), Tella et al. (2017), and Eiriemiokhale (2020), Mwantimwa, Mwabungulu and Kassim (2021) have documented irregular use of online databases by academic staff for research due to their learning to printed sources of information. Reasons for their adoption of printed resources were the ability to access full-text articles, and they do not require IT searching skills and the Internet in accessing the resources. On the contrary, other studies (Larson, 2017; Ismail, Khan & Ahmed, 2020; Leonard, Hamutumwa & Mnubi-Mchombu,2020) reported that academics frequently use online library databases due to their choice of electronic articlesoverprinted sources. Abera (2019) added that academic staff's preference for electronic information sources is due to its convenience, ease of use, and source of versatile information.

Data that indicated academics' opposition to e-library database utilisation (due to preference for printed sources of information) showed participants prefer to remain as before, which implies resistance to change. Sabri (2020) revealedacademic staff's resistance towards using technology tools in teaching at Hall University, New Jersey. This finding agrees with that of Dayagunesha and Sampathkumar (2020), who found that most academics prefer to use print, especially books, for research. Samzugi (2019) and Mwantimwa, Mwabungulu and Kassim (2021) also affirmed academics' preference for printed sources of information over electronic resources for teaching, research, and publications. Nwone and Mutula (2018) revealed that despite the professors' adoption of online library databases, they depended much on journal articles and textbooks for teaching and research.Pihlstrøm (2020) affirmed researchers' use of both printed and e-resources. The author found researchers' use of both formats depending on the problem at hand. These findings are not congruent with a widespread assumption that online resources' availability has supplanted a print resource, which is not necessarily the case. Also, literature documented that the introduction of technologies has been overwhelmed by failure because of user resistance or total rejection. The present research's finding agrees with that.

The responses fall within the arguments of SIE theory's construct- Roles and Definition of Situations. The construct suggests acts do not occur in an abstract. They are situated along with expectations and interpretations/understanding (Hewitt, 2002). The SIE construct- Roles and Definition of Situations implies people act by their definitions (meanings) of the situations (Serpe & Stryker, 2011). The finding is also related tothe SIE construct, Self and the Control of Behaviour. The theory assumes that humans take complete control of their needs and wishes, other's needs and wishes, and

decide the best choice to make (Baghdadi, 2009).Academic staff might prefer to use other sources of information resulting inlow-library database use. The decision could be linked to a lack of interest or simplyaresistance to change. The result implies that cultural factors may influence the types of materials academics use for teaching and other academic activities. Pineda (2014) confirmed that cultural background plays a vital role in accepting and using technology.The author added that technology features (such as innovativeness) have cultural features and thus constitute part of the obstacles for low adoption and use of technology. Borkovich, Breese-Vitelli and Skovira's (2015) study in relation to groups'organisational behaviour in a digital environmentaffirmed that organisational culture significantly affects e-library database use. Tian et al. (2018) reported that cultural factors can either aid or impede technology adoption and use. This finding has important implications. Heads of Universities should scrupulously comprehend the modern technology in connection with the organisational culture and encourage academic staff of its value and benefits. Also, academics must embrace the e-library databases for improved research performance.

The finding from academics' perspectives also indicated that some are opposed to using the e-databases but seek information from the Google search engine (See Responses in Section 5.4.2). These academics' decision may be based on Google search engines' simplicity; as seen in some participants' responses:

> *"Apart from printed sources of information, I am more familiar and comfortable with the general search engine. So I always use it for research." "I am analog, but I occasionally use the general search engine because I find it easier to use."*

Also, the data from documents confirmed this finding. From academic staff's perspectives during the interview, data indicated low e-database use due to their inclination to printed books and journals. However, document analysis revealed the inclusion of online resources in their publications. This behaviour shows that academics that reject e-databases use other online resources due to their ease of access. This finding corroborates previous studies' findings. For instance, Abera (2019) explored academics' use of electronic information resources in Assosa University Ethiopia. A vast majority preferred the Google search engine for expediency, accessibility, and sufficient information for professional research from the academics' perspectives. Despite the previous study's findings, Ritchie, Banyas and Sevin (2019) noted users' satisfaction with the e-library databases than the Google search engine for professional research. The scholars' (2019) research compared the Google search engine with the library e-databases regarding their relative value, strengths and weaknesses. The authors found that Google is superior for coverage and accessibility; simultaneously, while library e-databases are superior for quality results such as comprehensiveness, correctness, trustworthiness and suitability, usefulness, relevancy, and adequacy.

Similarly, Bates et al. (2017) earlier observed that although the search engines offer opportunities in addition to those provided by the subscribed library databases for identifying academic literature, their usefulness for retrieving research is doubtful. As stated earlier, the preceding scholars maintain that Web search engines are limited because the searcher cannot be sure that Boolean logic principles apply and are insufficient in their functions, such as exporting abstracts, compared to e-library databases. Hughes (2018) confirmed that web search engines have limited functionality compared to bibliographic databases. The previous author found that even though the Google search

engines and some e-databases were similar, their sensitivity scores were weaker. Therefore, the author concluded that web search engines should not be a substitute for e-library databases. The preceding results indicated the need for academics to be informed of the value of e-library databases due to their quality.

Lwoga and Sukums (2018) investigated academics' online database use in the Faculty of Health Sciences in the Muhimbili University of Health and Allied Sciences (MUHAS) Tanzania. The study revealed that the academic staff were not satisfied with the e-library databases, so they opted for the Google search engine. In line with this finding, Olowu, Suliman and Adedokun (2020) reported that most academics in Ahmadu Bello University, Zaria Nigeria, relied more on search engines than the library's subscribed databases.

The low e-library database use revealed by this research's results has implications for academics and ASLs. Academic staff need high-quality and accurate information for teaching and research. Regardless of the Google search engine's ease of use, academics have to embrace e-library databases for research, despite their perspectives on barriers of e-database utilisation. Also, ASLs need to take academics' sensitisation on e-library database use seriously to reduce the low use of the e-library databases. This action makes the library effective in an electronic environment. Improving academics' skills by providing assistance and training can encourage/promote e-library database usage. The next section, theme six on research question 4, covers academics' previous experiences.

5.8 THEME 6: Previous experiences of academics' e-library database use

The fourth research question explored the nature and characteristics of academic staff experiences in using e-library databases. Academics'

experienceson this research question were collected based on positive (satisfying) or negative (unsatisfying) experiences. The researcher combined observation and semi-structured interview data collection methods to obtain academic staff data on this theme (See Section 4.3 of the Methodology chapter for the full details).

5.8.1 Results from observation

The researcher observed academics' use of the e-library databases in U1 and U2 for one year. The researcher observed the interaction between the ASLs and academics, user experiences of academics at seminars, and orientations held in the libraries on online databases.

This section presented findings from observation of the interaction between the ASLs and academics. The routine is similar in the two case studies. The researcher discovered that most activities involved an academic staff visiting the library to see the ASL. A brief description of the relationship showed the following: The staff requested to use the online databases. The ASL gave the staff the password if needed and then assisted him/her in using the e-databases. Some academics came to the library, asking for information sources in their Subject areas to enhance their teaching. The ASLs were able to guide them on accessing e-databases and other relevant resources tomeet their information needs. The ASLs referred academic staff that came with technical issues to the Systems Unit of the libraries.

The academicstaff also shared their experiences in e-library database utilisation.

The researcher observed academics' user experiences during the U1 regular library seminars and orientations on online databases.Case study 2 (U2) rarely organises seminars forsensitisation on online library database use. Throughout

the year-long stay in U2, the library never conducted any seminar on online database use. The study discovered that most academic staff, especially the elderly in U1, do not have the ICT (search) skills, so it was difficult for them to use the computers. For example, in some of the seminars, the presenters, including the researcher, had to hold some elderly senior academics (Professors) to operate the computer. The researcher discovered that online database use and technology are generally less common to older academics but appear to be more familiar amongst the younger ones.

5.8.2. Results from Interview

Apart from observation, the researcher also interviewed academics to get their views on research question 4 of the study. The researcher requested participants to state their experiences in the use of the library online databases. The questions ranged from how the use of the e-library databases influenced their academic activities, whether the search outputs were relevant to their queries, and if they were confident in their searching skills(See Appendix 9 for details). The study sought other questions to understand the challenges academics experienced using the e-library databases. These were whether they received sufficient training from the library and how the library training has changed how they look for the e-library databases. The researcher interviewed the Systems Librarians on complaints, troubleshooting requests, and Help desk issues of participants.

Results revealed both positive and negative experiences of academic staff in the use of library online databases. The researcher extracted some significant responses and positive experiences and are presented below in Table 5.10 below:

Table 5.10A: Academics' positive experiences

Significant statements
"I am satisfied with the library online databases because I always got what I wanted; only that there is sometimes no full access. I access the e-databases easily because I have the searching skills." (Participant 1, U1).
"I am excited using the e-resources because they are current and relevant. This experience encourages me to always use the resources for research." (Participant 2, U1).
"*I am interested in using the online library databases because when I had difficulties accessing the e-databases, the ASL assisted me. The interaction with the ASL aided me in using the e-resources."* (Participant 3, U1)
"My search results are relevant and useful to my query." "I got much information on my query that I did not expect. That experience makes me to have interest in using the e-resources." (Participant 1, U2).
"E-databases are a fast means of getting information. It was a beautiful experience to get most of the resources I needed. I enjoy using them, as it makes my teaching and research easy" (Participant 2, U2).

The study presented the findings on challenges encountered when using the online library databasesin section 5.4.3. The study presents some negative experiences in table 5.10 below:

Table 5.10B: Academics' negative experiences

Significant statements
"I got stuck when using the online databases and the ASL was not able to assist, so I was frustrated." As a result, I lost interest in using the online databases." (Participant 1, U1).
"The first time I attempted using the e-library databases, the information gotten was inadequate. That experience makes me discouraged, so I use them very rarely." (Participant 2, U1)
"If you are not conversant with the e-library databases, you cannot use them. Since I am not ICT literate, the inadequate skill makes me not to use them." (Participant 3, U1)
"It was not easy the first time I used the e-library databases; it was difficult to select the information that matches my needs from the ones that do not." (Participant 1, U2)
"Poor internet connectivity affects e-resource usage. Anytime I try using the e-databases and experience that challenge, I get discouraged." Consequently, I use other sources of information for research." (Participant 2, U2)
"The negative experience that I encountered was search results were not relevant to the inquiry, and internet connectivity was very slow. Since I can get needed information from printed books and journals, why do I border using the online databases?" (Participant 3, U2)

The interview data collection method also explored if academics received enough training from the library and how the library training has changed the way they look for the e-library databases. Few academic staff, especially inU1, indicated a lack of search skills due to the library's inadequate training. The responses in Table 5.11 below confirm this finding:

Table 5.11: Academics' responses on online database training

Significant statements
"Training is insufficient. The library should frequently organise training to inform us on new changes and accommodate new staff." (Participant 1, U1)
"Training is not sufficient. I have not received any training at Naraguta Campus since 2015." (Participant 2, U1)
"I have not received enough training from the library. That affects my use of e-library databases. I still lack the search skills so find it difficult to use the e-resources." (Participant 3, U1)
"I have received sufficient training on online database use, and the training has made me understand how to use the e-databases better." (Participant 1, U2)
"The training I received from the library is not sufficient. Library training has not influenced the way I access the e-library databases." (Participant 2, U2)
"I have the searching skills but did not acquire from library training. I learned how to use e-resources personally." (Participant 3, U2)

Findings from table 5.11 above indicated that most academics did not receive sufficient training from the library. Most of them with search skills capable of using the e-databases indicated they did not acquire through library training. All academics in U1 indicated inadequate training on e-library database usefrom the library, which affects their use of the e-resources. On the other hand, few academics from U2 indicated it was due to the library training that they use e-databases.

The researcher also sought Systems Librarians' opinions about complaints, Help Desk issues, and troubleshooting requests presented by academics. Mostcomplaints brought to the Help desk on e-databases include limited

access due to poor network/ internet connection ordysfunctional passwords. Her response:

> *"Help desk issues include academics visiting the library with their systems looking for assistance on how to access the e-library databases. The ASLs were able to connect them."*

Troubleshooting requests by academics were not frequent. The Systems Librarian explained:

> *"Sometimes, academics come with troubleshooting requests, and we solve the problems. Mostly, academics come with complaints about their systems and the inability to connect to the internet. Since they are technical issues, the System Librarians rectify the problems. There are times that the academic staff meet the ASLs and they solved the problems. If they cannot, they usually refer them to the library's Systems Unit."*

5.8.3 Discussion of findings on research question 4:

"What are the nature and characteristics of experiences of academic staff in the use of e-library databases?"

Findings on academics' e-library user experiences (UX) demonstrated that academic staff had both positive and negative experiences. The approval and use of technology (e-library databases) are affected by technology experience (Hornberk & Hertzum, 2017; Sagnier et al., 2020). In an investigation of the UX in successful and unsuccessful technology acceptance, Partala and Sarri (2015) observed that UX can be affected by value, output quality, satisfaction, and negative emotions in unsuccessful adoptions.

The study's data showed few academics had satisfying experiences using e-library databases. The negative experiences surpassed the positive(See Table 5.8). Findings revealed that most academics werenot satisfied with the e-library databases due to several limitations: irrelevant search results,

inadequate assistance from the ASLs, inadequate search skills, and low internet connectivity. This finding is similar to the results of previous studies. Chima-James, Opara and Ogaraku (2018) reported academics' partial satisfaction with the e-library databases. Likewise, Mwantimwa, Mwabungulu and Kassim (2021) found that academics in the University for Development Studies, Wa Campus Ghana, were not satisfied with the e-library databases due to barriers such as internet connectivity, inadequate search skills, and lack of full access to information. Leonard, Hamutumwa, and Mnubi-Mchombu's (2020) research documented irregular training, bandwidth problems, and limited searching skills hindered academics' use of e-resources at the University of Namibia.

The present research's finding is similar to the prior studies' findings by giving suggestions for enhancing the use of the e-library databases. By contrast, the studies employed quantitative survey methodology, and previous studies reported their suggestions at length. Also, based on the researcher's personal experiences as an ASL, e-library databases are underutilised by academic staff at the University of Jos, Jos and similar institutions in North-Central Nigeria due to similar barriers.

Scanty research exists about these experiences' characteristics (Izuagbe, 2021). As earlier stated, concerning the preceding, the researcher needs to put such anecdotes and experiences of academics' e-library database use underlying patterns and relationships under the eye of scholarly analysis (Massaro et al., 2021). This study explores an alternative approach to understande-library databases utilisationand proffers recommendations.

Section 5.8.1 above presented the routine/practices in the two case studies. The study discovered that most activities involved an academic staff visiting the library to see the ASL with queries. The ASLs were able to meet their information needs. The researcher discovered that most academic staff, especially the elderly, lacked the search skills to independently navigate the computers and use e-library databases. The researcher found that online database use and technology are generally less common and comfortable to older academics but appear to be more familiar amongst the younger ones.

Machimbidza and Mutula (2020) investigated university academics' use of peer-reviewed electronic journals in Zimbabwe. The authors reported that younger academics possess higher skills in technology use than the older academics, and as a result, use e-journals for research far more than the latter. Neves and Mead (2020) concurred that older people's rate of technology adoption is still below younger age groups. The scholars added that new technology's design, learning environment, and peer groups shape its acceptance. Vaportzis, Clausen and Gow (2017) found lack of instructions and guidance, lack of knowledge and confidence, the complexity of technology, feelings of inadequacy, and skepticism about technology in general as factors affecting older people's technology use.

Zha, Zhang, and Yan's (2014) findings contrast with previous findings. The scholars earlier reported that older Chinese university users preferred electronic resources for research to younger users due to ease of use and usefulness. Likewise, Nwone (2017) reported that older academics (professors) showed more electronic resource preference because it makes research fast and straightforward.

Alabi and Mutula (2020) noted the effect of age on the optimal success of ICT use in teaching. Machimbidza and Mutula (2020) observed that despite the younger academics' high ICT adoption rates and e-resources use, the older academics accessed more printed sources. This finding shows there are age differences in academics' technological skills that ASLs have to consider in providing library resources and services. Furthermore, ASLs have to increase training and retraining of academic staff on e-library database use. Although training may overcome resistance to e-library database use, some users may not have the time to learn about the system or believe it will be helpful in their teaching and other academic activities.

Findings in the current research found a low network as the main factor that hinders academics' e-library database use. However, the focus group discussion (FGDs) with ASLs revealed a lack of interest in the use of online databases by academics as the main reason for low use. ASLs emphasised that although low internet connectivity hinders e-library database use, academic staff still do not use the resources when the network is good. While many academics' use skills are inadequate regarding searching skills, they do not attend the library's training.

Academics' responses in table 5.9 above indicated that most academics did not receive sufficient library training. Most of them with search skills capable of using the e-library databases indicated they did not acquire them through library training. All academics in U1 indicated inadequate (irregular) training from the library, which affected their use of the e-resources. On the other hand, few academics from U2 indicated it was due to the library training that they use e-library databases. One participant commented,

"I have received sufficient training, and the training has made me understand how to use the e-library databases better."

The FGD with ASLs in U1 further confirmed this finding that academics do not get sufficient training since they do not always attend the library's training. The result from the interview with academics in U2 contradicts the findings from FGD with ASLs. While academics indicated the library provides adequate training, the ASL responded differently. ASLs' responses showed training is not conducted frequently for academics. One ASL's response:

"The library rarely conducts training on e-library database utilisation. Academics that need assistance on e-database use visit the library for ASLs to guide them."

The result of the insufficient training on e-library database use from U2 is alarming. Generally, the implication of this finding indicates the need for more training. Faculty training influences academics to maximise the online library databases for teaching and research. Trained academic staff are more likely to use the technology than those who are not (Hornberk & Hertzum, 2017).Abdel-Gaber and Ali(2020) noted that training promotes confidence in technology usage. Al-dheleai et al. (2019), Singh and Kushawaha (2020) concurred that lecturers with ICT skills have a positive attitude towards using ICT in teaching.

The study's findings also revealed negative online library database usage experiences as obstacles to academics' e-library database usage. The study provided academics' responses on negative experiences that discouraged them from using the e-library databases in Table 5.7 above. These responses are in agreement with the belief of SIE theory's construct, Roles and Definition of Situations. The construct implies that acts do not occur in an abstract, but they are situated along with expectations and interpretations (Hewitt, 2002). That

means that despite e-library database benefits in research, academics decide to use them based on simplicity. The construct also explains the point in academics' interpretive process when interaction was misinterpreted and why. It shows whether academics' refusal to use the e-library databases was due to previous negative experiences or inadequate ASLs' skills.

As mentioned in chapter three, user experiences (UX) of technologies are fundamental to user studies, design, sustainability, efficiency, and the evolution of best practices. Academics' UX of online library databases is vital for university libraries to review and update their policies and practices associated with utilising e-library databases. The university library should establish the best interventions that tackle inappropriate e-library database use. For example, instead of going through the university website, the library can bring all the resources together (in one search box) to access from the same point. The libraries should include real-time use to ask questions, such as 'Ask your Librarian.'

The university should also prioritise behavioural change.Behavioural change is a complicated process. Hence, using a personalised approach might be the most effective way to encourage users towards behavioural change (Pintar & Erjavec, 2021).ASLs can influenceacademics to change their stance or attitude to research without usingcompulsion. The preceding means ASLs can persuade academics using different devices or approaches. Finally, encouraging behavioural change in research demands mutual relationships between ASLs and faculty members.

5.9 THEME 7: Socio-cultural influences "How do socio-cultural factors affect the utilisation of e-library databases by academic staff?"

The fifth research question explores the effect of social and cultural factors on utilisation of e-library databases. In other words, in line with the qualitative approach using ethnography, research question five explored the role of social and cultural factors in the utilisation of e-library databases. The researcher used a semi-structured interview method to generate data to answer this research question. This section focused more on social factors influencing academics' e-library database use.

Data revealed many academics indicated that shared experiences with colleagues in the faculty influenced their use of e-library databases (See Interview Transcript in Appendix 15 for the full details). For example, a participant's comment,

> *"Previously, I was more interested in using printed books and journals for teaching and research. I became interested in e-databases after the ASL shed light on online library database' value in research, during one of the Faculty Board meetings. However, prior to using the e-databases, I became discouraged when my colleague shared an experience he had with e-database. According to him, he wasted one hour trying to access the online database but could not due to some access problems."*

Other participants' responses:

> *"My non-use of e-library databases is based on shared experiences with colleagues. A colleague told me he attempted using the library online databases but got frustrated, due to its complexity and inadequate searching skills. Knowing I am not confident in my ICT skills, I decided not to use the e-databases."*

> *"I do not have an interest in using online databases. I use textbooks because of their simplicity, and they meet my research needs."*

> *"I prefer using printed sources, especially textbooks. It is also due to preference of status quo and familiarity with old order."*

> *"I desire only textbooks and journals because it is difficult to access the e-library databases."*

"I am comfortable reading printed information sources instead of staring at the computer screen for a long time. Why should I bother using the e-library databases when I get all the needed information from printed books and journals"

Resistance to e-library database use also affected other academic staffs' use of the resources based on shared experiences. The researcher found that people use technology within a cultural and social context, influencing how humans behave towards technology. As an outcome, people obtain beliefs and values from the people around them. Social factors refer to the support or dissuasion of peers. Manca, Sivakumar and Polak (2019), Naqvi et al. (2021) posited that people develop attitudes as a resultof the information available to them through social interaction and adapt their beliefs to their situation's veracity.

This concept is related to the conception of Object from SIE. Academics tend to use e-library databases based on shared experiences with colleagues. Chávez Herting, Pros and Tarrida (2020) noted that social influence and social interactions could affect new technologies' adoption. Dhiya and Hussain (2014: 37) reported that particular society or community might accept specific values while rejecting others owing to the nature of any particular individual or grouping of individuals on the one hand, and due to the social (and other factors) of the wider society/community on the other hand.

This present study's finding agrees with a handful of studies (Huang, 2019; Huang, 2019; Sitorus et al., 2019; Cokins et al., 2020; Naqvi et al., 2021) that peers influence perceived usefulness. As Galvin (2014) noted, persons and groups, interacting together in a social system,over time, form concepts or mental representations of each other's actions. The preceding suggested that although academics may oppose using the system for various reasons, as

discussed in themes 3, 4, 5, and 6, social/ peer influence plays a vital role in influencing academic staff's stance towards e-library databases. Olasina's (2018) study corroborated this finding that human and social factors influenced the e-learning (technology) acceptance culture. In contrast, Al-dheleai et al. (2019) found no social influence on lecturers' use of ICT for teaching in Yemen's Universities. The scholar reported the use of ICTs still depends on lecturers' self-initiative. The initial finding implies that social pressure may be needless when academics recognise e-library database/ technology's value. As mentioned earlier, the result from this present study indicated academics do not know the worth of the e-library databases for research, so they do not have an interest in the online library resources.

Regarding culture, Yun et al. (2020) maintained that culture is a significant driver of innovation. "Culture influences action not by providing the ultimate values toward which action is oriented, but by shaping a repertoire or "toolkit" of habits, skills, and styles from which people construct strategies of action" (Swidler,1986). New technologies always raise anxiety about their consequences. No doubt, technology, in this case, e-library databases, has bred anxiety and optimism in their potential to improve teaching and other academic activities (Miller, 2020). The present study helps universities better understand how culture can influence academics' online library database use.

The results are in tandem with the expectations of the SIE theory that underpins this study. The theory posited that socio-cultural factors could hinder people from using technologies. As previously stated, when human beings interact, they consider what others are doing or planning to do and respond accordingly. In essence, this behaviour could alter an intended answer or replace it (Blumer, 1969). Therefore, cultural factors are suitable tools for

better approval of e-library database utilisation. On the other hand, actors in the information technology sectors should be committed to integrating the socio-cultural work environment as an intended benefit.

5.10 THEME 8: Perspectives of academics on improved e- library database use

The inquiry employed the semi-structured interview and photovoice to generate data for this theme. Academic staff's perspectives were crucial in improving online database use enhancement.

5.10.1 Results from interview

The study structured the interview data collection method for academics' responses on what is missing in previous library training on e-databases use, the ideal library training, and ways the library could improve the use of online databases.

Participants from the two case studies indicated inadequate training on the use of e-databases (See Academics' responses on training in Table 5.11). For that reason, the library should offer more frequent training. All participants from U1 emphasised that training should be organised at the faculty level, not in the library, due to their busy schedules.

When asked if they wouldattend training anytime they are invited, all U1 and U2 responded if they are aware of any training, mostly if offered at Faculties. Finally, on ways the library can improve e-library databases use, some fundamental extracts from academics' responses in U1:

Table 5.12A: Academics' perspectives on e-library database use enhancement -U1

Significant statements
"*The library needs to improve the password platform, to make them active; they should also make the passwords available."*(Participant 1, U1)
"ASLs should be more proactive; make academics to be aware of the availability, and advantages above general search engine and printed resources, especially books."(Participant 2, U1)
"Regular communication/ marketing of e-resources as a reminder will increase the use of e-library databases." (Participant 3, U1)
"All Faculties should have terminals; the link encourages the use of the e-library databases." (Participant 4, U1)
"There is a lack of synergy between the library and the Faculty; if that divide is broken, ASL can meet academics individually."(participant 5, U1)
"Printing facilities should be provided at the Faculty. Also,internet connectivity must be strong to avoid being frustrated while using the e-library databases." (Participant 6, U1)

Participants from U2 responded differently from U1 on how the library can enhance the use of online library databases.

Table 5.12B: Academics' perspectives on e-library database use enhancement- U2

Significant statements
"*ASLs should always be available to assist users." "Power supply should be improved."* (Participant 1, U2)
"Provision of more relevant/ needed online databases will increase use. The power supply should be improved." (Participant 2, U2)
"Marketing online databases always will enable academics to be aware of the available e-databases in the library."(Participant 3, U2)
"Internet connectivity must be strong to avoid being frustrated while using the e-library databases."(Participant 4, U2)

5.10.2 Results of photovoice

There is no single approach to conducting photovoice, and therein lies the beauty of this method (Delgado, 2015). The previous author added that the flexibility permits local incidents to dictate/order the best approach. Furthermore, researchers must not pass any "litmus test" to officially call a research project "photovoice worthy." Undoubtedly, the advent of technologies has made photovoice simple and challenging to use. Moreover, digital media advances allow visual image-making, making photovoice much more widely accepted due to the enormous potential audience for this form of research (Delgado, 2015). The researcher can download digital images onto computers and distribute them easily to participants, aiding access for the group (Please refer to section 4.8.2 of the Methodology chapter for details of Photovoice).

As stated in chapter four, conducting photovoice was not easily accessible, but every effort was made to deploy and familiarise participants with the tool based on its advantages and potential to enrich the findings in line with the purpose of the study. Also, the researcher's existing relationship, as an ASL in one of the study sites, and with the academics, over several visits, motivated participation in the research.The photovoice method was employed in this study to explore how to improve academics' utilisation of online library databases in the libraries (Stracket al., 2010). Again, the method aimed to shed new data and achieve methodological innovation and creativity potentially.

Employing the photovoice method for this study also provided a novel way to triangulate e-library database enhancement results. Constant comparison methods of a grounded theory facilitate photovoice analysis (Saimon, Choo, &Bulgiba, 2013; Belon et al., 2014). In this study, photovoice was analysed

based on an approach recommended by Rose (2012). The scholar proposed a four-step procedure for content analysis: (1) finding your images; (2) devising your categories for coding; (3) coding the images; and (4) analysing the results. The researcher played an active role by putting her voice in the photos and reflecting on her observation of participants. Instead of only the academic staff to take their photographs, technology photos were downloaded from Google photos by both the academics and researcher (Berbes-Blazquez, 2012). Also, low-cost cameras were made available for study participants to take photos of incidents and events related to library e-databases.

First phase

In the first meeting, the researcher introduced photovoice. The researcher explained to the participants what wasexpected of them given this method. The action is crucial because the data collection technique is new.Afterward, participants, using individual reflection of lived experiences in e-library database usetook pictures and downloaded technology photos from Google photos (Berbes-Blazquez, 2012). The researcher guided participants in photo-taking and downloading.

Second phase

In the follow-up meeting, there was a dialogue about the photos. The researcher applied the overall theme formulated (The Field Data) for the study's data analysis for coding the images. The process helped the researcher to remain focused on the study's general goal while classifying the images and narratives (Delgado, 2015).

Third phase

The section's theme and categories used are academics' perspectives on improved/ better library services for enhanced e-library database utilisation.

Categories created under this theme are Sensitisation/ Training at the Faculty levels, ASLs should be proactive, Strong Collaboration between Faculty and ASLs (See Appendix 14 for details of Data Coding).The themes had a significant influence on devising strategies/ interventions for enhancing the use of e-library databases (Delgado, 2015).

As mentioned in the methodology chapter, the study planned the data collection instrument to engage academics in downloading relevant and context-specific photos from Google photos rather than going around the university communities to take photographs in line with the procedure by Rose (2012)

The researcher conducted photovoice on the 8/8/2018, 13/8/2018 and 23/8/2018 in the U1and on the 15/5/2019, 20/5/2019 and 28/5/2019 in U2 university libraries with six and five academics respectively. In the first meeting, the researcher introduced photovoice, and the academic staff were allowed to snap and download photos. Given the participants' tight schedule, the researcher and participants took and downloaded technology-frustration photos and technology-satisfied photos from Google photos (Berbes-Blazquez, 2012).The participants took and downloaded photos based on their satisfaction with the online library databases. The study presents some of the U1 photos below:

Participants' photos from U1

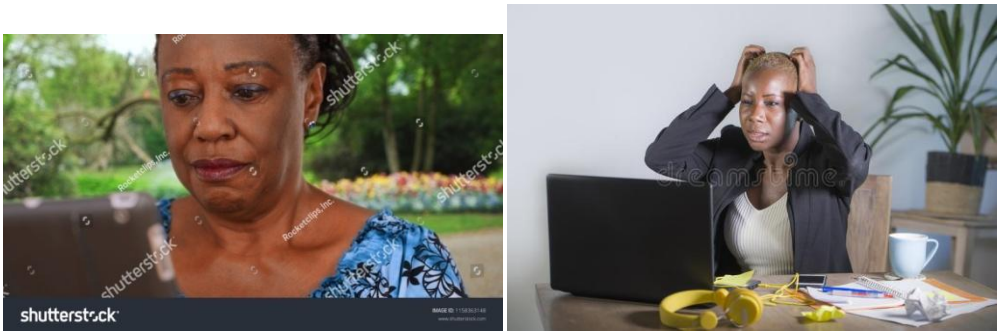
Figure 5.8: Participant 1 (U1)

I have no idea of the problem. The system just stopped working. I cannot experience this problem with books

Figure 5.9: Participant 2 (U1)

For how long will I wait to access the online library databases

Figure 5.10: Participant 3 (U1)



It is better to read books than stare at the screen of a system

Figure 5.11: Participant 4 (U1)

I have been waiting for a long time to have full access to online library databases. I prefer to remain as before.

Figure 5.12: Participant 5 (U1)

How long can I wait before the system starts to work? I prefer printed resources

Figure 5.13: Participant 6 (U1)

I wonder how we previously conducted research

Participants' photos from U2:

Figure 5.14: Participant 1(U2)

I am frustrated using these e-resources

Figure 5.15: Participant 2 (U2)

I can not find the needed/ relevant sources

Figure 5.16: Participant 3 (U2)

Technology is good

Figure 5.17: Participant 4 (U2)

Thank God for technology. The online library databases are better than the printed sources in terms of search and current materials

Figure 5.18: Participant 5 (U2)

It is incredible accessing the e-library databases due to their benefits, but it is frustrating when one cannot easily access the needed information

Data Analysis

The study integrated the analysis for U1 and U2. The initial stage in the photovoice analysis process is data coding which entails narratives about images. Data integration helps focus on contextual factors that may either be totally overlooked or minimally attended to in an analysis (Patton, Higgs, & Smith, 2011). Narratives have additional significance in photovoice because researchers can organise, and obtain more crucial contextual meaning from data (Lieshout & Cardiff, 2011). Meaning can be grounded in diverse ways

(Capous-Desyllas & Bromfield, 2018; Tsang, 2020). Finally, the researcher elicited participants' verbal and nonverbal responses in reviewing photographs and narratives. Barlow and Hurlock (2013) emphasise on members assisting each other in sharing reflections.

Participant 1 (U1): Technology +Lack of Search Skills=Frustration

The photos showed that online library database users got stuck while using resources. The problem can be due to a lack of interest, search skills, or value academics attach to e-library databases. They need help.

Participant 2 (U1): People+Preference to Printed Sources of Information=Technology Frustration

Findings from the images revealed users' frustration in accessing e-library databases. Academics' inclination to printed sources makes them impatient in using the online library databases. The researcher noted that resistance to change makes it difficult for academics to separate from the routine.

Participant 3 (U1): Seniors / Old people+ Technology=Frustration

Most senior academics in U1 prefer to remain as before. They attempted using the e-library databases but ended up frustrated andstaring at the screen of the laptop. For that reason, they are more inclined to printed sources and wary of using e-library databases.

Participant 4 (U1): Library User + Technology+ Lack of Full Access=Frustration

The user needs full access to the online library databases but got mostly bibliography details/ abstracts. As a result, he/she will prefer using printed sources of information.

Participant 5 (U1): Library User +Phobia=Frustration

The users of the e-library databases were not interested in using the resources. The participant that presented the photos indicatedthe preference for status quo (to remain as before).These participants have phobia and a general lack of interest in using the e-library databases.

Participant 6 (U1): Library user +Technology Adoption+ Cheerful

A user that has fully embraced the new technology will have an interest in using the e-library databases. Participant six from U1 that presented these images showed he is happy using the e-resources despite few challenges. It is impressive accessing information from multiple sources simultaneously.

Participant 1 (U2): User + Inadequate Search Skills=Frustration

The user is frustrated with searchingfor the needed information due to a lack of competence and interest in accessing the online library databases. The researcher observed that the participant is from the Sciences. This finding suggests that some academics including those in the field of Science have less interest in technology use.

Participant 2 (U2): Users + Low Internet Connectivity=Frustration

Users become frustrated after several failed attempts to use the online library databases. Library management should work hard to improve internet connectivity.

Participant 3 (U2): Full Access to E-library databases

A user who knows the value of using e-library databases will have a positive attitude in navigating the system to have full access to the e-databases.

Participant 4 (U2): Strong Internet +Amazing+Immersion=High use

It is impressive using the e-library databases when it is easily accessible. For users to get easy access (immersed) to the online library databases, they must be competent and interested in using the e-library databases.

Participant 5 (U2): Difficulty in using e-library databases= Frustration
Users are discouraged after many failed efforts to use online library databases due to online library databases' ease of use, perceived usefulness, and attitude. The researcher noted that an academic staff interested in an e-library database would not be put- off after a few attempts but will re-try after a moment.

In the end, participants made some suggestions on the e-library database's use enhancement. These include regular training/sensitisation offered at the faculty, especially for academics to be aware of e-library database advantages over printed sources of information and the general search engine. Since academics' busy schedules affect their attendance at the library's face-to-face training, the ASLs can use online training through WhatsApp or blogs. Others are the creation of Faculty Support Groups to address multi-campus issues. For example, all faculties should have workstations linked to the internet, with staff assigned to work there. Also, there should be strong collaboration between the faculty and the library. This suggestion entails that ASLs should establish peer support systems, such as change agents among the academic staff. ASLs can be embedded in faculty research teams and partnerships and the formation of a community of practice.

This step can make academics have positive thinking towards the online library databases. Finally, participants suggested that ASLs build solid relationships with the faculty, be patient, exhibit proficiency, follow-through, and receptiveness/ approachability. The researcher observed that if ASLs can implement these suggestions from academics, it will show their competence.

Surprisingly, few participants insisted there is no point in using online library databases, since printed sources meet their needs.

Participants, as a group, evaluated how the project was beneficial to them. They were happy the exercise was an opportunity to give suggestions on e-library database use enhancement. Also, the academic staff's participation increases this study's credibility since they determined the results. As earlier pointed out, the study will present photovoice findings through a PowerPoint presentation. Academic staff will prefer that method of communication rather than an exhibition (Delgado, 2015). Members of the target audience include the university library management team and academic staff that participated. The presentation will take place after the completion of the thesis. Finally, the study discovered a limitation in using photovoice method with academics as participants. Future research should consider using students.

5.11 THEME 9: Enhancement of utilisation of e-library databases by ASLs "How can utilisation of e-library databases be enhanced?"

The researcher employed the Focus Group Discussion (FGD) method to elicit ASLs' responses on enhancing the use of online library databases by academics. The approach enabled the researcher to get ASLs' opinions on possible reasons for low use and the library's role in ensuring the maximum use of the e-library databases. ASLs are in a position toconfirm academics' statements. As stated in section 4.8 of chapter four, the triangulation of many data collection tools produced rich, robust, and comprehensive data for a more in-depth understanding of the phenomenon (Pandey & Patnaik, 2014). Also, in essence, the study's adoption of numerous sources of proof was to seek convergence and corroboration through the use of different methods (Bowen, 2009: 28).

The researcher held FGD with six ASLs from each of the selected universities. The method enabled the researcher to confirm findings obtained from observations and interviews. The questions that guided the FGD include availabilityof e-library databases in various fields and whether they are adequate. The frequency of use, academics' ability to use the online databases, and ASLs'search skillsarealso explored. Besides, challenges experienced when assisting academics in using the e-library databases and how they were solved are part of the inquiry. Others are ASLs' positive and negative experiences when using online databases and information/ digital literacy programme (See Appendix 10 for the full details).

As mentioned in chapter four, the researcher recorded the discussion using an android phone to enhance credibility. The researcher also took notes in case the phone becamefaulty. Data were systematically analysed (Krueger et al., 2001). The researcher transcribed the discussion word for word (Please refer to Appendix 16 for the FGD transcript)

5.11.1 Results from Focus Group Discussion (FGD) in U1

The researcher conducted FGD with ASLs of U1 in August 2018 in the university library on suggestions to enhance e-library database services.The study analysed data using thematic content analysis. The thematic analysis enabled pattern identification within the data, with themes that emerged becoming the categories for analysis (Fereday & Muir-Cochrane, 2006). The study employed a constant comparative approach in the analysis. The study developed a cross-case comparison of findings from the individual libraries explored (Please refer to section 4.10 of chapter 4 for details of data analysis).

On the category of e-library databases adequacy, participants responded that the library e-databases are sufficient. Of the six ASLs that participated, five

stated that e-library databases are sufficient in their subject fields. An ASL's comment;

"*E-library databases are sufficient. There is no need for increases. Moreover, academics do not maximise the ones available."*

Another ASL responded, *"The online library databases are sufficient. Elsevier e-database can be sufficient to all faculties."*

On the frequency of use, all the participants stated the e-library databases are underutilised. From the views of ASLs on whether the academic staff can use the online library databases, their search skills are insufficient due to low turnout for training;

"Academics' search skills are insufficient since they do not attend training organised by the library."

When asked about their search skills, all ASLs stated they are confident of their search skills to an extent; they are trained internally by the library and the University's Computer Centre. They think that they are now experts in their Subject Fields, "*Due to series of training and continuous use of e-library databases, we are confident to an extentand 'experts' in our Subject fields."*

They added that continuous training would enhance their useful skills. The ASLs cited mainly low internet connectivity as part of the difficulties experienced when assisting the academic staff in using e-databases. The Systems Unit of the library or the ICT department of the University usually solves the problem. One ASL's response; *"Low internet connectivity has been a challenge in e-library database utilisation.*" However, occasionally the library experienced the poor network for hours or several days before it was rectified by the staff in charge.

ASLs had both positive and negative experiences when using online library databases. One of the participants stated she used the e-library databases to prepare for paper presentations and publications because the articles are current and the sources were credible. She mentioned that it is also easeof access to the materials on the e-library databases because it gets so many results from one search, so it is impressive. Another response was that "*it is exciting using e-library databases when internet connectivity is robust."* Another participant indicated that "*she felt happy when academic staff can use the e-library databases independently due to the library's training"*. The negative experience mentioned by all the participants was a preference for the status quo. Academics prefer to remain as before, using printed sources of information despite the e-library database benefits.

The discussion revealed that the relationship between the library and faculty is not cordial. Out of six participants, only two indicated their relationship is cordial. Some of the responses: *"Faculty do not know the worth of the library; Faculty does not call ASLs for Board Meetings." "Faculty places the library at the receiving end; most academics only come to the library during accreditation."*

Findings indicated the present library training on using the e-resources is ideal. Participants stated that the library conducts information/ digital literacy training through sensitisation / seminars on using the e-library databases. ASLs immediately added that only interested academics come for sensitisation when invited. The discussion revealed some academics, especially the younger ones, have the searching skills, but some, mostly the older academic staff in some faculties, do not have ICT skills. For this reason, they do not believe in the e-library databases. One ASL commented:

"*Some older academic staff do not have ICT skills in some faculties. The younger ones are very good*."

The inquiry discovered that using e-library databases remains a problem. The online resources are underutilised by academic staff. The study made suggestions on how the use of e-library databases can be improved:

"The library should be central to the university; sensitisation should be unavoidable for academics."

"The library should train new academic staff on using the online library databases."

"There should be synergy between the library and the Faculty; it should be compulsory that faculty should invite ASLs for Board Meetings.

5.11.2 Results from Focus Group Discussion (FGD) in U2

The researcher also held FGD with ASLs in U2 in October 2018. Participants' views on the sufficiency of online library databases showed that although the e-library databases are adequate, they are underutilised. Findings from academics on the sufficiency of e-library databases in U2 are in contrast with ASLs views. Academics responded that there is a need for more relevant e-library databases. The available online library databases in U2 presented in section 4.5.2 of chapter four confirm this result. U1 subscribes to more e-library databases than U2 (compare the online library databases in sections 4.5.1 and 4.5.2 of chapter four). The dialogue revealed some participants were confident in using the e-library databases while others were not. The ASLs acquired their search skills through self-training.

Participants declared barriers to using the e-library databases such as Branch Libraries not connected to the internet, using modems out of their pockets, poor internet, power failure, and too many academic staff. The ICT Unit of the

library frequently solves problems encountered by academics while using the e-library databases.

ASLs' positive experiences include using the e-library databases to prepare lecture notes and for publications. The interaction also revealed that there is a perfect relationship between the library and the faculty. Academics bring new ideas/ suggestions on the use of the e-resources to the library. Regarding library training, participants responded to the present library training on using the e-resources as not ideal; since sensitisation/ seminars are seldom conducted on the library's e-library database usage. Besides, only a few academics honour invitations for the training.

The study discovered that using e-library databases is problematic. The ASLs made suggestions on how the use of online library databases could be enhanced.

"The library should teach all academics the use of the e-library databases monthly, so that they can use the resources without the help of the ASLs."

"The library, as a policy should organise training on using the online library databases for newly employed academics."

"The university management should provide Generator in Branch Libraries."

"The library should improve users' attitudes and change management."

5.11.3 Discussion of findings on research question 6

Analysis of photovoice extends, adds breadth and texture to the findings from observation and interviews. The study discussed the theme under section 5.3. For example, the data obtained from the research observation and interviewsrevealed that allelderly academic staff do not have ICT skills. Consequently, they do not use e-library databases (See Section 5.5.1.2).

However, the finding from photovoice indicated there are elderly academics that are inclined to online library databases (See Participant 4, U1). Instructively, we cannot throw up our hands in the air when it comes to the use of online library databases by older academics but address this by targeted interventions. As discussed under section 5.6.1, this study's results align with previous studies' findings (Zha, Zhang & Yan, 2014; Nwone, 2017). Their studies documented older academics' adoption of the online library databases. Again, results from the interview indicated many young academics have ICT skills, and so use the online library databases, but the photovoice findings revealed most young academics that participated lack the skills, as seen in the photos presented.

Findings from an interview found some challenges, such as ASLs assistance, as the factor that hinders academics' e-library database use. However, the FGDs revealed a lack of interest in online library database use by academics as the main reason for low use.

The researcher discovered that academics frequentthe library during accreditation. Pasipamire's (2018) findings corroborate this finding that academic staff do not honour invitation for training but mostly visit the library during accreditation of programme visits.ASLs must intensify training on the online library database utilisation.The researcher observed a lack of interest or resistance to change. An academic that knows the benefits of using e-library databases for research should be augmented by ASLs' targeted interventions to acquire the required search skills.

The finding showed that some participants were unable to navigate the computers. It was due to a lack of competence and interest in accessing the online library databases. ASLs have to frequently offer assistance and training

on the use of the resources. This present study's finding on the aforementioned is consistent with Saines et al.'s (2019) study. The scholars suggested Faculty-librarians' teamwork for improving the use of the subscribed online library database in Ohio University for research, teaching, and learning.

Similarly, Newland and Handley (2016) and Hallam, Thomas and Beach (2018) advised ASLs to serve as digital facilitators, connectors, and collaborators to enhance their e-library database services. On the other hand, Dempsey (2021) recommended reference interviewing and information literacy instruction. Sinhababu and Kumar (2021) and Abubakar (2021) corroborated this finding. The authors above reported the significance of library Virtual Reference Services (VRS) (through email) for enhancing e-library database usage. In contrast, the current study participants (through FGD) did not mention reference services as an essential mechanism in improving online library database utilisation. Invariance to this current study's findings, Tierney and Bishop's (2019) study reported that subject librarians at the University of Central Florida (UCF) Library operated between two campuses to offer library support for their assigned academic faculty. The present study's participants emphasised that ASLs should carry out this support service to boost e-library databases.

From the researcher's experiences, academic staff's low adoption of e-library databases is based on their importance to the resources. Therefore, building strong relationships between ASLs and the teaching faculty is vital for enhancing e-library database use (Diaz & Mandernach, 2017). The results suggested that ASLs build solid relationships with the faculty, be patient, exhibit proficiency, follow-through, and approachability. The previous scholars pointed out such qualities and skills as patience, expertise, follow-

through, responsiveness, and individuality for ASLs to build solid relationships.

These are fruitful collaborations that ASLs need to build-up relationships with faculty in support of library services. Wang and Song (2021) recommended conducting a series of training over a long period. Authors (Hallam, Thomas & Beach, 2018; Joo & Schmidt, 2021; Pinho, Franco& Mendes, 2020) suggested ASLs broaden their services and serve as "digital facilitators, connectors, and collaborators, making a significant contribution to successful outcomes in many areas of contemporary academic life." ASLs must be professionally qualified, skilled, and competentto succeed in doing the preceding. Pinho, Franco and Mendes (2020)posit that an ASL who has extensive knowledge of the university environment, the various information sources available in the Subject areas, and is an expert in rendering service, is well-positioned to meet users' needs.

"ASLs should be more proactive; make academics to be aware of the availability, and advantages above general search engine and printed resources, especially books."(Participant 2, U1). Change agents can be used to reduce resistance and ease acceptance.

Another finding revealed that a participant could be immersed in online library database use. A limited number of works apply this technology to the social sciences field, but immersion in a digital environment can improve teaching and learning (Olmos-Raya et al., 2018). Georgiou and Kyza (2018) noted that technology-rich educational settings could aid immersion and increase learning.

Suggestions made mostly based on the study's findings include that training for academics should be enforced. Indeed, to ensure that academics access and

use the e-library databases independently and competently, training should be enforced. Others are login issues that should be rectified as well as continually ensuring a solid internet connection. Besides, organisational support is very critical for the success of e-library database adoption. Alabi and Mutula, 2020 affirmed that organisational support is crucial for ICT use in teaching.

Surprisingly, few participants insisted there is no point using online library databases since printed sources meet their needs. Culture is common to a given organisation, and its values and shared assumptions are apparent in the behavioural norm of its members' mutual experiences. The level of research engagement depends on the institution's culture (Mishra & Sharma, 2021). Therefore, creating a robust organisational culture is vital in influencing academics' behaviours and consequently improves performance.

The university management must frequently enforce new policies linked to research and allocate resources based on faculty members' inspirations and capabilities to implement cultural change **(**Watkins, 2014). The aforementioned author added that, it may take the university years to develop research culture and, once set up, requires regular maintenance. Once academics accept new policies, the university management must prepare to sustain research funding, develop partnerships with International organisations to enlarge research opportunities.

Furthermore, findings from this research can assist university decision-makers, providers, and the research community to introduce better strategies for encouraging the adoption and acceptance of this technology. For example, the library should create change agents among academics to cultivate a positive attitude towards e-library databases. Motivation can help in sustaining the use

of e-library databases. Also, the results of the study provided data that can give insights into the improved framework, policy planning, delivery, monitoring, and evaluation.

5.11.4 Summary of findings

The chapter aimed to present data, analyse, and discuss findings on academics' use of online library databases. The findings indicated that most academics engage with the e-library databases, mostly from their offices, using laptops, smartphones, and desktops. The frequency of engagement with online library databases revealed that most academics do not regularly access the e-library databases for teaching and research. The study found that academics who have adopted e-library databases use them to conduct research and develop lecture notes for teaching. Critical findings confirmed that most academics showed resistance to online library databases due to human/ cultural and social components. The core findings indicated academics' inclination to printed sources of information. The results revealed negative/ unsatisfying experiences in academics' use of online library databases as the main reason for low use.Results showed that academics' resistance to e-library database use led to other academic staff's rejection of the online library databases through shared negative experiences. This finding implies that social/ peer influence plays a vital role in influencing academic staff's stance towards e-library databases. Suggestions by academics and ASLs to enhance the utilisation of e-library databases included frequent online library training at the faculty, prioritising academics' behavioural change, and environmental factors. Others are ASLs should be proactive- provide faculty support groups/systems, change agents among the academics to cultivate a culture of positive attitudes towards e-library databases, and networking between ASLs and faculties.The following chapter presents the summary, conclusion, and recommendations of the study.

CHAPTER SIX

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

6.1 Introduction

The chapter provides the study's summary of the findings, conclusions, and recommendations on academic staff's e-library database utilisation in North-Central Nigeria. The study adopted the symbolic Interactionist Ethnography-SIE theory. The theory's application was anchored by the interpretive approach supported by the execution of a case study research method. Academics in two federal universities in North-Central Nigeria formed the population of the study. For complementary and validation purposes, the study added a small sample of Academic Subject Librarians (ASLs) and Systems Librarians, also categorised in the study's context as academic staff (see participants' profiles in section 4.6.1 of the Methodology chapter). The study used purposive and stratified sampling methods to select participants. The qualitative research approach adopted for the study enabled a platform to elicit detailed views of academics' perspectives on the phenomenon through observation, photovoice, semi-structured interviews, and focus group discussions. Also, the study evaluated documents (Institutional Repository). The study analysed data thematically.

The study aimed to investigate the utilisation of e-library databases by academics in North-Central Nigeria through ethnographic research. The following research questions guided the study:

(1) What ways do academic staff engage with e-library databases in the selected universities?

(2) How has the utilisation of e-library databases shaped the academic life of academics?
(3) What are the perspectives of academic staff on the low utilisation of e-library databases?
(4) What are the nature and characteristics of the experiences of academic staff in the use of e-library databases?
(5) How do socio-cultural factors affect the utilisation of e-library databases by academic staff?
(6) How can the utilisation of e-library databases be enhanced?

The chapter commenced with a summary of the study's purpose, research questions, and main findings. The study presented an overview of the core findings based on the research questions and the study's objectives. The chapter then made conclusions about the research problem and questions. It went further to make recommendations to the selected North-Central Nigerian university libraries based on the study's findings. Most significantly, it looked at the contribution made by this study in terms of policy, practice, methodology, and theory. The chapter ended with suggestions for further research.

6.2 Summary of findings

The section presents a summary of findings. The presentation framework is guided by the research questions. The study's first research question examined ways academic staff engaged with e-library databases in the selected universities.

Concerning research question one; the findings revealed that most academics accessed the online library databases, mostly from their offices, using their laptops, smartphones, and desktops. The frequency of engagement with online

library databases revealed that most academics do not regularly access the e-library databases. This finding indicates a low level of engagement with library e-databases for teaching and research. The study also showed that most academics engage with the e-library databases for research from their offices. The use of the office to access the e-resources is predictable as the office is their workspace that provides a suitable environment for the academics to engage in research and prepare for lectures. The findings revealed that academics' e-library database research engagement was mainly for teaching. As a result, almost all of them do not submit manuscripts/research articles/creative works, books, and book chapters on the e-library databases portal. The study deduced that this situation is due to insufficient training, a lack of a self-help support system, a lack of peer support and engagement culture, and a lack of discussion forums for e-library database users to share experiences. Thefinding is in tandemwith the argument of the SIE theory that Acts and Social Acts, which symbolises academics' decision to use the online library databases, depends on whether they are easily accessible.

The second research question sought academics' perspectives on the outcomes of e-library database use in shaping/ transforming academic lives. The study's results indicated that most academic staff that adopted the online databases used them to conduct research and develop lecture notes for teaching, followed by student supervision/ mentorship. Online library database-friendly academic staff can mentor their colleagues (i.e., providing peer support) on e-library database use. Mentoring programs can facilitate academic development by providing confidence (Hunter & Martins, 2021).

Only a small number of academics stated they use the e-library databases for manuscript submission (publications). Academics on further studies for

Masters and Ph.D research use more of the e-library databases. None of them indicated the use of online library databases for collegial engagement, community services, consumption (such as general education, community life and a holding operation), and citizenship (such as socialisation, critical evaluations and democratisation). Since the study's results indicated academics' leaning toward printed sources for teaching and research (which is their primary responsibility), it is obvious that targeted interventions are necessary to shore up the use of online library databases for academic and professional activities. The findings are related to SIE theory's construct, Symbols. Symbol is fundamental in renewing academics' knowledge, which is imparted through teaching and other academic activities.

The third research question explored academics' reasons for the low utilisation of the e-library databases. The study's finding indicated academics' leaning toward printed sources especially, books for teaching and research. Some participants stated that their opposition to e-library database utilisation results from their preference for printed sources of information. This finding implies that most academics showed resistance to online library databases due to their human, individual and cultural natures. The decision could be linked to their preference for the status quo, lack of interest, such as a phobia, or just resistance to change. The result implies that beliefs, customs, norms, and values can influence the materials academics use for teaching and other academic activities.

Again, several academics indicated multiple (scattered) campuses as the main barrier to using the e-library databases. For example, some subject libraries and their faculties are located on different campuses. The present study's findings agree with the assumptions of the idea of the SIE constructs, Self and

the Control of Behaviour, Place of Emotions and Roles and Definition of Situations. Academic staff might prefer to use other sources of information rather than the e-library databases due to their traditions, habits, such as a phobia or just resistance to change. On the other hand, the use of e-library databases depends on ASLs' proactivity and competence. As earlier stated, culture is common to an organisation, and its values and shared assumptions are apparent in the behavioural norm of its members' mutual experiences (Mishra & Sharma, 2021). The results showed that the level of e-library database research commitment depends on the institution's culture. For that reason, creating a robust organisational culture is critical for influencing academics' behaviours towards the use of e-library databases.

The fourth research question sought to discover academic staff's experiences of e-library database utilisation. The results revealed positive /satisfying and negative/ unsatisfying experiences in academics' use of online library databases. However, findings revealed that most academics were not satisfied with the e-library databases due to a preference for the status quo. Most academics displayed varying (negative) end-user experiences of e-library databases as the significant reasons for the non-usage of the e-library databases. Although technical difficulties are well-reported hindrances, academic staff still do not use the resources when the technical infrastructure is solid such as when the network is good. The study discovered that some academic staff, especially the elderly ones, lacked the experience to navigate the computers and use the e-library databases independently. Findings also indicated that many academics' UX is limited because of the absence of responsibility-sharing between faculty and ASLs and a lack of shared practices and collaborative knowledge construction. Other limitations are led by inability to observe colleagues, reflect, and forge bonds to support one another

in the ecosystem of online library databases. These responses are similar to the adopted theory's concept, Roles and Definition of Situations. Based on this construct, no matter the value of the online library databases for research, academics can reject them for other sources of information due to previous negative experiences.

The fifth research question explored the effect of socio-cultural factors on academic staff use of e-library databases. Data revealed many academics indicated that shared experiences with colleagues in the faculty influenced their use of e-library databases. In other words, some academics' resistance to e-library database use led to other academic staff's rejection of the online library databases through shared experiences. Also, the results showed resistance to change (preference for status quo) as issues influencing e-database use. The finding indicated that social/ peer influence and cultural components play vital roles in influencing academic staff's stance towards e-library databases.The study's findings are in tandem with the SIE theory's concept, Objects. Academic staff tends to use the e-library databases based on the environment they live in or due to shared experiences with colleagues/friends.

The sixth research question explains how the utilisation of e-library databases could be enhanced. The construct ideas of the adopted theory, Role Making and Role Taking,are significant for university libraries to improve academics'online library database utilisation. The study presents recommendations on improved academics' e-library database utilisation in section 6.4.6.

6.3 Conclusion

It is evident from the study's findings that e-library databases in the selected universities in North-Central Nigeria remain underutilised by academic staff. The first research question sought ways academic staffs engage with e-library databases in the selected universities.The study established that most academics occasionally engage with the online library databases, mostly from their offices, using their laptops, smartphones, and desktops. The study deduced that the office provides a suitable environment for the academic staff to research and prepare for lectures and supervision/ mentorship. ASLs need innovative strategies to drive home a revised agenda for online library databases by academics using the agency of library-based LANs, ICT labs, and other remote access.

The second research question explored outcomes/ results of e-library databases use in shaping/ transforming the academic lives of academics. The study found that most academic staff that adopted the online databases used them to conduct research and develop lecture notes for teaching and supervision/ mentorship. The results further revealed that no academic staff use the online library databases for collegial engagement and community services. A lot is changing – digital technology, social media, pandemic, economic woes, transformation, industry needs, user expectations, and online library databases continue to call for thinking, re-thinking, shaping, and re-shaping the academic space to prepare the 21 century academic for new challenges.

The study discovered a conflicting finding from document analysis. The finding showed that some participants who indicated an inclination to printed sources in the interview (due to search skills inadequacies) included many online resources in the publication references found on IR. The study figured

out the online sources cited by the participant were online journals accessed using the general search engine. The preceding entails that academic staff with inadequate search skills accessed materials through the Google search engine. The study concluded that web search engines should not substitute e-library databases due to their quality, such as comprehensiveness, correctness, trustworthiness and suitability, usefulness, relevancy, and adequacy.

For the study's research question three, the core results gathered through observation and academics' interviews revealed academics' opposition to e-library databases. The online library database use statistics further confirmed low usage of the e-library databases. The study found academics' preference for printed sources of information, such as books. The study established that most academics showed resistance to online library databases due to human/cultural components. In essence, cultural background plays a vital role in affecting the acceptance and use of online library databases. The study further discovered that academics that reject e-library databases used other online resources due to their ease of access. The study concluded that academics' human nature, individual differences, personalities affected their use of e-library databases.

The fourth research question investigated the nature and characteristics of academics' experiences in e-library database utilisation. Findings revealed that most academics are dissatisfied with the e-library databases due to several limitations such as irrelevant search results, inadequate assistance from the ASLs, inadequate search skills, and low internet connectivity. The study discovered that although technical difficulties are well-reported hindrances, academic staff still do not use the resources when the technical infrastructure is solid such as when the network is good. The study further established that

most academic staff, especially the elderly ones, lacked the experience to navigate the computers and use the e-library databases independently. The exploration concluded that academics' unsatisfying experiences in using e-library databases affected their use of the e-resources. Therefore, ASLs have to consider online library database design strategies to shore up the use rates.

Research question five investigated socio-cultural factors affecting academics' e-library database use. The research found that academic staff's resistance to online library e-database use also affected other academic staff's use of the resources based on shared experiences. Certainly, social/ peer influence and cultural components play vital roles in influencing academic staff's stance towards e-library databases. The study also discovered a lack of interest in academics' e-library database utilisation as the main reason for e-library databases' low use. The conclusion is that academics use technology within a cultural and social context, influencing how many of them behave towards technology. Based on the findings, the study proffers some recommendations below.

6.4 Recommendations

The study made the following recommendations, based on the study's findings and literature review:

6.4.1 Recommendation 1: Outcome of e-library database utilisation

The study's results indicated that most academic staff that adopted the online library databases used them to conduct research and develop lecture notes for teaching, followed by student supervision/mentorship. The finding revealed few academics use the e-library databases for publications and Ph.D. research. None of them indicated the use of online databases for collegial engagement. Ideally, academics' e-library database use aid and revamp their knowledge,

which should be communicated through teaching and other academic activities such as a paper presentation at conferences, publishing in reputable/ international journals, and professional and community activities. The study recommended online training for academics since the library training has failed. The training should be innovative. For instance, ASLs can establish online faculty support groups by using WhatsApp and blogs. They can upload information and also give updates for easy online library database use. WhatsApp is one of the most frequent and extensively endorsed mobile appliances for communication and collaboration.

6.4.2 Recommendation 2: Perspectives of academics of low e-library database utilisation

In light of the study's findings on research question 3 (See Summary in Section 6.2), the study recommends that Heads of Universities should scrupulously comprehend modern technology connected with the organisational culture and encourage academic staff of its value and benefits. In other words, it is critical for universities to create a robust organisational culture for influencing academics' behaviours towards the use of e-library databases.

Regardless of the ease of use of the Google search engine, academics must embrace e-library databases for high-quality and accurate information for teaching and research. The university libraries should establish Faculty support systems to address multi-campuses challenges. For example, ASLs can use innovative technologies (online learning) to provide academic staff Teaching Support Service to improve teaching and learning. ASLs should be part of the faculty research teams, and there should be more involvement of ASLs in teaching, learning, and support for the publication endeavours of faculty.

6.4.3 Recommendation 3: Effects of socio-cultural factors on academics e-library database use

The study established that socio-cultural factors affect academics' online library database utilisation. The study made recommendations on cultural factors under research question three above. The study also recommended that actors in the information technology sectors be committed to integrating the socio-cultural work environment as an intended benefit. The aforementioned implies that IT designers should consider academics' and other library users' beliefs, customs, norms, and values in online library database/ technology implementation for successful adoption. Also, the study recommended enhancing the adoption of e-library databases innovations to enhance use.

6.4.4 Recommendation 4: Enhancement of academics' e-library database utilisation

This research question proffered some recommendations for maximum e-database utilisation. As previously mentioned, building solid relationships between ASLs and the teaching faculty is vital for strengthening e-library databases' use.ASLs must be increasingly involved in teaching study skills, using e-library databases, and closer involvement with academic departments. Qualities and skills such as patience, expertise, follow-through, responsiveness, and individuality are helpful for ASLs to build solid relationships.

The study recommended that universities should create a culture of research which requires open and collaborative interpersonal relationships among faculty members. Congenial relationships among facultymembers would support a successful faculty-to-faculty research mentoring initiative. This organisational culture can support or push the agenda of e-library database use, having the buy-in of management staff- VCs, DVCs (Academics), University

Librarians, and Deans, including online library database training during on boarding of new academic staff.

The study recommended frequent library trainings at the faculty, prioritising academics' behavioural change and environmental factors. Others are ASLs must be professionally qualified, skilled, and competent. They should be proactive, provide Faculty support groups/systems, and network between ASLs and faculty. Hallam, Thomas and Beach (2018) advised ASLs to broaden their services and serve as "digital facilitators, connectors, and collaborators, making a significant contribution to successful outcomes in many areas of contemporary academic life." ASL, who has extensive knowledge of the university environment, the various information sources available in the Subject areas, and expertise in rendering service, is well-positioned to meet users' needs.Besides, university support is very critical for the success of e-library database adoption.

6.5 Originality of the Study

The study has added to previous research on academic staff use of e-library databases in universities. Although several studies have been carried out on the use of e-library databases by academic staff in Nigerian universities, most were centered on the quantitative survey methodology.As mentioned in chapter four, observation from the literature reveals that researchers have the notion that they must use conventional methods to conduct research. As a result, they do not try new ways since novelty may not be well-received by reviewers. For example, Metcalfe and Blanco (2019) observed that it is rare to see published higher education research include photovoice and other visual methods. At the same time, images induce new understandings about individuals' experiences in social settings (Denton, Kortegast & Miller, 2018).

Using new methods (photovoice) for this study to understand academic cultures was rewarding, and the method unearthed fresh ideas and occurrences. In addition, the study adopted a new approach using ethnographic research methodology. As earlier mentioned, the application of ethnography in Information Science research is rare. Applying it offered new insights. For example, through the photovoice data used for triangulation, the research found older academics' adoption of the online library databases, unlike the finding from observation and interview.

Likewise, the adopted theoretical perspective was innovative and creative. The perspective brought rich data currently out of the eye of scholarly analysis. Moreover, apart from using an ethnographic perspective, the study employed new data collection tools (such as photovoice) within ethnography, which led to insightful findings. The novel data collection methods allowed participants, as a group, to participate in the data analysis and evaluated how the project was beneficial to them. They were happy the exercise wasan opportunity to give suggestions on enhancing e-library database use. Also, the academic staff's participation increased this study's credibility since they determined the results. Finally, the exploration used data collected in a study in Nigeria to improve global understanding of human and socio-cultural interrelationships in the ecosystem of e-library databases.

6.6 Implication of the study

6.6.1 Policy implications

Generally, the experiences, perspectives, and emotions of people who implement policy and the social, cultural, political, economic, and emotional contexts they do, have been neglected (Dellwing &Prus, 2012). This study's results provided "soft data" to give insights into policy planning, delivery,

monitoring, and evaluation. The new insights (such as the lack of policies in the universities studied) will make the university libraries develop them.

6.6.2 Practical implications

The study was helpful for university Library administrators. The study's findings provided new insights to improve services and enhance academic staff e-library database use by providing the best fit for utilising interventions to suit the users' cultural and social contexts. The finding is also beneficial to ASLs. From the recommendations, ASLs can strive to ensure that academics use the e-library databases to the maximum. The study recommended that universities create a research culture that requires open, reflective, and collaborative personal relationships and partnerships among faculty members and ASLs. The organisational culture can support or push the agenda of e-library database use, having the buy-in of VCs, DVCs,University Librarians, Deans, and faculty.

6.6.3 Methodological implications

The application of ethnography in Information Science research is rare. The study also incorporated novel data collection tool within the framework of ethnography. Ultimately, the use of the photovoice was part of this study's originality and methodological innovation. Photovoice is a tool that can change, empower individuals, and engage groups and the entire communities to promote positive systems change. The instrument allowed academic staff to reflect on their experiences of e-library databases' use and combine images and words to communicate their dissatisfaction and needs. The triangulation of these data collection tools produced rich, robust, and comprehensive data that uncovered multifaceted and thick descriptions for more in-depth interpretation/understanding of the phenomenon. In essence, the researcher's

adoption of multiple sources of proofprovided convergence and corroboration through different methods.

The ethnographic method provided the desired results through a comprehensive and in-depth data collection process. The ethnographic approach uncovered the factors responsible for the low use of the online library databases by academic staff from multiple perspectives of academics on their e-library databases use experiences. Lastly, bearing in mind that not much has been documented on ethnographic studies in library and information science in the developing world, especially Nigeria, this study complements the existing literature on e-library database use and general research.

6.6.4 Theoretical implications

As explained in chapter two, the SIE was applicable to this research, since the prime focus of the IS discipline has been on the rich phenomena that emerge from the interactions among information technologies, the users of these technologies, and the organisational and social contexts of such use. The interactionist ethnography approach analysed the multi-faceted issues of acceptance of vis-a-vis resistance to implementing online library databases with ease and insight. The SIE assisted the current researcher in determining symbolic meanings, clarifying these meanings, and how such meanings can lead to enactment of action in the university context. The study made a significant contribution to theory by illuminating the predictive influence of the SIE theory as literature searches indicated few applications of the theory about using e-library databases, electronic resources, and ICT in Nigeria.

6.7 Suggestions for further studies

This study explored academic staff e-library database utilisation at universities in North-Central Nigeria through ethnographic research. The country is

divided into six geopolitical zones: North-Central, North-East, North-West, South-East, South-South and South-West. The North-Central geopolitical zone comprises six states, including Benue, Kogi, Kwara, Nasarawa, Niger, Plateau, and the FCT- Abuja. The study's contextual setting was the academic staff at the University of Jos (UniJos), Plateau State, University of Agriculture, Makurdi (FUAM), Benue State. The study suggests authors conduct similar research in other geopolitical zones. Also, since the studywas limited to two States- Plateau and Benue, scholars can carry out similar studies in other states of the zone to compare this study's findings.

Studies earlier reviewed regarding methodology revealed extensive use of the quantitative survey approach to assess academics' utilisation of e-library databases and electronic resources as a whole. The studies lack in-depth perspectives of the participants' experiences and an understanding of human, social and cultural contexts in using e-library databases. Thus, this study suggests additional qualitative insights andapproaches into understanding academic staff utilisation of e-library databases/ broadly electronic resources.

The study as well adopted a unique theoretical perspective (SIE) and a new data collection tool (photovoice). The study suggestedthe use ofphotovoice for similar contexts to compare academics' online library database utilisation with this study's results. The exploration found a limitation in using photovoice with academic staff.Therefore, it suggests using the data collection tool with different participants (such as students).

The Coronavirus pandemic made librarians globally suspend physical services and work remotely, providing e-resources and services to users.The research's results on academics' preference for printed sources of information have serious implicationsforresearch during lockdowns. With the COVID-19

experience and similar future occurrences that may arise, it is beneficial and crucial for academics and other library users to access e-library databases remotely, despite physical library spaces' closure. Therefore, the study recommends research in that area. Future research should also consider using the Day Reconstruction method or Diary method due to difficulty in remembering things for the respondents (using interview or other methods) by respondents.

6.8 Summary of chapter

The chapter presented the study's summary of the findings, conclusions, and recommendations.The study showed that most academics occasionally engage with the e-library databases, mainly for research and developing lecture notes for teaching and supervision/mentorship. Other core findings indicate that socio-cultural factors play a vital role in influencing academic staff's stance towards e-library databases. This finding implies that most academics showed resistance to online library databases due to their human/ cultural nature, social/peer influence, and negative experiences.

The study proffered some recommendations to enhance academics' use of e-databases. The ASLs can create change agents among the academics to cultivate a culture of positive attitudes towards e-library databases.The study recommended that universities should create a culture of research that requires open and collaborative personalrelationships among faculty members. This organisational culture can support or push the agenda of e-database use, having the buy-in of management staff- VCs, and DVCs (Academics), and University Librarians. The ASLs and Systems Unit staff should extend academics' training by being embedded in faculties and departments. They can also establish online faculty support groups by using WhatsApp and blogs, to

upload information and also give updates for easy online library database usage. The universities' change management and motivation can help in sustaining the use of e-library databases. Finally, the study recommended policy formulation of online library databases, frequent review and update to accommodate changes.

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APPENDICES

Appendix 1: Introduction Letter (UniJos)

8/11/2017

The Registrar
University of Jos,
Jos Nigeria

Dear Sir,

REQUEST FOR PERMISSION TO CONDUCT RESEARCH: MRS. CHOLLOM KACHOLLOM MONDAY, PHD STUDENT AT UNIVERSITY OF KWAZULU-NATAL SOUTH AFRICA

This letter serves to introduce and confirm that I, Mrs. Chollom, K.M a duly registered PhD (Information Studies) candidate at the University of Kwazulu-Natal, South Africa seeks your permission to undertake a study in your University. The title of my PhD research is "An Ethnographic study of the utilisation of electronic library databases by academic staff in North-Central Nigeria." Its outcome is expected to improve practices, inform policy and extend theory in Information studies. As part of the requirements for the award of PhD degree, I am expected to undertake original research in an environment and place of my choice. The University of KwaZulu-Natal (UKZN) ethical compliance regulations require me to provide proof that the relevant authority where the research is to be undertaken has given approval.

I appreciate your support and understanding to grant me a formal permission to carry out research in your institution.

Thank you.

[redacted]
Chollom, Kachollom Monday
PhD Student UKZN
Department of Information Studies
Faculty of Humanities
University of KwaZulu-Natal
Pietermaritzburg campus, South Africa
+27738027085, +2348065941511

Appendix 2: Introduction Letter (FUAM)

8/11/2017

The Registrar
Federal University of Agriculture, Makurdi
Benue Nigeria

Dear Sir/Madam,

REQUEST FOR PERMISSION TO CONDUCT RESEARCH: MRS. CHOLLOM KACHOLLOM MONDAY, PHD STUDENT AT UNIVERSITY OF KWAZULU-NATAL, SOUTH AFRICA

This letter serves to introduce and confirm that I, Mrs. Chollom, K.M a duly registered PhD (Information Studies) candidate at the University of Kwazulu-Natal, South Africa seeks your permission to undertake a study in your University. The title of my PhD research is "An ethnographic study of the utilisation of electronic library databases in selected universities in Nigeria". Its outcome is expected to improve practices, inform policy and extend theory in Information studies. As part of the requirements for the award of PhD degree, I am expected to undertake original research in an environment and place of my choice. The University of KwaZulu-Natal (UKZN) ethical compliance regulations require me to provide proof that the relevant authority where the research is to be undertaken has given approval.

I appreciate your support and understanding to grant me a formal permission to carry out research in your institution.
Thank you.

[redacted]

Chollom, Kachollom Monday
PhD Student UKZN
Department of Information Studies
Faculty of Humanities
University of Kwazulu-Natal
Pietermaritzburg Campus
South Africa
+27738027085, +2348065941511

Appendix 3: Permission Letter (UniJos)

UNIVERSITY OF JOS

Registrar/Secretary to Council:
Monday M. Danjem, B.A. (JOS), MPA (UNN), FIPMA

Private Mail Bag 2084
Jos. Nigeria
Tel: 073-610514
Fax: 234.73.610514
E-mail: registrar@unijos.edu.ng

OFFICE OF THE REGISTRAR

Ref: P.5259

13th December, 2017

Mrs. Chollom Kachollom Monday
Dept. of Information Studies
College of Humanities
University of Kwazulu-Natal
Pietermaritzburg Campus
South Africa

RE: REQUEST FOR PERMISSION TO CONDUCT RESEARCH: MRS. CHOLLOM KACHOLLOM MONDAY, PH.D. STUDENT AT UNIVERSITY OF KWAZULU-NATAL, SOUTH AFRICA

Your letter dated 8th November, 2017 on the above subject matter refers.

This is to inform you that your request for permission to conduct research for your Ph.D. programme at the University of Jos has been considered.

I am pleased to convey to you the approval of your request for permission to carry out research at the University of Jos.

With high regards

[redacted]

Monday M. Danjem
Registrar

REGISTRAR
University of Jos
Jos, Nigeria.

Cc: Dr. Gbolahan Olasina
Dept. of Information Studies
Faculty of Humanities
University of Kwazulu-Natal
South Africa.

Discipline and Dedication

Appendix 4: Permission Letter (FUAM)

UNIVERSITY OF AGRICULTURE
MAKURDI - NIGERIA
OFFICE OF THE REGISTRAR

VICE-CHANCELLOR:
Engr. Professor Emmanuel I. Kucha (KSM),
B. Eng, M. Eng. (ABU), Ph.D (Michigan Tech, USA),
FNIMechE, FSESN, FNSE, R. Engr.

REGISTRAR:
Helen Nguper Nyitse (Mrs.),
B.Sc. Soc. (UDUS): MPA (BSU);.
FPA, MNIM, MANUPA.

Private Mail Bag: 2373
Makurdi, Nigeria.
Tel: 07056052950
E-Mail: registrar@uam.edu.ng
http://www.uam.edu.ng

R/UAM/ADM/53
Our: Ref:.....

17th November, 2017
Date:.....

Dr. Gbolahan Olasina
University of KwaZulu-Natal
Inyuvesi
YakwaZulu-Natali.

Dear Dr. Gbolahan,

RE: INTRODUCING MRS KACHOLLOM M CHOLLOM PH.D STUDENT AT UNIVERSITY OF KWAZULU NATAL

Please refer to your letter to the Registrar University of Agriculture, Makurdi, Benue State, Nigeria dated 10th November, 2017 on the above subject.

I have been directed by the Registrar to acknowledge receipt of your correspondence under reference above and to convey the Vice-Chancellor's approval of your request that Mrs Kachollom M Chollom be allowed to carry out research in the University on E-Library databases by academic staff.

Thank you.

Yours sincerely,

[redacted]

C. T. Ijir
For: Registrar

Appendix 5: Ethical Clearance

UNIVERSITY OF KWAZULU-NATAL
INYUVESI YAKWAZULU-NATALI

23 July 2018

Mrs KM Chollom 217009140
School of Social Sciences
Pietermaritzburg Campus

Dear Mrs Chollom

Protocol Reference Number : HSS/0696/018D
Project title: An ethnographic study of the utilisation of electronic library databases by academic staff in North-Central Nigeria

Full Approval – Expedited Application

In response to your application received 19 June 2018, the Humanities & Social Sciences Research Ethics Committee has considered the abovementioned application and the protocol has 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

[redacted]

Dr Shamila Naidoo (Deputy Chair)
Humanities & Social Sciences Research Ethics Committe

/pm

Cc Supervisor: Dr G Olasina
cc Academic Leader Research: Professor Maheshvari Naidu
cc School Administrators: Ms Nancy Mudau

Humanities & Social Sciences Research Ethics Committee
Dr Shenuka Singh (Chair)
Westville Campus, Govan Mbeki Building
Postal Address: Private Bag X54001, Durban 4000
Telephone: +27 (0) 31 260 3587/8350/4557 Facsimile: +27 (0) 31 260 4609 Email: [redacted]
Website: www.ukzn.ac.za

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Appendix 6: Informed Consent Letter

Dear Participant

My name is Chollom Kachollom Monday. I am a PhD (Information Studies) candidate studying at the University of KwaZulu-Natal, Pietermaritzburg Campus. The title of the research is: An ethnographic study of the utilisation of electronic library databases. I am interested in interviewing you so as to share your experiences and observations on the subject matter.

Please note that:

- The information that you provide will be used for scholarly research only.
- Your participation is entirely voluntary. You have a choice to participate, not to participate or stop participating in the research. You will not be penalised for taking such an action.
- Your views in the interview will be presented anonymously. Neither your name nor identity will be disclosed in any form in the study.
- The interview will take about one hour.
- The records as well as the items associated with the interview will be held in a password-protected file accessible only to myself and my supervisor.
- If you agree to participate, please sign the declaration attached to this statement (a separate sheet will be provided for signatures).

Thank you for participating in this research.

[redacted] 15/ 1/ 2018

Signature Date

I…….hereby confirm that I understand the contents of this document and the nature of the research project, and I consent to participating in the research project.

Name:…….Date:……..Signature:…….

I can be contacted at: School of Social Sciences, University of KwaZulu-Natal, Pietermaritzburg Campus, Scottsville, Pietermaritzburg.

Email: 217009140@stu.ukzn.ac.za
Cell: 073 8027 085

Supervisor
Dr. Gbolahan Olasina
School of Social Sciences,Pietermaritzburg Campus, University of KwaZulu-Natal.
Email OlasinaG@ukzn.ac.za, Phone number: 0332605285.

HSSREC Research Office: PhumeleleXimba
Humanities Research Ethics Office, University of KwaZulu-Natal.
Email:ximbap@ukzn.ac.za. Phonenumber: +27312603587.

Appendix 7: Observation Guide for Academic Staff (Lecturers andAcademic Subject Librarians)

1. Library websites (for statistics of use of online databases at the back end).
2. Open learning spaces (general and the one reserved for academics) in the libraries.
3. The interaction between the Academic Subject Librarians and the academics.
4. User experiences.

Appendix 8: Photovoice Guide (Academic Staff; to augment Observation)
The following will guide the researcher in using photovoice:

1. Introduce Photovoice
2. Download and snap photos
3. Discuss photos
4. Develop themes
5. Write photos' captions
6. Exhibit, document photographs and create social action.

Meeting 1

Introduce Photovoice to the participants.

Review ethics.

Download photos

Meeting2

Discuss participants' photographs.

The researcher asks the participants the following questions to get more information about the photographs:

Describe your photo?

What is happening in your picture?

Why did you download/ snap this picture?

What does this picture tell us about the use of e-library databases?

How can this picture provide opportunities for us to improve the use of the e-databases?

Develop themes (as guided by choice of theoretical lens, related literature, research questions and data).

During the discussion of the photographs, similar ideas or issues can come up repeatedly. These can be considered as the general themes that connect the participants' perspectives and/or experiences. It would be useful to end the discussion with the group by asking them to pull out the themes they heard come out of their conversations. This is important because it will help to define more clearly what the participants believe are the most significant issues about the topic being discovered.

Writing photograph captions

After pulling out the major themes, participants can write small descriptions or captions for the photographs that help to explain the meaning behind them. The participants can be connected to the photographs through shared experiences or feelings. As a result, the group can write captions for the photographs together. That way the captions will represent the overall themes that are shared across the group.

Select a target audience for the photography exhibition

Plan the photographs' display

The photovoice will be displayed through Power point presentations. The presentation will take place after the completion of the Thesis and PhD programme.

Appendix 9: Interview Guide (Lecturers)

This interview schedule will guide the researcher in interviewing the academic staff in the Universities. The questions below are guided by related studies, the research questions and the adopted methodological and theoretical perspectives.

1. What e-library databases in your field do you use?
2. How often do you use the library databases? (Such as daily, weekly, monthly, etc.)
3. How do you perceive your ability to use the e-library databases?
4. Can you describe the ways you use library databases to frame your teaching, research and publications, etc.?
5. Tell me about your experience the first time you used the e-library databases?
6. In what ways has the use of the e-library databases influence your academic activities? Can you share some of the experiences?
7. How do you evaluate the search results? Are the search outputs relevant to your query?
8. Do you feel confident in your searching skills? Can you share an experience of where your search skills came to your aid? How did you acquire your search skills?
9. What is the most significant difficulty you experience when using the e-library databases?
10. Do you think you received sufficient training from the library?
11. How has library training changed the way you look for the e-library databases?
12. Do your colleagues in the faculty use the online databases?
13. If No, what are their reasons? Do their views on the e-library databases affect your use?

14. If yes, is your use of the online databases based on shared experiences with colleagues?
15. Do you prefer using other sources of information (such as books, journals, etc.) to the online library databases?
16. What are your reasons?
17. Is it as a result of a negative experience you had when using the e-library databases?
18. Was the Subject Librarian able to assist you?
19. Are you aware online databases house many peer reviewed journals which give them the credibility and authoritativeness fit for teaching and research purposes compared to e-library databases?
20. How would you describe the relationship between the library and the department?
21. Can you try to explain how the ideal library training should look?
22. What is missing? How can the library improve the use of the e-databases?

Appendix 10: Focus Group Discussion Guide with Academic Subject Librarians

1. What are the e-library databases available in your various subject areas? Do you think the databases are sufficient?

2. How often do lecturers use the library databases? (Such as daily, weekly, monthly, etc.)

3. Do you feel like using online databases? Can you describe your feeling and why you think you feel that way? What can make you feel like using online databases?

4. How do you perceive the lecturers' ability in the use of the library databases?

5. In what ways has the use of the e-library databases influenced your academic activities? Can you share some of the experiences?

6. Tell me about your experience the first time you used the e-library databases?

7. How do you evaluate the search results? Are the search outputs relevant to your query?

8. Do you feel confident in your searching skills? Can you share an experience of where your search skills came to your aid? How did you acquire your search skills?

9. What are the personal, individual preference and features that enhance your utilisation of online databases?

10. What is the biggest difficulty you experience when assisting academics in using the e-library databases? How was the problem solved? In what ways are the information literacy programs taught by the library?

11. Do you think academics received sufficient training from the library?

12. How has library training changed the way you look for the e-databases?

13. Can you tell me about a positive and a negative experience you had when using the e-library databases?

14. How would you describe the relationship between the library and the department?

15. Can you try to describe how the ideal library training should look?

16. Do you think utilisation of the online library databases is still a problem? How can the library improve the use of the e-library databases?

Appendix 11: Document Analysis Guide for Academic Staff

Institutional Repository (IR)

(a) Number of publications and types of journals

(b) Statistics of citation of online journals

Appendix 12: Sample Interview Guide (Systems Librarians)

This interview schedule will guide the researcher in interviewing the Systems Librarians in the Universities.

1. Complaints.
2. Troubleshooting requests
3. Help desk.

Appendix 13: Sample Observation Recording Sheet
Daily Report

Date:20/8/2018

Time started: 10: 00 am

Time ended: 2: 00 pm

Location: Study space reserved for academics and Computer Lab- UniJos

What I saw/ Raw data	My Thoughts
Few academics used the space to access library e-databases. There were more males than females. Many went there to prepare lecture notes for teaching, mark students' scripts and search for printed books and journals. Most academics that used the space were those on further studies for PhD. Most academics used their PCs. Only few used the Library's PCs Surprisingly, most of them did not use the space for online search.	Academics' behaviours showed lack of interest in using the e-library databases. Academics do not highly use the learning spaces because they mostly access the online library databases remotely from their offices

Appendix 14: Data Coding

Coding

Open/initial coding

Interview and FGDs transcripts	Open Coding framework
Engagement with E-databases	
• Access daily from office and home	Frequency of engagement
• Access Monthly from office and home	Frequency of engagement
• Employ Occasionally from office	Attitude to use
• Not at all	Not aware
• Not too digital	Lack of interest
• Not regular	Preference
• I am analog	Preference
• I don't use them	Preference
• Employ weekly from office	Frequency of engagement
• Access weekly from Library	Frequency of engagement
• Access monthly from office	Frequency of engagement
• Weekly & then not need for few weeks	Frequency
• It depends on my schedule	Preference
• Never	Preference
Use of e-library databases in shaping academic life	
• Lecture notes	Teaching
• Lecture notes	Teaching
• Teaching	Research
• Teaching	Research
• Lecture notes	Teaching
• Supervision	Research
• Publications	Research

- PhD thesis Research
- PhD thesis Research
- Teaching Research
- Lecture notes Teaching
- Lecture notes Teaching
- Teaching Research

Perspectives of academics on low use of e-library databases

- Printed sources Attitude/Cultural influences
- Printed sources Cultural influences
- Printed sources & Shared experiences Cultural and Social factors
- Printed sources & Google search engine Culture &Non Lib. sources
- Printed sources Attitude/ Cultural influences
- Printed sources &Google search engine Cultural influences &preference
- Google search engine Preference for non-Lib sources
- Negative experiences ASLs' competences
- Negative experiences ASLs competences
- Printed sources & Shared experiences Socio-cultural factors
- Multiple campuses (Neg. Experiences) Environmental factors
- Multiple campuses Environmental factors
- Printed & Shared experiences Peer influence/ Social factors
- Shared experiences Peer influence/ Social factors
- Printed sources and shared experiences Peer influence/ Social factors
- Printed materials & shared experiences Socio-cultural factors
- Printed books & journals Cultural factors
- Printed sources & Google search engine Cultural factors & preference
- Printed sources Cultural factors/influences
- Printed sources and Google search engine Preference

Experiences on e-library database use

- Poor network — Negative experiences
- Multiple campuses — Negative experiences
- Negative-Lib staff not able to assist — Negative experience
- Satisfying — Positive experiences
- Lack of search skills — Negative experiences
- Excited, more current sources — Positive experiences
- Relevant sources — Positive experience
- Competent — Positive experience
- Multiple campuses — Negative experience

Enhancement of academics' use of e-databases

- Training should be organised at the faculty
- ASLs should be ready to assist
- Faculty support groups
- Provision of systems at the faculty
- Frequent training
- More computers
- Improve internet connectivity
- Printing facilities at the faculty
- Training at faculty, not Library
- Training at faculty
- Synergy between btw the library and faculty
- Active password
- Faculty support terminals
- Sensitisation at faculty level
- Change agents
- Training at faculty level

Similar categories were further refined and reduced in number by grouping them together.

Thematic Codes from Field data

RESEARCHQUESTIONS	CODES/ THEMES	CATEGORIES
1.What ways do academic staff engage with e-library databases in the selected universities?	**THEME 1**: Academics' Engagement with the E-library databases	• Accessing the online databases • Frequency of Use • Teaching
2.How has the utilisation of e-library databases shaped the academic life of academics?	**THEME 2**: Research	• Teaching • Publications • Mentorship • Supervision
3.What are the perspectives of academic staff on low utilisation of e-library databases?	**THEME 3**: Cultural Influences **THEME 4**: Social Influences **THEME 5**: Use of Non-Library Information Sources **THEME 6**: Negative Experiences	• Preference for Printed Sources • Resistance to Change • Shared Experiences • Preference for Google Search Engine • Attitude • Change Management • ASLs require competencies/Need to be Proactive • Environmental Factors-Multiple Campuses
4.What are the nature and characteristics of experiences of academicstaff in the use of	**THEME 7**: Previous Experiences	• Positive Experiences/ Satisfying experiences • Negative Experiences/ Not satisfying experiences

e-library databases?		
5. How do socio-cultural factors affect the utilisation of e-library databases by academic staff?	**SAME AS THEMES 3 AND 4:** Social and Cultural Influences	• Shared Experiences • Resistance to Change • Preference for Printed Sources
6. How can the utilisation of e-library databases be enhanced?	**THEME 8**: Academics' (lecturers) views on Improved E-Database Use	• Training at the Faculty Levels • ASLs should be Proactive • Strong Relationship with the Faculty/ Networking/between faculty and ASLs • Faculty support groups/systems
	THEME 9: ASLs' Views on Utilisation Enhancement of E-library Databases	• Behavioural change Management issues • Organisational/Institutional Culture • Cultural dynamics • Environmental factors

Source: Field data (2019)

Appendix 15: Sample Semi-structured Interview Transcript

Whate-library databases in your field do you use? And how often do you use them?

- P1 He accesses Elsevier occasionally
- P2 He does not use them
- P3 She accesses Elsevier and Scopus daily
- P4JSTOR is the available online library database in his field but has never used it
- P5 He accesses JSTOR and Elsevier occasionally
- P6 Elsevier only; monthly
- P7 JSTOR, occasionally
- P8 Not aware of e-library databases
- P9 JSTOR and Elsevier available in his field, but rarely use them
- P10 Elsevier, daily
- P11 None
- P12 None
- P13 EBSCOHOST, weekly
- P14 EBSCOHOST and Elsevier, weekly
- P15 He uses AGORA, monthly
- P16 AGORA, monthly
- P17 EBSCOHOST, monthly
- P18 AGORA, occasionally
- P19 He uses AGORA everyday
- P20 She does not use the e-library databases
- P21 She uses AGORA, occasionally
- P22 He is not aware of those e-library databases

What ways do you use the e-library databases?

- P1 He uses the e-library databases to prepare lecture notes
- P2 He uses them to check the current status of colleagues' research.
- P3He uses the e-databases for teaching
- P4 He uses the e-databases basically for publications, Ph.D. Thesis, and
- sometimes for teaching
- P5 She uses the e-library database mostly for teaching

- P6 He uses the online databases to prepare lecture notes
- P7 He uses the e-database to get information to enrich lecture notes
- P8 He uses the online databases for publications and PhD research
- P9 For teaching
- P10 For teaching
- P11 He accesses e-databases to prepare lecture notes
- P12 She uses the e-resource for teaching
- P13 He uses for teaching

What are the perspectives of academics on low use of e-library databases?

- P1 He does not have the ICT skills so prefers printed sources if information
- P2 He is more interested in using printed sources and sometimes Google
- P3 Preference for printed sources and shared negative experiences with colleagues
- P4 She prefers using printed sources & sometimes Google search engine
- P5 Printed sources are easier to use. She also uses Google because of its simplicity
- P6 Printed sources, and uses Google search engine often
- P7 He prefers Google search engine, because it is easier to use
- P8 He is not aware of those resources, so he does not use them
- P9 Negative experiences (low internet connection) affects his use of the e-databases; Also, not able to get the needed information and ASL not able to assist
- P10 Negative experiences (low internet connectivity)
- P11 Preference for printed sources & shared negative experiences
- P12 Negative experiences (Multiple campuses)
- P13 Negative experiences (Multiple campuses)
- P14 Shared experiences
- P15 Shared experiences
- P16 Shared experiences
- P17 Printed materials, also uses Google search engine occasionally

- P18 Printed books and journals; also shared experiences with colleagues
- P19 Printed sources
- P20 Low internet connectivity so prefers printed sources
- P21 Printed sources and Google search engine
- P22 He is not aware of the library e-databases; He uses Google for online materials

What are the nature and characteristics of experiences of academic staff in the use of e-library databases?

- P1 Poor internet network
- P2 Inactive passwords and Multiple campuses issues
- P3 He was frustrated accessing the e-databases and ASL was not able to assist
- P4 She is always excited as she gets more current and relevant sources
- P5 There are more relevant & quality materials than Google
- P6 Competent in the use, so always satisfied with the e-resources
- P7 Poor ICT skills, ASL in another Campus
- P8 Inadequate search skills affects accessing the e-library databases
- P9 Negative experiences; non-functional password
- P10 He attempted using the e-databases and got frustrated because of lack of search skills
- P11 Excited, he gets more current and relevant information
- P12 Search results sometimes not relevant; searching ability is also low
- P13 It is difficult searching the library e-databases
- P14 It was a beautiful experience to know that she can get all needed materials from the e-databases
- P15 He got a lot of information but inadequate skill makes him unable to get the needed/relevant ones

- P16 It was not easy the first time he used the e-databases but search results were relevant to his query. Slow internet is a barrier

How can the utilisation of e-library databases be enhanced?

- P1 Training at the faculty
- P2 Assistance from ASLs
- P3 Faculty support groups
- P4 Provision of systems at the faculty
- P5 ASLs should frequently organise training
- P6 The university should provide more computers
- P7 Improve internet connectivity
- P8 Printing facilities at the faculty
- P9 Training organised at faculty, not Library
- P10 Training at faculty level
- P11 There should be synergy between the library and faculty
- P12 The library should always organise training
- P13 The Library should ensure passwords are active
- P14 Faculty support terminals should be provided
- P15 Sensitisation should be organised at faculty level
- P16 Training at faculty level
- P17 Training at faculty level
- P18 ASLs should always be available to assist
- P19 The ASLs should always create awareness
- P20 The Library should provide more required e-library databases
- P21 The Library should provide more recent e-databases
- P22 The ASLs should provide awareness on the advantages of e-databases over the general search engine

Appendix 16: Sample Focus Group Discussions (FGD) Transcript
General question: Ways the Library market/ publicise e-library databases

- P1 ASLs advertise the e-databases by writing memos, visits, place them on the intranet, and through sensitisation
- P2 ASLs participate in the Faculty Board Meeting
- P3 Placing the e-databases on the University Website markets the resources
- P4 ASLs communicate new e-databases to Faculties through writing memos
- P5 ASLs sensitise academics through e-resources training in the Library

Available e-databases and sufficiency

- P1 The available e-databases in my subject area are: Emerald Insight, Elsevier, etc, Elsevier can be sufficient to all subject areas
- P2 AGORA, JSTOR, TEEAL, OARE, and Elsevier. They are sufficient
- P3 Elsevier, JSTOR; sufficient
- P4 AGORA, BioOne, EBSCOHOST, and Elsevier. The e-databases are sufficient because of the low use
- P5 EconBiz, EBSCOHOST, Questia, Scopus, Emerald Insight. They are not sufficient
- P6 AGORA, Emerald Insight, Elsevier. They are sufficient

Frequency of academics' e-library database utilisation

- All Ps. stated the academics' e-library database usage is generally low

ASLs' feelings about using e-library databases

- P1 ASLs use e-databases but low internet connectivity affects use
- P2 Sometimes you cannot have full access to the e-resources

Academics' ability in using e-library databases

- P1 Some academic staff have the search skills

- P2 Older academics in some Faculties do not have ICT skills. The younger ones are very good
- P3 Some academics do not believe in e-databases

Outcome of ASLs' e-library database use

- P1 Paper presentations, Publications; you get current materials
- P2 Credible publications because of the sources and easy access of materials

Experiences in first time e-library database use

- P1 It was amazing, getting so many results from one search
- P2 My first experience in e-database' use was interesting and exciting. There was full internet. Like magic; I got current relevant resources

Search output's relevance to query

- P1 The information sources I usually get are relevant with a lot of thrash
- P2 The Icon Relevant makes the sources relevant

Confidence in search skills and how skills were acquired

- All Participants are stated they have confident in their search skills to an extent. Training by the Library's Systems Unit and University's Computer Centre enhanced their skills. Participants added thatcontinuous training will improve their competencies

Biggest difficulties experienced in using e-databases

- Participants indicated low internet connectivity as the biggest problem in e-database use. However, the problems are usually solved by the University ICT Centre

Teaching information literacy programmes

- Information/digital literacy are taught through Library seminars and orientations

Sufficiency of academics' training by the Library

- P1 Academics received training to an extent
- P2 The training is insufficient because most of them do not attend

ASLs' positive and negative experiences in using e-databases

- P1 Positive; I am always satisfied using the online library databases. I am now an expert in my Subject field
- P2 Negative; I am always disappointed whenever trainings on e-database use are organised because there is always a low turnout by academics
- P3 Positive; when you see academics you taught using e-databases

Relationship between Library and Faculty

- P1 Our relationship with the Faculty is not cordial; They do not invite me for Faculty Board meetings
- P2 I have a good rapport with my Faculty. I am always invited for meetings
- P3 Faculty do not know the worth of the Library; ASL not called for Faculty Board meetings
- P4 I do not have a good rapport with the Faculty. They do not give me the chance to sensitise them on using online (and other) library resources
- P5 My relationship with the Faculty is pleasant. However, more opportunity can be given to me to promote the use of online databases
- P6 The Faculty placed the Library at the receiving end. Academics know the Library's value only during accreditation

Idealness of Library training

- All participants in U1 stated that the e-library databases' training is ideal. The Library teaches the use of the e-databases through seminar/ sensitisation
- Participants suggested that new staff should come for orientation on online databases

Whether e-library database utilisation is still a problem

- All participants indicated that e-library databases use is still a problem because use is generally low (that is, they are underutilised)

Improvement of e-library database use

- P1 The Library is central to the University, sosensitisation should be enforced.
- P2 The Faculty should always invite ASLs for Faculty Board meetings
- P3 There should be synergy between the Library and Faculty. The Faculty should liase with the ASLs on activities connected to research
- P4 The University Library management should prioritise academics' behavioural change on e-database adoption, especially, establishing Change agents among the academics and creating Faculty Support Groups/ Systems

Appendix 17:Samples of Statistics ofEBSCOHOST DatabaseUse

Database	Interface	Database Sessions	Regular Searches	Searches Federated & Autom	Full-Text Requests	Abstract Requests	Link-Out Requests
eBook Academic Collection (EBSCOhost	EBSCOhost Research Databases	855	2145	0	402	314	0
eBook Academic Collection (EBSCOhost	Web Service	8	0	8	0	0	0
eBook Collection (EBSCOhost	EBSCOhost Research	1024	2134	0	855	820	0
eBook Collection (EBSCOhost	Web Service	8	0	8	0	0	0
eBook Education Collection (EBSCOhost	EBSCOhost Research Databases	501	1483	0	50	80	0
eBook Education Collection (EBSCOhost	Web Service	8	0	8	0	0	0
GreenFILE	EBSCOhost Research	906	2333	0	75	526	0
GreenFILE	Web Service	8	0	8	0	0	0
Image Quick View Collection	EBSCOhost Research	5	11	0	4	0	0

Search_Terms	Frequency	Result_Clicks
marketing journal	49	23
journal of marketing	11	5
Marketing	10	34

analytical chemistry	9	6
physical and health education	7	0
introduction to physics	7	8
introduction to political science	5	4
fundermentals of statistics	5	0
soil microbiology	5	2
introduction to chemistry	5	3
managing financial resources in health and social care	5	22
aquaculture or fish farming	4	6
journals on cowpea	4	0
educational administration and planning	4	1
adult education	4	0
engineering mathematics	4	0
Chemistry	4	1
human resource journals	4	0
introduction to information and communication technology	4	4
library and information science research	3	2
library and information science	3	2
Architecture	3	0
library science	3	1
introduction to library science	3	1
articles on irrigation farming	3	4
anatomy and cell biology	3	8
drama bible	3	1
librarianship as a profession	3	3
introduction to library and information science	3	2
introduction to econometrics	3	1
international journal of morphology	3	3
Coccidiosis	3	0

academic library of nigeria challenges and prospects	3	0
physical chemistry	3	0
Physics	3	2
forestry and wildlife management	3	2
immune reconstitution inflammatory syndrome	3	0
journals of managements	3	0
traditioal poetry	3	0
aloi magnet	3	0
Magnetism	3	2
the post colonial state by hamza alavi	3	0
human resource management	3	3
maketing journals	3	0
introduction to geography	3	1
what is partnership working	3	17
marketing mix	3	0
Freebook	2	0
Microbiology	2	3
professional development	2	3

Appendix 18: Editor's Letter

PREMIUM EDITING SERVICES

18th August, 2021

University of KwaZulu-Natal
College of Humanities
School of Education
Social Justice Education Programme
Pietermaritzburg, South Africa

To Whom It May Concern

CERTIFICATION OF ENGLISH GRAMMAR EDITING OF
Mrs Kachollom Monday Chollom's Doctoral Dissertation

This document serves to certify that the PhD dissertation entitled: **"AN ETHNOGRAPHIC STUDY OF THE UTILIZATION OF ELECTRONIC LIBRARY DATABASES BY ACADEMIC STAFF IN NORTH-CENTRAL NIGERIA"** By Kachollom Monday Chollom, for the award of the Degree of Doctor of Philosophy (Information Studies), has been thoroughly scrutinized and edited for correct English language usage, such as syntax, spelling, punctuation, and overall writing and presentation style.

The author's ideas, research content and context were however not altered during the editing process. Where meaning was not explicit, the sentence or paragraph was marked, and recommendations were advanced and the responsibility of implementing them rests with the author of the dissertation.

Sincerely

[redacted]

Olorunfemi Christy Aisha

BA English (ABU), MA English (UNILAG), MA Gender Studies (UKZN), Cambridge
CERTIFIED ENGLISH LANGUAGE TEACHER (CELTA, OXFORD HOUSE COLLEGE, UK)

Email: xtyanna4u@yahoo.com, xtyolorunfemi@gmail.com Mobile/ WhatsApp: +27 78 1149 939.
Add: 91A Grimthorpe Avenue, Lincoln Meade Pietermaritzburg 3201,