

Impact of Availability and Accessibility of Electronic Resources on Academic Staff and Student of National Open University of Nigeria (NOUN)

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ABSTRACT

The aim of this study was to investigate the impact of availability and accessibility of electronic resources on academic staff and student of National Open University of Nigeria (NOUN). The study adopted a quantitative research approach and survey research method was employed. The study targeted 1,680 population samples of which include 1,513 students, 140 academic staff, and 27 academic librarians. Probabilistic (stratified random and systematic) sampling and non probability (purposive) sampling methods were adopted. Two sample frames were used: Students - classified into subgroups (Level) in each selected study centers and academic staff - classified into subgroups (academic staff/academic librarian). Online (Google form) self-administered closed-ended questionnaire was sent to participants' email. Data collected were analyzed through Statistical Package for the Social Sciences (SPSS). The findings revealed that electronic journals and electronic books are readily available and accessible in the NOUN library. The study recommended that the library management should develop awareness programmes that is appropriate for an ODL university community through the use of modern communication tools, and emphasis should be on the use of electronic resources in the university curriculum

Key Terms: Electronic resources, National Open University of Nigeria, Access, Awareness, Accessibility, Library, Tools, Librarian, Staff, Students, Remote, Users, NOUN.

Introduction

Over the years, librarians have exploited emerging technologies to offer new services to library patrons, as libraries continuously play the important role as information dissemination entities where students, teachers, and research groups have access to and explore available electronic resources (Lamont, 1999, p. 390; Vassiliou & Rowley, 2008, p. 355; Thanuskodi, 2011, p. 36). According to Dadzie (2005, p. 290) and Natarajan, Ravi & Ravichandran (2012, p. 48), electronic resources are electronic representation of information with links that can be conveniently used to search for other or related information regardless the time and location using various search techniques. Electronic resources are compilations of subject or field databases which include academic journal articles, books, magazine articles, newspaper articles and reference materials such as encyclopedia, thesaurus and dictionary. These databases are hosted by different database providers who specialize in specific or multiple disciplines. Owolabi & Ajiboye (2012, p. 167) and Ukpebor (2012, p. 93) state that library users have access to

relevant and current information due to the availability of electronic resources in numerous subject fields, and this has made it possible for the academics to execute their daily tasks. Educational barriers such as the inability to get needed books or journals are broken as distant learners are given access to a wider range of educational materials anywhere in the world via electronic educational databases using internet connection. According to Bhatia (2011, p. 408), library electronic resources allow users to have easy and prompt access to information.

National Open University library runs a standard hybrid system that offers rich academic electronic databases and monographs available to students and staffs for teaching, studying and research purposes. President Olusegun Obasanjo on the 27th of March 2002 approved the resuscitation of the institution to tackle the country's educational problems which are: lack of access to higher institutions, inequality in educational opportunity, the level of illiteracy and high demand for highly skilled professionals in the labour market. The drive behind the establishment of NOUN was to make both formal and non-formal education accessible to the ever-increasing population of Nigerians seeking to be educated.

Literature Review

Mawindo & Hoskins (2008, p. 101) found that respondents accessed electronic resources through search engines, departmental and library web page. Technology has revolutionized conventional libraries into information centers with both physical and electronic holdings (Manorama & Jeevan, 2013, p. 134). Both the developed and developing countries would be lagging in development if they lack access to information that can be used for scientific research, learning and teaching obtained from electronic resources (Obasuyi, 2012, p. 55). Researchers' productivity is enhanced with access to electronic resources (Dulle, 2015, p. 45). Academic libraries need to provide multiple resources to students and meaningful ways to access the stock of its resources (Adrianna, 2007, p. 821, Baikady, Jessy & Shivananda, 2014, p. 486). Such that people can comfortably access information, any time of the day from distant locations away from the physical library regardless of barriers such as finances or distance (Dadzie, 2005, p. 290). According to Deng (2009, p. 92), how and where to access information resources will help libraries to develop policies and technological infrastructures that will be needed to provide quality library services.

Bhatia (2011, p.482) found that respondents accessed electronic resources through universities and institutions websites, and online public access catalog (OPAC) Peris & Peris (2012, p. 50) found that respondents accessed electronic resources through an in-house library database, a database stored in compact discs, electronic databases, and electronic mail. Various investigations about the location of access revealed that library users use varying point of access depending on the need for information. Okello-Obura and Ikoja-Odongo (2010, p. 5-11), Bansal (2015, p:145-147), as well as Dadzie and Walt (2015, p. 62) found that respondents accessed electronic resources in the library, on campus, from several distant locations such as, at home, at workplace, and at Internet café, but did not look at the mobile access to electronic resources which this study seeks to incorporate.

Electronic Resources: An Overview

Electronic resources are invaluable research tools, a subset of academic libraries and a significant academic resource used in learning, teaching, and research activities and complementing print-based resources by providing access to information to distant learners (Dadzie, 2005, p. 290; Liyi, Pinghao, Qihua& Lijun,2011, p. 829).Electronic resources accommodate large information with minimal use of space, can be accessed and shared among users regardless of time and location, and have the capacity to greatly expand its collections (Liyi, Pinghao, Qihua& Lijun,2011, p. 829). Access to up to date information that is multi-linked with other robust related information content is made possible through electronic resources advance search techniques (Dadzie, 2005, p. 290). Students can access relevant information on the subject of their interest and make good use of it in the course of their study (Oyewo& Bello, 2014, p. 228).

Statement of the Problem

The library has subscribed to electronic resources; however, very little is known about the accessibility and availability of these resources to academic staff, students and any other university community members for whom the resources are meant. There is a lack of evidence of the extent of accessibility and use of these electronic resources. Such evidence is necessary for the continued investment in electronic resources, and for libraries to be accountable to their constituents and funders alike (Miller & Schmidt, 2003, p. 203). According to Stone, Soltis, & Schott(2010, p. 1), the modern library faces the challenge of providing adequate and equal access to patrons that engage in online and Internet searching for accessing information through the academic library. Access to electronic resource is a problem, particularly for remote users and the demand for remote access are increasing as are technologies to deliver library content. It is imperative to understand remote users and their needs as thoroughly as possible. This is particularly true for students and staff of NOUN who use electronic resources extensively to study at their homes, offices, while in transit.

Objectives

The objectives of the study were to: -

1. Find out the different types of electronic resources available in the NOUN Library;
2. Find out how academic staffs and students access electronic resources in NOUN library;

Research Questions

The study answered the following research questions:

1. What electronic resources are available in NOUN?
2. How do academic staff and students access electronic resources at NOUN?

Methodology

This study adopts a quantitative research approach. The quantitative approach is the process of gathering and analyzing numerical data to describe, explain, predict, or control phenomena of interest (Gay, Mills & Airasian 2009, p. 7; Mertler& Charles, 2008, p. 26). The use of this

approach will help to adequately investigate the extent of accessibility and availability of library electronic resources to students and staff of the National Open University of Nigeria (NOUN).

The survey design was employed in this study. This was chosen by the researcher because of its ability to focus on describing the characteristics of potentially large groups of people (Mertler & Charles 2008, p. 224). NOUN study centers are the research sites, located in six geopolitical zones of Nigeria (see table 1.0 below). These study centers are in three categories: Main study center, Special Study center, and Community study center. They are all homogenous. They all have the same organizational structure and offer all available courses using the same instructional materials. This study will focus on the study centers with the substantial large population. Table 1.0 present the research sites with students, academic staff and academic librarian population at zonal level.

Population: The population for this study is classified into three categories, namely academic librarians, academic staff members (i.e. faculty members), and students. According to NOUN Annual Report (2014/2015, p. 79), there are 189,364 registered students, 2,656 staff members. 370 are academics, 2,286 are non-academics. The library staff totals 80, out of which there are 54 academic librarians (National Open University of Nigeria Library 2016). See Table 1.1 for the distribution of the target population across the various categories. The sample frame includes a list of target research participants from the selected study centers. These study centers were selected through purposive sampling techniques. To ensure that the study was well executed having a fair representation of the target population, two sample frames were used. The first sample frame consists of students, classified into subgroups (Level) in each selected study centers and the second sample frame consists of academic staff, also classified into subgroups (academic staff/academic librarian). Non-random sampling was used to select the desired number of zones and the participating study centers from the target student population. The researcher used this procedure because of the homogenous nature of the population. Purposive sampling, which is selection based on knowledge of the group to be sampled was used based on population size. Study centers with large population size were given higher priority.

Sample and Sample size: The total student target population is 77,523 spread across the six geopolitical zones. Using Sample Size Table with a Confidence Level = 95% and Margin of Error = 2.5% (Research Advisors 2006, p. 2). 1,513 was selected as the Desired Student Sample size. Stratified random sampling and systematic sampling was used to select research participants in the desired study centers. The desired research sample size in each selected study centers was obtained by getting the percentage representation of the target population and then multiplying it with the desired student sample size (1,513) obtained from Research Advisor (2006:2) using stratified random sampling technique. The Academic staff population is 370. 275 are lecturers in the various academic units and 54 are academic librarians. These two groups constitute the target population. The remaining 41 academic staff occupies positions such as study center directors (35), heads of directorate (4), and the office of the vice chancellor (3). Purposive sampling technique was used to select the desired sample size of academic staff and academic librarian based on previous experience or knowledge of the population for study by deliberately identifying selection criteria based on the researcher's judgement (Gay, Mills & Airasian, 2009, p. 134; Mertler & Charles, 2008, p. 127 & Fraenkel, Wallen & Hyun, 2012, p.

100). The researcher decided to use 50% of the entire academic population as a sample size to get a fair representation. That is, 50% of Academic Librarian = 27 sample size and 50% of Academic Staff = 140 (approx.) sample size. This study used the online survey tool (google form) to collect primary source data from respondents at the selected study centers to find answers to the research objectives.

Data Analysis: The data collected from this study were analyzed through descriptive and inferential statistical tools using Statistical Package for the Social Sciences (SPSS). The research questions were entered into the variable view of the SPSS software and coded while the responses of each respondent entered into the data view. Descriptive statistics was run on the data to generated frequencies, mean and standard deviation. Descriptive statistics was used to answer research questions.

Results

The findings are presented in this section based on the research questions.

Research Question 1: What electronic resources are available in NOUN?

Table 1.2 presents mean and standard deviation scores of electronic resources available at NOUN library.

Table 1: Mean and standard deviation scores of types of electronic resources available at NOUN

ITEMS	SD(1)	D(2)	UD(3)	A(4)	SA(5)	Mean(\bar{x})	SD (s)
Electronic Journal	1 3.7%	-	1 3.7%	13 48.1%	12 44.4%	4.30	.87
Electronic Book	5 18.5%	-	1 3.7%	13 48.1%	8 29.6%	3.70	1.41
CD Databases	4 14.8%	-	3 11.1%	15 55.6%	5 18.5%	3.63	1.25
Electronic Magazine	3 11.1%	2 7.4%	7 25.9%	9 33.3%	6 22.2%	3.49	1.25
Electronic Newspaper	3 11.1%	3 11.1%	6 22.2%	8 29.6%	7 25.9%	3.49	1.31
Electronic Dictionary	3 11.1%	1 3.7%	8 29.6%	11 40.7%	4 14.8%	3.41	1.25
Electronic Thesis/Dissertation	5 18.5%	1 3.7%	6 22.2%	11 40.7%	4 14.8%	3.30	1.33
Institutional Repositories	7 25.9%	3 11.1%	2 7.4%	9 33.3%	6 22.2%	3.11	1.63
Indexing and Abstracting Databases	8 29.6%	1 3.7%	6 22.2%	9 33.3%	3 11.1%	2.93	1.44
Electronic Archives	9 33.3%	3 11.1%	7 25.9%	4 14.8%	4 14.8%	2.59	1.57
GRAND MEAN=3.2445							

The results in Table 1 showed that electronic journal, (\bar{x} =4.30, s=0.87) ranked highest by mean score and was followed by electronic book, (\bar{x} =3.70, s=1.41); CD databases, (\bar{x} =3.63, s=1.25); electronic magazine, (\bar{x} =3.49, s=1.25); electronic newspaper (\bar{x} =3.49, s=1.31); electronic dictionary (\bar{x} =3.41, s=1.25); and electronic thesis/dissertation (\bar{x} =3.30, s=1.33)

Research Question 2: How do academic staff and students access electronic resources at NOUN?

Table 2 presents mean and standard deviation scores of the devices employed by library users to access electronic resources at NOUN as indicated by academic librarians.

Table 2: Mean and standard deviation scores of the devices employed by library users to access electronic resources at NOUN as indicated by academic librarians

ITEMS	N(1)	R(2)	OC(3)	OF (4)	MO (5)	Mean (\bar{x})	SD (s)
Center Library Computer	1 3.7%	%	2 7.4%	8 29.6%	16 59.3%	4.40	0.93
Personal Computer	1 3.7%	1 3.7%	1 3.7%	9 33.3%	15 55.6%	4.33	1.00
Mobile Phone	2 7.4%	%	2 7.4%	14 51.9%	9 33.3%	4.04	1.06
Tablet	3 11.1%	%	1 3.7%	14 51.9%	9 33.3%	3.96	1.19
GRAND MEAN=3.5980							

The results in Table 2, as indicated by academic librarians, showed that library users accessed electronic resources through center library computer (\bar{x} =4.40, s=0.93); a personal computer (\bar{x} =4.33, s=1.00); mobile phone (\bar{x} =4.04, s=1.06); and tablet (\bar{x} =3.96, s=1.19).

Table 3 presents mean and standard deviation scores of the devices employed by academic staff to access electronic resources at NOUN.

Table 3 Mean and standard deviation scores of the devices employed by academic staff to access electronic resources at NOUN

ITEMS	N(1)	R(2)	OC(3)	OF (4)	MO (5)	Mean (\bar{x})	SD (s)
Personal Computer	1 .9%	- %	2 1.8%	45 40.9%	42 56.4%	4.52	0.63
Tablet	11 10.0%	20 18.2%	25 22.7%	36 32.7%	18 16.4%	3.27	1.23
Mobile Phone	11 10.0%	32 29.1%	25 22.7%	30 27.3%	12 10.9%	3.00	1.19
Center Library Computer	23 20.9%	39 35.5%	31 28.2%	9 8.2%	8 7.3%	2.45	1.13
GRAND MEAN=2.8680							

The results in Table 3 indicated that academic staff accessed electronic resources through a personal computer (\bar{x} =4.52, s=0.63); tablet (\bar{x} =3.27, s=1.23); and mobile phone (\bar{x} =3.00, s=1.19).

Table 4 presents mean and standard deviation scores of the devices employed by students to access electronic resources at NOUN.

Table 4: Mean and standard deviation scores of the devices employed by students to access electronic resources at NOUN

ITEMS	N(1)	R(2)	OC(3)	OF (4)	MO (5)	Mean (\bar{x})	SD (s)
	(1)	(2)	(3)	(4)	(5)		
Personal Computer	100 9.9%	31 3.1%	145 14.3%	294 29.0%	443 43.7%	3.94	1.26
Mobile Phone	158 15.6%	64 6.3%	166 16.4%	295 29.1%	330 32.6%	3.56	1.40
Tablet	339 33.5%	118 11.6%	207 20.4%	209 20.6%	140 13.8%	2.69	1.45
Center Library Computer	572 56.5%	199 19.6%	156 15.4%	54 5.3%	32 3.2%	1.79	1.08
GRAND MEAN=2.6340							

The results in Table 4 showed that students accessed electronic resources through personal computer (\bar{x} =3.94, s=1.26); mobile phone (\bar{x} =3.56, s=1.40); and tablet (\bar{x} =2.69, s=1.45).

Table 5 presents mean and standard deviation scores of the ease at which electronic resources were accessed by academic staff at NOUN.

Table 5: Mean and standard deviation scores of the ease at which electronic resources were accessed by academic staff at NOUN

ITEMS	VD(1)	DF(2)	UD(3)	E (4)	VE (5)	Mean (\bar{x})	SD (s)
Electronic Newspaper	6 5.5%	8 7.3%	- %	61 55.5%	35 31.8%	4.00	1.05
Electronic Journal	3 2.7%	12 10.9%	6 5.5%	52 47.3%	37 33.6%	3.98	1.04
Electronic Dictionary	15 13.6%	8 7.3%	- %	66 60.0%	21 19.1%	3.64	1.26
Electronic Magazine	15 13.6%	10 9.1%	- %	63 57.3%	22 20.0%	3.61	1.29
Electronic Book	11 10.0%	22 20.0%	8 7.3%	48 43.6%	21 19.1%	3.42	1.28
Indexing and Abstracting Databases	25 22.7%	8 7.3%	1 .9%	65 59.1%	11 10.0%	3.26	1.39
Institutional Repositories	19 17.3%	22 20.0%	6 5.5%	47 42.7%	16 14.5%	3.17	1.37
Electronic Thesis/Dissertation	14 12.7%	32 29.1%	6 5.5%	47 42.7%	11 10.0%	3.08	1.28
Electronic Archives	23 20.9%	20 18.2%	4 3.6%	54 49.1%	9 8.2%	3.05	1.36
CD Databases	45 40.9%	15 13.6%	2 1.8%	40 36.4%	8 7.3%	2.55	1.50
GRAND MEAN=3.1645							

The results in Table 5 indicated that academic staff had easy access to electronic newspaper (\bar{x} =4.00, s=1.05); electronic journal (\bar{x} =3.98, s=1.04); electronic dictionary (\bar{x} =3.64, s=1.26); electronic magazine (\bar{x} =3.61, s=1.29); and electronic book (\bar{x} =3.42, s=1.28).

Table 6 presents mean and standard deviation scores of the ease at which electronic resources were accessed by students at NOUN.

Table 6: Mean and standard deviation scores of the ease at which electronic resources were accessed by students at NOUN

ITEMS	VD(1)	DF(2)	UD(3)	E (4)	VE (5)	Mean (\bar{x})	SD (s)
Electronic Book	167 16.5%	104 10.3%	57 5.6%	408 40.3%	277 27.3%	3.52	1.41
Electronic Dictionary	284 28.0%	75 7.4%	552 5.1%	395 39.0%	207 20.4%	3.16	1.54
Electronic Newspaper	290 28.6%	91 9.0%	52 5.1%	366 36.1%	214 21.1%	3.12	1.56
Electronic Magazine	299 29.5%	106 10.5%	56 5.5%	363 35.8%	189 18.7%	3.04	1.55
Electronic Thesis/Dissertation	275 27.1%	149 14.7%	70 6.9%	366 36.1%	153 15.1%	2.97	1.48
Electronic Archives	338 33.4%	125 12.3%	64 6.3%	381 37.6%	105 10.4%	2.79	1.49
Institutional Repositories	349 34.5%	157 15.5%	51 5.0%	334 33.0%	122 12.0%	2.73	1.51
Indexing and Abstracting Databases	414 40.9%	154 15.2%	67 6.6%	287 28.3%	91 9.0%	2.49	1.54
CD Databases	463 45.7%	179 17.7%	93 9.2%	197 19.4%	81 8.0%	2.26	1.40
Electronic Journal	188 18.6%	121 11.9%	83 8.2%	391 38.6%	230 22.7%	1.26	.76
GRAND MEAN=2.5991							

The results in Table 6 showed that students had easy access to electronic book (\bar{x} =3.52, s=1.41); electronic dictionary (\bar{x} =3.16, s=1.54); electronic newspaper (\bar{x} =3.12, s=1.56); electronic magazine (\bar{x} =3.04, s=1.55); and electronic thesis/dissertation (\bar{x} =2.97, s=1.48).

Table 7 presents mean and standard deviation scores of the level of access to electronic resources available to academic staff and students at NOUN as indicated by academic librarians.

Table 7: Mean and standard deviation scores of the level of access to electronic resources available to academic staff and students at NOUN as indicated by academic librarians

ITEMS	SD(1)	D(2)	UD(3)	A(4)	SA(5)	Mean (\bar{x})	SD (s)
Full Text	2 7.4%	%	2 7.4%	13 48.1 %	10 37.0%	4.01	1.11
Bibliographic (Title, Author, Place, Year) Information	4 14.8%	%	4 14.8%	9 33.3 %	10 37.0%	3.78	1.37
Abstract Only	6 22.2%	2 7.4%	8 29.6%	7 25.9 %	4 14.8%	3.04	1.37
GRAND MEAN=3.6100							

The results in Table 7 showed that the level of access to electronic resources available to academic staff and students at NOUN as indicated by academic librarians are full text (\bar{x} =4.01, s=1.11); and bibliographic (title, author, place, year) information (\bar{x} =3.78, s=1.37).

Table 8 presents mean and standard deviation scores of the level of access to electronic resources available to academic staff at NOUN.

Table 8: Mean and standard deviation scores of the level of access to electronic resources available to academic staff at NOUN

ITEMS	SD(1)	D(2)	UD(3)	A(4)	SA(5)	Mean (\bar{x})	SD (s)
Full Text	3 2.7%	1 .%	1 0.9%	55 50.0%	50 45.5%	4.35	0.79
Bibliographic (Title, Author, Place, Year) Information	7 6.4%	- %	1 0.9%	74 67.0%	28 25.5%	4.05	0.92
Abstract Only	8 7.3%	20 18.2%	40 36.4%	32 29.0%	10 9.1%	3.15	1.06
GRAND MEAN=3.8500							

The results in Table 8 indicated that the level of access to electronic resources available to academic staff at NOUN is full text (\bar{x} =4.35, s=0.79); and bibliographic (title, author, place, year) information (\bar{x} =4.05, s=0.92).

Table 9 presents mean and standard deviation scores of the level of access to electronic resources available to students at NOUN.

Table 9 Mean and standard deviation scores of the level of access to electronic resources available to students at NOUN

ITEMS	SD(1)	D(2)	UD(3)	A(4)	SA(5)	Mean (\bar{x})	SD (s)
Full Text	188 18.6%	42 4.1%	52 5.1%	418 41.3%	%	3.61	1.43
Bibliographic (Title, Author, Place, Year) Information	268 26.5%	51 5.0%	63 6.2%	435 42.9%	196 19.3%	3.24	1.50
Abstract Only	378 37.3%	122 12.0%	260 25.7%	188 18.6%	65 6.4%	2.45	1.32
GRAND MEAN=3.1000							

The results in Table 9 above showed that the level of access to electronic resources available to students at NOUN is full text (\bar{x} =3.61, s=1.43); and bibliographic (title, author, place, year) information (\bar{x} =3.24, s=1.50).

Table 10 presents mean and standard deviation scores of academic staff' reasons for not accessing electronic resources available at NOUN library.

Table 10: Mean and standard deviation scores of academic staff' reasons for not accessing electronic resources available at NOUN library

ITEMS	SD(1)	D(2)	UD(3)	A(4)	SA(5)	Mean (\bar{x})	SD (s)
I do not know they exist	2 1.8%	35 31.8%	57 51.8%	10 9.1%	6 5.5%	2.85	0.83
I do not know how to access them	3 2.7%	34 30.9%	58 52.7%	10 9.1%	5 4.5%	2.82	0.81
I do not have Internet access	1 .9%	38 34.5%	57 51.8%	13 11.8%	1 .9%	2.77	0.69
I do not have a computer to access them	1 .9%	44 40.0%	54 49.1%	10 9.1%	1 .9%	2.69	0.69
I do not have interest in them	6 5.5%	46 41.8%	53 48.2%	2 1.8%	3 2.7%	2.55	0.75
GRAND MEAN=2.4550							

The items that best describe why academic staff do not access electronic resources available at NOUN library as shown in Table 10 above are I do not know they exist (\bar{x} =2.85, s=0.83); and I do not know how to access them (\bar{x} =2.82, s=0.81).

Table 11 presents mean and standard deviation scores of students’ reasons for not accessing electronic resources available at NOUN library.

Table 11: Mean and standard deviation scores of students’ reasons for not accessing electronic resources available at NOUN library

ITEMS	SD(1)	D(2)	UD(3)	A(4)	SA(5)	Mean (\bar{x})	SD (s)
I do not know they exist	153 15.1%	301 29.7%	357 35.2%	137 13.5 %	65 6.4%	2.67	1.08
I do not know how to access them	181 17.9%	294 29.0%	361 35.6%	132 13.0 %	45 4.4%	2.57	1.06
I do not have Internet access	164 16.2%	353 34.8%	328 32.4%	139 13.7 %	29 2.9%	2.52	1.01
I do not have a computer to access them	173 17.1%	383 37.8%	307 30.3%	114 11.3 %	36 3.6%	2.46	1.01
I do not have interest in them	193 19.1%	436 43.0%	340 33.6%	35 3.5%	9 .9%	2.24	.83
GRAND MEAN=2.2867							

The results in Table 11 above showed that students do not access electronic resources available at NOUN library for reasons such as, I do not know they exist (\bar{x} =2.67, s=1.08); and I do not know how to access them (\bar{x} =2.57, s=1.06).

Table 12 presents mean and standard deviation scores of the electronic resources library users have access to in NOUN library as indicated by academic librarians.

Table 12: Mean and standard deviation scores of the electronic resources library users have access to in NOUN library as indicated by academic librarians

ITEMS	SD(1)	D(2)	UD(3)	A(4)	SA(5)	Mean (\bar{x})	SD (s)
Electronic Journal	%	%	3 11.1%	12 44.4%	12 44.4%	4.33	0.68
Electronic Book	2 7.4%	1 3.7%	4 14.8%	13 48.1%	7 25.9%	3.82	1.11
Electronic Dictionary	3 11.1%	1 3.7%	7 25.9%	11 40.7%	5 18.5%	3.51	1.19
Electronic Magazine	3 11.1%	3 11.1%	5 18.5%	10 37.0%	6 22.2%	3.48	1.28
Electronic Thesis/Dissertation	3 11.1%	1 3.7%	11 40.7%	7 25.9%	5 15.8%	3.37	1.18
Electronic Newspaper	3 11.1%	4 14.8%	6 22.2%	10 37.0%	4 14.8%	3.29	1.25
CD Databases	8 29.6%	2 7.4%	4 14.8%	7 25.9%	6 22.2%	3.03	1.51
Institutional Repositories	9 33.3%	1 3.7%	5 18.5%	7 25.9%	5 18.5%	2.92	1.57
Indexing and Abstracting Databases	7 25.9%	3 11.1%	9 33.3%	7 25.9%	1 3.7%	2.70	1.24
Electronic Archives	11 40.7%	4 14.8%	5 18.5%	6 22.2%	1 3.7%	2.33	1.33
GRAND MEAN=3.1145							

The results in Table 12 above indicated that library users have access to electronic journal (\bar{x} =4.33, s=0.68); electronic book (\bar{x} =3.82, s=1.11); electronic dictionary (\bar{x} =3.51, s=1.19); electronic magazine (\bar{x} =3.48, s=1.28); and electronic thesis/dissertation (\bar{x} =3.37, s=1.18).

Others specified by some academic librarian include electronic past questions and electronic courseware.

Discussion of Findings

Types of Electronic Resources Available at NOUN

As presented in table 1.2, majority of the academic librarians agreed that electronic journals, are available in NOUN, with 77.7% selecting electronic books while 74.1% selected CD databases. Though CD ROM databases are being faced out of the information market, it is still relevant in most developing countries of the world like Nigeria, where infrastructures to drive modern inventions are not affordable and out of reach to most libraries. A similar study by Quadri, Adetimirin and Idowu (2014) found that majority (46.5%) of the respondents in Babcock

university, Nigeria agreed that electronic journals were available in the library. Edem and Egbe (2016) reported that majority (43.65%) of the respondents agreed to the availability of electronic journals. Seemingly, electronic resources are increasingly becoming common in academic libraries. Manorama and Jeevan (2013) had observed that there is an increase in the volume of electronic journals collections among academic libraries and research centers due to its importance in academic and research works. Majority of the respondents indicated that electronic archives do not exist in the NOUN library. This finding revealed that electronic journals and electronic books are readily available in the library. Since the activities of the academic staff and postgraduate students (over 60% of students' population) are mainly research-based. According to Madhusudhan (2010), researchers are in search of the most efficient ways of getting relevant reference materials, reducing time spent and improving research output. NOUN being an ODL institution, the library provides electronic resources to remote users who are majorly research scholars.

Users' Access to Electronic Resources at NOUN

Majority of the academic librarians stated that library users access library electronic resources through the center library computer and through personal computer. Majority of the academic staff stated that they access library electronic resources through their personal computer and tablet. Majority of the students stated that they access library electronic resources through their personal computers and mobile phones. The study showed that the academic staff and students make use of their personal devices to access library electronic resources and access these resources through their center library computers occasionally. This is an indication that library electronic resources can be accessed by library users within and outside the university premises. Access through library computers is low, which implies that library users rarely come physically to the library and are more comfortable accessing library resources from distant locations. The findings corroborate with the studies by Peris and Peris (2012), Baikady, Jessy and Shivananda (2014) and Bansal (2015) which stated that library users access electronic resources, thus eliminating the barrier of distance.

Majority of the academic staff respondents found it easy to access electronic newspapers, electronic journals and electronic dictionaries. Majority of the students found it easy to access electronic books, electronic dictionaries and electronic newspapers. The study also agreed with Oyewusi and Oyeboade (2009), Kumar & Kumar (2010), Ahmed (2013), Zafar (2013), Garg (2014) and Gupta & Sharma (2015) findings that majority of the respondents find it easy to access electronic resources. However, the finding revealed that over 30% of the respondents find it difficult to access electronic resources at NOUN. This was corroborated by Issa, Amusan and Umma (2009) that over 30% of the students were undecided about the ease of accessing electronic resources. Though majority of the respondents claimed to find accessing electronic resources easy, a sizable number of respondents claimed otherwise.

Access to full-text documents expose researchers to detailed information on a subject of interest for better understanding and representation of a phenomenon. Majority of the academic staff and students stated that they have access to full text and bibliographic information. This was in agreement with previous studies by Tripathi and Jeevan (2009), Ozoemelem (2009), Okello-

Obura and Ikoja-Odongo (2010), Warraich and Ameen (2010), Okello-Obura (2011), Hadagali, Kumbar, Nelogal and Bachalapur (2012), Santhi and Radhakrishnan (2012), Joshua (2014), Qasim and Khan (2015) that reported that respondents had access to full text electronic resources. The study showed that NOUN library subscribed to electronic resources with full text materials and library users could access them for their studies and research work.

Majority (51%) of the academic staff and over 30% of students were not sure electronic resources exist in the library, they do not know how to access them, do not have internet connection and computers to access these electronic resources, and are not interested in them. However, 52% of students and 38% of academic staff stated that they know electronic resources exist in the library, they know how to access them, they have internet connection and computers to access them and that they have interest in them. This finding suggests that many academic staff and students were not accessing library electronic resources due to lack of awareness. The studies by Haridasan and Khan (2009), Deng (2010), Egberongbe (2011), Okello-Obura (2011), also reported that respondents were unsure of the existence of electronic resources, do not know how to access them, lack facilities required to access them, hence were not accessing them.

The academic librarians (89%) stated that library patrons can access electronic journals, while 74% stated that library patrons can access electronic books. This agrees with the studies by Okello-Obura and Ikoja-Odongo (2010), Swain (2010), Tahir, Mahmood and Shafique, (2010), Kumar and Singh (2011), Tyagi (2011), Thanuskodi (2011), Okello-Obura (2011), Natarajan & Revathi (2012), Okiki (2012), Ahmed (2013), Oyedapo and Ojo (2013), Kwafoa, Imoro and Afful-Arthur (2014) that reported that library users access library electronic resources such as electronic journals and electronic books at the library. The findings revealed that a low percentage of academic staff and students access full-text documents through their personal devices. Also, a substantial percentage of academic staff and students are unaware of the existence of the library electronic resources and do not access them. This implies that the library electronic resources are not fully utilized by library users.

Conclusion

The electronic resources available at NOUN library and are accessible include: electronic journals and electronic books. Personal computers and miniature devices such as tablets and phones were employed to access and use NOUN library electronic resources. The academic staff and students have access to full text electronic resources and find electronic newspapers, electronic journals and electronic books easily accessible. Academic staff access electronic journals mostly at work, while the students access electronic books at home.

Recommendations

The findings of the study revealed poor awareness and access of NOUN library electronic resources. Therefore, the following recommendations were made:

1. The library management should develop an effective and efficient awareness programmes that is appropriate for an ODL university community through the use of modern communication tools such as the social media platforms;
2. The university management should provide adequate funds for electronic resources subscription;
3. The university management should equip all NOUN libraries with computers in order to improve patronage to the library and use of the library electronic resources.
4. The university should provide high speed Internet connectivity in all NOUN libraries

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