

Use of Electronic Information Resources among Postgraduate Students in Selected Public Universities in Southwest, Nigeria

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Abstract

Electronic information resources (EIRs) are those resources that were available in electronic format, which are most beneficial to postgraduate education. These resources were provided by the libraries for the benefit of postgraduate students and other library users. Despite the provision of EIRs some of the postgraduate students were not using the resources which will amount to wastage of the fund used to acquire the resources. In line with this, the study investigated use of EIRs among postgraduate students in selected public universities in South west Nigeria. A multi-stage sampling technique was adopted for the study, using convenience, purposive and simple random sampling to determine 362 respondents who represented population of the study. The result shows that there was no significant difference (Kruskal Wallis=3.033, $p>0.05$) in the use of EIRs across the selected universities. Significant difference exists in the frequency of use of EIRs across the universities, respondents in UNILAG ($\bar{x} = 188.80$) utilise EIRs more than the respondents in UI ($\bar{x} = 170.36$) and OOU ($\bar{x} = 185.54$). Based on the findings, the study recommended that the university management should provide enabling environment that will promote effective use of EIR and adequate training which is necessary for the effective use of the resources. This study contributes to knowledge in the following areas literature, policy. It also joins in the debate on social informatics.

Keyword: Electronic Information Resources (EIRs), Postgraduate Students, Use, Universities, Nigeria.

Introduction

Information is a vital tool for teaching, learning and research activities in an academic environment. The information that is needed to fulfill these activities are available in both electronic and non-electronic formats. However, most information required to support academic and professional careers of postgraduate students requires extensive literature searching and the garnering of ideas from different sources and in different formats. Thus, individuals who are able to use the right information from the right source at the right time stand a better chance of succeeding in their academic pursuit. Electronic information resources (EIRs) have abundant information that is most useful to postgraduate education.

EIRs are information resources provided in electronic form. The EIRs include resources available on the Internet such as e-journals, e-books, online and offline databases, CD-ROM and other computer –based electronic networks, among others. EIRs had become invaluable research tools that complement the printed resources in a library setting. So it is increasingly an important function of academic libraries to provide information in different electronic formats such as indexes, full text articles, complete journals and web resources. The advantages of EIRs include access to information that are restricted to users due to geographical location and finance, provision of extensive links to additional resources related contents and access to more current information. It has also been found to be more effective in research, as it saves time of the users and provides the largest reservoir of vital information that is useful in all disciplines.

The EIRs was presumed to assist the research component of postgraduate studies because the postgraduate education is deeply rooted in research activities. But it was observed that the postgraduate students were not maximizing the use of these resources in the various libraries that were attached to their institution of learning. This is evidence in Gakibayo, Ikoja-Odongo, and Okello-Obura (2013) where some of the respondents indicated that they were not using the available EIRs in their university library. Edem and Egbe (2016) opined that, in spite of the perceived availability of electronic resources in universities and the benefits provided to university education, the postgraduate students were not effectively using the resources. Due o the nature of information proliferation, the information users are confronted with enormous quantities of information that may results in confusion on where and how to get their needed information. It was further presumed that the availability of EIRs from a wide range of sources may cause difficulty and confusion for its frequent use by postgraduate students as some of them lack knowledge of sufficient information evaluation skills on how to use some of these information resources.

In line with this, postgraduate students' knowledge and skills for searching, locating, retrieving, evaluating, and analysing information from various e-sources is vital because collectively they are likely to enhance postgraduate students' comprehension, handling and use of EIRs effectively.

Statement of the Problem

Electronic information resources (EIRs) are products of ICT. These resources had provided additional source of acquiring processing, preserving, disseminating and making information available for use by library patrons. The EIRs are cost effective, easily manipulated and remotely accessible. These characteristics of EIRs were expected to promote its frequency of use among the postgraduate students for the completion of their assignment, term paper writing, and seminar presentation among other. But it was observed that despite the flexibility of EIRs, some of the postgraduate students were not using them for the enhancement of their programme. This is gradually leading to wastage of the scarce fund that was used to acquire the resources. Thus, this study investigated the use of EIRs among postgraduate students in selected public universities in Southwest Nigeria

Objectives of the Study

The main objective of this study is to examine the use of electronic information resources by postgraduate students in selected public universities in Nigeria. Specific objectives were to:

- i. determine the postgraduate students' frequency of use of electronic information resources;
- ii. ascertain the postgraduate students' level of utilisation of electronic information resources;
- iii. identify the hindrances to the frequency of use of electronic information resources by postgraduate students;

Research Question

- i. What is the frequency of use of electronic information resources by the postgraduate students?
- ii. What is postgraduate students' level of use of electronic information resources?
- iii. What are the challenges face by postgraduate students in using electronic information resources

Research Hypotheses

The following hypotheses are stated in null form:

H₀₁: There is no significant difference in respondents' use of electronic information resources across the selected universities.

H₀₂: There is no significant difference in the utilisation of EIRs across the faculties.

Literature Review

Electronic information resources are systems in which information is stored electronically and made accessible through electronic systems and computer networks. There is a need for the postgraduate students to be aware of such resources and make use of them to aid their academic pursuit. Akpojotor (2016) in a study conducted among postgraduate students on awareness and usage of electronic information resources concluded that there is a significant relationship between postgraduate students of library and information science ICT skills and their usage of electronic information resources.

Tenopir, Wilson, Vakkari, Talja and King (2008) carried out a survey on access and use of electronic resources in three countries namely: Finland, United States of America (USA) and Australia. It was found that there is a correlation between productivity and the use of e-resources in Finland and the U.S.A, but there is no correlation between the use of e-resources and productivity in Australia. The total number of scholarly items published in Finland was

significantly associated with the number of electronic article read by the academics and related result was found in the U.S.A. This implies that, the academics have to read through a meaningful number of scholarly articles published electronically to improve their academic productivities.

Vakkari (2008) (605p) asserted that “the use of e-resources has a potential positive influence on the scholars’ publication and productivity”. Similarly, Atakan (2008) affirmed that strong relationship exist between electronic journal usage and research activities among scholars in universities. Dilek-Kayaoglu (2008) in a research on the use of electronic journals by a faculty at Istanbul University, Turkey revealed that a larger percentage of the respondents supported the transition from print to electronic resources. The implication of this is that EIRs are widely preferred to printed resources by the majority of the library users.

Access and use of e-resources are influenced by both individual and technological factors. According to Kabede (2007), the accessibility of e-resources could be affected by those characteristics that surrounded the user and the information carriers. These characteristics may include the contents of the e-resource and the entire information environment. Individual user’s characteristics such as computer literacy level, information literacy, language proficiency and individual preference to some information formats can as well influence the access and use of e-resources. E-resource characteristics may possibly influence their accessibility and usage. The other factor influencing the accessibility and use of e-resources is the characteristic of the information carrier. CD or DVD-ROMs and web pages are some of the common formats of e-resources (Sife, Lwoga and Sanga, 2007).

Accessing those e-resources that are available in these formats largely depend on the availability of devices needed for reading, connectivity and the individual literacy level. So there is a need for the postgraduate students to acquire the necessary skill to enhance their access and use of EIRs. In order to achieve this, it is important to create awareness about the EIRs among postgraduate students to know the extent to which they are aware of and make use of the EIRs.

Tyagi (2011) suggested the appropriate strategies that should be used to raise awareness about EIRs in order to increase their usage. It was suggested that posters, leaflets, brochures, and e-mail lists, can be used to inform users about the available EIRs in an academic library. For users to be able to access and use EIRs effectively, they must have adequate skills for retrieving information and also possess the ability to evaluate the outputs of the searching process.

In the educational sector, empirical evidence revealed that the use of EIRs has positive impact on the teaching, learning and research activities processes. Bhukuvhani, Chiparausha and Zuvalinyenga (2012) conducted a study on the effects of electronic information resources skills training for lecturers on pedagogical practices and research productivity; it was revealed that lecturers used e-resources for the preparation of lecture notes which reflect the current level of science and technological development. The implication of this is that EIRs have become very important tools that have the capability to facilitate effective teaching and learning process.

Nkonoki (2013) indicated that majority of the postgraduate students at Sokoine University of Agriculture, Morogoro, Tanzania affirmed the use of EIR in their research activities. This

finding is similar to the findings of Aqil and Ahmed (2011) on Use of the Internet by Research Scholars and Postgraduate Students of the Science Faculty of Aligarh Muslim University in India that showed more than 80% of scholars globally are moving to use of e-resources instead of print versions. This indicated that e-resources are more useful than print sources.

A citation analysis of theses and dissertations conducted by Sife and Bernard (2013) at Sokoine University of Agriculture revealed that there is an increase in the level of usage of EIRs by postgraduate students taking agricultural programmes in the institution. The increase in the usage of EIRs in Tanzania can also be explained by limitation in the acquisition of print resources, and could be further motivated by the discovery of free information contents through search engines such as Google. It was reported in the study that the Sokoine National Agricultural Library which is the largest agricultural library in Tanzania had stopped the subscription of printed journals for the past ten years.

Omotayo (2010) found that the decreasing acquisition of printed resources among libraries in most of the developing countries is due to the dwindling funds for subscriptions. And in such a situation, the scholars will largely depend on EIRs, most especially those EIRs that are freely accessible on the internet, which serve as the only source to meet their scholarly information needs.

Mtega, Dulle, Malekani and Chailla (2014) showed that the users of e-resources had access to both online and offline sources at Sokoine University of Agriculture, Morogoro, Tanzania. It was further revealed in the findings that the use of EIRs increases with an increase in the level of education of the agricultural researchers and extension staff and decreases with an increase in age of the respondents respectively. The decrease of usage of EIRs with an increase in age was explained by the fact that majority of them graduated before the introduction of computers in education system in Tanzanian universities hence did not have the opportunities to learn how to use computers. Older agricultural researchers who use EIRs might probably have been exposed to the computer literacy programmes during their postgraduate programmes.

Thanuskodi (2010) investigated the use of e-resources among medical professionals at Indian universities. Findings from the study showed that older medical professionals' use of EIRs is lesser to the new generation professionals. Moreover, Thanuskodi (2010) stated that older medical professionals are lagging behind in identifying problems in accessing EIRs. Singh and Bebi (2012) conducted a study on use of e-journals by agricultural scientists in Delhi, it was concluded that in most cases, EIRs are more current than print resources. This may explain why postgraduate students need to use EIRs in their research activities.

Adeleke and Emeahara (2016) studied the relationship between information literacy and use of electronic information resources by postgraduate students at the University of Ibadan. The study revealed that low level of the use of e-resources is linked to postgraduate students' lack of search techniques skills. It was later suggested that ICT course should be incorporated into the postgraduate curriculum to enhance their effective use of the available EIRs. Almarabeh, Rajab and Majdalawi (2016) in a study conducted to investigate the awareness and usage of computer and internet among medical faculties' students at the University of Jordan, discovered that the majority of the medical students are averagely skilled in the use of computer and internet. It was concluded that ICT is a useful tool that has the potential to

improve medical education, if not for time constraint and low internet connectivity which is a hindrance to the use of ICT facilities. EIRs are very important resources for research in postgraduate education and for such resources to be maximally used; postgraduate students must acquire the necessary ICT literacy skills that will enable its usage.

Methodology

Descriptive survey research design was adopted for this study and the population comprised postgraduate students in three selected universities in South-west, Nigeria. A multi-stage sampling technique which includes both probability and non-probability was used to select the sample for the study. The first stage involved the use of convenience sampling in selecting the universities (Olabisi Onabanjo University (OOU), University of Ibadan (UI) and University of Lagos (UNILAG) for the study. The reason for this was that, they form part of the old generation universities in South-west, Nigeria that have been offering postgraduate studies for a long period of years. Secondly, purposive sampling was used to select common faculties (Faculties of Arts, Education, Law, Sciences and Social Sciences) in the selected universities while the final stage was the use of simple random sampling without replacement for the selection of postgraduate students in the faculties.

There are eight (8) faculties in OOU with five thousand one hundred and thirty seven (5,137) total numbers of postgraduate students, thirteen (13) faculties in both UI and UNILAG with eleven thousand one hundred and sixty one (11,161) and twelve thousand five hundred and eighty one (12,581) total number of postgraduate students respectively. The researcher sought for permission to get the number of the postgraduate students from the official registers of the three universities and they were used as the sample frames to guide the study. A validated questionnaire which had been used in a similar study by Amusa (2017) and Owolabi (2016) was adapted and modified to suit the objectives of this present study, while Statistical Package for Social Sciences (SPSS) was used to compute and analyse the data gathered.

Table 1: The Five Faculties Selected to Represent the Sampling for the Study
 Sampled Faculties: Numbers of Postgraduate Students in each Faculty

S/N		OOU	UI	UNILAG	Total
1.	Arts	493	1315	1732	3540
2.	Education	582	2161	2017	4760
3.	Law	163	306	820	1289
4.	Sciences	336	1270	1336	2942
5.	Social and Management Sciences	1921	635	1155	3711
	Total number of students in each of the five faculties	3495	5687	7060	16242

Source: Field survey (2018)

The selected faculties as shown in Table 1 above are Faculties of Arts, Education, Law, Sciences and Social Sciences. The total population of postgraduate students that were

considered in this study was sixteen thousand two hundred and forty two (16,242). The Krejcie and Morgan (1970) tabulated arrangement of determining sample size in research activities in social sciences was employed to determine the sample size for the study.

Where a sample size is calculated thus:
$$S = \frac{X^2 NP(1-P)}{d^2 (N-1) + X^2 P (1-P)}$$

s= required sample size

$X^2 = 1.96 \times 1.96 = 3.8416$ which represents the table value of chi-square for 1 degree of freedom at the desired confidence level.

N= population size.

P= population proportion (assumed to be 0.50 since this would provide the maximum sample size).

d= degree of accuracy (0.05 expressed as a proportion)

$S = \frac{3.841 \times \text{population} \times 0.05 (1-0.05)}{0.0025 (\text{population} - 1) + 3.841 \times 0.5(1-0.5)}$

$S = \frac{3.841 \times 16242 \times 0.05 (1-0.05)}{0.0025 (16242 - 1) + 3.841 \times 0.5(1-0.5)}$

= 377

A total of 377 postgraduate students at the three selected universities represented the sample size for the study. Proportion to size was used to determine sample size (number) of postgraduate students that were selected from each of these universities. This is in line with the principle outlined by Frankfort-Nachmias and Nachmias (1996) that a researcher should “determine the sub-sections (faculties); from each section (each university), select a random sample proportionate to the size of the samples’ population”. So the population of each of the university was used as the section to determine the sample size for each of the universities that represented the population of the study.

The proportion to size was calculated thus: population fraction multiply by calculated sample size. As a result, one hundred and sixty-four (164) copies of questionnaire were distributed among postgraduate students in University of Lagos (UNILAG), being the university that had the highest numbers of postgraduate students. This was followed by University of Ibadan (UI) where one hundred and thirty-two (132) copies of questionnaire were distributed among the respondents in the five faculties. Olabisi Onabanjo University had eighty-one (81) copies of questionnaire distributed among the respondents in the five faculties.

Result and Findings

Table 2: Demographic characteristics of respondents

1	Age bracket of respondents	Frequency	%
	20 – 29	195	53.9
	30 –39	125	34.5
	40 – 49	40	11
	50 – 59	02	0.6
	Total	362	100.0
2.	Gender		
	Male	212	59
	Female	150	41
	Total	362	100.0
3.	Marital status		
	Single	218	60.2
	Married	142	39.2
	Divorce	01	0.3
	Separate	01	0.3
	Total	362	100.0

Age bracket of the respondents revealed that majority (195) were between 20 to 29 years of age (53.9%); 125 respondents (34.5%) were between 30 to 39 years of age and respondents within the age bracket of 40 to 49 were 40 in number (11%). The distribution of respondents by gender indicated that female constituted majority 212 (59%) of respondents. The male respondents were 150 (41%). This finding revealed that population of female postgraduate students is more than their male counterparts in the study area. Furthermore, it was revealed that there are more single 218 (60.2%) postgraduate students in the study area, followed by married with 142 (39.2%), divorced 1 (0.3%) and separated 1 (0.3%).

Respondents' Level of Use of Electronic Information Resources

The question intended to find out the level of use of electronic information resources (EIRs) by postgraduate students. Almost 263 (72.7%) claimed that they always use the electronic information resources to source for educational materials. On the other hand, 242 (66.9%) admitted that they use the EIRs to seek for latest research that contributed to knowledge. Furthermore, 236 (65.2%) used the EIRs in completion of assignment, term-paper and presentations.

Table 3: Utilisation of electronic information resources N=362

S/N	EIRs	AL (%)	OC (%)	SE (%)	NV (%)	X	SD
1	Sourcing for educational materials	263(72.7)	90(24.9)	3(0.8)	6(1.7)	1.31	0.577
2	Engaged in collaborative research with other postgraduate in other institutions	92(25.4)	162(44.8)	63(17.4)	45(12.4)	2.17	0.948
3	Used in the compilation of assignment	234(64.6)	94(26.0)	25(6.9)	9(2.5)	1.47	0.733
4	Used for online reference database	220(60.8)	113(31.2)	17(4.7)	12(3.3)	1.51	0.738
5	Used in the completion of assignment, term-paper and presentation	236(65.2)	99(27.3)	23(6.4)	4(1.1)	1.43	0.663
6	Used for storing academic files and documents	225(62.2)	92(25.4)	33(9.1)	12(3.3)	1.54	0.795
7	Used for sourcing secondary data	182(50.2)	133(36.7)	38(10.5)	9(2.5)	1.65	0.767
8	Used for sourcing recent contribution to knowledge	242(66.9)	96(26.6)	18(5.0)	(1.7)	1.41	0.665

Note: Always (AL), Occasionally (OC), Seldom (SE), Never (NV)

Source: Field survey (2018)

Postgraduate Students' Frequency of Use of Electronic Information Resources (EIRs)

Table 4: presents analyses of data on frequency of use of EIRs by the respondents. It can be observed from the table that there is a different in the frequency of use of the resources. E-journals have 71 (19.6%) respondents; e-books and e-newspapers have 132 (36.5%) of the postgraduate students that make use of the resources on daily basis. However, Electronic Thesis and Dissertations (ETD) have 218 respondents (60.2%); E-Manuscripts 205 (56.9%); also CD/DVD ROM 189 (52.2%) respondents use the resources as the need arise. This finding indicated that the postgraduate students are not taking the advantages of EIRs, as the e-journal, e-books, electronic thesis and dissertation, e-manuscripts and CD/DVD ROM which are most useful in the postgraduate studies are not frequently used.

Table 4: Frequency of use of electronic information resources

Electronic Information Resources (EIRs)	Daily	Weekly	Fortnightly	Monthly	As the need arises	X	SD
1 E-Journal	71 (19.6)	87 (24.0)	13(3.6)	18 (5.0)	173 (47.8)	3.37	1.690
2 CD/DVD ROM	51(14.1)	76 (21.0)	24(6.6)	22 (6.1)	189 (52.2)	3.61	1.598
3 E-Bibliographic Database	40(11.0)	59 (16.3)	32(8.8)	21 (5.8)	210 (58.0)	3.83	1.515
4 E-Books	132 (36.5)	70 (19.3)	13(3.6)	12 (3.3)	135 (37.3)	2.86	1.779
5 E-Data Archive	62(17.1)	71 (19.6)	30(8.3)	17 (4.7)	182 (50.3)	3.51	1.638
6 E-Magazine	92(25.4)	63 (17.4)	26(7.2)	27 (7.5)	154 (42.5)	3.24	1.708
7 E-Newspapers	132 (36.5)	59 (16.3)	20(5.5)	17 (4.7)	134 (37.0)	2.90	1.774
8 E-Manuscripts	43(11.9)	62 (17.1)	23(6.4)	29 (8.0)	205 (56.9)	3.80	1.534
9 E-Maps	40(11.0)	47 (13.0)	15(4.1)	19 (5.2)	241 (66.6)	4.03	1.492
0 Electronic Thesis and Dissertations (ETD)	47 (13.0)	53 (14.6)	24(6.6)	20 (5.5)	218 (60.2)	3.85	1.552

N=362

Challenges faced in the use of electronic information resources (EIRs).

The challenges faced by postgraduate students in the use of EIRs revealed that majority 296 (81.7%) of the students were faced with slow downloading rate. In addition 280 (77.4%) lack the ability to filter result from search resources, while 256 (70.7%) confirmed that they lack the support of library staff when the need to use the EIRs arises.

Table 5: Challenges faced in the use of electronic information resources (EIRs)

S/N	Challenges	MJC (%)	MC (%)	NC (%)	X	SD
1	Slow downloading rate	129(35.6)	167(46.1)	66(18.2)	1.83	0.714
3	Power outages frustrated my effort of using the EIRs	160(44.2)	131(36.2)	71(19.6)	1.75	0.761

4	Inaccessibility of some websites	118(32.6)	170(47.0)	74(20.4)	1.88	0.719
5	Internet access problem/ low bandwidth frustrated my use of EIRs	150(41.4)	133(36.7)	79(21.8)	1.80	0.772
6	The need to filter result from search is my major challenge using EIRs	114(31.5)	166(45.9)	82(22.7)	1.91	0.732
7	Information overload (too much information)	132(36.5)	145(40.0)	85(23.5)	1.87	0.732
8	Problem with credibility of information	121(33.4)	155(42.8)	86(23.8)	1.90	0.751
9	High cost of access	122(33.7)	154(42.5)	86(23.8)	1.90	0.753
10	Difficult in navigating some websites	133(36.7)	143(39.5)	86(23.8)	1.87	0.768
11	Lack of library staff support	117(32.3)	139(38.4)	106(29.3)	1.97	0.785

Note: Major Challenge (MJC), Mild Challenge (MC), Not a Challenge (NC)

Source: Field survey (2018)

Testing of Hypotheses

H₀₁: There is no significant difference in respondents' utilisation of electronic information resources across the selected universities (Non-parametric Analysis of Variance, Kruskal-Wallis Test)

Table 6: Kruskal-Wallis Test

Ranks			
	Name of University	N	Mean Rank
Utilisation	Olabisi Onabanjo University	81	185.54
	University of Ibadan	129	170.36
	University of Lagos	152	188.80
	Total	362	

Table 7

Test Statistics ^{a,b}	
	Utilisation
Kruskal Wallis	3.033
Df	2
Sig.	.220

The mean rank shows that the respondents at UNILAG utilise EIRs more than the respondents at UI and OOU. Kruskal Wallis test otherwise known as non-parametric one way ANOVA was used to test the significant difference in respondents' utilisation of electronic information resources across the selected universities. The result shows that there was no significant difference (Kruskal Wallis=3.033, $p>0.05$) across the selected universities in utilisation of EIRs. So the null hypothesis is accepted.

H₂: There is no significant difference in the utilisation of EIRs among the faculties (ANOVA)

Table 8: ANOVA

ANOVA					
Utilisation					
	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	.937	4	.234	.729	.572
Within Groups	114.690	357	.321		
Total	115.627	361			

The ANOVA table revealed that there is no significant $p>0.05$ difference in the utilisation of EIRs across the faculties. So the null hypothesis is rejected.

Table 9: Post Hoc Tests Homogeneous Subsets

Utilisation			
	Name of Faculty	N	Subset for alpha = 0.05
			1
Duncan ^{a,b}	Social Sciences	71	1.54
	Education	77	1.58
	Sciences	68	1.63
	Arts	74	1.65
	Law	72	1.68
	Sig.		.175

Duncan Post HOC test shows that the utilisation of EIRs among the five faculties is not significantly different from each other, however it reveals that the faculty of Law utilises more, followed by faculties of Arts, Sciences, Education and Social Sciences respectively.

Discussion of findings

This finding revealed that the postgraduate students are not taking full advantages of EIRs. As EIRs such as the e-journal, e-books, electronic thesis and dissertation, e-manuscripts and CD/DVD ROM which are most useful in the postgraduate studies are not frequently used. This is in contrast to Bhukuvhani, Chiparausha and Zuvalinyenga (2012); Shukla and Mishra (2011) who found that the research scholars of Institute of Technology, Banaras Hindu University, India use the e-resources daily in their academic pursuit.

The utilisation of electronic information resources (EIRs) by postgraduate students was examined. It was revealed in the finding that the respondents always use the electronic information resources to source for educational materials. This is in agreement with Nkonoki (2013) that the majority of the postgraduate students at Sokoine University of Agriculture, Morogoro, Tanzania affirmed that they use the electronic information resources to source for educational materials. In addition, Aqil and Ahmed (2011) on the use of the e-resources by postgraduate and research scholars of the Science Faculty of Aligarh Muslim University at India show that the majority of the respondents use the e-resources to locate relevance educational materials.

Furthermore, it was discovered that the respondents were not maximally using the EIRs in collaborative research with other postgraduates' and as a template for writing research proposal. This finding is in line with Adeleke and Emeahara (2016) who studied the relationship between information literacy and use of electronic information resources by postgraduate students at University of Ibadan, where it was discovered that majority of the postgraduate students were not using the e-resources in their research activities as well as to collaborate with their colleagues. But, the finding is contrary to Nkonoki (2013) who indicated that majority of the postgraduate students at Sokoine University of Agriculture; Morogoro, Tanzania affirmed the use of EIR in their research activities. There is a need to continually advocate the use of EIRs among the postgraduate students. Tyagi (2011) suggested some appropriate strategies to improve the use of EIRs among its users. These include; the use of posters, leaflets, brochures, and e-mail lists to inform users about the available EIRs in an academic library for users to access and use effectively.

It was revealed in the study that the postgraduate students were faced with different challenges in their quest to use the EIRs. These challenges include slow downloading rate, lacking of ability to filter result from search resources lack of support of library staff when the need to use the EIRs arises. This goes in line with Bakare, Owolabi, Bamigboye and Bankole (2013) who examined factors affecting library use by academic staff and students of Federal University of Agriculture. Abeokuta, Ogun State. It was found that limited time and lack of effective information retrieval skills are the main barriers to the use of e-sources. Okiki and Asiru (2011) conducted a study on the use of electronic information sources by postgraduate students in Nigeria where it was found that slow internet connectivity which resulted in slow downloading rate and incessant power outage were among the challenges encountered by respondents when using the EIRs.

Significant difference in postgraduate students' utilisation of electronic information resources across the selected universities

The mean rank shows that out of the three universities the respondents at UNILAG utilised EIRs most, Kruskal Wallis test otherwise known as non-parametric one way ANOVA was used to test the significant difference in respondents' utilisation of electronic information resources across the three universities. The result shows that there was no significant difference in postgraduate students' utilisation of EIRs across the universities. The implication of this finding is that the postgraduate students in UNILAG frequently use the EIRs more than the postgraduate students in UI and OOU. However, the ways in which the postgraduate students

in the three universities i.e. UNILAG, UI and OOU use the EIRs are not different from each other.

Differences in the Utilisation of EIRs among the postgraduate students in the five faculties

Duncan Post HOC test was used to test the differences in the utilisation of electronic information resources among the postgraduate students in the five faculties. It shows that the utilisation of EIRs among the postgraduate students in the five faculties is not significantly different from each other. However, it reveals that the postgraduate students in faculty of Law utilise the EIRs more, followed by faculties of Arts, Sciences, Education and Social Sciences respectively. This denotes that even though, the ways the postgraduate students in the five faculties use the EIRs are not different from one another, a difference exists in the frequency usage among the postgraduate students in the five faculties. Faculty of Law has the highest frequency of usage followed by faculties of Arts, Sciences, Education and Social Sciences.

Conclusion

EIRs are essential information resources in postgraduate education. It is therefore important for the postgraduate students to take advantage of the potentials of the resources in their programme. Based on the findings of this study it is concluded that the postgraduate students of the five faculties from the three universities that represented the population of the study were not maximally using the EIRs as they were expected to do. In addition the postgraduate students in UNILAG utilised the EIRs more and the students in the faculty of law frequently use the EIRs more than their counterparts.

The limitation of the study lies in the fact that it focused on the three universities and electronic usage among the post graduate students. Therefore the results of the study may not be generalized to other universities and to undergraduate students in the country. Based on this the study suggests a further study on electronics information usage among undergraduate students. . Secondly, the study was carried out in three universities in South-West Nigeria. Similar study may be conducted in other geo-political zones of the country, despite this limitation; the results of the study provide important insights to the university and library managements on EIR usage among PG students. The empirical analysis of the study contributes to knowledge in the area of EIRs .The findings will be of great importance to university management, library management and PG students. It provides a comprehensive report about the usage of EIRs.

In addition, the study expands knowledge in the area of EIRs usage and challenges in three universities in Nigeria. The findings of the study produced a practical support document on EIR usage and challenges in the country. Based on the findings the following recommendations were made:

Recommendations

The postgraduate students should strive to change their orientation on the use of EIRs and embrace the benefit that the EIRs can offer them in postgraduate programme, by yielding to the various encouragements from their lecturers, colleagues as well as the library management. Academic staff should advocate the use of EIRs among the postgraduate students. This is achievable in a situation where the lecturers introduce the use of EIRs to their course-work/ assignments. Seminar and workshops should be organized by the library staff to educate the

postgraduate students on how to access and use the EIRs that are more resourceful to their postgraduate programmes.

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