



Digital information resources utilization by postgraduate students in three states owned universities, Nigeria

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Abstract

The research work on digital information resources utilization by postgraduate students in three states owned universities, Nigeria. The research design used for this study is descriptive survey design. The Universities are: University of Medical Sciences, Ondo Town, (UNIMED) Delta State University, Abraka and Chukwumeka Odumegwu, Ojukwu University, (COOU). Anambra. The sample size for this study is 175 which is the same as the population size. Thus, it is a total enumeration sampling. The instruments used for the collection of data are observation check list and structured questionnaire. Observation check list for research question one. The data obtained from retrieved copies of the questionnaire was analyzed using descriptive statistics and One Way Analysis of Variance (ANOVA) F-test associated with multiple linear correlation was used to test hypothesis. The hypothesis was tested at 0.05 level of significance. The major findings include that some electronic Information Resources (EIRs) were available in the university libraries visited by the researchers are the following: e-conference papers, e-zines, e-newsletters e-reference materials, e-projects, e-journals, e-seminar papers, e-books and e-dissertation. The findings also revealed that students make use of EIRs to a low extent. The constraints encountered by students towards the accessibility of DIRs in the three libraries 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. There was moderate positive relationship between accessing and extent of utilization in university libraries in three states owned, Nigeria.

Keywords: Digital information resources, availability, utilization postgraduate and universities

Introduction

The word awareness, availability, accessibility and utilization of information of EIR through an effective dissemination network represent a necessary pre-condition for the emergence of a crop of well-informed citizenry. Information must be available, adequate and accessible in order to be presented in a way that is acceptable to facilitate its acceptability, hence utilization. Thus, it is a vital commodity in every environment and its use is largely determined by its availability and accessibility. Lefuna reports that in recent times, electronic resources have been identified as the major sources for information dissemination in the universities, especially for researchers including students and teaching staff (Ternenge and Kashimana, 2019) ^[46].

Accurate and relevant information has increasingly been acknowledged as providing leading edge in the modern and competitive world. Information is made available in varying formats- print and electronic format. While users are already conversant with the print format, technology has significantly multiplied the amount of available information and the forms which they appear. Libraries, as custodians and disseminations of information, have a very important role to play within the knowledge society (Obialor and Uwandu, 2017) ^[31]. They are equipped to support their parent organizations by providing the information required to ensure their survival and continued existence. While some of the libraries are equipped to cater for large group of users, some are established for specific purposes. Such libraries are referred to special libraries. These type of libraries are setup in medical institutes, hospital, law firms, and universities.

Special libraries all over the world are known as information centres; repositories of information materials that professionally organized for easy retrieval. Special libraries are different from other libraries because they are established to service specific professional bodies or groups. The collection of special libraries cover specific areas. Special libraries enable professionals and researchers to keep abreast of current research and information in a particular field. They select, evaluate, organize, and disseminate information in special areas of knowledge for the “specialists” the “experts” and the “top management” who do not have time today to read through voluminous literature to make quick decisions. (Agbanu, ofordile, Okeji and Ogwu, 2010) ^[3].

As early said information is made available in varying-print and electronic information resource format. The research work will focus on electronic information resources available in area of health sector. In the information technology age, reported that libraries (especially) medical or health area in university acquiring such electronic information and making it available on internet/ intranet for the benefit of their library users. As we all knows advancement in these technologies has radically change ways in which information services are rendered in libraries and organizations. Libraries are being automated and connected to the internet, in order to facilitate the process of retrieving and disseminating information that will enhance teaching, learning, research and administrative work in universities.

Utilization of electronic information resources involves accessing and using of the e-resources for academic activities including teaching, learning and research. Students in carrying out their research projects turn to the library to access information. Since advent of Information Communication Technologies in academic libraries, demand for electronic information resources seemed to have overtaken that of print resources, although not totally replaced it. Electronic information resources provide a far reaching advantages to both users and library in ways that include 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 (Tekale and Dalve, 2012) ^[45]. Electronic resources make access to accurate and timely information possible for users especially, those of the institution of higher learning that are greatly involved in research (Ukpebor, 2012) ^[51].

One of the advantages of electronic information resources for libraries and researcher in the information age is the reduction of pressure on academic libraries for physical storage space for books and journals and unlimited access to information by the users Lefuna, cited in (Ternenge and Kashimana, 2019) ^[46]. In university and other academic institutions, focus of users has shifted more to electronic information resources as it dominates research activities of researchers and opens their eyes to realize the importance of such resources (Hadagali, Kumbar, Nelogal and Bachalapur, 2012). E-library in most universities manages electronic resources and these stands as vital academic resources that support teaching, learning and research activities (Zhang & Liu, 2011). As reported by Ternenge and Kashimana (2019) ^[46], electronic resources are invaluable research tools for students in higher institution of learning.

Research is an important aspect of learning process that is mandatory for every student in Nigerian higher education system. Students in tertiary institutions in Nigeria. Engage in a research either for expansion of what was learned in classroom or for project in their final year which is mandatory as a partial fulfillment for the award of degrees. For research to be carried out, relevant information resources are necessary. Students engage in research to discover, rediscover, identify, validate and solve a particular problem through a systematic, logical, scientific and painstaking enquiry using available information resources.

Well, it's pertinent to note that when postgraduate students are aware of e- resources they make adequate use of them for academic and research purposes. It is also important that for the students to make use of the resources, they ought to be skilled in information and communication technologies (ICTs) applications in other to gain independent use of various electronic information resources around the globe. Be that as it may, it has been observed that postgraduates' students in Nigerian universities are confronted with various challenges relating to inadequate telecommunications' infrastructure, high cost of subscription, poor user skills, amongst others in the use of e-resources. Consequent upon these, this research work seeks to explore digital information resources utilization by postgraduate students in three states owned universities, Nigeria.

Purpose of the Study

The specific objectives of the study are to:

1. Ascertain the digital information resources services available in University libraries;
2. determine the extent of utilization of electronic information resources in among postgraduate students in university libraries ;
3. Determine the constraints against availability and Utilization of electronic Information Resources (EIRs) by postgraduate students in university libraries.

Research Questions

The following research questions guided the study:

1. What are the electronic information resources services available in University libraries?
2. To what extent of utilization of electronic information resources in among postgraduate students in university libraries?
3. What are the constraints against availability and Utilization of electronic Information Resources (EIRs) by postgraduate students in university libraries?

Hypotheses

The null hypothesis will guided the conduct of this study and they were tested at 0.05 level of significance.

Ho1. There is no significant relationship between ways of accessing and extent utilization EIRs in University libraries.

Methodology

The research design used for this study is descriptive survey design. This will help the researchers to determine utilization of DIRs/EIRs in three owned state Universities of Ondo States by postgraduate students. The Universities are: The Universities are: University of Medical Sciences, Ondo Town,(UNIMED) Delta State University, Abraka and

Chukwumeka Odumegwu, Ojukwu University, (COOU). Anambra. The researchers chose to study the University libraries because these regions are fast embracing developments in the digital information age. The sample size for this study is 175 which is the same as the population size. All the postgraduates' students in University libraries, Nigeria. Thus, it is a census study/ total enumeration sampling. The instruments used for the collection of data are observation check list and structured questionnaire. Observation check list for research question one. The use of structured questionnaire help the researchers to determine the level awareness of electronic information resources in various university libraries. The researchers personally used the copies of the final version of the questionnaire was administered to the desired number of users of the library as at the time of administration. The data

obtained from retrieved copies of the questionnaire was analyzed using descriptive statistics. Descriptive statistics will be used to answer all the research questions. One Way Analysis of Variance (ANOVA) F-test associated with multiple linear correlation was used to test hypothesis. The hypothesis was tested at 0.05 level of significance.

Analysis of Data

The data collected for the study and the analysis as they relate to the research questions and hypothesis that guided the research. One hundred seventy-five distributed, while 154 was returned.

Research Question 1: What are the electronic information resources services available in University libraries?

Table 1: Electronic information resources available in University libraries

S/N	DIRs	UNIMED	COOU	DELSU
1.	e- Project	Available	Not Available	Available
2.	e- Conference papers	Not Available	Not Available	Available
3.	e- Journals	Available	Available	Available
4.	e-Technical report	Available	Not Available	Available
5.	e-Reference materials	Not Available	Not Available	Available
6.	e-seminar Papers	Not Available	Not Available	Not Available
7.	e- Conference	Available	Available	Available
8.	e- Zines	Available	Not Available	Not Available
9.	e-Books	Available	Available	Available
10.	e-Newsletters	Available	Available	Available
11.	e-Grey document	Not Available	Not Available	Not Available
12.	e-Thesis	Available	Not Available	Available
13.	e- Dissertation	Available	Not Available	Available

The table 1 above used observation checklist shows that none of the University libraries has e-Conference papers. At the UNIMED Library, ten types of electronic information resources out of the thirteen types of electronic information resources checked were available. The available electronic information resources in the library are e-Journals; e-Technical report; e-Reference materials; e-Proceedings; e-Zines; e-Books; e-Newsletters; e-Grey document; e-Thesis; and e-Dissertation.

At the COOU Library, four types of electronic information resources are available. They are e- journals; e-proceedings; e- Books; and e-newsletters. At the DELSU Library, ten types of digital information resources out of the thirteen types of digital information resources checked were available. The available digital information resources in the library are e-Journals; e-Technical report; e-Reference materials; e-Proceedings; e-Zines; e-Books; e-Newsletters; e-Grey document; e-Thesis; and e-Dissertation. The findings show that electronic information resources available in university libraries in Delta States are e- Projects e -Journals; e-Technical report; e-Reference materials; e- Conference proceedings; e-Zines; e-Books; e-Newsletters; e-Grey document; e-Thesis; and e-Dissertation; e-Seminar. From the available EIR in the three university Libraries shows that UNIMED and COOU has more EIR than Delsu despite the oldest State University in Delta State

Research Question 2: To what extent of utilization of DIR in among postgraduate students in university libraries of Nigeria?

Table 2: Mean scores(x) of extent of students use of electronic I information resources (EIRs) in the institutions.

DIR	Mean	Remarks
e- Projects	2.68	High Extent
e- Journals	2.60	High Extent
e- Reference materials	2.70	High Extent
e- Seminar Paper	2.67	High Extent
e- Books	2.62	High Extent
e- Newsletters	2.51	High Extent
e- Thesis	2.54	High Extent
e- Zines	2.06	Low extent
e- Conference papers	2.40	Low extent
e- Technical reports	2.49	Low extent
e- Grey_Document	2.17	Low extent
e- Conference proceedings	2.17	Low extent
e- Seminar Paper	2.36	Low extent

The result presented in table 3 shows that postgraduate students use e- Projects; e- Journals; e-Reference materials; e- Seminar papers; e-Books; e- Newsletters; and e- Thesis to a high extent in the institutions, thus the mean scores of 2.68; 2.60; 2.70; 2.67; 2.62; 2.57; and 2.54 respectively.

Postgraduates students also use e-zines; e- Conference proceedings; e-Grey document; e-Dissertation; e-Conference papers; e-Technical to a low extent, in the institutions, thus the mean scores of 2.40, 2.49; 2.17; 2.06; 2. 17 and 2.36 respectively. A grand mean of 2.46 shows that students use digital Information Resources in the University libraries to a

low extent.

Research Question 3: What are the constraints against availability and Utilization of electronic Information Resources (EIRs) by postgraduate students in university libraries?

Table 3: Mean scores(X) of students on the constraint face by postgraduate students in use EIRs

S/N	Electronic Information Resources	Mean	Remarks
1.	Epileptic power supply	2.96	Agree
2.	None availability of online databases	2.69	Agree
3.	Inadequate or slow band width	2.68	Agree
4.	Inadequate number of computers to access digital information	2.57	Agree
5.	Network problems	2.63	Agree
6.	Lack of skills to access digital information resources in the both local /foreign databases of my library	2.64	Agree
7.	Lack of formal training in Internet use	2.68	Agree
8.	Server slowness	2.62	Agree
9.	Frequent breakdown	2.52	Agree

The result presented in table 4 shows that the respondents agreed that epileptic power supply; non-availability of online databases; inadequate number of computers to access digital information resources; inadequate bandwidth; Network problems; lack of skill to access digital information resources in local and foreign databases; lack of formal training on internet use; Server slowness and frequent breakdown of digital resources are constraints to students effective use of digital information resources in University libraries, thus the mean scores of 2.96; 2.69; 2.68; 2.57; 2.63; 2.64; 2.68; 2.62; and 2.52 respectively.

This shows that the postgraduate students agree that all the listed nine constraints for accessing electronic information resources were encountered by them as they tried to access the electronic information resources.

Ho1: There is no significant relationship between ways of accessing and extent utilization EIR in University libraries

Table 5: Summaries of simple linear coefficient of relationship (Pearson r) between accessing (X) and extent of utilization (Y) in University libraries in three states owned in Nigeria.

V	N	Σ	R	MR	DR	Remarks
X	154	8611				Moderate
			0.504	Moderate	Positive	Positive
Y	154	8845				Relationship

Variables (V), Size (n), Summation (Σ), Pearson r (r), Magnitude of Relationship (MR), Direction of Relationship (DR) and Remarks

Table 4 shows the coefficient of relationship between accessing and extent of utilization in university libraries, Nigeria. The result from the table shows that the realized coefficient of relationship is 0.504. This result further showed that the magnitude of the coefficient of relationship is moderate while the direction is positive. The magnitude and direction also indicates that, as one variable increases, the other variable will as well increase. That is to say that, a positive change in non-print media tools is also associated with a positive change in extent of utilization in public libraries. The answer to the above question is that there is a moderate positive relationship between accessing and extent of utilization in university libraries in three state owned, Nigeria.

Discussion of Findings

The number of available digital information resources in the University libraries studied shows that the three University authorities are not well on -course in terms of provision of the electronic information resources in the libraries, although there is need for attention concerning provision of e-Conference papers and provision of the EIRs that are in small number in the libraries. This study is line with Isiakpona and Ifijej (2012) ^[23] which found out that EIRs are available in Federal University of Agriculture, Babcock and Covenant University Libraries of Ogun State. The findings also show that digital information resources available in university libraries in in three state owned universities are e- Projects e-Journals; e-Technical report; e-Reference materials; e-Conference proceedings; e-Zines; e-Books; e-Newsletters; e-Grey document; e-Thesis; and e-Dissertation; e-Seminar papers At Delsu are well on -course in terms of provision of the digital information resources in the libraries, although there is need for attention concerning provision of e-Conference papers and provision of the digital information resources that are in small number in the libraries. Finding shows that DIRs are use to low extent in all the university libraries.

The result obtained reveals that students use of the following EIRs to low extent: e-Zines; e-Conference papers; e-technical reports; e-Grey documents; e- Proceedings and e-Dissertation. The reason is because of inadequate infrastructures and lack of skills among students to access EIRs in the library. This study is in line with Achonna (2008) which found out that access and usage of e-resources among undergraduates was low because of lack of skills; inadequate provision of computers and power outage and so on were the problems faced in use of e-resources at Yaba College of Technology, Library Yaba Lagos Nigeria.

The result obtained show that there are various factors which hinder students from accessing EIRs in three state owned University libraries. These factors include epileptic power supply, network problems, and inadequate computer for students, slow bandwidth, lack of skills, and lack of formal training in Internet use, server slowness as well as frequent breakdown of facilities of Internet connectivity. This study agrees with Imo and Igbo (2011) ^[22] which identified similar

problems in the utilization of EIRS among undergraduates in Nigerian Universities. Among the identified problems are lack of skills and knowledge of digital and electronic resources development and management by librarian, inadequacy of funds for the projects, unstable electricity supply, lack of written policy framework guidelines for the project, lack of maintenance, fear of copy-right violation, and non-availability of training programmes for up-dating of skills of staff.

Conclusion and Recommendations

Based on the analysis and discussion of the results of this study, the below conclusion are drawn with reference to the research questions.

Electronic Information Resources (EIRs) are available in UNIMED, Library. AAUA has only four types of EIRs which include e-journals, e-proceedings, e-books and e-newsletters. Furthermore, EIRs are used to a moderate extent in both University libraries. In COOU the postgraduate students make use of EIRs to low extents. Furthermore, DIRs are used to a moderate extent in Delsu. There is coefficient of relationship between availability and utilization in university libraries in is significant. There is a moderate positive relationship between accessing and extent of utilization in university libraries in three states owned, Nigeria. There is a moderate positive relationship between accessing and extent of utilization in university libraries in the three states Owned, Nigeria.

The numerous factors that hinder the students from accessing EIRs include epileptic power supply, none availability of online databases, inadequate or slow bandwidth; lack of formal training in the Internet use, network problems, and lack of skills to access DIRs in both local and foreign databases in their library as well as server slowness.

The recommendations that are proffered with regards to the findings and conclusion drawn from this study are as follows: The university management of UNIMED, COOU and 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 online databases. Some of the free databases include UNESCO libraries portal, HIGHWIRE (<http://highwire.stanford.edu/lists/devecom.dtl>), ALUKA, MEDLINE (PUBMED), PAPERITY, WHO, CENTRE FOR DISEASE CONTROL AND PREVENTION STACK, ERIC, etc. It was argued that lack of skills to access EIRs hinder postgraduate students to make use of e-resources therefore, the researcher suggests that management of the four university libraries in the study should try to 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 postgraduates students.

It was also argued that lack of fund hinder the DIRs availability therefore, the researcher suggests that university management of institutions either Federal or State should provide enough funds, that is government should vote a reasonable amount of fund to education, especially the library system, this will enable the library management buy all infrastructure and well equipment needed for digital library to work effectively and efficiently. Finally, effort should be made by the University and library management of three state universities to minimize the challenges faced by postgraduates to access electronic information resources.

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