

## AVAILABILITY AND EXTENT OF USE OF ELECTRONIC INFORMATION RESOURCES BY POSTGRADUATE STUDENTS IN FEDERAL UNIVERSITY LIBRARIES IN NORTH-EAST NIGERIA

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### Abstract

**Purpose:** This study was carried out to investigate the availability and extent of use of electronic information resources by postgraduate students in federal university libraries in North East Nigeria.

**Design/Methodology/Approach:** The descriptive survey research design was adopted for this study. Three objectives and three research questions were formulated to guide the study. The population of this study comprised 5,027 postgraduate students in the federal universities in North East, Nigeria. The sample size for this study consisted of 1000 postgraduate students in the federal universities in North East Nigeria. The proportionate stratified technique was adopted for the sample selection. Data for the study was collected using of structured questionnaire developed by the researcher. The study used frequency counts, percentages, mean and standard deviations.

**Findings:** The findings revealed that postgraduate students in federal universities in North East rated that the following electronic information resources were available: e-journals, e-books, CD-ROM, online database, internet, e-catalogues, WWW and e-mails. The finding also revealed that PG students to a great extent make use of electronic information resources like CD-ROM, internet, WWW and e-mails in federal university libraries in North East, Nigeria.

**Implications:** The findings revealed that e-audio visual resources and reference database were not available in the university libraries. This implies that postgraduate students have not been familiar with the usage of e-audio visual resources and references database since they have not been available in the university libraries under study.

**Originality/Value:** Based on the findings of the study, it was recommended among others that efforts should be made by federal university administrators and library managements to improve on the bandwidth and enhance the internet connectivity so as to enable the students have easy access to online e-resources.

**Keywords:** Availability, utilization, information resources, electronic information resources, postgraduate students, university libraries

**Paper Type:** Empirical Review

### Introduction

The university as an institution is generally regarded as a custodian of knowledge where students from different disciplines acquire knowledge and skills for self-development. Acquisition of knowledge is necessary for greater understanding and participation in community affairs and to prepare one for future contribution to the society. According to Ukachi (2013),

university contributes towards the solution of problems as well as a preparatory ground for creativity and independent thinking. The university environment is a place where transfer of knowledge and information takes place for holistic achievement. This achievement depends to a great extent on the level of services and resources provided by libraries.

Libraries are collection of sources

of information that are available for borrowing and reference. Rao (2011) explained that libraries are hub of knowledge and hence a central and integral part of academic life. The first Library dates back almost 5000 years and consisted of the collection of clay tablets later replaced by the printed book (Yebowaah & Plockey, 2017). This was gradually transformed into paper and other printed materials that have been kept in the Library. The role of libraries in both past and recent times makes them the backbone of educational institutions. In the public and private sector of developing countries, academic institutions are now using libraries as the core part of the institution that can make a powerful change in society (Vilgi & George, 2017).

The university library which is commonly referred to as the nerve of the university is primarily set up for the achievement of the university's set goals and objectives by providing information materials and services which satisfy the information needs of the entire university community. It is the principal instrument of the university in the conservation of knowledge. Proper fulfillment of this role provides a sound basis for the transmission and advancement of knowledge. The university library therefore collects materials, published and unpublished, print and non-print, in some depth and globally in almost all fields of knowledge (Uzoamaka, 2010).

In other words, apart from the fact that university libraries provide needed information sources and reading materials, they at the same time promote teaching, learning and research functions through other various means such as loan services, interlibrary lending services and selective dissemination of information (Owolabi, Idowu, Okocha & Ogundare, 2016). However, Owolabi et. al. (2016) further emphasized that the university library must be able to provide past, immediate and anticipated information (both in printed and non-printed formats) in actualizing the goals of the university. Thus, the main purpose of the university library is to support the objective of the university which is

to promote teaching, learning and research through the use of electronic information resources.

It is evident that the present revolution of electronic information initiatives are now critical issues that libraries especially in the academic environment can no longer afford to fold their hands if they must continue to remain relevant in this digital age. This is so because the advent of technology has brought enormous changes virtually in all aspect of human endeavor, including education. Libraries are gradually establishing resource sharing to reduce cost and meet the requirements of user demands (Prakash, 2017). This establishes a direct link between libraries and information services with joint influence on knowledge discovery and dissemination in the digital era. The use of information technology has improved the services of libraries significantly. Besides, the application of information technology in libraries is providing opportunities to users to access and utilize both online resources and other services effectively (Saikia & Gohain, 2013).

Sequel to this, modern day libraries have both print and non-print documents with gadgets and equipment used to access information (Kumar, 2016). Some of the equipment include: computers, digitization machines, CD-ROMs, scanners, printers and internet which have contributed immensely to make the transformation of libraries a success (Dar, Jealani, Mir & Ganaie, 2017). Moreover, modern day libraries have transformed into digital and virtual libraries where books, journals and magazines have changed into e-books, e-journals, and e-magazines which have increased the global dissemination of information (Abinew & Vuda, 2013). This process of transformation is regarded as electronic information resources.

According to Thanuskodi (2012), electronic information resources are wide range of products going from electronic periodicals to CD-ROMs, from mailing list to databases, all of them having a common feature of being used and sometime modified by computer. Johnson, Evensen, Gelfand, Lammers, Sipe and Zilper

(2012) defined electronic information resources as the electronic representation of information which can be accessed via electronic system and computer network. In the context of this study, electronic information resources are those materials that require computer access, whether through a personal computer, mainframe, or handheld mobile device used by postgraduate students. Examples of the electronic information resources as often consulted by students include: Internet, CD-ROM databases, online databases, Online Public Access Catalogues (OPACs), electronic journals, electronic books and digitized materials.

Therefore, in contemporary library practice, information needs of learners and knowledge seekers are met through a plethora of information sources especially with Electronic Information Resources (EIRs) dominating as a result of their ability to be accessed even remotely (Ukachi, 2013). University libraries specifically provide these resources to cater for the academic needs of the university community. These resources give room for current and up-to-date information to be accessed easily, timely and remotely without compulsory face to face contact with the provider.

Obviously, libraries in Nigeria are to ensure that students have access to first hand information characterized by being timely, up-to-date, easy to access and, even remotely (Ukachi, 2013). Electronic information resources in a library play a prominent role in facilitating access to required information by the users in an easy and expeditious manner. According to Negahban and Talawar (2009), electronic information resources serve as motivating factor to students as they provide them opportunity to transmit, acquire or download, process and disseminate information on any subject of interest. Similarly, they can be used by any user through online access via networks or authentication methods at any time by comfortably sitting at home or office. They indeed play significant roles in academic libraries as they are mostly used for the promotion of academic excellence and research. Negahban and Talawar (2009) further reiterated that

electronic information resources open up the possibility of searching multiple files at one time, a feat accomplished more easily than when using printed equivalents.

Electronic information resources have many functions and benefits that are capable of positively influencing the academic performance of both students and researchers in the university as well as other higher education institutions. Tella, Tella, Ayeni and Omoba (2007) stated that the benefits of electronic information resources include; (1) increased the visibility of libraries globally; (2) improved services to an expanding number of users; (3) enhanced access to current and vast amount of information from remote sites as users can easily access library resources from different parts of the world no matter the distance; (4) flexibility in information search and retrieval; and (5) ensured better preservation of library resources by reducing handling of the original analogue surrogate materials.

Electronic information resources is necessary for postgraduate students mainly because they provide better, faster and easier access to information than information accessed through print media. In addition, electronic information resources help end users (postgraduate students) to; expand accessibility, increase usability and effectiveness; establish new ways for students to use information to be more productive in their academic activities; keep abreast with current developments in their respective subject fields (Khalil, 2014). For these overreaching roles and benefits of electronic information resources to be accomplished, its availability in various university libraries is strongly advocated for.

It is therefore important to note that availability of electronic information resources play pivotal role in determining the conservative power of university libraries in terms of information. According to Joseph and Philiat (2011), availability is defined as general characteristic of a resource that is committable, operable, or usable upon demand to perform its .designated or required functions. Availability is defined as

something that is able to be used or can easily be found and used. Seth and Parida (2012) cautioned that availability of electronic information resources do not automatically translate to information utilization because except an information source is made available to end user, it cannot be used. In this light, utilization refers to openness, convenience, ease of locating and proximity to information resources (Jimba & Atinmo, 2010). Jimba and Atinmo further maintained that utilization is about being able to use what is available when it is required. Electronic information 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 because of accessibility problems. This is why Ugah (2008) opined that the more accessible information sources are, the more likely they are to be used and readers tend to use information sources that require the least effort to access.

Many empirical studies have indicated that the use of electronic resources in the Library is an effective way of increasing access and convenience in library utilization. For example, Israel and Edesiri (2016) and Stephen (2012) agreed that e-resources facilitate access to relevant and current information for learning and research development. On the contrary, despite numerous studies that have been carried out on electronic information resources, some studies conducted still reveal that most electronic information resources available are still under-utilized or not utilized and there is no element of publicity regarding their usage (Olusanya, 2014). Similarly, the study of Madu, Vandi and Chagwa (2018) conducted in Maiduguri on utilization of ICT for information retrieval revealed that despite the provision of computers, OPAC, power point projectors, internet services, CD-ROMs and e-mail, there was low level of computer utilization for information retrieval in the library in terms of CD-ROM and internet.

Preliminary investigations conducted by researchers in the study area revealed that few electronic resources are available such as e-

journals, e-books, CD-ROM, internet and e-mails. But after one on one interaction with some postgraduate students on the usage of electronic information resources, one predominant observation was that postgraduate students do not frequently utilize electronic information resources not only to the fact that they are unsafe but the little available electronic information resources are not yet fully taken advantage of by postgraduate students. This therefore prompted the researcher to investigate the availability and extent of use of electronic information resources by post-graduate students in academic libraries in federal universities in North-East.

### Research Questions

The following research questions guided the study:

1. What are the electronic information resources available in federal university libraries in North-East, Nigeria?
2. To what extent do postgraduate students make use of available electronic information resources in federal university libraries in North-East, Nigeria?

### Method

The descriptive survey research design was adopted for the study. The study was carried out in North East, Nigeria. The population of this study comprised 5,027 postgraduate students in the federal universities in North East, Nigeria. The sample size for this study consisted of 1000 postgraduate students in the federal universities in North East Nigeria. The proportionate stratified technique was adopted for the sample selection. Data for this study was collected using of structured questionnaire developed by the researcher. The instrument is titled "Questionnaire on the Availability and Extent of Use of Electronic Information Resources" (QAEUEIR). The instrument was subjected to face and content validation by three experts in order to make sure the instrument measures what it is supposed to measure. The reliability of the instrument was established using 40 postgraduate students in UtmanDanfodio University which was not part of the study but

shares similar characteristics with the study area. Cronbach Alpha was used to check the internal consistency of the instrument and an overall coefficient of 0.83 was obtained. Data collected in this study regarding the research question 1 was analyzed using tables and percentages to determine the availability and non availability of electronic information resources, while arithmetic mean and standard deviation was

used for research questions 2 and 3 to determine the homogeneity or otherwise of the respondents' means.

**Results**

**Research Question 1:** What are the electronic information resources available in federal university libraries in North-East, Nigeria?

**Table 1:** Respondents' ratings of electronic information resources available in federal university libraries in North East, Nigeria (N = 878)

S/N	Indicate which of the following electronic information resources is available in your university library	Available		Not Available	
		F	%	F	%
1	E-journals	804	91.6	74	8.4
2	E-books	808	92.0	70	7.9
3	CD-ROM	748	85.2	130	14.8
4	Online database e.g., AGORA, HINARI, ERIC etc.	744	84.7	134	15.3
5	Internet	601	68.5	277	31.5
6	E-catalogue (OPAC)	637	72.6	241	27.4
7	E-magazines	141	16.1	737	83.9
8	E-serials	92	10.5	786	89.5
9	WWW	659	75.1	219	24.9
10	E-images	222	25.3	656	74.7
11	E-dissertations and theses	180	20.5	698	79.5
12	E-mails	792	90.2	86	9.8
13	E-audio visual resources	118	13.4	760	86.6
14	References Database	82	9.3	796	90.7

From Table 1, it was revealed that the responses by the respondents showed that e-journals with 804 (91.6%), e-books with 808 (92%), CD-ROM with 748 (85.2%), online database with 744 (84.7%), internet with 601 (68.5%), e-catalogue (OPAC) with 637 (72.6%), WWW with 659 (75.1%) and e-mails with 792 (90.2%) were available. It further revealed that e-magazines with 141 (16.1%), e-serials with 92 (10.5%), e-

images with 222 (25.3%), e-dissertations and theses with 180 (20.5%), e-audio visual resources with 118 (13.4%) and references database with 82 (9.3%) were almost not available in federal university libraries in North East, Nigeria.

**Research Question 2:** To what extent do postgraduate students make use of available electronic information resources in federal university libraries in North-East, Nigeria?

**Table 2:** PG students' mean and standard deviation ratings on the extent they make use of available information resources in federal university libraries in North East, Nigeria (N = 878)

S/N	Indicate the extent to which you make use of the following available information resources in federal university libraries	X	SD	Remarks
15	E-journals	1.75	1.09	Low Extent
16	E-books	2.31	0.94	Low Extent
17	CD-ROM	3.67	0.96	Great Extent
18	Online database e.g., AGORA, HINARI, ERIC etc.	2.68	0.83	Moderate Extent
19	Internet	4.71	0.94	Very Great Extent
20	E-catalogue (OPAC)	2.23	0.91	Low Extent
21	WWW	3.74	0.90	Great Extent
22	E-mails	3.79	1.01	Great Extent

Data analysis in Table 2 indicates the item by item ratings on the extent postgraduate students make use of available electronic information resources in federal university libraries. The result analysis revealed that item 19 with mean score of 4.71 was rated to a very great extent; item 17, 21 and 22 with mean scores 3.67, 3.74 and 3.79 respectively were rated to a great extent; item 20, 22, 24 with means scores of 2.73, 2.37 and 2.73 respectively were rated on a moderate extent; while item 21 with mean score of 2.43 was rated on a low extent. This result analysis means that PG students to a great extent make use of electronic information resources like CD-ROMs, WWW and e-mails. Similarly, item 19 with mean score 2.68 indicates that online database was utilized to a moderate extent. Also, the items 15, 16 and 20 with mean scores 1.75, 2.31 and 2.23 respectively indicated that e-journals, e-books and e-catalogues was utilized to a low extent by PG students in federal university libraries in North East, Nigeria. The standard deviation scores that ranging from 0.83 – 1.01 means that PG students responses were homogenous in nature.

### Discussion of Findings

Data analysis in research question one revealed that postgraduate students in federal universities in North East rated that the following electronic information resources were available: e-journals, e-books, CD-ROM, online database, internet, e-catalogues, WWW and e-mails. This finding was similar to the findings of Owolabi, Idowu, Okocha and Ogundare (2016) that the internet services, e-mail services, e-journals, e-books, online databases, electronic databases and cybercafés were the available electronic information resources and often used by the undergraduate students in University of Ibadan. The finding also agreed to the finding of Bashiraminu (2016) who revealed that online databases such as HINARI, AGORA, AJOL, and DOAJ were the types of electronic information resources available in the federal colleges of education libraries in North Western State. Similarly, this finding corroborated with the finding of Adeleke and Nwalo (2017) who reiterated that internet is

ranked most available and used by postgraduate students at the University of Ibadan.

Result analysis in research question two showed that PG students to a great extent make use of electronic information resources like CD-ROM, internet, WWW and e-mails in federal university libraries in North East, Nigeria. This finding was in line with the finding of Akpojotor (2016) that postgraduate LIS students are skilled in the use of electronic information resources such as CD-ROM, internet and WWW in Southern, Nigeria. This finding also supported the finding of Togia and Tsigilis (2009) that vast majority of the participants used internet search engines, e-databases, full-text resources and audio visuals. The finding disagreed with the finding of Bashiraminu (2016) that online databases such as HINARI, AGORA, AJOL, and DOAJ were the types of electronic information resources available are utilized in the Federal Colleges of Education Libraries in North Western State.

### Recommendations

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

1. More relevant, adequate and up-to-date e-resources should be made available in the federal university management by institution management at all times to satisfy their information needs.
2. Efforts should be made by federal university administrators and library managements to improve on the bandwidth and enhance the internet connectivity so as to enable the students have easy access to online e-resources.
3. System analysts should be on ground to assist PG students in the use of the available e-resources in the federal university libraries.

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