Winter 11-25-2020

Availability and Utilization of Digital Reference Resources by Postgraduate Students in University Libraries in Benue State, Nigeria.

AGADA ERIC OJOBO (CLN)
FEDERAL UNIVERSITY OF AGRICULTURE, MAKURDI, ericagada41@gmail.com

TOFI SIMON TERNENGE (CLN)
BENUE STATE SCHOOL OF NURSING, MAKURDI (LIBRARY DEPARTMENT), ternengetofi@gmail.com

EMMANUEL TUNDE MAKINDE
NILE UNIVERSITY OF ABUJA, temmanuel@yahoo.com

Availability and Utilization of Digital Reference Resources by Postgraduate Students in University Libraries in Benue State, Nigeria.

BY

AGADA, ERIC OJOBO (CLN)

Federal University of Agriculture, Makurdi

Email: ericagada41@gmail.com

TOFI, SIMON TERNENGE (CLN)

Benue State School of Nursing, Makurdi

Email: ternengetofi@gmail.com

&

EMMANUEL TUNDE MAKINDE

Nile University of Abuja

Email: temmanuel@yahoo.com

ABSTRACT

The study investigated availability and utilization of digital reference resources by postgraduate students in university libraries in Benue State, Nigeria. Four (4) specific objectives with corresponding research questions guided the study and hypothesis was formulated and tested at 0.05 level of significance. The study adopted a survey research design. The population of the study comprises nine (9) digital reference librarians and eight hundred and twenty six (826) postgraduate students in universities in Benue State. The sample size of 269 postgraduate students and all the 9 digital reference librarians were used for the study. The instrument for data collection was a self-developed structured questionnaire titled "Availability and Utilization of Digital Reference Resources Questionnaire" (AUDRRQ). Data collected was analyzed using Frequency Counts, Percentages, Means and Standard Deviation to answer the research questions and Chi-Square statistic to test the hypothesis at 0.05 level of significance. Findings of the study revealed that, the digital reference resources available in university libraries in Benue State include, Compact Disk Read only memory (CD-ROM), Electronic Journals (e-journal), Electronic Books (e-books), Electronic Thesis (e-thesis), Internet, Databases, printers, scanners, television, telephones, storage device like Flash Drive and human ware (Digital Reference Librarian) among others. The finding also revealed that postgraduate students significantly utilize the available digital reference resources to a high extent in university libraries in Benue State. Further, the finding revealed the challenges that hinder the utilization of digital reference resources in university libraries in Benue State include, lack of fund for purchasing electronic resources, inadequate/irregular power supply, lack of technical know-how, lack of preservation policy and high cost of maintenance of resources among others. The study concluded that, postgraduate students in universities in Benue State highly utilize the available digital reference resources. Finally, recommendations were made based on the findings of the study.

Keywords: Availability, Utilization, Digital Reference Resources, Postgraduate students, University Libraries.

1.1 Introduction

Universities are the foremost tertiary institutions in Nigeria with responsibility for equipping people with knowledge and skills to undertake tasks and employment functions which are necessary for transformation of societies. University is established primarily to support and cater for teaching, learning and research activities of parent institution. The functions of university in Nigeria include: teaching, research, production of texts, certification, storage and retrieval of knowledge, community service and enlightenment service. The vision, mission and strategies which are adopted by universities as a guide for meeting the core function of teaching, learning, research and providing information form the foundation on which the role of the university library is established.

University libraries are the bedrock upon which any university is built. In the university, library occupies a unique position as it manages the intellectual product of the university. The university library is a repository of resources; it is an integral part of the educational system whose primary function is to serve users (Oriogu, 2015). The major aim of university library according to Oriogu, Chukwuemeka and Oriogu-Ogbuiyi (2018) is to promote the tripartite objectives (teaching, learning and research) of education through the provision of adequate and relevant information resources in both print and non-print format. This is why Shehu, Urhefe and Aworo (2015) stated that university libraries stand to support teaching, learning and research in ways consistent with, and supportive of the institution's mission and goals. In the view of the authors, these institution's mission and goals are enhanced by university libraries provision of reference resources and services. As quality education depends on the current and relevant information resources and services, university libraries ensure reference resources and services are readily available and accessible to users' community.

University libraries are major access points in the provision of reference resources and for quality teaching, learning and research. While reference resources are information bearing materials in personnel, prints and electronic form used by reference librarians to provide access to specific information for users, reference services are services that deal with the assistance given to users in finding information, answering questions, and otherwise fulfilling users' information needs. The ultimate goal of reference resources and services is to provide accurate and specific information in the shortest possible time (Makinde, Aba & Ugah, 2017). It is suffced to state that, reference and information services have always been the main component of library services. They provide personalized assistance to library users in accessing suitable information resources to meet their needs. Traditionally, the librarian's function was to assist in the collection development and acquisition, cataloguing and classification, circulation, provision of reference resources and services, and preservation, conservation and archiving. As the library evolves into the digital library, reference librarians have been considering how to adjust reference resources and services.

The reference environment of the library is being transformed by rapid developments in information and communication technologies (ICTs), as collection and information in general become increasingly accessible electronically. Chowdhury and Margariti (2004) noted that the introduction and development of the Internet and its associated Web technologies in the past decade have significantly influenced both the way libraries provide reference information resources and services to their users and the way users choose to access information. This could be why Ekere (2014) asserted that the university library plays an important role in

complimenting research by funding, provision of facilities and dissemination of information and does not just acquire books and journals and offer space for students learning, but they also provide systematically digitized information resources and services which help in prolonging the life of the university information resources. In line with this, university libraries have subscribed to the use of digital reference information resources and services to meet her users' information needs.

Digital reference resources are resources which are accessed through electronic system and computer network. Okoro (2008) viewed digital information resources as library materials produced in digital formats, such as e-journals, e-books, reference work published online and CD-ROM, bibliographic databases, and other web based resources. This view is shared by Shariful (2012) who sees digital information resources as those resources that deal with both born electronic and digitized materials which can be either accessible from library's in house databases or from the world -web-web. The born electronic materials includes: e-books, e-journals, e-magazine, e-projects, e-thesis, e-dissertations, e-reports, websites, WWW-resources and other related materials which can be converting the materials formats into digital format" Popoola and Haliso in Adeoye (2011) revealed that library digital information resources available in the university libraries in Nigeria include: Compact Disc Read Only Memory (CD-ROM), databases, videotapes, cassettes, diskettes, magnetic disks, Internet/email, microfiche and microphones among others. Akpojotor (2016) assert that these digital information resources can be seen as the most recent development in information technology and that they are available in various forms like e-library, digital libraries, online journal magazine, e-learning tutors and online test. The digital information resources are made available in university libraries to assist users finding information relevant to their needs. These resources provide 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.

It is worthy of note that Digital Information Resources play a prominent role in facilitating access to required information by the users in an easy and expeditious manner of students. Negahban and Mysore in Urhiewhu, Okeke and Nwafor (2015) asserted that digital Information Resources (DIRs) and Services in reality have become the backbones of many academic institutions. With reference to services, they are the bridge between library resources and users. They serve as a motivating factor to students as they provide them opportunity to transmit, acquire or download, process and disseminate information on any subject of interest. Ukachi, (2011) stated that, the use of Digital Information Resources aid the users to keep abreast with current developments in their respective subject fields, in contrast with print media which are not regularly updated like the electronic ones. In most Nigerian universities, digital information resources are integral part of the electronic library and stand as vital academic resources that support teaching, learning and research activities.

University libraries, as they become more and more digitized, play important roles in offering greater support service for her users among which are Professors, Academic Doctors and staff, postgraduates students as well as Undergraduates to help in the development of their academic careers. Among the users, the focus is on postgraduate students. Postgraduate students are students who are studying a postgraduate course, including a master's course, an MPhil (Master of Philosophy) and a PhD (Doctor of Philosophy) that requires an undergraduate degree

as part of the entry requirements. The goal of postgraduate study in any university is for further development of graduate students with the spirit of enquiring knowledge through training and research in an atmosphere of intellectual independence and individual creativity with a strong sense of group cooperation (Lateef, Omotoso and Owolabi, 2013). Ndubuisi and Udo (2013) revealed that postgraduate students were motivated to use electronic resources in their university libraries because they found them to be more informative, easy to access and use, saves time, more useful and less expensive. Ramana (2006) indicated that a large majority of students use online journals for preparing project reports and for listing references. This shows that postgraduate students, irrespective of their field of work, have information needs in their various levels of studies and research. This report by the authors imply that, postgraduate students in Nigerian Universities are motivated users of digital information resources and services, hence their choice as participants for this study.

Availability and utilization of digital information resources is key to the success of postgraduate studies in any institution and the library plays the central role in making information available and accessible. While availability of digital information resources relates to the provision for and inclusion of the resources in the collection of the libraries at the disposal of users in academic institutions, utilization refers to the extent library users exploit and benefit from reference resources in different formats to satisfy their information needs. In a study conducted by Edem and Egbe (2016) on availability and utilization of electronic resources by Postgraduate Students in a Nigerian University Library, a great extent of availability of digital information resources was reported. However, in a study conducted by Ojo and Akande (2005), they drew a conclusion from their research that the level of usage of electronic information resources among students was low. Availability and effective utilization of information resources by students enhances knowledge and overall academic performance. Thus, utilization of appropriate digital information resources plays an important role in the achievement of educational goals.

In spite of perceived availability of digital information resources in universities and their benefits to university education, their effective utilization by postgraduate library users in Nigeria appears to be hampered by different factors (Ndubuisi and Udo, 2013). The authors reported challenges which borders on insufficient computers with Internet facilities, incessant power outage, slow Internet connectivity, and lack of ICT skills, inadequate ICT infrastructure and difficulty in finding relevant information as militating against the utilization of digital resources by postgraduate students.

The importance of digital information resources to students and university libraries cannot be over emphasized. They offer 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.

Review from extant literature has shown that, libraries are gradually getting digitized with comprehensive and free scholarly resources than those that some websites could provide. Today, it is very common to find digital information resources in university libraries in Nigeria and Benue State in particular. Casual observation made by the researcher revealed that university libraries in Benue state have acquired digital reference resources and made them readily available to support post-graduate students' academic activities. However, researchers have

4

shown that, their availability does not necessary equates their utilization. From the forgoing therefore, the pertinent issues that warranted this investigation are: What are the digital resources available for postgraduate students in Universities in Benue State? To what extent are the digital resources utilized by postgraduate students in universities in Benue State? It is also the concern of this study to investigate the challenges that affect the availability and postgraduate student utilization of digital resources and proffer suggestions that can be used to ameliorate the challenges through recommendation of the study.

1.2 Statement of the Problem

The 21st Century has experienced a remarkable proliferation of digital resources which have tremendously change the information seeking attitude of students and researchers globally. In recent times, digital reference resources have been identified as the major sources for information dissemination in the universities, especially for researchers. The new trend in the use of technology is the adoption of digital information resources in university libraries. The provision of digital reference information resources is vital in the role university libraries play and the services they offer to the university community. Digital reference resources are therefore powerful teaching and learning tools in university education. They are efficient for activating students, and they provide tools for life-long learning.

Despite the place of digital reference resources in university libraries, it has been reported that Nigerian universities are lagging behind their counterparts in western countries in terms of use of digital reference resources (Adams, King and Hook, 2010). Part of the problems has been attributed to inadequate modern ICT infrastructural facilities in Nigerian universities leading to low levels of availability and utilization of digital reference resources by postgraduate students. The consequences of these prevailing situation manifests in the difficulties of post-graduate students preparation of seminar papers, learning, obsolescence of academic and research works, low productivity and possibly degrading of academic standard, a situation which could impede growth in the library and post-graduate education.

Also, the researchers observed that, most postgraduate students in university libraries in Benue State make little or no use of digital resources provided by the university libraries. Could this be that the digital reference resources are not available in the universities? The problem of this study therefore is to identify the digital reference resources available in the university libraries in Benue State and also the extent to which the postgraduate students utilize these resources for the academic activities. It is also the concern of this study to investigate the challenges that affect the availability and utilization of the digital reference resources and suggest ways of ameliorating the challenges through the recommendation of the study.

1.3 Objectives of the Study

The main purpose of this study is to investigate the availability and utilization of digital reference resources in university libraries in Benue State. Specifically, the study sought to:

1. Determine the types of digital reference resources available to postgraduate students in universities in Benue State.
2. Ascertain the extent of utilization of digital reference resources by postgraduate students in universities in Benue State.
3. Identify the challenges that hinders the utilization of digital reference resources by postgraduate students in universities in Benue State.

4. Determine the strategies for enhancing the utilization of digital reference resources in universities in Benue State.

1.4 Research Questions

In an attempt to achieve the purpose of this study, answers were sought for the following:

1. What are the types of digital reference resources available to postgraduate students in universities in Benue State?
2. To what extent do postgraduate students utilize digital reference resources in universities in Benue State?
3. What are the challenges that hinder the utilization of digital reference resources by postgraduate students in universities in Benue State?
4. What are the strategies for enhancing the utilization of digital reference resources and services in universities in Benue State?

1.5   Statement of Hypothesis

The following hypothesis were formulated for the study and tested at 0.05 level of significance;

1. Postgraduate students do not significantly utilize the available digital reference resources in university libraries in Benue State.

1.6 Scope of the Study

The study focuses on the availability and utilization of digital reference resources by postgraduate students in university libraries in Benue State. The study concentrates only on university libraries, leaving out all the other type of libraries in the state. The content scope for the study are limited to: availability of digital reference resources, extent of utilization of digital reference resources, challenges hindering the utilization of digital reference resources, and strategies for enhancing digital reference resources utilization in university libraries in Benue State. The population for the study was confined to all digital reference librarians and post graduate students in three universities under study in Benue State (i.e. Federal University of Agriculture,Makurdi; Benue State University, Makurdi and University of Mkar, Mkar).

2.1   Review of Literature Review

Empirical studies have been conducted within and outside Nigeria on the availability and use of digital reference resources in libraries.

A study was conducted by Urhiewhu (2014) to investigate the availability and use of digital information resources by undergraduates of universities in Delta and Edo States. The major findings revealed that, Digital Information Resources (DIRs) were available in the university libraries visited by the researcher such as e-conference papers, e-zines, e-newsletters e-reference materials, e-projects, e-journals, e-seminar papers, e-books and e-dissertation. More specifically, Ambrose Alli University Library (AAU) have ten (10) types of DIRs; John Harrison Library in University of Benin (UNIBEN) eight of DIRs are available either through inter-library loan (ILL), or online subscription. Federal University Petroleum Resources Library do not have any of the DIRs because the digital library was just newly established and under structuring; but they are using it as cybercafé for students to search academic information with the internet facilities. The findings also revealed that students make use of DIRs to a low extent. The constraints encountered by students towards the accessibility of DIRs in the four libraries as revealed by the study are epileptic power supply, none availability of online databases, lack of formal training in internet skills among students, slow bandwidth, network problems and server slowness.

Implications of the findings were pointed out and some recommendations were made among which were that the university management of Federal University of Petroleum Resources Library (FUPR) and Delta State University Library (DELSU) should look into the development and growth of the digital library as a matter of urgency through the process of free downloading and subscription of databases online. University management of both federal and state institutions should vote a reasonable amount of fund to enable the library management buy all facilities needed for digital library to work effectively and efficiently.

Akpojotor (2016) also conducted a study to investigate the awareness and usage of electronic information resources among postgraduate students of library and information science in Southern Nigeria. The results obtained revealed that postgraduate students are quite aware and highly use electronic information resources. The study also reported that postgraduate LIS students are skilled in the use of electronic information resources. Based on the findings the study concluded that electronic information resources are essential tools for empowering postgraduate students of library and information science in Southern Nigeria.

Ankrah and Atuase (2018) conducted a study on the use of electronic resources by postgraduate students of University of Cape Coast. 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.

Similarly, Edem and Egbe (2016) examined the extent of availability and utilization of electronic resources by postgraduate (PG) students in the University of Calabar (UNICAL) Library. 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.

Adeleke and Nwalo (2017) carried out a study on availability, use and constraints to use of electronic information resources by postgraduates students at the University of Ibadan. Findings of the study revealed that, internet and email were ranked most available and used in the university. Low use of CD-ROM, electronic journals and e-books by postgraduate students at the University of Ibadan in spite of availability explained the notion that availability of information does not necessarily mean actual use. Low level of usage of electronic resources, in particular, full texts data bases was linked to lack of search techniques skills by many postgraduate students of the university to access the myriad of e-resources is evident from the findings of the study. Effective use of electronic information resources by postgraduate students at the University of Ibadan is being hampered by a number of factors. 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. There should be institutional commitment to overcome the identified constraints to use of electronic information resources by postgraduates students in order remain relevance in today's world of teaching, learning and research.

Quadri, Adetimirin and Idowu (2014) conducted a study on availability and utilization of library electronic resources by undergraduate students in private universities in Ogun State, Nigeria. The findings revealed that the internet was readily available in Babcock (83.5%) and Redeemer (92.8%), while other e-resources were not readily available. Most of the respondents in Babcock (64.0%) and Redeemer (89.1%) used the e-resources for assignment and research/project. Poor Internet connectivity, lack of relevant e-resources in various disciplines, erratic power supply, and lack of technical know-how were the major challenges faced by the respondents. The Internet and e-journals are important sources of information for both universities undergraduate students. Also, the availability and use of e-resources has no doubt contributed meaningfully to the information acquisition for class work, assignment and research needs of the students.

Chimah and Nwokocha (2013) conducted an investigation on Empirical study of motivation, challenges and strategies in the use of electronic information resources by postgraduate library users in South-east Nigerian Federal Universities. Findings of the study revealed that, electronic information resources were indicated as being available in the libraries of the four federal universities in South-East Nigeria. Some postgraduate students are aware but others are not aware of the available e-resources. Generally, this study revealed that the use of electronic information resources among postgraduate students is low. The study also reveals that awareness of the availability of electronic information resources services in the universities was not widespread among students and a significantly large percentage of students indicated they could not use EIRs in the universities due to either unawareness of their availability, lack

of ICT skills or other factors. University of Nigeria Nsukka (UNN) has larger number of the EIRs than the rest of the Universities studied.

Similarly, Makinde, Aba and Ugah (2017) carried out a study on accessibility and utilization of reference resources by fisheries undergraduate students university libraries in North-Central, Nigeria . Findings of the study reported that reference resources were available but extents of accessibility and utilization were generally low. Majority of the fisheries students were constrained by inadequate professional reference staff, outdated and irrelevant resources and waste of time when searching for materials. Findings revealed that the null hypothesis was rejected which implies that opinions of fisheries students on accessibility and utilization of reference resources differed significantly.

3.1   METHODOLOGY:

The design for this study is survey research design. The study was carried out in Benue State. The population of the study comprises nine (9) digital reference librarians and eight hundred and twenty six (826) postgraduate students of the three universities in the state who are registered library users. According to the user registration record of the various university libraries, University of Mkar Library has fifty three (53) Postgraduate library registered students, Federal University of Agriculture, Makurdi Library has two hundred and forty four (244) postgraduate library registered student and Benue State University Library has five hundred and twenty nine (529) postgraduate students registered with the library. (**Source**: BSUL, FSIL UAM, UMML, 2017/2018 Library User Registration Record). A sample size of two hundred and sixty nine (269) postgraduate students from the three universities and all the nine (9) digital reference librarians were used for the study. This sample size of the postgraduate students was determined using Taro Yamane formula. To arrive at the sample, multi-stage sampling procedure was adopted for the study. At the first stage, the proportionate stratified random sampling was used to compose the sample from the three universities in the state to ensure that, appropriate and proportionate population of the second year students in the universities were included in the sample. By this method, 79 postgraduate students were selected in Federal University of Agriculture, Makurdi and 173 students from Benue State University and 17 from University of Mkar, Mkar. At the last stage, the students were then composed using simple random sampling technique. The instrument for data collection was a self-developed questionnaire titled "Availability and Utilization of Digital Reference Resources Questionnaire" (AUDRRQ). The reliability of the questionnaire was established using Cronbach Alpha method and a reliability coefficient of 0.85 was obtained. This value showed that the questionnaire was highly reliable. Copies of the questionnaires were administered to the respondents by the researchers. This approach yielded a 100% return rate as all copies administered were retrieved. Data collected was analyzed using descriptive statistics of Frequency Count, Percentages and Mean and Standard Deviation to answer the research questions and a non-parametric statistic of Chi-square to test the hypothesis at 0.05 level of significance. The instrument which take the form of a continuum of Strongly Agree (SA), Agree (A), Disagree (2) and Strongly Disagree (SD), was scored thus; VHE=4, HE=3, LE=2 and VLE=1. The bench mark was 2.50.Therefore any item with a Mean value of 2.50 and above was considered 'High Extent/ Agreed" while those below 2.50 were considered "Low Extent/ Disagreed" For the Chi-square test of hypotheses, the decision was based on P-values and Alpha values. When P<.5, it was considered "Significant" and P>.05 was considered "Not Significant"

4.0 RESULTS AND DISCUSSION
4.1 Result
4.1.1 Research Question 1:

What are the types of digital reference resources available to postgraduate students in university libraries in Benue State? To answer this research question, data on the types of digital reference resources available to postgraduate students in university libraries in Benue State were collected and analyzed as presented on table 1.

Table 1: Frequency Counts and Percentages of Responses on the types of digital reference resources available to postgraduate students in universities in Benue State

		FREQUENCY PERCENTAGE (%)				
SN	ITEM	AV	NAV	AV	.VAV	DECISION
1	Compact Disk Read only memory (CD-ROM)	9	0	100	0.00	Available
2	Electronic Journals (e-journal)	9	0	100	0.00	Available
3	Electronic Books (e-books)	9	0	100	0.00	Available
4	Electronic Thesis (e-thesis)	9	0	100	0.00	Available
5	Internet	9	0	100	0.00	Available
6	Databases	9	0	100	0.00	Available
7	Printers	9	0	100	0.00	Available
8	Scanners	9	0	100	0.00	Available
9	Television	9	0	100	0.00	Available
10	Telephone	9	0	100	0.00	Available
11	Storage device like Flash Drive	9	0	100	0.00	Available
12	Human ware (Digital Reference Librarian)	9	0	100	0.00	Available
13	Electronic Dictionaries	9	0	100	0.00	Available
14	Computers	9	0	100	0.00	Available
	Grand Percentages			**100**	**0.0**	**Available**

Source: Field Work: 2019. AV=Available, NAV=Not Available

Table 1 shows the types of digital reference resources available to postgraduate students in university libraries in Benue State in Frequencies and Percentages. As revealed on the table, all the items (Items 1-14) have 100% response rate. This implies that all the digital reference resources presented to the post graduate students were available in university libraries in Benue State.

4.1.2 Research Question 2:

To what extent do postgraduate students utilize digital reference resources in university libraries in Benue State?

To answer this research question, data on the extent to which postgraduate students utilize digital reference resources in university libraries in Benue State were collected and analyzed as presented on table 2.

Table2: Mean and Standard Deviation Analysis of the extent to which postgraduate students utilize digital reference resources in universities in Benue State

S/No	Extent of Utilization	Mean (X)	Standard Dev.	Decision
15	Compact Disk Read only memory (CD-ROM)	2.98	.78	High Extent
16	Electronic Journals (e-journal)	3.02	1.01	High Extent
17	Electronic Books (e-books)	3.33	.88	High Extent
18	Electronic Thesis (e-thesis)	3.52	92	High Extent
19	Internet	2.68	.92	High Extent
20	Databases	2.41	1.10	Low Extent
21	Printers	2.34	.99	Low Extent
22	Scanners	2.41	.88	Low Extent
23	Television	3.22	.91	High Extent
24	Telephone	2.47	.97	Low Extent
25	Storage device like flash drive	2.28	1.00	High Extent
26	Human ware (Digital Reference Librarian)	3.00	1.02	High Extent
27	Electronic Dictionaries	2.73	.81	High Extent
28	Computers	2.80	.94	High Extent
	Cluster Mean	**2.84**	**.94**	**High Extent**

Source: Field Work, 2019

Table 2 shows the extent to which postgraduate students utilize digital reference resources in university libraries in Benue State in Mean and Standard Deviations. From the table as indicated, except for items 20, 21, 22, and 24 with Mean values of 2.41, 2.34, 2.41 and 2.47 which are below the benchmark of 2.50, other items (15, 16, 17, 18, 19, 23, 25, 26, 27, and 28) are utilized by the postgraduate students to a high extent. The table also reveals standard deviation values with close ranges from .78 – 1.10 which shows the homogeneity of the data collected from the respondents. Further, the table revealed a cluster Mean of 2.84 and SD = .94. With this cluster Mean of 2.84, it implies that the extent to which postgraduate students utilize digital reference resources in university libraries in Benue State is high.

4.1.3 Research Question 3:

What are the challenges that hinder the utilization of digital reference resources in university libraries in Benue State?

To answer this research question, data on the challenges that hinder the utilization of digital reference resources in university libraries in Benue State were collected and analyzed as presented on table 3:

Table 3: Mean and Standard Deviation Analyses of the challenges that hinder the utilization of digital reference resources in university libraries in Benue State.

S/No	Challenges	Mean (X)	Standard Dev.	Decision
29	Poor internet connectivity	3.78	.92	Agree
30	Inadequate/irregular power supply	3.64	.80	Agree
31	Lack of awareness about the digital library	2.88	.83	Agree
32	Lack of knowledge in the use of the information system	2.41	.81	Disagree
33	Lack of information retrieval skills	2.20	.87	Disagree
34.	Poor user interface of the system	3.21	.81	Agree
35.	Inappropriate search engine	3.41	.971	Agree
36.	Outdated relevant resources	3.37	.80	Agree

Source: Field Work 2019

Table 3 shows the challenges that hinder the utilization of digital reference resources and services in university libraries in Benue State in Mean and Standard Deviations. From the table as indicated, items 29, 30, 31, 34, 35, and 36 with Mean values ranging from 2.88-3.78 which are above the benchmark of 2.50 are considered is the challenges hinder the utilization of digital reference resources in university libraries in Benue State.

4.1.4 Research Question 4:

What are the strategies for enhancing the utilization of digital reference resources in university libraries in Benue State?

To answer this research question, data on the strategies for enhancing the utilization of digital reference resources in university libraries in Benue State were collected and analyzed as presented on table 4.

Table 4: Mean and Standard Deviation Analyses of the strategies for enhancing the utilization of digital reference resources in universities in Benue State.

S/No	Strategies	Mean (X)	Standard Dev.	Decision
37	Provision of good internet facilities	3.66	.97	Agree
38	Adequate/regular power supply through use of stand-by generator	3.75	.97	Agree
39	Creation of awareness about the digital library	2.89	.80	Agree
40	Assisting users in the use of the information system	3.42	.89	Agree
41	Provision of information retrieval skills through user education programmes.	2.95	.88	Agree
42	Provision of appropriate search engine	3.31	.92	Agree

Source: Field Work, 2019

Table 4 shows the strategies for enhancing the utilization of digital reference resources in university libraries in Benue State in Mean and Standard Deviations. From the table as indicated, items 37-42 with Mean values ranging from 2.89 - 3.77 which are above the benchmark of 2.50 are considered the strategies for enhancing the utilization of digital reference resources in university libraries in Benue State.

4.1.5 Hypothesis: Postgraduate students do not significantly utilize the available digital reference resources in university libraries in Benue State.

Table 5: Chi-Square Test of Influence of utilization of the available digital reference resources in university libraries in Benue State.

	Df	x^2cal	Sig	Alpha Level	Remark
Pearson Chi-Square	39	244.341	.000	.05	Significant
Number of Valid Cases	269				

Df = Degree of Freedom; x^2cal = Chi-Square Calculated Value; Sig = P-Value

Table 5 shows the Chi-square calculated value of 244.341, degree of freedom df=39 and a sig (P-value=0.00) which is less than the alpha value (a=.05). Since P<.05, the result is significant, therefore the null hypothesis is rejected. This implied that, postgraduate students significantly utilize the available digital reference resources in university libraries in Benue State.

4.2   Summary of Major Findings

The following findings emanated from the study based on the research questions answered and the hypothesis tested:

1. The digital reference resources available in university libraries in Benue State include, Compact Disk Read only memory (CD-ROM), Electronic Journals (e-journal), Electronic Books (e-books), Electronic Thesis (e-thesis), Internet, Databases, printers, scanners, television, telephones, storage device like Flash Drive, human ware (Digital Reference Librarian), electronic dictionaries and computers.

2. Postgraduate students significantly utilize the available digital reference resources in university libraries in Benue State.

3. The challenges that hinder the utilization of digital reference resources in university libraries in Benue State include, poor internet connectivity, inadequate/irregular power supply, lack of awareness about the digital library, poor user interface of the system, inappropriate search engine, outdated relevant resources, inadequate reference librarians, unavailability of a functional interactive chat box stream, lack of professional skills and lack of professionalism of reference librarians.

4. The strategies for enhancing the utilization of digital reference resources in university libraries in Benue State include, provision of good internet facilities, adequate/regular power supply through use of stand-by generator, creation of awareness about the digital library, assisting users in the use of the information system, provision of information retrieval skills through user education programmes, provision of appropriate search engine, provision of current and relevant resources, ensuring adequate training for reference librarians to update their skills through in-service training, provision of professional skills to reference librarians through workshop and seminars, ensuring positive attitudes of Librarians towards digital reference services, provision of a functional interactive chat box stream and ensuring adequate reference librarians are employed.

4.3   Discussion of Findings

Based on the findings derived from the study, the following were discussed.

Findings of the study as shown on table 1 revealed that the digital reference resources available in university libraries in Benue State include, Compact Disk Read only memory (CD-ROM), Electronic Journals (e-journal), Electronic Books (e-books), Electronic Thesis (e-thesis), Internet, Databases, printers, scanners, television, telephones, storage device like Flash Drive, human ware (Digital Reference Librarian), electronic dictionaries and computers. This finding corroborates with that of Urhiewhu (2014) whose study availability and use of digital information resources by undergraduates of universities reported the available digital reference resources to include e-conference papers, e-zines, e-newsletters e-reference materials e-projects, e-journals, e-seminar papers, e- books and e-dissertation. The finding however disagree with that of Adeleke and Nwalo (2017) who studied availability, use and constraints to use of electronic information resources by postgraduates students and reported that E-books, OPAC and DATAD (database of thesis and dissertation) were not available. This finding as observed could be that university libraries in Benue State have been up and doing as regarding the provision of digital reference resources for her users.

Finding of the study as shown on table 2 revealed that, postgraduate students to a high extent utilized the available digital reference resources in university libraries in Benue State. In

a similar vein, a related test of hypothesis as shown on table 5 revealed that the postgraduate students significantly utilize the available digital reference resources. This finding agrees with that of Akpojotor (2016) who investigated the awareness and usage of electronic information resources among postgraduate students and reported that postgraduate students highly use electronic information resources. Similarly, the finding agrees with that of Quadri, Adetimirin and Idowu (2014) whose study on availability and utilization of library electronic resources by undergraduate students reported that there was high level of utilization of e-journal and internet. The finding disagree with that of Urhiewhu (2014) whose study on availability and use of digital information resources by undergraduates of universities reported that students make use of DIRs to a low[7] extent. The finding also disagree with that of Adeleke and Nwalo (2017) whose study on availability, use and constraints to use of electronic information resources by postgraduates students reported low level of usage of electronic resources. This finding as observed could be that the digital reference resources are essential tools for empowering postgraduate students' academic work in universities in Benue State.

The fourth finding of the study revealed that the challenges that hinder the utilization of digital reference resources in university libraries in Benue State include, poor internet connectivity, inadequate/irregular power supply, lack of awareness about the digital library, poor user interface of the system, inappropriate search engine, outdated relevant resources, inadequate reference librarians, unavailability of a functional interactive chat box stream, lack of professional skills and lack of professionalism of reference librarians. This finding is in tandem with that of Urhiewhu (2014) who reported the constraints encountered by students towards the use of DIRs to include epileptic power supply, none availability of online databases, lack of formal training in Internet skills among students, slow bandwidth, network problems and server slowness. Similarly, the finding corroborate with that of Makinde, Aba and Ugah (2017) who reported that students were constrained by inadequate professional reference staff, outdated and irrelevant resources and waste of time when searching for materials in the use of reference resources. In the same vein, Chimah and Nwokocha (2013) whose study on motivation, challenges and strategies in the use of electronic information resources by postgraduate library users reported challenges to use of resources to include insufficient computers with internet facilities; incessant power outage; slow internet connectivity; lack of ICT skills; difficulty in finding relevant information and inadequate IT infrastructure. This finding as observed implies that a plethora of challenges affects the utilization of digital reference resources in university libraries in Benue State.

Lastly, the findings of the study revealed the strategies for enhancing the utilization of digital reference resources in university libraries in Benue State to include provision of good internet facilities, adequate/regular power supply through use of stand-by generator, creation of awareness about the digital library, assisting users in the use of the information system, provision of information retrieval skills through user education programmes, provision of appropriate search engine, provision of current and relevant resources, ensuring adequate training for reference librarians to update their skills through in-service training, provision of professional skills to reference librarians through workshop and seminars, ensuring positive attitudes of Librarians towards digital reference services, provision of a functional interactive chat box stream and ensuring adequate reference librarians are employed. Etim (2006) advanced that since electricity power supply is the basis for effective utilization of digital information

resources, the federal government of Nigeria should do everything within its powers to stabilize electricity supply in the country. Alternative power supply should be provided by libraries and maintained at all times. Universities should also ensure high internet connectivity, provide adequate computers, introduce adequate use of digital reference services and other audio-visual resources that can help to address the information needs of users. This finding agrees with that of Chimah and Nwokocha (2013) whose study on motivation, challenges and strategies in the use of electronic information resources by postgraduate library users reported strategies to improve motivation to use of EIRs, among others include: increase ICT infrastructure/facilities; stable electrical backup, information literacy training for users. As observed from this finding therefore, putting the right mercenaries in place such provision of current and relevant resources and ensuring adequate training for reference librarians to update their skills through in- service training among others can enhance the utilization of digital information resources in university libraries in Benue State.

5.0   Conclusion and Recommendations
5.1   Conclusion

Based on the findings of the study, the researchers concluded that, digital reference resources are highly available in university libraries in Benue state. Also, postgraduate students in universities in Benue State highly utilize the available digital reference resources. However, they are plethora of challenges hindering the effective utilization of digital reference resources in university libraries in Benue state.

5.2   Recommendations

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

1. University management should ensure adequate funding of university libraries to enhance the availability of digital reference resources. The provision of these resources presents an opportunity for postgraduates and indeed all library users to count on the library in its capacity to provide relevant information in electronic format.

2. University libraries should provide programmes that could train their students in up-to-date 21st century skills of Information Communication technologies (ICTs). This will help to solve the problems of ICTs skills among postgraduate students.

3. The management of university libraries should ensure alternative sources of electricity like inverters, solar and power generating sets are provided to address the issue of erratic power supply in the library.

4. University and library management should ensure adequate and qualified reference librarians are employed to serve the information needs of students.

5. The use of digital library should be given more attention by the library management during orientation for library users. University libraries should create awareness during orientation programmes about the availability of new e-resources or additions of new databases for user of the library. This will enhance users' use of the resources.

6. University management should ensure digital reference resources are up-to-date in the library so as to encourage patrons to use the resources for research and information acquisition.

7. University libraries in Benue State should incorporate library digitization into their policies and plans to maximize its effectiveness.

REFERENCES

Adeleke, D. S. & Nwalo, H. I. N. (2017). Availability, Use and Constraints to Use of Electronic Information Resources by Postgraduates Students at the University of Ibadan. *International Journal of Knowledge Content Development & Technology* 7(4), 51-69

Adeoye, M.O. (2011). Teaching Effectiveness, Availability, Accessibility and Use of Library Services. *Library Philosophy and Practice, 201.* Available at http://.unllib.unl.edu/lpp

Akor, P, & Alhassan, J. (2015). Evaluation of reference services in academic libraries: A comparative analysis of three universities in Nigeria. *Journal of Balkan Libraries Union*, 3 (1), 24-29. Retrieved from http://dergipark.org.tr/jblu/issue/18610/196405

Akpojotor, L. O. (2016). Awareness and Usage of Electronic Information Resources among Postgraduate Students of Library and Information Science in Southern Nigeria. *Library Philosophy and Practice (e- journal).* Retrieved from http://digitalcommons.unl.edu/libphilprac/1408

Ani, O & Edem, N. (2012). Access and usage of Online Databases in Nigerian Universities in Teaching/ Research. *Library and information Practitioner,* 5(1x2): 475-486.

Ankrah, E & Atuase, D. (2018). The use of Electronic Resources by postgraduate students of the University of Cape Coast. *Library Philosophy and Practice (e-journal).* Available https://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=4675&context=libphilprac

Atamma, R. O. (2013). Library Resources Utilization and Publication Output of Academic Staff of Polytechnics in South-East and South-South. Ph.D. thesis. Department of Library and Information Science, University of Nigeria, Nsukka, Nigeria. 101pp.

Bassev. R. S. and Odu, J. O. (2015). "Evaluation of the extent of utilization of electronic library resources and services by undergraduate students in university of Calabar library, Calabar - Nigeria". *Education Journal*, 4 (2), 82-89.

Berube, L. (2003) *Digital Reference Overview (an issue Paper from Reworked Services Policy Task Group).* Retrieved from http://www.ukoln.ac.Uk/public/nsptg/virtual//

Chimah J. N & Nwokocha U. (2013). Empirical study of motivation, challenges and strategies in the use of electronic information resources by postgraduate library users in South- east Nigerian Federal Universities. *Academic Journals*, 5(11): 468-478. Retrieved from https://academicjournals.org/journal/IJLIS/article-full-text-pdf/C703BAB42588

Digital Reference. (2018). Wikipedia. Retrieved 25th December 2019, from https://en.wikipedia.org/wiki/Digital-reference.

Edem, N.B & Egbe, N. (2016). Availability and utilization of electronic Resources by postgraduate students in a Nigerian University library. A case study of University of Calabar, Nigeria. *Information and Knowledge Management.* 6(2):60-70. Retrieved from https://www.iiste.org/Journals/index.php/IKM/article/viewFile/28714/29476

Egberongbe, H. S. (2011). The use and impact of electronic resources at the University of Lagos. *Library philosophy and practice (e-journal)* 472. Retrieved February 28, 2015, from http://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=l490&context=libphilprac

Ekere, F.C (2014). Administration of academic libraries: a book of reading. Enugu: Praise House.

Ekwelem, V.O., Okafor, V.N & Ukwoma, S.C. (2009). Students use of electronic information sources at the University of Nigeria, Nsukka. African journal of library, archives & information science, 19(1), 89-89

Habib, Enite A.U. & Aworo P. (2015). Accessibility and Utilization of Internet Service in Nigeria Libraries: An Empirical Study. *International Journal of Academic Research and Reflection,* 3(5).

Lateef, E. B., Omotoso, A. O & Owolabi, K. A. (2013). A Survey of postgraduate students perception of university library resources in selected Nigerian universities. International Research: *Journal of Library & Information Science,* 3(1)

Makinde, O. T., Aba, J. & Ugah, A. D. (2017). Accessibility and Utilization of Reference Resources by Fisheries Undergraduate Students University Libraries in North-Central, Nigeria. *Journal of Applied Information Science and Technology,* 10 (3): 48-55. Retrieved from https://www.jaistonline.org/10vol3/7.pdf

Momodu O. M. (2015). Academic Library in Nigeria: Yesterday, Today and Tomorrow. *American Journal of Social Sciences,* 3(4), 115-119.

Ndubuisi, C.J. & Udo, N. (2013). Empirical study of Motivation, challenges and strategies in the use of electronic information resources by postgraduate library users in south-east Nigerian Federal Universities. *International Journal of Library and Information Science,* 5(11), 468-473.

Nkamnebe, E.C., Udem, O.K. & Nkamnebe, C.B (2014). Evaluation of the Use of University Library Resources and Services by the Students of Paul University, Akwa, Anambra State, Nigeria. *Library Philosophy and Practices (e-journal).* Retrieved from http://digitalcommons.unl.edu/libphilprac/1147.

Obaseki, T. I. & Amune, J. B. (2009). Electronic resources: Avenue for information resources acquisition in 21st century Nigeria tertiary institutions. A paper presented at the AGM of NLA Cross River state chapter conference held at Calabar, 9th-11th November.

Obasike T.l, Umeji, C.E & Kurbu, D. (2010). Electronic resources: affording Nigerian academic libraries a competitive edge. *Madonna Journal of Research in Library and Information Science,* 1(1): 35-47.

Ojo, R. A. & Akande, S. O. (2005). Students access, usage and awareness of electronic information resources at the University College Hospital, University of Ibadan, Nigeria. Lagos *Journal Library and Information Science,* 3(l):16-24.

Okiki, O.C. (2012). Electronic information resources awareness, attitude and use by academic staff members of university of Lagos, Nigeria. *Library Philosophy and practice (e-journal),* 834(7), 234- 263.

Okorie, C. N. (2010). Utilization of Automated Electronic Information Services: A Case Study at the University of Agriculture Library, Abeokuta, Nigeria. Chinese Librarianship: *An International Electronic Journal, 29.* Retrieved on 10th July, 2016 from http://www.white-clouds.com/iclc/cliej/cl29okorie.pdf

Okoro, II.C (2008). Virtual library for student's research and study. In Achebe, N. (ed.): *library information literacy for higher education.* Enugu: Nigeria library association

Oriogu, C.D. (2015). Availability of information resources as determinants of undergraduates' use of Internet search engines in two universities in Oyo State, Nigeria. *International Research Journal of Interdisciplinary and Multidisciplinary Studies (IRJIMS'),* 1(1): 97-102. Retrieved fromhttp://www.irjims.com/flles/Chuks-Daniel-Oriogu.pdf

Oriogu, C.D., Chukwuemeka, A.O. & Oriogu-Ogbuiyi, D. C. (2018). Faculty Awareness, Perception and use of Information Resources and Services in a Private University in Nigeria. *Covenant Journal of Library & Information Science (CJLIS),* 1(2), 32-44

Quadri, G. O., Adetimirin A. E. & Idowu, O. A. (2014). A study of availability and utilization of library electronic resources by undergraduate students in private universities in Ogun State, Nigeria. *International Journal of Library and Information Science*, 6(3), 28-34.

Ramana, Y. V. (2006). Assessment of electronic services by postgraduate students and research scholars of Vellore Institute of Technology. In T.A.V. Murthy (Ed.), Dynamic interoperable web based information systems. Proceedings of the 4th International Convention CALIBER, Gulbarga, India, February 2-4, 2006, 316-326. Retrieved March 18, 2015 from http://ir.inflibnet.ac.in/bitstream/l944/1182/l/34.pdf

Sharma, C. (2009). Use and impact of e-resources at Guru Gobind Singh Indraprastha University (India): A case study. *Electronic Journal of Academic and Special Librarianship,* 10(1).

Shehu, H., Urhefe, E.A, & Aworo, P. (2015). Accessibility and Utilization of Internet Services in Nigeria Libraries: An Empirical Study. *International Journal of Academic Research and Reflection,* 3(78)

Singh, N. K. (2012). Digital Reference Service in University Libraries: A Case Study of the Northern India. *International Journal of Library and Information Studies,* 2(4), 1-17.

Sreenivasulu, V. (2000). The Role of Digital Librarian in the Management of Digital Information Systems (DIS): *The Electronic Library*, 18(1): 12:20.

Sukula, S. K. (2013). Approaching the digital libraries in perspective of semantic operability. *Indian Journal of Library and Information Science*, 7 (3): 227-37.

Ukachi, N.B. (2011). Electronic information resources and undergraduate users' patronage in university of Lagos library: A survey. *Madonna Journal of Research in Library and Information Science,* 1 (2): 21-34.

Urhiewhu, L. O (2014). Availability and Use of Digital Information Resources by Undergraduates of Universities in Delta and Edo States, Nigeria. *International Journal of Advanced Research,* (e-journal). Retrieved from https://www.journalijar.com/thesis/3576/urhiewhu,-lucky-oghene/

Urhiewhu, L. O., Okeke, I. E. & Nwafor, M. C. (2015). Extent of Digital Information Resources Usage by Undergraduates of Selected Higher Institutions in Delta and Edo States, Nigeria.

Uutoni, W.E. (2014) Evaluation of Digital Reference Services in Academic Libraries in Namibia Master's Thesis. Swedish School of Library and Information Science. 69pp

Yusuf, F. & Iwu, J. (2010). Use of Academic Library: A case study of Covenant University, Nigeria. *Chinese Librarianship: an International Electronic Journal.* Retrieved from: http://www.iclc.us/cliej/cl30YI.pdf