Library Philosophy and Practice (e-journal)   Libraries at University of Nebraska-Lincoln

Availability, Accessibility, and Use of Electronic Information Resources for Research by Students in Francis Sulemanu Idachaba Library University of Agriculture, Makurdi

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ABSTRACT

The study investigated availability, accessibility and use of electronic information resources for research by students in Francis Sulemanu Idachaba Library University of Agriculture, Makurdi, Benue State, Nigeria. The study looked at the types of electronic information resources available for research by students, extent of availability, accessibility and utilization of the available electronic information resources for research as well as problems encountered by students while accessing and utilizing the available electronic information resources for research by students. Five (5) objectives with corresponding research questions guided the study. The study adopted a survey research design, the population of the study was 7952 registered users (students) of the library. The sample for the study was 381 students registered users of the library who were sampled using simple random sampling technique. Two instruments were used for data collection titled "Checklist on Availability of Electronic Information Resources for Research by Students (CAEIRRS)" and "Accessibility and Utilization of Electronic Information Resources for Research by Students Questionnaire (QUEIRRSQ)" which was validated by two experts. The reliability of the questionnaire was established using Cronbach Alpha method and a reliability coefficient of 0.765 was obtained. Data was collected and analyzed using frequency counts, simple percentages and means to answer the research questions. Findings of the study revealed that, e-journals, e-newspapers, Online Public Access Catalogue (OPAC), CD-Rom database, e-magazines, e-books, online database, e-research reports, virtual library online, science direct online and Ebscohost reference databases were the types of electronic information resources available for research by students in Francis Sulemanu Idachaba Library. Findings also revealed that, electronic information resources mentioned above were available for research by students to a great extent. Also, it is revealed from the findings that, the extent of accessibility and utilization of the availability electronic information resources for research by students is great. Findings further revealed that, inadequate computers in the library, poor internet connectivity limited subscribed titles, power outages, difficulty to access and use, lack of relevant e-resources in various disciplines as well as no assistance from the library, were the problems encountered by students while accessing and using electronic information resources for research in Francis

Sulemanu Idachaba Library University of Agriculture, Makurdi. It was recommended that the University administrators and library management should improve on the bandwidth and enhance the internet connectivity so as to enable the students have easy access to online e-resources. Also, trained personnel should be on ground to assist the students in the use of the available e-resources in the University library and appropriate user education should be organized for students for better use of e-resources in Francis Sulemanu Idachaba Library, university of Agriculture, Makurdi.

CHAPTER ONE:

1.0 INTRODUCTION:

1.1 Background of the Study:

The 21st Century has experienced a remarkable proliferation of electronic resources (e-resources) which have tremendously change the information seeking attitude of students and researchers globally. In recent times, electronic resources have been identified as the major sources for information dissemination in the universities, especially for researchers (Lefuna, 2017).

The term electronic resources is seen by Sharma (2009) as library's information materials that are in electronic form which include electronic books (e-books); electronic newspapers (e-newspapers); electronic journals (e-journals) as well as Internet resources. E-resources also consist of databases, magazines, archives, theses, conference papers, government papers, scripts and monographs in an electronic form (Deng, 2010). MEDLINE, ScienceDirect,

AGORA (Access to Global Online Research in Agriculture), HINARI, OARE (Online Access to Research in the Environment), LexisNexis, Ebscohost are examples of databases (Ani and Edem, 2012).

According to Graham (2003) the term "electronic resources" appear not to be used consistently; they may be referred to as electronic information resources (EIR), electronic information resources and electronic library resources. Digital resources, digital materials and soft library resources are other terminologies used for electronic information resources.

The importance of electronic resources to students and University libraries cannot be over emphasized. They offer both undergraduate and postgraduate students the chance to access relevant and current information from different subject areas. The emergence of electronic resources, according to Ani and Edem (2012), has tremendously transformed the handling and management of information in Nigerian academic environments and university libraries in particular.

Availability of electronic information resources refers to readily access to information in electronic format with little or no stress to the library user. Availability of electronic information resources in the library is not just enough, users must know of their existence to be able to use them effectively; and to put to use what's available, users must possess requisite skills that will enable them to exploit these resources and services. Availability at any time of the day; hyperlinks to other resources; huge information reservoirs; quick information; various search options; easy citations; ease in uploading and updating; ease in storage and dissemination; flexibility; time, space and cost are not major hurdles; ease of archiving are also importance of information resources as noted by Tekale and Dalve (2012). Also, electronic resources reduce pressure on academic libraries for physical storage space for books and journals and provide unlimited access to users (Lefuna, 2017).

Availability of electronic information sources relates to the provision for and inclusion of the resources in the collection of the libraries at the disposal of users in academic institutions. In the words of Roberts (2005) availability of electronic resources provides access to authoritative, reliable, accurate and timely access to information. In addition to this, the resources can enable innovation in teaching and increase timeliness in research.

The National Universities Commission (NUC), a government agency in Nigeria, subscribed to a number of international and local journals and made them accessible in Nigerian Universities through its URL link (www.nigerianvirtuallibrary.com) on the internet. Also, NUC, NULIB (Nigerian University Libraries Consortium) and eifl.net (Electronic Information for Libraries Network) are partnering to provide electronic resources towards teaching, learning and research in Nigerian Universities (Okiki, 2012). National Information Technology Development Agency (NITDA), according to Egbe (2014), is developing ICT in Nigerian tertiary institutions through the National Virtual Library Project by setting up virtual libraries and donation of computers and/or internet facilities.

Electronic resources, in most universities, are integral part of the electronic library and stand as vital academic resources that support teaching, learning and research activities (Zhang & Liu, 2011). electronic resources are invaluable research tools for students in higher institution of

learning. In academia, electronic resources are dominating the research activities of researchers; researchers have realized the importance of such resources (Hadagali, Kumbar, Nelogal & Bachalapur, 2012). Electronic resources provides accurate and timely information, especially for students who depend greatly on the electronic resources for information to advance research and collaboration with other researchers around the world for intellectual growth (Ukpebor, 2012).

Research has been recognized as an indispensable tool in the professional development of any organized body or discipline. Research, as Advanced Learners Dictionary of Current English as cited by Ugbagir (2010) stated, is an investigation undertaken in order to discover new facts and get additional information. Research provides the students with a unique and enriching activity. The joys of exploration, innovation and creativity are only a few of the experiences students go through when performing research. Research as a concept is a purposeful search for solution to an identified problem or new knowledge. Therefore, research is an inquiry or investigation conducted by students in collaboration with faculty mentor (supervisor) that makes an original intellectual or creative contribution to the discipline. In this study, research is defined as undergraduate student's project writing which serve as a basic requirement for the award of Bachelor of Science degree in any discipline (Ugbagir, 2010).

The central mission of a library is to collect, organise, preserve and provide access to knowledge and information. In fulfilling this mission, libraries preserve a valuable record of culture that can be passed down to succeeding generations. Libraries are an essential link in this communication between the past, present, and the future (Nwachukwu & Thaddeus, 2015). Library is an indespensable unit or sub-units of any academic institution. Any academic institution that has no functional library is regarded as a dead institution. A libary as a sub-unit of any institution is charged with the responsibilities of selecting, acquiring, processing and disseminating of print and non- print materials to users by experts called librarians who main the place.

Historically, the main library arm of the university was established on 1st January, 1988. It later metamorphosed into the University of Agriculture library, Makurdi, from the University of Jos Makurdi Campus and later renamed after the first Vice-Chancellor of the University; Francis Sulemanu Idachaba. The library is housed in its ultra-modern building located around the ring road in the North Core of the University. It has a usable floor area for 1,250 readers. The University library has a centralized organizational structure. The library which was planned to be built in three phases had only the first phase constructed and completed and is now fully occupied and utilized. It is located at the North-Core of the University with a total sitting capacity for 1,200 readers. Currently, the library can seat more than 600 users planned to be accommodated in the first phase of the building. As the heartbeat of the university, the library serves as the educational life-wire of every serious user. In March, 2005, library services was brought to the doorstep of its users through establishment of eight (8) college libraries namely Science, Food Science and Technology, Engineering, Forestry, Management Science and Veterinary Teaching Hospital, Animals Science, Agronomy. However, Colleges of Agriculture Economics and Extension, Agronomy and Agriculture and Science Education are yet to have college libraries. Presently, the university library has about 40,826 volumes of books and 2,542

journals titles. Technical Support for Electronic Sources in Francis Sulemanu Idachaba Library Francis Idachaba Library has ICT unit with three centres namely: undergraduate electronic unit, postgraduate/staff electronic unit and electronic centre. The library has its own server and battery Inverters. Hence, library collections can be accessed even when there is no electricity. The university library has an e- library for students donated by National Rural Information Technology Development Agency (NITDA). It was established with Internet facility for E-learning and library automation. The electronic library is a form of cyber café within the library where students can access the Internet and search for library materials. The university library subscribed to several databases such as AGORA, HINARI, OARE, AJOL, EBSCOhost, JSTOR, Encyclopaedia Britannica, EBSCOhost Professional Development, EMERALD; ACCESS, Science by McGraw Hill, GALE SCIENCE in context and Nigerian Virtual Library. The university library has a website, which linked (7) universities and organizations abroad, namely: Cape Town University, South Africa, Arizona State University, USA, Capilano University, Canada, Higher Education Academy, UK, Yale University, USA, New Jersey Institute Of Technology, USA John Hopkins Bloomberg School Of Public Health, USA Offline Virtual Resources Recently added to the rich resources in the university library is TEEAL. This contains one terabyte (1TB) of information across Agricultural and related fields that are placed on a web server. The LAN is used to access these resources in the e-Library centre within the university library with 45 computer systems. Other downloaded offline resources of about one terabyte covering all educational fields are also available in the same network location.

It is often said that the Internet is one of the best success stories of anarchy or even socialism in modern history. The Internet has proven itself to be an example of cooperation between countries, (often competing) commercial entities, government agencies and educational institutions specifically libraries for the sole purpose of enhancing communication. The main aim of any library is to acquire, organize and disseminate information that will assist it to achieve desired objectives. It has been universally acknowledged that the quality of academic output is traceable to the quality of its available information resources therein. The users of a library tend to appreciate these electronic resources if the information they require is timely accessible for utilization as appropriate. Electronic information resources and services have helped libraries to achieve the aforementioned by overcoming the delays that has been established by the use of library's manual systems. Electronic information resources have to some extent perfected efficiency in information dissemination by providing easy access offline and on the web (Online).

However, preliminary observation by the researcher revealed that users of academic libraries are increasingly utilizing electronic information resources as more access points are made available and they have realized the immense potential of accessing and use of electronic information resources and services. Observation by the researcher stand to prove reverse being the case as access and use of electronic information resources in University of Agriculture, makurdi were very low. It could be attributed to the policy issues regarding access and use of electronic information resources in the library.

It is therefore against this background that this study was designed to investigate the availability, accessibility and utilization of Electronic Information resources by students for

research in Francis Sulemanu Idachaba Library University of Agriculture, Makurdi, Benue state, Nigeria.

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1.2 Statement of the Problem:

Developments in Information and Communication Technologies (ICT) have radically taken over every sphere of activity in university libraries. Academic libraries like the Francis Sulemanu Idachaba library owe it a key duty to keep pace with technological advancement in order to cope with users' continual sophisticated information requirements. such libraries in the 21st century may not function properly without the existence of electronic resources. Tyckoson (2011) affirms that libraries and information centres which fail to adopt appropriate information technology in their services may cease to function and perhaps, close down. Essentially, ICTs are the standpoints that provide access to electronic resources (e-resource). Modern teaching, learning and research purposes are promoted by academic libraries in universities through the use of ICT. Academic libraries are central in higher educational systems, assisting in the improvement of learning and dissemination of knowledge to meet the information needs of the universities and their communities through the provision of timely information

Significant investment have been made in electronic resources and accompanying computer-based technology to ensure access to electronic resources in Francis Sulemanu Idachaba Library University of Agriculture, makurdi. It is important to find out their extent of availability. accessibility and utilization. If the available electronic information resources are not being used or underused or not accessible to students for research, it may be important to know this in order to make recommendation regarding possibilities of improving usage of the resources or cancelling subscriptions.

It has been reported that university of Agriculture, makurdi is lagging behind their counterparts in other universities of Agricultures in terms of quality of research (Adams, King & Hook, 2010). Part of the problems has been attributed to inadequate modern ICT infrastructural facilities in university leading to low levels of availability and utilization of electronic information resources by students. In order to know the cause and make recommendations, the study investigated the extent of availability and utilization of electronic resources in University of Agriculture, Makurdi Library.

Availability and utilization of electronic information resources is key to the success of students academic activities most especially in the areas of research in any institution and the library plays the central role in making information available and accessible. It is therefore also necessary to find out if the Francis sulemanu Idachaba library is performing her primarily responsibility of providing electronic information resources to meet user's information needs, learning and research.

The pertinent issues are: Are electronic resources available in Francis Sulemanu Idachaba Library? If they are available, to what extent are they available? Are they accessible by students for research? If they accessible, to what extent and are they really use by students for research? If they are suitable for use, are they being used? And why are they not being used? These issues

have necessitated this research. It is in the light of the above reasons, that the researchers examined the available electronic resources in Francis Sulemanu Idachaba Library and how they are used by the students in learning and research.

1.3 Objectives of the Study:

The objective of this study is to find out the Availability, accessibility, and use of electronic information resources in Francis Sulemanu Idachaba library university of Agriculture, Makurdi. Specifically, the study seeks:

1. To ascertain the types of electronic information resources available for research by students in Francis Sulemau Idachaba library University of Agriculture, Makurdi.

2. To ascertain the extent of availability of electronic information resources for research by students in Francis Sulemanu Idachaba library University of Agriculture, Makurdi.

3. To determine the extent of accessiblity of electronic information resources for research by students in Francis Sulemanu Idachaba library University of Agriculture, Makurdi.

4. To evaluate the extent of utilization of electronic information resources for research by students in Francis Sulemanu Idachaba library University of Agriculture, Makurdi.

5. To find out the problems encountered by students while accessing and using the electronic information resources for research in Francis Sulemanu Idachaba library University of Agriculture, Makurdi.

1.4 Research Questions:

1. What types of electronic information resources are available for Research by students in Francis Sulemanu Idachaba library University of Agriculture, Makurdi?

2. What is the extent of availability of electronic information resources for research by students in Francis Sulemanu Idachaba library University of Agriculture, Makurdi?

3. To what extent are electronic information resources accessible by students for research in Francis Sulemanu Idachaba library University of agriculture, Makurdi?

4. To what extent do students utilize the electronic information resources for research in Francis Sulemanu Idachaba library University of Agricuture, Makurdi?

5. What are the problems encountered by students while accessing and using the electronic information resources for research in Francis Sulemanu Idachaba library University of Agriculture, Makurdi?

1.5 Significance of the study:

The result of the study would be useful to all professional librarians, the university libraries, students, university management, and researchers to understand and appreciate the role of electronic information resources in education most especially in the area of research (project writing).

The present study was intended to raise the consciousness of academic staff, university administrations, university librarians and other stakeholders in Nigerian universities to the fast changing information environment due to ICT revolution and emergence of electronic information resources. The study will raise the level of awareness of academic staff in Nigerian universities on the need to access and utilize ICTs and electronic information resources as modern tools for global research and integration. The findings of the study would provide the platform for the integration of academic staff in Nigerian universities into international research community and the emerging knowledge economy.

The study would significantly provide information on the state of the art in terms of ICT infrastructural facilities in Nigerian universities, and the extent of accessibility and utilization of electronic resources by students for their research in relation to their productivity. The findings of the study would make a significant contribution towards proffering solutions to the ongoing debate in the field of Information Science on the need of accessing and using electronic resources to ameliorate the relative low level of research in Nigerian universities (African in general) in international journals. Thus, the study would provide the basis towards proffering solution to the problem of non-utilization of electronic resources in Nigerian (African) universities even where they are available and accessible. The findings of the study would then help in the planning for rapid diffusion of ICTs and provision of electronic resources in Nigerian (African) universities by university managements, university librarians, relevant government ministries/agencies (such as National Universities Commission, NUC), and donor (international/local) organizations/agencies.

Hence, the study will be of benefit to university managements and university librarians in being proactive in developing relevant ICT policies/strategies toward effective and sustainable electronic collection development in Nigerian (African) universities, as well as promoting accessibility and utilization of relevant electronic resources by students for research in these universities. In the final analysis, the study will stimulate not only the students and academic staff, but all stakeholders on the need to work concertedly to improve research output in Nigerian (African) universities and be competitive in international scene.

It is hoped that this research will go beyond finding the problems being envisaged to provide recorded knowledge of an idea academic library situation. By elaborately discussing the topic, a good reference material will be achieved at the end. In addition, the result of the study would be of empirical benefit to intending researchers as it will serve as a reference material for those who may wish to undertake researches in a similar area. Soft copy of this work will be uploaded on the internet for students, librarians, researchers and the general public to have access to, for information sharing. Hard copies will also be displayed in the library for the consumption of librarians, students, and for cross validation by future researchers.

1.6 Scope of the Study:

The geographical scope is Makurdi, Benue state. The study covered Francis Sulemanu Idachaba library University of Agriculture, Makurdi Benue state, Nigeria. The content scope is basically on availability, accesibility and use of electronic information resources in Francis Sulemanu Idachaba library. The areas to be covered in this study inclues: the types of electronic information resources available, the extent of availability of the electronic resources, the extent of accessibility and utilization as well as problems encountered by students in accessing and utilizing the information resources available for research by sudents. The population scope is made up of all the students who are registered members of Francis Sulemanu Idachaba library, University of Agriculture, Makurdi.

1.7 Operational Definition of Terms:

- ❖ **LIBRARY:** In this study, a library is defined as a designated building where information in prints and in other formats are collected, organised, carefully prepared according to some specific or definite plan, and make accessible for reading and consultation by all ages and interests.

- ❖ **UNIVERSITY LIBRARY:** in this study, A university library is a kind of academic library that serves the information needs of the university community through provision of information resources that supports learning, teaching and research. The university library is usually centrally located where students can access the library with ease. Example of University library is the Francis Sulemanu Idachaba library University of Agriculture, makurdi.

- ❖ **ELECTRONIC RESOURCES:** in this study, Electronic resources are materials consisting of data and/or computer programme(s) encoded for reading and manipulation by a computer by the use of a peripheral device directly or remotely connected to the computer or via a network such as the internet.electronic resources include full text documents, CD-ROMs, resources available on the internet such as E-journals, Online Public Access Catalogues (OPAC) and other computer based electronic networks. For the purposes of this study, electronic resources refer to OPAC, CD-ROM, Dspace and academic databases subscribed by Francis Sulemanu Idachaba Library.

- ❖ **ACCESSIBILITY:** in this study, accessibility means the ability to locate, gain entry and use a resource that is physically or electronically provided to obtain specific and accurate information.

- ❖ **AVAILABILITY:** in this study, availability means that which is available. In essence, the quality of being available. Electronic information resources cannot be accessible if they are not available. Thus, availability precedes access and access precedes use.

- ❖ **UTILIZATION:** in this study, utilization of a resource is the act of exploiting a resource to satisfy an information. For information resources to be effectively used by students, they have to be accessible.

CHAPTER TWO:

2.0 LITERATURE REVIEW

Introduction

The purpose of this section is to review, examine, organize and present relevant literature relating to the availability, accessibility, and use of electronic information resources to improve quality of research by students. Structural framework for the presentation of materials reviewed is provided under the following subheadings:

2.1   Theoretical Framework

2.1.1   Technology Acceptance Model (TAM)

2.2.1   Conceptual Framework

2.2.2   Concept of research

2.2.3   Concept of electronic resources

2.2.3   Types of Electronic Information Resources

2.1 Theoretical Framework:

2.1.1 Technology Acceptance Model (TAM)

Technology Acceptance Model is the most influential, empirically tested, widely used model of technology acceptance.

It was developed by Davis in the year 1993 and its concept is derived from the Theory of Reasoned Behavior (TRA) proposed by (Priyanka & Kumar, 2013). The basic concept of TRA is that, individual behaviors are determined by their intentions to execute those behaviors. These intentions are in turn influenced by two factors, their attitudes and beliefs about the consequences of the behavior; that is, what the important people in the life of these individuals will think about their behaviors. TRA has been successfully used to predict the choices made by people in diverse situations (Dillon & Morris, 1996).

The purpose of TAM is to predict user acceptance of technology by using two technology related factors, perceived usefulness and perceived ease of use. Perceived usefulness (U) in TAM is the extent to which a user believes that the use of a system will enhance his or her performance. Perceived ease of use (EOU) is the extent to which a user believes that using the system will be effortless. According to TAM, both U and EOU significantly influence a person's attitude towards using the system (A). Behavioral intentions (BI) to use the system is determined by A and U. One of the main differences between TAM and TRA is that perceived usefulness directly influences the intention to use a technology. Beliefs do not play any role in the intention to use a system. Davis et al. (cited in Dillon and Morris, 1996) explained that in a job situation, an employee's intention to use a system will be strictly based on the impact of the system on his or her work performance, irrespective of his or her attitude towards the system. In other words, an employee may dislike a system but may use it based on perceived increase in his or her job performance. This study adopts TAM as a theoretical framework because according to Dillon and Morris (1996), the diffusion theory offers little information on the factors that influence user acceptance. It rather focuses on characteristics that influence individual decisions in adopting a technology, such as compatibility and perceived complexity and the strategies used to market the technology to specific groups and organizations. TAM has been successfully tested on a wide variety of technologies including information systems

computer applications. The TAM theory is therefore appropriate for investigating the use of electronic resources by undergraduate students of University of Agriculture, Makurdi.

2.2 CONCEPTUAL FRAMEWORK:

2.2.1 Concept of Research:

Nigerian university students are required to carry out research projects in their final year in the university. Research project writing is a major pre-requisite for the award of degree in tertiary institutions in Nigeria. Every student considers research project writing important to his or her academic success. Research project writing involves a student or group of students carrying out a study on a topic of interest (Fatoki as cited by Ilo & Ifijeh, 2010). When the project is completed, it is evaluated by the quality of the work submitted within the stipulated time. It is used to indicate the student's ability to select, research, and draw logical conclusions from findings. The quality of the research project is to a large extent dependent on the quality, quantity, and recency of resources consulted and cited.

Nipssing University Research Council (2008) defined research as any original and systematic facts and principles. It comprised the creation of ideas and general knowledge that lead to new and substantial improved insight and or the development of new materials, devices, product and processes. It should have the potential to produce results that are sufficiently relevant to increase knowledge. Student's research is an active pedagogy emphasizing the process of undergraduate research and inquiry. Undergraduate research in this style may include ways of promoting research-teaching linkages by developing student's appreciation of research in the discipline. It can also involve using teaching and learning approaches which simulate research processes and using assignments which involves research or elements of the research process; giving students first- hand experience of research based consultancy e.g. through live projects, bringing research data into the curriculum for students to manipulate (Anderson & Priest, 2014).

2.2.2 Concept of Electronic Resources:

Electronic information resources simply referred to as electronic resources or e-resources are information stored in electronic format in computer or computer related facilities (CD-ROMs, digital libraries or the Internet). Adeleke & Nwalo (2017) defined electronic information resources as "resources in which information is stored electronically and which are accessible through electronic systems and networks". Electronic resources are now used to supplement printed information sources in the university libraries. Different types of electronic resources that are used in this study are: e-journals, e-books, online databases, electronic conference proceedings and CD-ROM databases. Online databases that are commonly used by academic staff in Nigerian universities for their research are EBSCOHOST, AGORA, HINARI, MEDLINE, JSTOR and OARE. A number of these e-resources (online databases/digitized local journals) are accessible via the National Virtual Library (nigerianvirtuallibrary.com) which is run by National Universities Commission.

The AACR2 Rule 9.0A1 refers to electronic resource as a combination of data and programs. The data include text, images, graphics, maps, music, graphics, moving images etc., and the programs are the instructions that process the data and make them available for use (AACR2

Rule 9.0A1, cited in Lang, 2008). Electronic resource according to AACR2 (2002) is any encoded work that can be accessed through the use of the computer. It can be accessed remotely via computer networks or directly via carriers such as discs, cassettes etc, by inserting them into a computer or computerized device. The Library of Congress identifies four categories of electronic resources in a library as:

- ❖ "Acquire" electronic resources that are received through licenses or other agreements, and acquisition processes such as gifts, copyright deposits, exchange, ISSN requests etc.
- ❖ "Collect" electronic resources which are permanently owned by the library and for which the library has permanent ownership
- ❖ "Link" electronic resources which are remotely accessed through links from the library's web resources, and
- ❖ "Archive" electronic resources which are a permanent digital repository managed and maintained by the library or for the benefit of the library (Library of Congress Collection Policy, 2008).

Electronic resource is digitized information, facilitated by computers, network connectivity, electricity, other peripheral components and most importantly human beings. It comes in different format including text, videos, audio, maps, graphics, tables, pictures, etc. Amankwah (2014) also indicate that electronic resources include full text documents, CD-ROMs, resources available on the internet such as E-journals, Online Public Access Catalogues (OPAC) and other computer based electronic networks. For the purposes of this study, electronic resources refer to OPAC, CD-ROM, Dspace and academic databases subscribed by Francis Sulemanu Idachaba Library, University of Agriculture, Makurdi.

2.2.3 Types of Electronic Information Resources:

The emergence of electronic information resources (EIRs) has greatly transformed information handling and management in Nigerian university communities. Electronic information resources have gradually become a major resource in every university community. Electronic information resources are provided in electronic form, and these include CD-ROM database, online databases, online journals, OPACs, Internet and other computer-based electronic networks (Quadri, Adetimirin & Idowu, 2014).

The various types and forms of e-resources in academic libraries are; e-databases, e-journals, e-data archives, e-manuscript, e-maps, e-books, emagazines, e-thesis, WWW, e-newspapers, e-research reports, and e-bibliographic databases (Ankrah & Atuase, 2018).

The major benefit of electronic resources in the university library besides ease of access to the needed information is that access can be done remotely by academic staff in their offices/laboratories or at homes without physical visit to the library. Thus, electronic resources promote efficiency in dissemination of information for research purposes in universities (Thanuskodi, 2012). Electronic resource "is more of a tool to assist in conducting research, a way of scanning a lot of materials quickly". The act of providing access to electronic resources by the university library to the patrons is referred to as electronic information services. electronic information services as delivery of information tools/products to "requesting users

electronically" usually by computer mediation. In view of the potential advantages and benefits of eresources over the print in modern electronic information environment, accessibility and utilization of e-resources is fast becoming a norm in research in universities around the world. Hence, "access to electronically stored information in computers has been increasing regularly" in universities to aid academic staff in their research. Different types of electronic resources that are used in this study are: e-journals, e-books, online databases, electronic conference proceedings and CD-ROM databases (Amankwah, 2014).

2.2.3 Availability of Electronic Information Resources by students for Research

Availability of electronic information resources is about information being accessible as needed, when needed, where needed. The objective of availability is to enable access to authorized information or resources. Availability, in the context of a computer system, refers to the ability to a user to access information or resources in a specified location and in the correct format. Chandrasekhar (2006) observed that the availability of electronic resources depend on the availability of funds as well as the demand for their use. Aguolu & Aguolu (2002) argue that availability should be viewed from both national and instructional levels. They attribute the lack of availability of information resources to the steady proliferation of universities: federal, state, and private, along with increases in students and faculty, and the diversification of courses and academic and research programs, without adequate information resources to meet the actual and information needs. They identify obstacles to the development of adequate information resources. Dike cited in Amankwah (2014) conducted research on the scarcity of books in Nigeria and the threat to academic excellence. She was able to establish that non-availability of information resources has led faculty and students not to use library services. A study by Marama & Ogunrombi cited in Ankrah & Atuase(2018) confirms high unavailability of library and information science (LIS) collections in most Nigerian university libraries, which had a negative effect on the use of information resources in the libraries studied. Unomah cited by Quadri et al (2014) conducted a study at the former Bendel State University to determine the unavailability rate in the library and to find out its causes. The survey revealed an unavailability rate of 34 percent. A similar study by Okiy (2000) showed an unavailability rate of only 7.5%. Iyoro (2004) found that availability of serials at the University of Ibadan was 94 percent, with 242 of 256 respondents agreeing that serial publications are available and readily accessible. The provision of electronic information resources varies among disciplines. They are most available in the sciences and medicine and least in the social science and humanities. Torma & Vakkari (2004) observation that the availability of relevant electronic resources affect how frequently scholars use them. Rosenberg (2005) noted that access of Nigerian university libraries to the EBSCO Host online database was first made possible by NULIB Consult, which is a consortium for the Committee of University Librarians of Nigerian Universities (CULNU). In 2002, the continued subscription of Nigerian University Libraries to EBSCO Host was taken over by the Education Trust Fund (ETF) from 2005-2010. In a study conducted by Liverpool John Moore University (LJMU) on the provision of electronic information resources in Nigerian libraries, Ashcroft and Watts (2005) examined existing electronic information resources and barriers obstructing effective provision of electronic information. Ajayi & Akinniyi (2004) found frustration among information seekers due to the non -availability of sources. Aina cited in Ugbagir (2010) analyzed the availability of periodical titles used in

Nigerian libraries, finding that only 67 (11.5%) of the 578 periodical titles studied were not available in any of the major libraries, and confirming a high availability rate. The study observed that electronic information resources are better provided through consortia efforts the main benefits are that of rationalization and cost savings. They observed that a consortium can comprise both large and small institutions and both public and academic libraries through a wide area network (WAN). This observation is in agreement with the position of CULNU, which formed a consortium, NULIB, through which Nigerian university libraries subscribe to electronic resources and services, among many of its other activities.

2.2.4 Accessibility of Electronic Information Resources by students for Research

Access is a general term used to describe the degree to which a resources, services, product, environment is accessible by as many people as possible. It can be viewed as the ability to access information with little or no stress. Accessibility of information resources is an important recurring theme in the literature. According to Aguolu & Aguolu (2002), resources may be available in the library and even identified bibliographically as relevant to one's subject of interest, but the user may not be able to lay hands on them. One may identify citations in indexes, but may not have access to the resources containing the relevant articles. The more accessible information resources are, the more likely they are to be used. Readers tend to use information resources that require the least effort to access.

According to the New York Library Association Report on Training and Technology (2004), libraries and their parent organizations need to create an environment that is supportive of the new Information Technology and should provide sufficient access to resources for training and delivery of information. Advances in technology have enabled users to access electronic resources in a variety of ways, to suit their needs and requirements. This is particularly true in educational institutions but also increasingly in academic libraries. Users of libraries are faced with the challenges of changing information environment, thus the need to train users in accessing online information. Electronic information resources are growing exponentially, thus the preservation and continued access to these electronic resources is not only a necessity but should also be an obligation for libraries. Libraries should not only be committed, but also responsible for providing access to information in the desired format, so that patrons can access these electronic resources when and where they needed it.

Osundina (2004) studied the relationship between accessibility and library use in institutions in Nigeria and notes that the problem of users is not the question of wanting to use the library, but whether or not the library can provide for their needs and whether there will be access to the information provided. The Internet, which facilitates online access, is the interconnection of computers from different geographical locations. Databases are created by different organizations on different subject fields, each of which is installed on a computer. Once such a system is connected to the network, a user from any part of the world can have access to such information applying the necessary procedures. Access is only as good as the resources that can be afforded (e.g., the number of computers and existence of network systems), the ability to work with the tools, and the network infrastructure that supports rapid and convenient connections.

Also, Aina as cited by Ugbagir (2010) wrote on accessibility to scientific and technological information in

Nigeria revealing that of the 7,014 scientific papers published between 1990 and 1995, 5,067(79%) are journal articles and 1,116(20%) of these journal articles were not indexed or abstracted making them inaccessible. Further analysis shows that 77% of the papers not covered by any indexing or abstracting services were published in Nigeria. He recommends the establishment of a national science information Centre to acquire, organize, provide access and disseminate scientific information resources in Nigeria and other places. For researchers to readily identify electronic resources, libraries must be able to integrate titles with other formats in catalogs and integrated library systems. Libraries have a mandate, to be strong advocates of open access to information.

Therefore, when buying electronic information resources, librarians should conduct contract negotiations with vendors/ network providers to ensure the least restrictive access in current and future products. Provision of information services should be without fees to avoid creating a barrier to access of electronic resources and services. Aguolu (2007) revealed that efforts are being made worldwide to promote access to information in all formats. He lamented that the attendant features of underdevelopment such as power failure, machine breakdowns, lack of spare parts and technicians etc. which intermittently stall the performance of modern gadgets of information storage and transfer in developing countries.

Jefferson et al as cited by Ani & Edem (2012) laid the basis for a government that made education, access to information etc. corner-stones of a great democratic experiment with geographical expansion and the rise of a mass press. The American government facilitated these constitutional principles through the creation of such innovative institutions such as the public schools, colleges and the libraries. By the close of the 19th century, professionally trained librarians developed specialized techniques in support of their democratic mission. In the 1930's, the library bill of rights acknowledged librarians professional and ethical responsibilities to the constitution, promise of access to information in all formats to all people.

2.2.5   Utilization of Electronic Information Resources by students for Research

The advent of electronic information resources has been a blessing to libraries and information centers. The significant changes associated with electronic information resources are the shift towards end user searching, leading to big increases in the total number of searches carried out. Awogbami et al (2000) reported the diffusion and achievements in the utilization of electronic resources and services in libraries. They stated that it has enabled libraries which could not have access to information online, to search in- house. The massive storage capacities in CD-ROMS are an example of electronic information resources that have enabled libraries to access instantly, easily and conveniently, a substantial amount of relatively current and retrospective information. It also saves space as it can hold more content. Libraries have also reported an increase in the use of journal collections. Aboluwarin (2001) reported an increase in library use when electronic information resources was introduced and has made staff more knowledgeable about a variety of operating systems, hardware configurations, software packages and interface designs. Also, Blandy cited by Amankwah (2014) posited that to utilize

the growing range of electronic information resources, users must acquire and practice the skills necessary to exploit them using a variety of online databases. Kiondo et al (2004) reported that currently libraries in institutions of higher learning have realized the potentials of electronic information resources in higher learning and teaching, hence more institutions are embracing it to enhance the quality of education. This is due to the fact that library automation is making profound changes to the teaching and learning environment, as the librarians make available to the user community a wide range of academic and scholarly information. University libraries have a critical role to play in the emerging dynamic environment because they assist in the integration, facilitation and enhancement of information at its presentation within the teaching and learning environment.

According to Schutte (2004), utilization of electronic information resources and services has led to the shift from an emphasis of the book and journal collection to an emphasis on information services or from ownership to access. He further argues that the shift has been necessitated by new trends in the provision of higher education and developments in electronic information storage and their accessibility over computer networks. The developmental trends which impact on the provision of information services include current trends in published knowledge whereby more information is made available in electronic format.

The use of online electronic information resources and retrieval systems require a basic knowledge of computing and searching skills. This is because library databases use web based technologies that may not be very different from the general web based resources. The skill required to maximize the potentials of electronic information resources are much greater than those required to search printed sources. These skills includes a knowledge of the structure of the database and the kind of information which may be implanted into the computer by the searcher as well as an understanding of the ways in which the institutions are linked with one another. Whitmire cited by Aguolu & Aguolu (2002) observed that the use of electronic information resources is also influenced by students' use of the library. The more a student uses the library the more familiar he becomes with its resources including its electronic information resources. In a study conducted by Luambano et al (2004), it was found that the users of academic libraries are increasingly utilizing electronic information resources as more access points are made available. The findings indicated that at least 86.3% of users were using electronic information resources and services to browse the World Wide Web and to access various online resources, though most of them depend heavily on search engines.

Similarly, Ehikhamenor (2003) posited that facilities that attracted the greatest amount of patronage were e-mails, catalogues and databases, e-journals, www resources and software. However, the extent to which the use of e-journals becomes part of normal research practice depends not only on the discipline concerned but also on the role and status of the researcher, the resources and on the specific information needs. Most of the studies investigating impact of electronic information resources reported that users must have the requisite skills to effectively exploit the electronic information resources available. Waldman (2003) found out that use was influenced by factors such as computing skills of academics, their age, and gender. There is a significant relationship between computing skills and use of Electronic information resources in the library including online public access catalogues (OPAC). The most popular method for

acquiring the necessary skills to use electronic resources is via individual trial and error, colleagues or peers and guidance from library staff. Steinmuella (2001) attested to this position when he suggested that many information and communication technology (ICT) users are self-taught and are capable of developing an understanding of ICTs through utilizing them. The knowledge required to search the internet was not acquired by attending a formal training course or courses but rather through self-instruction with significant assistance from friends and colleagues.

A survey of the level of awareness and utilization of electronic information resources in academic libraries was conducted by Abindale cited in Thanuskodi (2012). He reported that many Nigerians were not aware of the policy and a large number of libraries do not have micro computers or other electronic information resources, and some of the libraries lack qualified librarians to teach the use of electronic resources. The above shows that most students in the university are ICT illiterates who perhaps have never seen or touched a system before. The prospect of applying electronic system in the library is very bright if there is a strong institutional support for the project and regular financial provision, added to these include the contribution of committed and dedicated students that are prepared to learn. This entails a series of training programs for all categories of staff to cope with the breakthrough in electronic information.

2.2.6 The Problems Encountered by students in Accessing and utilizing Information Resources:

The value of e-resources in university libraries and safeguarding its usage seems not encouraging. Students' quest to use e-resources for their academic work encounters some difficulties in terms of access and usage. Therefore, in order for academic libraries and information Centre's to improve their e-resource services, it is imperative to better understand the impediments users encounter in accessing these resources. Mulla (2011) reported that the major barrier to the use of electronic journals is the lack of subscriptions in relevant fields of studies and the lack of user orientation or training. This means some users are likely to be deprived of the required information for their academic work. Academic libraries need to invest more in the training and provision of more e-resources to meet the information of all users.

Bhatt & Rana (2011) also identified that the most common problems with e-resources are low speed connectivity, lack of awareness about statutory provision for accessing e-resources by the institutions, technical problems, unavailability of sufficient e-resources, doubts in permanency, high purchase price and lack of legal provision. A similar study by Shukla and Mishra (2011) revealed that majority of research scholars have problem of low internet connectivity.

Madhusudhan (2010) averred slow access speed of the internet as the most common problem. He also added that it takes too long to view or download pages and find it difficult to get relevant information. He further indicated that too much information is retrieved and the students cannot make use of e-resources effectively due to the lack of proper IT knowledge. Mulla (2011) revealed that the majority of academics similarly face a problem of lack of training in relation to the use of e-resources. It is clear that the major problems in the use e-resources as identified

are; lack of subscriptions in particular fields of study, lack of user orientation or training, low bandwidth, lack of printing facilities, terminals and training. Undoubtedly, electronic information resources in libraries are unique and so their use may be affected by either the user, institutional or product centered factors.

Singh et al., (2011) found that information specialists have long sought to understand the factors that are pertinent in encouraging a person to search for information. Many studies have been cited to show how factors like language proficiency, computer literacy and information literacy can affect the use of electronic information resources of the library.

Other factors that may affect the utilization of e-resources include inadequate competence use of e-resources on the part of users, such as lack of knowledge, negative attitudes, poor practices and inadequate and limited infrastructure. In another study, Alison et al., (2012) affirmed that utilization of e-resources is influenced by human and institutional factors including information literacy, low bandwidth and limited number of resources available to users. The literature review for this study also found that availability of e-resources, discipline and institutional factors affect the use of the resources by students and researchers.

One other obstacle to the use of a library's resources and in particular, its electronic resources, is that they are not seen as being easily accessible. This is in contrast to an internet search engine where a single keyword se arch could result in thousands of hits, no matter the topic. In the library, students have to choose a particular database and be more selective in the search words they use (Waldman, 2003).

Similar problems seem to exist among users of e-resources in general but the magnitude of these challenges varies significantly between developed countries and developing countries. A study conducted by Bashorun, Tunji & Adisa (2011) also showed that low usage is reported for e-books, bibliographic databases and e-journals. These attitudes may be the result of lack of awareness about the e-resources provided by the library. There are issues like a large mass of irrelevant information. Other problems are download delay, failure to find information, lack of search skills, high cost of access, power outages, unavailability of some websites, inaccessibility of some websites and difficulties in navigating through e-resources.

Oduwole & Akpati (2003) also indicated lack of ICT and power outages as constraints to the use of electronic resources. In the same vein, Watts and Ibegbulam (2006) discovered the inadequate ICT infrastructure and affordable online access as well as absence of in-depth ICT skills as key problems. In addition, lack of information searching skills, and cost of using the cybercafé are identified as barriers to the use of electronic resources. Also, studies have revealed that developing countries are not at par with the developed countries in terms of research productivity. This is due to the fact that much is not invested in the provision of electronic resources which are pivots in research processes. A research finding by Foster et al as cited by Ibrahim (2006) revealed that inadequate access and use of electronic information resources by academic staff for research purposes result to low publication output by African universities. A similar study by Frankor & Akussah (2012) confirmed that academic staff in African universities "had little access to relevant and reliable information when making decisions" on their research activities. The inability of academic libraries to provide timely information to

enhance access and use of e-resources are due to inadequate provision of modern ICT infrastructure. Access to e-resources is challenged by inadequate computers on campus. In support of this view, libraries are therefore charged to put in place adequate mechanisms to enable effective and efficient access and use of e-resources.

1.3 Review of Related Empirical Studies:

Empirical studies have been conducted within and outside Nigeria on the availability, accessibility and use of electronic information resources by students for research. Among the reviewed studies which are relevant to this present research are as follows:

Ankrah & Atuase (2018) conducted a study on the use of electronic resources by postgraduate students of University of Cape Coast. The main purpose of this study was to examine the use of electronic resources by postgraduate students of the University of Cape Coast, and with a view of giving recommendations based on findings. The major objectives of the study are: (1) To determine postgraduate students' awareness of electronic resources in the library. (2) To find out the frequency of usage of e-resources by students. (3) To determine the computer literacy level of postgraduate students. And (4) To identify the likely problems in the utilization of electronic resources by postgraduate students. The cross-sectional survey design was used for the study. The objectives of the study as depicted by the research questions guided the choice of questionnaire as the sole data collection instrument for the study. total population for this study was 915 postgraduate. a sample size of 275 which is 30% of 915 postgraduate students was attained. Simple random sampling was used to sample the respondents. Quantitative analysis including frequencies, percentages, tables and charts were used as data analysis technigue. The findings revealed that most of the postgraduate students were aware of the e-resources in the library. The findings of this study also revealed that most postgraduate students rather preferred to access information from Google scholar, and other web based databases more frequently than the databases in the library. The respondents identified poor internet connection as the most significant constrained for ineffective access to e-resources. 183(72.6%) respondents were of the view that poor internet connectivity was the major challenge they faced in accessing e-resources. Another 173(68.7%) confirmed that power outages in the library was a limitation they encountered in accessing electronic resources. In addition, 165(65.5%) claimed insufficient skills hindered their ability to access e-resources while 157(62.3%) respondents indicated that they could not access e-resources effectively due to limited subscribed titles. A total of 143(56.7%) respondents said they did not have effective access to e-resources in the library because of inadequate computers. Also, 32(12.7%) of them perceived that overload of e-resources was a challenge. Further, other postgraduate students stated other limitations such as passwords and user names on the e-databases of the library and the absence of research centre for postgraduate students as hindrance for effective access of e-resources. In order to alleviate these challenges to ensure maximum use of e-resources, library management should put in place mechanisms to ensure that e-resources are fully accessed and utilized by users. The reviewed study is different from the present study in that, the reviewed study uses postgraduate students as the population while the present study uses all category of students who are registered members of the library. In the reviewed study the geographical coverage

(Cape coast) is different from the current study which has been conducted in Makurdi (Benue state.

Similarly, Edem & Egbe (2016) examined the extent of availability and utilization of electronic resources by postgraduate (PG) students in the University of Calabar (UNICAL) Library. Five research questions and a single hypothesis were formulated to guide the study. Descriptive survey was adopted and the population of the study was two thousand, seven hundred and twenty six (2,726), while a sample of four hundred (400) postgraduate library users were selected through stratified sampling; two hundred postgraduate student each from Faculty of Education and Faculty of Science. Questionnaire was the main instrument used for data collection. Data collected were analysed using descriptive statistics such as simple percentages and frequency count. Pearson Correlation Coefficient (r) was the statistical analysis technique adopted to test the hypothesis under study at 0.05 level of significance. Three hundred and eighty two dully filled questionnaires were received, giving an overall response rate of 95.5 per cent. The result of the analysis revealed that electronic resources were available in Unical Library and Postgraduate students utilized them. To a great extent, electronic resources were available in the University of Calabar Library. The University Library had e-journals, e-books and access to databases and Internet resources. Databases that were accessible as at the time of this research were: Science Direct, Nigerian Virtual Library, HINARI, OARE, AJOL, SAGEOPEN, and TEEAL. Majority of postgraduate students in the University of Calabar often made use of the electronic resources in the University Library. However, online databases were underutilized. Electronic journals were the most often used electronic resources by postgraduate students. The problems postgraduate students encountered while accessing and using electronic resources were: lack of computer skills, slow network, inconsistent internet connectivity, power outage and mass of irrelevant information. However, online databases were underutilized. The University Library had e-journals, ebooks and access to databases and Internet resources. E-journals were the most often used electronic resources. Lack of computer skills, slow network, inconsistent internet connectivity, power outage and irrelevant electronic information resources were the problems postgraduate students encountered while accessing and using electronic resources in Unical Library. Based on the findings, the following recommendations were made: adequate budgetary allocation should be given to the University Library for subscription to online databases and acquisition of electronic books, more relevant open access databases should be made accessible to users, creation of awareness on the available electronic resources in Unical Library, installation of inverter and battery system in the Electronic Library, and organising users education for better use of electronic resources in Unical Library. The reviewed study is different from the present study in the sense that, the present study does not make use of hypothesis while in the reviewed study, hypothesis was formulated and pearson correlation coefficient was used as the statistical analysis in testing the hypothesis. Though they are similarities that existed between the reviewed study and the current. This is because both studies uses questionnaire as instrument for data collection. Both make use of registered members of the library. Both the reviewed and the current studies make use of survey as research design. Both studies also uses descriptive statistics such as simple percentages, fequency count and mean for data analysis.

Moreso, Ibrahim (2006) investigated the availability, accessibility and use of electronic information resources and services in MTN Universities connect in Nigerian Universities. Six research questions and four null hypotheses were formulated and tested with respect to the type of electronic information resources and services; extent of use of electronic information resources and services and purpose of use of electronic information resources and services in MTN Universities Connect in Nigerian Universities. Survey research design was adopted for this study. A total number of 273 registered library customers from the 4 MTN Net libraries in Nigerian Universities were drawn as sample size. A questionnaire was used to collect data for this study. The data collected were presented and analyzed using Frequency distribution tables, percentages and histograms. While the hypotheses, were tested using T-test and Pearson Product Moment Correlation Coefficient (PPMC). The study found among others that Sabinet online reference database; Ebscohost reference database, Nation Academic press databases, Virtual Libraries online, Science Direct online, E-books online Libraries, Linguistics Database online, Guternberg online Library, Free Library online, Google Search Engine and E-newspaper were the electronic information resources available in the 2 MTN libraries studied. Also, it was found that Email Services, WWW Services, Databases Services and Printing Services were the electronic information services available in the 2 MTN libraries studied. SABINET online reference database, EBSCOHOST, JSTOR, Nation Academic press database, Virtual Libraries Online, Free Library Online, Google Search Engine and E-newspapers were the type of electronic information resources that are highly accessible with the highest frequencies of over 60% response scores in the two MTN Universities Connect Libraries studied. There is no significant difference between the ABU and UNIBEN MTN Universities connect libraries customers in the type of electronic information resources and services they preferred most. The study concluded that electronic information resources are vital and are the backbone of any dynamic collection, most of the electronic information resources such are full text databases, electronic books are not publicly available free of charge and they are expensive, and they offer creative possibilities for expanding access as well as changing learning behaviour and academic research in Universities. Lastly, management of the MTN Universities Connect Libraries should ensure that all hick ups such as power outages, denial of access, network fluctuations and system breakdowns are minimized in order to promote access and use of the electronic information resources and services in the libraries. Both the reviewed and current studies make use of registered library users. Both uses the same method of data collection which questionnaire. Survey research design was adopted for both studies.

Also, Ani, Ngulube & Onyancha (2014) conducted a study on the effect of accessibility and utilization of electronic resources on productivity of academic staff in Nigerian universities. A survey method was used in the study, with a questionnaire as the instrument for data collection. Responses from 324 academic staff out of 586 that were surveyed were used for data analysis. Correlation analysis showed that, there was a positive correlation between accessibility and utilization of electronic resources on productivity of respondents in the survey (r=0.135; p=0.015). This implies that increase in access and use of e-resources will lead to increase in productivity among respondents at the surveyed universities. Similar result was obtained when the hypothesis was tested at international level with r=0.158 and p=0.004. In other words, respondents that access and use eresources in research frequently publish more articles in

international journals than those who do not. It was recommended that, in view of the observed positive impact of e-resources on productivity in the survey; university managements, university librarians, National Universities Commission (NUC) and other stakeholders in Nigerian universities should intensify the process of effective information and communication technology (ICT) diffusion and provision of relevant e-resources in Nigerian universities towards qualitative research. This will also make academic staff in Nigerian universities to be globally competitive for journal space in international journals, and thus bridge the productivity gap between Nigeria and developed countries. The reviewed study make use of academic staff as the study population while the current study uses registered users of the library. The reviewed study tested hypothesis while the present study does not.

Adeleke & Nwalo (2017) also conducted a study on availability, use and constraints to use of electronic information resources by postgraduate students at the university of Ibadan, Nigeria. The study adopted a descriptive survey design. Samples of 300 of postgraduate students within seven out 13 Faculties were randomly selected. Data were collected using questionnaire designed to elicit response from respondents and data were analyzed using descriptive statistics methods of percentages, mean, and standard deviation. Results indicated that internet was ranked most available and used in the university. Low level of usage of electronic resources, in particular, full texts data bases is linked to a number of constraints: Interrupted power supply was ranked highest among other factors as speed and capacity of computers, retrieval of records with high recall and low precision, retrieving records relevant to information need, lack of knowledge of search techniques to retrieve information effectively, non possession of requisite IT skills and problems accessing the internet. The study recommended that usage of electronic resources be made compulsory, intensifying awareness campaigns concerning the availability, training on use of electronic resources and the problem of power outage be addressed. The reviewed study adopted descriptive survey design which is the same with the current study. Both studies uses descriptive statistical method of percentages and mean. In as much as they are similarities in both the reviewed and present studies, they are exist some difference in the studies. This can be seem in the geographical location used, the population used, as well as the type of research design adopted for both studies.

Furthermore, Amankwah (2014) investigated use of electronic resources by undergraduate students of the Ghana Institute of Management and Public Administration (GIMPA) to find out if students utilize electronic resources. It specifically targeted the level 300 students of GIMPA. Awareness, usage, training, access, usefulness and importance and problems of use were explored. A survey method was employed and structured questionnaire were utilized to solicit data for the study. The findings revealed that, though students are aware of electronic resources, they do not fully utilize them to support their academic pursuit due to poor level of information literacy skills. However, few students had not participated at all in information literacy skills training organized by the library. Results from the study also showed that, significant number of students do access electronic resources when on campus and off campus and mostly used electronic devices such as laptops, ipad, desktop computers, and mobile phones. The findings indicated that students used the electronic resources to: complete assignments, write project work, to update lessons notes, for research, and up-date themselves on new information in their fields of study. Some of the major problems respondents indicated

using electronic resources includes: inadequate computers in the library, poor internet connectivity, power outages, insufficient search skills, etc. In conclusion, the use of electronic resources in GIMPA has enhanced research, teaching and learning. This implies the need to plan and develop strategies for effective and efficient use of Information and Communication Technology infrastructure for the utilization of electronic resources to support academic study in GIMPA.

Lefuna (2017) also conducted a survey regarding access to and use of electronic information resources in academic libraries of the Lesotho Library Consortium (LELICO). Survey research design was adopted. The study adopted the post-positivists paradigm and mixed methods were used; that is, qualitative and quantitative approaches. The self-administered questionnaires and semi structured interview method was used as instrument for data collection. To analyse quantitative data, the SPSS Version 20.0 was used, while qualitative data was analysed by sorting, classifying and arranging data which were examined in relation to combined thematic content analysis. It was established that the type of e-resources accessed and used by academic libraries of LELICO included: e-mail, search engines, websites, Online Public Access Catalogue (OPAC), e-journals, full-text databases, reference databases, institutional repositories (IRs) and Compact Disc-Read Only Memories (CD-ROMs). The study established that e-resources which were accessed and used mostly were e-mail, search engines and websites, followed by the OPAC, e-journals, full-text databases, IRs, reference databases. The study further found that main uses of e-resources were for communication, to support teaching and learning activities, such as professional research, assignments and lecture requirements. The findings showed that awareness of e-resources was mainly through formal engagement, such as library orientation and through informal engagement such as colleagues. The following strategies were in place: IRs, Open Access (OA), Information Literacy (IL) programme as well as library orientation sessions to improve on the access to and use of e-resources. It has been further revealed that challenges such as budget cuts, low internet bandwidth, lack of up-to-date Information Technology (IT) infrastructure, inadequate searching skills, shortage of staff and high cost of subscription fees posed many of the threats to access to and use of e-resources in the institutions libraries. The findings revealed lack of guidelines and e-resources collection development policies. The study concluded that access to and use of electronic information resources in the academic libraries were influenced by how e-resources were accessed, systems in place, effectiveness of the consortium, challenges facing libraries and strategies in place. The study recommended the establishment of e-collection development policies, guidelines and procedures for budget allocation, conducting of needs assessment to selection, collections maintenance, evaluation and resource sharing formulated to be implemented to enhance the efficient management of e-resource collection by providing selection procedures, requirements, standards and specifications in terms of Information and Communication Technologies(ICTs) infrastructure, equipment and human resource recruitment. The findings of the study influenced the formulation of e-resources collection development policies in academic libraries of the LELICO. The reviewed study uses survey research design which is the same research design used in the curren study. Both studies uses questionnaire as data collection instrument. Although, they are difference that existed between the reviewed study and the present study.

The reviewed study make use of semi structured interviewed method which is not applicable in the present study. The geographical setting of both studies differs.

1.4 Summary of Literature Reviewed:

Here previous research studies that are related to the current study under investigation were reviewed, compared and contrasted. In the process, the researcher consulted textbooks, seminar papers, and workshop articles from the internet. Abstract and other relevant publications to the subject matter were all part of the reviewed works. The review also delved into theoretical and conceptual framework. This was done by reviewing the technological Advancement Model as related to the present study. This theory was developed by Davis in the year 1993 and its concept was derived from the Theory of Reasoned Behavior (TRA) proposed by Priyanka and Kumar, 2013. The basic concept of TRA is that, individual behaviors are determined by their intentions to execute those behaviors. These intentions are in turn influenced by two factors, their attitudes and beliefs about the consequences of the behavior; that is, what the important people in the life of these individuals will think about their behaviors. TRA has been successfully used to predict the choices made by people in diverse situations. The conceptual framework revealed that availability and accessibility of electronic information resources does not automatically imply its use. However, access to the electronic information resources will greatly enhance utilization of the resources thereby resulting in positive impact of student's research.

The chapter also critically examined the concept of research, concept of electronic resources, types of electronic resources, availability, accessibility, utilization as well as problems encountered by students in accessing and utilizing the electronic information resources for research in University libraries. Both local and international publications concerning the aforementioned topics were reviewed. The chapter ended by taking into account relevant empirical studies as related to the variables of the current research study. From the review, it clear that most of the empirical studies were undertaken in geographical locations different from Benue state. Also, time has passed since the reviewed empirical studies were conducted (that is, the studies are no longer novel or current). In the empirical studies difference that existed between the reviewed studies and the present studies were noted. Therefore, it is clear that where variables matched, the geographical locations varied. This has created a gap in knowledge that the present study have intended to fill.

3.0   METHODOLOGY:

The study adopt descriptive survey research design. The study is conducted in Benue State which is in North Central, Nigeria. The population of the study comprised of Seven thousand nine hundred and fifty two (7952) students who are registered members of Francis Sulemanu Idachaba Library University of Agriculture, Makurdi. To select the respondents, the overall sample sized for this study was 380 registered users (students) of the library. This was determined using Taro Yamene's formula for sample size as seem below:

$$N = \frac{N}{I + N(E)^2}$$

Where, N= the sample size

N= the population size

E=level of significance

N=? N= 7952, E = 90% (0.05)

$$N = \frac{7952}{I + 7952(0.05)^2}$$

$$N = \frac{7952}{20.88}$$

=380.8

N=381 approximately

Thus a sample sized of 381 is used to represent a total population of 7952 library users, hence simple random sampling was used to draw the sample from the population of the study so that each member of the population is given equal or independent chance of being selected. Two instruments were used for data collection. They were: Checklist (part 1) and questionnaire (part 2) which was self-developed by the researcher titled "Checklist on Availability of electronic information resources for research by students (CAEIRRS) and Accessibility and Utilization of electronic information resources for research by students Questionnaire (AUEIRRSQ). The instrument for data collection was validated by two experts in the field of librarianship within the department of library science and information technology. Face and content validity was done for the purpose of adequacy of the instruments, clarity of instrument, relevance of items, and proper wordings of the items. In order to establish the reliability of the instrument, the questionnaire was administered to 20 students which were not part of the study but had the Characteristics similar to that of the study sample for final testing. Cronbach Alpha was used to determine internal consistency of items and the reliability coefficient obtained from the respondents was 0.769 and its positive sign revealed that the instrument is reliable for the study.

Data was collected by personal administration of instrument to respondents by the researcher and with the aid of one research assistant and collected back immediately after completion from respondents. The use of research assistant is to aid in the administration of the instrument and to facilitate the process of retrieval of the instruments. The data collected was analyzed using descriptive statistics. Descriptive statistics of frequency counts, simple percentages, and mean scores is used to analyze data generated by the research questions. Items with percentages ranging from 50% and above was accepted and regarded as available (A) while items with percentages ranging from 49% and be low was rejected and regarded as Not Available (NA). A criterion (a mid-point mean score) of 2.50 was adopted. The average of the response on a 4 point type scale is 2.50 (4+3+2+1=10/2=2.50). Any mean that rank from 2.50 and above is regarded as positive and accepted while 2.49 and below is regarded as negative and rejected.

4.0 DATA PRESENTATION, ANALYSIS, INTERPRETATION AND DISCUSSION:

This chapter features data presentation; analysis based on the analysis, discussion will be made.

4.1 RESPONSE RATE

Table 1:

No. of Questionnaire Administered	No. of Questionnaire Administered	Percentage
381	381	100%

The table above indicates that the total number of questionnaire administered was 381, total number of questionnaire returned were 381 and at 100%.

4.2 DATA PRESENTATION AND INTERPRETATION

Research Question Two: what types of electronic information are available for research by students in Francis Idachaba Library University of Agriculture, Makurdi.

Table 2: Frequency and percentage scores of types of electronic information resources available for research by students.

SN	Items Statement	N	Response Available (%)	Not Available (%)	Remark
1	e-journals	381	301 (79%)	80 (21%)	Available

2	e-newspapers	381	200 (52%)	181 (48%)	Available
3	Online Public Access Catalogue	381	314 (82%)	67 (18%)	Available
4	e-bibliography databases	381	54 (14%)	327 (86%)	Not Available
5	CD-ROM databases	381	198 (52%)	183 (48%)	Available
6	e-magazines	381	68 (18%)	313 (82%)	Not Available
7	e-books	381	317 (97%)	10 (3%)	Available
8	DVD-ROM	381	87 (23%)	294 (77%)	Not Available
9	e-manuscript	381	11 (3%)	370 (97%)	Not Available
10	Online databases	381	341 (90%)	40 (10%)	Available
11	e-research reports	381	260 (68%)	121 (32%)	Available
12	Sabinet reference database	381	93 (24%)	288 (76%)	Not Available
13	Virtual library online	381	218 (57%)	163 (43%)	Available
14	Science direct online	381	198 (52%)	183 (48%)	Available
15	Ebscohost reference database	381	294 (77%)	87 (23%)	Available

Field Survey, 2019

Table 2 shows the percentage scores of the response of the types of electronic information resources available for research by students in Francis Sulemanu Idachaba Library University of Agriculture, Makurdi. From the above table, items 1, 2, 3, 5, 7, 10, 11, 13, 14, and 15 are available, while items 4, 6, 8, 9 and 12 are not available.

Research Question Three: What is the extent of availability of electronic information resources in Francis Idachaba Library University of Agriculture, Makurdi?

Table 3: Mean score of the extent of availability of electronic information resources for research by students.

SN	Items Statement	VGE	GE	LE	VLE	Mean (x)	Remark
1	e-journals	148	86	54	93	2.76	Great extent
2	e-newspapers	231	97	46	7	3.45	Great extent
3	Online Public Access Catalogue	177	101	66	37	3.09	Great extent
4	e-bibliography databases	44	53	175	109	2.08	Low extent
5	CD-ROM databases	83	201	47	50	2.83	Great extent
6	e-magazines	33	76	144	128	2.04	Low extent
7	e-books	201	89	66	25	3.22	Great extent
8	DVD-ROM	33	32	165	151	1.86	Low extent
9	e-manuscript	45	66	201	69	2.23	Low extent
10	Online databases	233	88	33	27	3.38	Great extent
11	e-research reports	143	142	20	76	2.92	Great extend
12	Sabinet reference database	66	31	180	104	2.15	Low extent
13	Virtual library online	142	133	44	62	2.93	Great extent
14	Science direct online	188	94	56	43	3.12	Great extent

| 15 | Ebscohost reference database | 104 | 124 | 76 | 77 | 2.67 | Great extent |

Field Survey, 2019

Table 3 shows mean of the responses to the extent of availability of electronic information resources for research by students of Francis Sulemanu Idachaba Library University of Agriculture, Makurdi. From the table above, items 1, 2, 3, 5, 7, 10, 11, 13, 14 and 15, students indicate that the listed items are available for research to a great extent while items 4, 6, 8, 9 and 12 extent of availability is low.

Research Question Four: To what extent are electronic information resources accessible by students for research Francis Idachaba Library University of Agriculture, Makurdi?

Table 4: Mean score of the extent of accessibility of electronic information resources of research by students.

SN	Items Statement	VGE	GE	LE	VLE	Mean (x)	Remark
1	e-journals	214	73	52	42	3.20	Great extent
2	e-newspapers	181	112	24	64	3.08	Great extent
3	Online Public Access Catalogue	170	97	84	30	3.06	Great extent
4	e-bibliography databases	82	64	121	114	2.22	Low extent
5	CD-ROM databases	200	81	50	50	3.13	Great extent
6	e-magazines	64	97	144	76	2.39	Low extent
7	e-books	234	68	57	22	3.35	Great extent
8	DVD-ROM	44	69	186	82	2.19	Low extent
9	e-manuscript	82	14	176	109	2.18	Low extent
10	Online databases	109	116	52	104	2.60	Great extent
11	e-research reports	203	44	88	46	3.06	Great extent
12	Sabinet reference database	10	72	203	96	1.99	Low extent
13	Virtual library online	97	143	72	69	2.70	Great extent
14	Science direct online	83	144	94	60	2.66	Great extent
15	Ebscohost reference database	130	94	67	90	2.69	Great extent

Field Survey, 2019

Table 4 above indicate the extent of accessibility of electronic information resources for research by students in Francis Sulemanu Idachaba Library University of Agriculture, Makurdi. From the table above, items 1, 2, 3, 5, 7, 10, 13, 14 and 15 are accessible by students for research while, items 4, 6, 8, 9 and 12 are not accessible therefore, the extent of accessibility is low.

Research Question Five: To what extent do students utilize the electronic information resources for research in Francis Sulemanu Idachaba Library University of Agriculture, Makurdi?

Table 5: Mean score of the extent of utilization of electronic information resources for research by students.

SN	Items Statement	VGE	GE	LE	VLE	Mean (x)	Remark
1	e-journals	192	100	42	47	3.15	Great extent
2	e-newspapers	112	88	63	118	2.51	Great extent
3	Online Public Access Catalogue	146	64	71	100	2.67	Great extent
4	e-bibliography databases	84	47	214	36	2.47	Low extent
5	CD-ROM databases	118	107	44	112	2.61	Great extent
6	e-magazines	67	148	59	107	2.46	Low extent
7	e-books	194	100	20	69	3.10	Great extent
8	DVD-ROM	39	86	112	144	2.05	Low extent
9	e-manuscript	89	22	163	107	2.24	Low extent
10	Online databases	126	118	73	64	2.80	Great extent
11	e-research reports	130	94	67	90	2.69	Great extent
12	Sabinet reference database	31	72	150	128	2.69	Low extent
13	Virtual library online	100	214	36	31	3.01	Great extent
14	Science direct online	148	86	54	93	2.76	Great extent
15	Ebscohost reference database	109	116	52	104	2.60	Great extent

Field Survey, 2019

Result from table 5 shows the extent of accessibility of electronic information resources for research by students in Francis Sulemanu Idachaba Library University of Agriculture, Makurdi. Items 1, 2, 3, 5, 7, 10, 13, 14 and 15 are utilize by students for research while items 4, 6, 8, 9 and 12 are not utilize by students.

Research Question Six: What are the problems encountered by students while accessing and utilizing the electronic information resources for research in Francis Sulemanu Idachaba Library University of Agriculture, Makurdi?

Table 6: Mean scores of problems encountered by students while accessing and utilizing the electronic information resources for research by students

SN	Items Statement	SA	A	D	SD	Mean (x)	Remark
1	Inadequate computers in the library	215	42	33	91	3.0	Agree
2	Poor internet connectivity	300	50	11	20	3.65	Agree
3	Lack of computer skills	46	101	221	13	2.47	Disagree
4	Limited subscribed title	72	199	57	53	2.46	Agree
5	Power outages	168	77	30	106	2.81	Agree
6	Utilizing e-resource is time consuming	113	88	13	167	2.39	Disagree
7	Difficulty to access and use	98	189	63	31	2.93	Agree
8	Lack of relevant e-resources in various disciplines	191	101	55	34	3.18	Agree

| 9 | Insufficient search skills | 114 | 78 | 67 | 122 | 2.48 | Disagree |
| 10 | No assistance from the library staff | 244 | 38 | 23 | 76 | 3.18 | Agree |

Field Survey, 2019

Result from table 6 above shows means of the response to problems encountered by students while accessing and utilizing the electronic information resources for research by students in Francis Sulemanu Idachaba Library University of Agriculture, Makurdi. From the above table, items 1, 2, 3, 4, 5, 7, 8 and 10 are the problems encountered by students with mean scores 3.00, 3.65, 2.76, 2.81, 2.93, 3.18 and 3.18 respectively. While items 3, 6, 8 and 9 are not problems encountered by students.

4.3   SUMMARY OF MAJOR FINDINGS

1. There is evidence from the tables that, different types of electronic information resources such as e-journals, e-newspapers, Online Public Access Catalogue (OPAC), CD-ROM databases, e-magazines, e-books, online databases, e-research reports, virtual library online, science direct online, and Ebscohost reference database are available for research by students in Francis Sulemanu Idachaba Library University of Agriculture, Makurdi.

2. The electronic information resources are available for research by students to a great extent.

3. Majority of the respondents indicates that, e-journals, e-newspapers, Online Public Access Catalogue (OPAC), CD-ROM databases, e-magazines, e-books, online databases, e-research reports, virtual library online, science direct online, and Ebscohost reference database are all accessible by students for research in Francis Sulemanu Idachaba Library University of Agriculture, Makurdi.

4. Majority of the respondents agreed that, they utilized the available electronic information resources for research.

5. Findings from the study revealed that, inadequate computers in the library, poor internet connectivity, limited subscribed titles, power outages, difficulty to access and use, lack of relevant e-resources in various disciplines as well as no assistance from the library staff are the problems encountered by students while accessing and using electronic information resources for research in Francis Sulemanu Idachaba Library University of Agriculture, Makurdi.

4.4   DISCUSSION OF FINDINGS

Research question one was to ascertain the type of electronic information resources available for research by students in Francis Sulemanu Library University of Agriculture, Makurdi. Findings revealed that, e-journals, e-newspapers, Online Public Access Catalogue (OPAC), CD-ROM databases, e-books, online databases, e-research reports, virtual library, science direct online, as well as Ebscohost reference databases. The findings of this study is in agreement with Amankwah (2014) who revealed that electronic resources such as CD-ROM's, resources on the internet such as e-journals, OPAC, e-research reports, online databases, e-

books, as well as other computer based electronic networks are available in academic libraries for research. The findings also conforms to Edem and Egbe (2016) who revealed that electronic resources were available in University of Calabar library. They further indicates that, virtual library online, e-journals, Ebscohost reference databases, and also online databases that were accessible are science direct, Nigerian virtual library, OARE, AJOL, SAGE-OPEN and TEEAL.

Research question two was to ascertain the extent of availability of electronic information resources for research by students in Francis Sulemanu Idachaba Library University of Agriculture, Makurdi. Findings revealed that, electronic information resources are available by students for research to a great extent in Francis Sulemanu Idachaba Library University of Agriculture, Makurdi. The findings support Edem and Egbe (2016) who revealed that, to a great extent, electronic resources were available in the University of Calabar library. This also relates to Lefuna (2017) who revealed that e-resources such as OPAC, e-journals, full text databases, CD-ROM databases were available to a very large extent for students to access in conducting research and other scholarly works.

Research question three was to determine the extent of accessibility of electronic information resources for research by students in Francis Sulemanu Idachaba Library University of Agriculture, Makurdi. Findings revealed that, majority of the respondents indicates that, e-journals, e-newspapers, Online Public Access Catalogue, CD-ROM databases, e-research reports, virtual library online, science direct online and Ebscohost reference database are all accessible by students for research in Francis Sulemanu Idachaba Library University of Agriculture, Makurdi. This finding agreed with the report of Quadri, Adetimirin and Idowu (2014) who revealed that electronic information resources such as online databases, online journals, e-book, e-newspapers, e-research reports were available and accessible by students in academic libraries to a very great extent. This also corroborate with Ibrahim (2006) who revealed that, electronic information resources are highly accessible by students with the highest frequency in the two MTN Universities connect libraries studied. Furthermore, Lefuna (2017) also established that e-resources are mostly accessible by students in University libraries.

Research question four was to evaluate the extent of utilization of electronic information resources for research by students in Francis Sulemanu Idachaba Library University of Agriculture, Makurdi. Findings revealed that, majority of the respondents utilized the available electronic information resources for research in Francis Sulemanu Idachaba Library University of Agriculture, Makurdi. This collaborates with Luambano et al (2004) who revealed that the users of academic libraries are increasingly utilizing electronic information resources as more access points are made available. They further indicates that at least 86% of users were using electronic information resources and services to browse the world wide web to access various online resources, though most of them depends heavily on search engines. The findings also relates with Edem and Egbe (2016) who revealed that electronic resources were available in University of Calabar library and students utilize them for research and other academic purpose.

Research question five was on problem encountered by students while accessing and using the electronic information resources in Francis Sulemanu Idachaba Library University of Agriculture, Makurdi. Findings revealed that, inadequate computers in the library, poor internet connectivity, limited subscribed titles, power outages, difficulty to access and use, lack or relevant e-resources in various disciplines as well as no assistance from the library staff were the problems encountered by the students. This finding agreed with the report of Ankrah and Atuase (2018) that, poor internet connection, power outages in the library, insufficient skills, limited subscribed titles, as well as inadequate computers are hindrance to effective access and use of electronic resources in academic libraries. This also collaborates with Edem and Egbe (2016) who also reported that, inconsistent internet connectivity, slow network, lack of computer skills, power outages and irrelevant electronic information resources were the problems students' encountered while accessing and using electronic resources in University of Calabar Library.

CHAPTER FIVE

5.0   SUMMARY, CONCLUSION AND RECOMMENDATION

This chapter presents summary of the study, conclusion, recommendation in line with the findings of the study, and suggestions for further studies.

5.1   SUMMARY

The study was conducted on the availability, accessibility and use of electronic information resources for research by students in Francis Sulemanu Idachaba Library University of Agriculture, Makurdi. The specific objectives of the study were to; ascertain the type of electronic information resources available for research by students in Francis Sulemanu Idachaba Library University of Agriculture, Makurdi, ascertain the extent of availability of electronic information resources for research by students in Francis Sulemanu Idachaba Library University of Agriculture, Makurdi, determine the extent of accessibility of electronic information resources for research by students in Francis Sulemanu Idachaba Library University of Agriculture, Makurdi, evaluate the extent of utilization of electronic information resources for research by students of Francis Sulemanu Idachaba Library University of Agriculture, Makurdi and lastly, find out the problems encountered by students whiles

accessing and using the electronic information resources for research in Francis Sulemanu Idachaba Library University of Agriculture, Makurdi. Five (5) research questions were raised in line with the objectives of the study.

The study was hinged on Technology Acceptance Model (TAM) which was developed by Davis in the year 1993 and its concept is derived from the Theory of Reasoned Behavior (TRB) proposed of Priyanka and Kumar in 2013. The purpose of TAM is to predict user acceptance of technology by using two technology related factors, perceived usefulness and perceived ease of use. This study adopted TAM as a theoretical framework because the diffusion theory offers little information on the factors that influence user acceptance. TAM has been successfully tested on a wide variety of technologies including information systems computer applications. The study reviewed that, University libraries in Benue State had electronic information resources available for students' research.

The study adopted survey research design, the population of the study was 7952 students' who are registered users of the library. However, a sample size of 381 users were drawn from the entire population using simple random sampling method and Taro Yamenes formulae was used to determine the sample size from the population. The instrument for data collection was a checklist and questionnaire developed by the researcher and validated (face and content validity) by two lecturers in the field of library science and information technology, Gboko polytechnic – Makurdi Centre. The instrument was tried and tested on 20 students (respondents) of Benue State University, Makurdi which has the same characteristic of the population under study. Cronbach Alpha method of reliability was used to determine the internal consistency of the instrument which yielded a reliability coefficient of 0.769. Data collected for the study was analyzed using Descriptive Statistics of frequency counts, simple percentages and mean scores to answer the research questions.

The findings of the study revealed the following:

5.2   CONCLUSION

Based on the results of the findings, it was concluded that, electronic information resources such as e-journal, e-newspapers, Online Public Access Catalogue (OPAC), CD-ROM database, e-magazines, e-books, online databases, e-research reports, virtual library online, science direct online as well as Ebscohost reference database were available for research by students in Francis Sulemanu Idachaba Library University of Agriculture, Makurdi. Also, electronic information resources are to a great extent available, accessible and utilize for research by students for research and finally, there problems encountered by students while accessing and using the available electronic information resources for research by students such as inadequate computers in the library, poor internet connectivity, difficult to access and use, limited subscribed titles, power outages, lack of relevant e-resources in various disciplines as well as no assistance from the library staff. In order to alleviate these problems to ensure maximum use of e-resources in Francis Sulemanu Library, the library management should put in place mechanisms to ensure that electronic information resources are fully accessed and utilized by students (users).

5.3   RECOMMENDATIONS

Based on the findings of the study, the following recommendations were made:

i.   Efforts should be made by the University Administrators and Library Management to improve on the band width and enhance the internet connectivity so as to enable the students have easy access to online e-resource.

ii.   Trained personnel's should be on ground to assist the students in the use of the available e-resources in the University Library.

iii.   The University Management should provide adequate funds for subscription to electronic journals. Appropriate databases related to faculty and students fields of study should be subscribed to address the limited subscribed titles.

iv.   Appropriate user education should be organized for students for better use of electronic information resources in the library.

v.   Inverter and battery system should be installed in the electronic library to ensure regular power supply.

vi.   Users (students) should be made to understand that even if they cannot use a computer system, staff would assist them to meet their information needs.

5.4   LIMITATIONS OF THE STUDY

In the course of carrying out this investigation, the researcher was faced with financial challenge and lack of time to conduct a comprehensive research. Another limitation the researcher encountered was unwillingness of respondents to complete the questionnaire since most of them say they were still on strike. However, through several attempts of persuasion, they finally completed them.

5.5   SUGGESTIONS FOR FURTHER STUDIES

Based on the findings and conclusion of the study, the following areas/topics have been suggested for further research:

i.   Availability, accessibility and use of electronic information resources for research by students in Universities in Benue State, Nigeria.

ii.   The perceived impact of electronic information resources on research output of students in universities in North – Central zone of Nigeria.

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