Accessibility and Utilization of Electronic Information Resources by Postgraduate Students of Federal University Dutse for Research and Development

Isa Sali Song
issong2008@yahoo.com
The University Librarian
Adamawa State University,
Mubi

Usman Muhammed Song
raussong@yahoo.co.uk
The Head Librarian
Center for Entrepreneurship
Development, Library,
Federal University,
Dutse – Jigawa State

Abstract

The study examines the relationships between accessibility and utilization of Electronic Information Resources (EIRs) and its influence on Research Development of Postgraduate Students in Federal University, Dutse, Jigawa State – Nigeria using a Correlation Survey Design. Questionnaire was adapted and used on a sampled 212 postgraduate students and a returned rate of 197 (92.90%) was used for the analysis in this study. The study found out that the major mode of accessibility of EIRs by postgraduate students is through personal MODEM and/or commercial center's network (3.72 mean mark) few respondents access EIRs from the E-Library (1.28 mean mark). The study found out that there is a very high Electronic Literacy Skill among the postgraduate students who can conveniently access needed information from EIRs (3.18) the study also found out that EIRs facilitate faster, easier and convenient access to relevant information (3.78), Increase richness of work thereby enhancing research productivity (3.51 mean mark). The inferential analysis using a Parametric Linear Regression Analysis shows that there is weak positive relationship between Accessibility of EIRs and Research Development with a coefficient of 0.293 while the correlations between the Utilization of EIRs and Research Development(0.694) and Information Literacy Skills and Research Development (0.710) are very strong and have statistically significant correlations.

Keywords: *Accessibility, Utilization, Electronic Information Resources and Postgraduate Students*

1.1 Introduction

The advent of technology in academic libraries has led to the proliferation of electronically available information resources. These resources include CD–ROM databases, electronic mails, Online Public Access Catalogues (OPAC) and the Internet. The Internet which is the most prominent of this resource has made possible access to electronic books and journals, various databases and search engines. All these resources constitute Electronic Information Resources (EIRs). It has affected the way information is delivered and research conducted especially in Nigerian

Universities.

The academic opportunity brought about by Electronic Information Resources (EIRs) has in recent years, exerted pressure on the educational institutions and their corresponding academic libraries. The pressure on the institutions is the provision of the necessary infrastructure and the actual access to these resources while the pressure on the academic libraries is in the acquisition, repackaging and dissemination of these resources as well as the provision of necessary guidance to the potential end users. Academic Libraries in Nigerian Universities make available a wide variety of Electronic Information Resources (EIRs) for use by the undergraduates, postgraduates, researchers and staff in their respective institutions. These EIRs form an essential part of the reference services provided by the academic libraries for research development.

According to Ukachi (2013) the University as an institution is generally regarded as a custodian of knowledge where students from different disciplines acquire knowledge and skills for self-development. Electronic Information Resources are information resources that are available and can be accessed electronically through such computer networked facilities as online library catalogues, the Internet and the World Wide Web, digital libraries and archives, government portals and websites, CD-ROM databases, online academic databases, such as AGRIS, AGORA, Medline or Commercial databases such as LexisNexis (Chimah, and Nwokocha, 2015). Postgraduate students are students who are formally engaged in pursuing a course of study in a university with the aim of obtaining a postgraduate diploma, Masters degree or Ph.D. The use of EIRs by the students can greatly enhance their research and general academic performance. Accessibility refers to openness, convenience, ease of locating and proximity to information resources. Access to information is important because except an information source is made accessible to users, it cannot be used.

1.2   Statement of the Problem

The Federal University, Dutse Library in Jigawa State is developing and advancing both in number and absorption of modern technologies into its teaching, learning, recreation and research processes. Electronic information resources have indeed enabled students to have access to qualitative and reliable information characterized by being timely, current, easy to access that is open to the possibility of searching multiple files at a time.

Unfortunately, literature and personal observation had revealed that electronic information resources are grossly under-utilized particularly in the university libraries by post-graduate students in Nigerian universities despite the potentials they hold for effective learning and research. The impression is that many of these students have either inadequate knowledge of the basic searching skills, negative attitude towards EIRs use or lack of knowledge of the huge potentials of EIRs and most importantly the unavailability and access point of the resources. The need to achieve greater accessibility and utilization of the EIRs by post-graduate students who constitute a significant percentage of the user community in academic libraries makes it imperative to investigate the relationships between these resources and research development of the students. The findings of the study would provide the platform for the integration of postgraduate students in Nigerian universities into international research community and the emerging knowledge economy.

1.3 Purpose and Objective of the Study

The main purpose of this study is to find out how accessibility and utilization of Electronic Information influences research development of postgraduate students in

Federal University, Dutse, Jigawa State - Nigeria. The specific objectives of the study are to:

1. Establish the various academic purposes for which the postgraduate students Access and Utilize Electronic Information Resources in the University Library;

2. Examine the Information Literacy Skills of postgraduate students to Access and Utilize Electronic Information Resources in the University Library;

3. Examine the rate of influence of accessibility and utilization of Electronic Information Resources on the postgraduate research development

;

1.4 Research Hypothesis

The researcher has presented three (3) broad assumptions to be tasted in order to validate the outcome of the investigation;

1.5 Null Hypothesis

$H_0 1$ The accessibility of electronic information resources has no statistical significant relationship with postgraduate students' research development

$H_0 2$ The utilization of electronic information resources has no statistical significant relationship with postgraduate students' research development

$H_0 3$ The postgraduate students' information literacy skills has no statistical significant relationship with enhancing postgraduate students' research development

2.0 Literature Review

2.1 Accessibility and Utilization of

Electronic Information Resources

The tremendous advancement in the nature of information environment in the universities, occasioned by the information revolution, in which information has now migrated from print to electronic form, has made information easily accessible to postgraduate students and researchers in the universities. Information is now accessible on the computers, the CD-ROMs, the Internet or other digital networks. University students essentially are involved in research and therefore need access to modern electronic resources to support their research activities. However, a study by Namukasa (2013) examined the relationship between the electronic information resources and performance of post graduate students of selected colleges of Makerere University. Using a quantitative correlational survey, the study found out that there was a significant positive relationship between; the availability of electronic information resources, accessibility to electronic information resources, and Computer skills of post graduate students and the performance of post graduates in the College of Education.

In another study by Ani, Edem and Ottong (2010) have reported a very low electronic information environment at the University of Calabar, Calabar, Nigeria as only 3.08% of the respondents have Internet access in their libraries. However, it can be concluded in the review that there is improving trend in electronic information environment in Nigerian universities, (although with some fluctuations) which need adequate and timely investigations.

2.2 Information Literacy

Information literacy is a concept that has overbearing influence on the extent in which postgraduate students can access and use electronic resources in their research in

the university. Kinengyere (2007) said that effectiveness and efficiency in research process in the digital age rely on the level of information literacy of individual postgraduate students and on the nature of information accessible to them. Information literacy is defined as the ability by a postgraduate student to identify an information need, locate and access the required information, evaluate, organize and apply it to address the need in question. Basic components of information literacy that postgraduate students need to acquire in order to be competent to access and use Electronic Information Resources (EIRs) effectively include computer literacy, Internet literacy, and network literacy.

Abubakar, and Adetimirin, (2015) studied the "Influence of Computer Literacy on Postgraduates' Use of E-Resources in Nigerian University Libraries". Thus, a total of 2726 postgraduate students out of 54,578 were selected. Pearson Product Moment Correlation was used to test for relationship for the hypothesis. The study revealed the types of e-resources mostly used by the postgraduates in their libraries which include: e-journals (x = 2.77), e-mail (x = 2.71), WWW (x=2.70), e-newspaper (x =2.64), e-magazine (x = 2.53) and e-research reports (x = 2.52). The weighted average of the use of e-resources by the postgraduates was X =2.45 indicating that their use was low. In the same vein, Abolarinwa, Adewoyin, and Aderanti (2015) investigated the Assessment of Information Communication Technology Availability, Use and Challenges by the Staff of the Nigerian Institute of Medical Research. The findings of the study revealed that majority of the respondents are skillful in the use of computer but there was low level of skills in working in a network environment because most of them acquired their skill through self-help hence they don't have deep rooted knowledge of the ICT equipment.

Furthermore, Ukachi (2013) maintain

that accessibility is about being able to use what is available when it is required. Accessibility of information materials is one of the prerequisites of information utilization. The Utilization of Electronic Information Resources constitutes the process that enables postgraduate students to effectively and efficiently access the soft copy, online or digital information to assist with investigating academic issues, solving problems and making decisions to support and develop new understanding in area of research development. Okafor (2011) equally affirmed that the goal of research is to improve the advancement of societal/human knowledge, and this role is basically vested in the universities. The use of Electronic Information Resources (EIRs) is necessary for postgraduate students mainly because they provide better, faster and easier access to information than information accessed through print media. Electronic information resources help to expand access, increase usability and effectiveness and establish new ways for students to use information to be more productive in their academic activities. Though the benefits derived from using EIRs are no longer debatable, but there are some factors such as students' variables which in the context of this work include; level of information literacy skill, attitude towards electronic resources use and accessibility could affect the use of electronic information resources.

Observably, the existence of digital divide, inequitable access to and use of ICTs in Nigerian universities is the issue of major concern that needs to be addressed if postgraduate students in the universities must be integrated into global/international research community. The implication is that Nigerian universities must key into the international best practices in the provision of institutional ICT strategy that will relatively improve their electronic information environments and thus promote access and

use of relevant electronic information resources by postgraduate students towards efficient and sustainable research process.

It is against this background and inadequate documented empirical evidences about accessibility and utilization of EIRs by postgraduate students in Jigawa State that the present study become imperative so as to investigates the extent of these resources being accessed and utilized in order to demonstrate the relationships between access and utilization and research development to formulate effective and research – based policies and theories.

3.1 Research Methodology

The research approach used in the study was quantitative approach, due to its strength on objectivity, generalization of results, and testing of hypotheses as against the qualitative approach, which is prone with prejudices in research process. The Correlational Survey Design was adopted for the study. This research design, according to Nworgu (2006) allows analysis of relationships among a number of variables in a study. It enables a researcher to find out the relationship between measures of different variables obtained at the same time.

3.1 Population, Sample and Instrument

Structured questionnaires of three (3) questions comprising 23 items were administered to the Postgraduate Students

directly by the researcher. The administration of the questionnaires was done at strategic locations and during lecture periods in order to capture all the strata of the population of the study. The study uses SPSS Version 16.0 Software for the analysis using Descriptive Statistics for the Research Questions and Inferential Statistics for the Hypothesis of the study using Linear Regression Analysis. The study also uses a decision rule to accept all items in the descriptive statistics with mean mark of 2.5 and above and reject items with less than 2.49 mean marks.

The population of the study comprises of the postgraduate students of Federal University, Dutse, Jigawa State. The total population of the study is 466 postgraduate students from the four postgraduate broad programs in the university, Ph.D. Program 2 students, Academic Masters 95 students and Professional Masters 197, While Postgraduate Diploma Program172 students (FUD Academic Division, 2017). Therefore, the sample size for this study is Two Hundred and Twelve (212) Postgraduate Students.

4.1 Research Objectives, Data Presentation and Analysis

Research Objective One: The respondents were asked to indicate their mode of access of EIRs and the academic purpose for which they make use of Electronic Information Resources. Their responses were presented in table 1 below:

Table 1: Descriptive Statistics for Accessibility and utilization of EIRs

S/No	Item	N	Mean	Std. D	Decision
	Accessibility of Electronic Information Resources				
1	I access Electronic Information Resources from the E-Library and the University Network	197	1.9340	.92069	Reject
2	The OPAC in the university library is fully indexed with other information from the library's local database and other Online Databases for sourcing information from EIRs	197	1.5482	.64203	Reject

3	The EIRs provide access to relevant electronic resources such as books and journals which are accessed to search for scholarship opportunities	197	3.7259	.54021	Accept
4	Electronic Information Resources are accessible within the university e -library (i.e. provision of free Internet services to users)	197	1.2843	.71458	Reject
5	I access EIRs through my personal MODEM and / or commercial center's network	197	3.7208	.49304	Accept
	Academic Purpose of Utilization of Electronic Information Resources				
6	I use the Electronic Information Resources to search for relevant and related research topics and also for project development	197	3.7208	.49304	Accept
7	I prefer to use Electronic Information Resources for my research than the printed materials in order to retrieve current literature	197	3.9746	.15768	Accept
8	I use EIRs to follow blog discussions on my subject area of interest in order to participate in professional discussion groups	197	3.3807	.95417	Accept
9	I use the university library's Electronic Information Resources to source materials for my research	197	1.7665	1.16334	Reject
10	The electronic books and journals provided by the university library complement my class notes	197	2.0914	1.23791	Reject
	Valid N (listwise)	197			

From table 1, majority of the respondents rated that they access EIRs through personal MODEM and/or commercial center's network with mean mark 3.72 and also The EIRs provide access to relevant electronic resources such as books and journals which are accessed to search for scholarship opportunities had mean mark of 3.73 and are therefore accepted as the method of access of Electronic Information Resources by the postgraduate students. While item 1, 2 and 4 which have 1.93, 1.55 and 1.28 mean marks respectively are rejected as mode of access of the resources by the postgraduate students based on the decision rule of the study.

The analysis on utilization of the resources revealed that item 6, 7 and 8 with mean marks 3.72, 3.97 and 3.38 respectively are accepted as the academic purposes for which they make use of EIR for their research development. While item 9 and 10 with mean marks of 1.77 and 2.09 respectively are rejected and therefore not the academic purpose of their utilization.

Table 2: Descriptive Statistics on Information Literacy Skills of Access and Use of EIRs

S/No	Item	N	Mean	Std. Deviation	Decision
11	I possess knowledge to define specific information need and the appropriate database to use prior to searching information using electronic hyperlinks and hypertexts on EIRs	197	3.8731	.33371	Accept
12	I am familiar with a number of search engines relevant to my subject area for sourcing information for my research work	197	4.0000	.00000	Accept

13	I can conveniently access needed information from EIRs for my research development	197	3.1827	.77401	Accept
14	I know the appropriate search tools to use when searching for information through effectively using Boolean search techniques	197	1.8579	.79546	Reject
15	I acquire knowledge for integrating new information into an existing body of knowledge through selecting materials accurately using EIRs	197	3.4772	.66680	Accept
16	I have the ability to store information from electronic sources by printing or saving to external drives and other skills of uploading and downloading	197	4.0000	.00000	Accept
	Valid N (listwise)	197			

From the analysis on table 2, only item 14 with mean mark 1.86 is rejected which is below the 2.49 bench mark. All the respondents rated that they are familiar with a number of search engines relevant to my subject area for sourcing information for my research work and I have the ability to store information from electronic sources by printing or saving to external drives and other skills of uploading and downloading (4.00 mean marks) while majority with mean marks of 3.87, 3.18, and 3.48 rated item 11, 13and 16 respectively as their Information Literacy Skills for accessibility and utilization of Electronic Information Resources which are all accepted.

Research Objective Three: The respondents were asked to indicate the rate of influence of accessibility and utilization of Electronic Information Resources on enhancing their research development. The descriptive statistics analysis is presented on table 3 below:

Table 3: Descriptive Statistics of rate of Influence of EIRs on Research Development

S/No	Item	N	Mean	Std. Deviation	Decision
17	Faster, easier and convenient access to relevant information	197	3.7817	.54217	Accept
18	Increase richness of my work thereby enhancing research productivity	197	3.5127	.57684	Accept
19	Accessibility and Utilization of relevant, current and up-to-date empirical information reduce time spent on printed resources thereby enhanced research development	197	4.0000	.00000	Accept
20	Access to a wider range of alternative relevant information speed up research process and improve quality of research	197	3.3706	.88626	Accept
21	Access and use of electronic resources promote efficiency and effectiveness in my research work	197	2.0964	.99275	Reject
22	The accessibility and utilization of EIRs help by providing orientation on a new topic such as starting a new research and choice of research methodology	197	2.2487	.87718	Reject
23	EIRs motivate a researcher to conduct more researches even at comparative levels	197	3.4010	.77367	Accept
	Valid N (listwise)	197			

The data in table 3 revealed that all the respondents rated accessibility and utilization of relevant, current and up-to-date empirical information reduce time spent on printed resources thereby enhancing research development as the major influence these resources have on their research development. Also data in table 3 revealed that the respondents rated item 17, 18, 20 and 23 with 3.78, 3.51, 3.37 and 3.40 mean marks accepted as the influence of EIRs on the enhancement of research development. But majority of the respondents disagree that access and use of electronic resources promote efficiency and effectiveness in my research work and The accessibility and utilization of EIRs help by providing orientation on new topics such as starting a new research and choice of research methodology with 2.10 and 2.25 mean marks respectively are rejected to have any influence on their research development.

4.2 Taste of Research Hypothesis Analysis

This analysis is done on Statistical Package for Social Sciences (SPSS) Software 16.0 version software. In order to understand the correlations between the independent variables (accessibility, utilization, electronic information literacy skills) on the dependent variable (enhancement of research development) the researcher used the Linear Regression Analysis on SPSS to determine the relationships between the ordinate variables and present them on the tables below based on the hypothesis of the research.

Hypothesis 1

$H_0 1$ The Accessibility of Electronic Information Resources has no Statistically Significant relationship with Research Development of postgraduate students

Table 4: Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	2.801	.099		28.421	.000
Accessibility of EIRs	.243	.057	.293	4.276	.000

a. Dependent Variable: EIRs enhance research productivity of postgraduate student

Table 4: represents the Linear Regression Analysis for the Accessibility of Electronic Information Resources and the Enhancement of Research Development of Postgraduate Students. The analysis revealed that the correlation is significant at 0.01 level of confidence and the correlation is positive with coefficient of **0.293.** This reveals a very weak significant relationship between the accessibility of EIRs and Research Development. This means that increase in Accessibility lead to more Enhanced Research Development while any further decrease in accessibility of Electronic Information Resources will lead to no influence on

enhancement in the research development of postgraduate students .From this analysis, we can deduce that the direction of correlation is Positive Correlation while the strength is Weak Correlation (**0.293**) because it is close to "0".

If the P value significant level is< .05 we reject the Null Hypothesis. Therefore, according to this analysis the H_0 is rejected and the Alternative Hypothesis is accepted, because there is no enough evidence to retain the null hypothesis even though the relationship is weak, still there is a statistically significant correlation between accessibility of Electronic Information Resources and the enhancement in the research development of postgraduate students.

Hypothesis 2

$H_0$2   The Utilization of Electronic Information Resources has no Statistically Significant relationship with Research Development of Postgraduate Students

Table 5: Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	.820	.178		4.593	.000
Utilization of EIRs	.644	.048	.694	13.463	.000

    a. Dependent Variable: EIRs Enhance Research Productivity of Postgraduate Student

Table 5 represents the Linear Regression Analysis for the Utilization of Electronic Information Resources and the Enhancement of Research Development of Postgraduate Students. The analysis revealed that the correlation is significant at 0.01 level of confidence and the correlation is positive with coefficient of **0.694** at1% levels**.** This reveals a very Strong Significant Relationship between the Utilization of EIRs and Research Development. This means that any further increase in Utilization of Electronic Information Resources will lead to more influence of the resources in enhancing the research development of postgraduate students. From this analysis, we can deduce that the Direction is Positive Correlation while the Strength is Strong Correlation (**0.694**) because it is close to "1".

If the P value significant level is < .05 we fail to accept the Null Hypothesis. Therefore, according to this analysis the H_0 is rejected and the Alternative Hypothesis is accepted, because there is enough evidence that there is a statistically significant correlation between Utilization of Electronic Information Resources and the enhancement in the research development of postgraduate students

Hypothesis 3

$H_0$3   The Postgraduate students' information literacy skills has no statistically significant relationship with enhancing research development of postgraduate students

Table 6: Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	.293	.208		1.409	.160
Skills of EIRs	.856	.061	.710	14.063	.000

a. Dependent Variable: EIRs enhance research productivity of postgraduate student

Table 6 represents the Linear Regression Analysis for the information literacy skills of postgraduate students on accessibility and utilization of electronic information resources and the enhancement of research development. The analysis revealed that the correlation is significant at 0.01 level of confidence and the correlation is positive with coefficient of 0.710 at 1% level. This reveals a very strong significant relationship between the information literacy skills of EIRs and research development. This means that any further increase in information literacy skills of postgraduate students on accessibility and utilization of electronic information resources will lead to more influence on enhancement in the research development of the postgraduate students. From this analysis, we can deduce that the Direction is Positive Correlation while the Strength is Strong Correlation (0.710) because it is close to "1".

If the P value significant level is < .05 we fail to accept the Null Hypothesis. Therefore, according to this analysis the H_0 is rejected and the Alternative Hypothesis is accepted, because there is enough evidence that there is a statistically significant correlation between Information Literacy Skills of Postgraduate Students on Accessibility and Utilization of Electronic Information Resources and the enhancement

in their research development.

5.1   Discussion of Major Findings

The methodology employed in this study was the Correlation Survey Design which establishes the relationships between Accessibility and Utilization of Electronic Information Resources and Research Development of Postgraduate Students of Federal University Dutse and also the intervening variable of Electronic Literacy Skills. The study first runs a descriptive statistics analysis to obtain the mean marks and standard deviations of the variables before running an inferential analysis using Linear Regression Analysis to show the relationships.

Accessibility and Utilization of Electronic Information Resources

The descriptive analysis shows the major mode of accessibility of EIRs by post graduate students in Federal University Dutse is through personal MODEM and/or commercial center's network with a mean mark of 3.72 and also EIRs provide access to relevant electronic resources such as books and journals which are accessed to search for scholarship opportunities had mean mark of 3.73 and are therefore accepted as the method of access of Electronic Information Resources by the postgraduate students in the University Library. Because few respondents (1.28) rated they access Electronic Information Resources

from the E-Library and the University e-library Network. This finding is also in line with the findings of Kumar and Singh, (2011) in their study in New Delhi, India identifies various challenges faced by the scientists to include problem of poor network connectivity 42(70%) and 33(55%) are facing problem of in-sufficient e-resources.

While the major academic purpose of utilization of EIRs as found out by the study include; the utilization of Electronic Information Resources to search for relevant and related research topics and also for project development (3.72 mean mark), postgraduate students prefer to use Electronic Information Resources for research than the printed materials in order to retrieve current literature (3.97 mean mark) and they also prefer to use EIRs to follow blog discussions on subject area of interest in order to participate in professional discussion groups (3.38 mean mark) and are therefore accepted as the academic purposes for which postgraduate students make use of EIR for their research development.

Electronic Information Literacy Skills of Postgraduate Students

The study found out that there is a very high literacy skill among the postgraduate students for accessing and utilizing EIRs. All the respondents rated that they are familiar with a number of search engines relevant to their subject area for sourcing information for research work and have the ability to store information from electronic sources by printing or saving to external drives and other skills of uploading and downloading (4.00 mean marks) while majority of the respondents rated they possess knowledge to define specific information need and the appropriate database, using electronic hyperlinks and hypertexts on EIRs (3.87 mean mark) and they acquire knowledge for integrating new information into an existing body of knowledge through selecting

materials accurately using EIRs (3.48 mean mark).

Influence of EIRs on Enhancing Research Development

The study found out that Accessibility and Utilization of EIRs enhances the research development of postgraduate students. The study revealed that all the respondents rated Accessibility and Utilization of relevant, current and up-to-date empirical information reduce time spent on printed resources thereby enhancing research development as the major influence these resources have on their research development. This finding corroborates the findings of Nwezeh (2010) who asserted that access and use of ICT and e-resources has improved research productivity and creativity in universities and also Okafor (2011) where he equally affirmed that the goal of research is to improve the advancement of societal/human knowledge, and this role is basically vested in the universities. EIRs facilitate faster, easier and convenient access to relevant information (3.78) and Access to a wider range of alternative relevant information speed up research process and improve quality of research (3.37 mean mark) are also accepted as the influence of EIRs on the enhancement of research development. But majority of the respondents disagree that Access and use of electronic resources promote orientation on new topics such as starting a new research and choice of research methodology with 2.25 mean marks.

5.2 Inferential Statistics Findings

The three-broad hypothesis of the study was tested using Linear Regression Correlation Analysis. The first hypothesis has a correlation of 0.293 and the R Squared value is 0.086 which means that the level of accessibility of Electronic Information resources account for only 8.6% factors on enhancing the research development of postgraduate students while the remaining 91.4% are accounted for other factors. The

second hypothesis had 0.694 and the R Squared value is 0.482 or 48.2% accounting to about 50% influences on research development of postgraduate students while the third hypothesis had 0.710 and the R Squared value of 0.504 or 50.4% this account for more than 50% influences on enhancing research development of postgraduate and less than that for other factors. The two independent variables (utilization and electronic information literacy skills) have very strong relationship with the dependent variable (research development of postgraduate students) while the accessibility variable has a very weak relationship with the dependent variable. This may be as a result of lack of access point in the university library.

These findings corroborate the findings of Namukasa (2013) who examined the relationship between EIRs and performance of postgraduate students using a quantitative correlation survey, the study found out that there was a significant positive relationship between; the availability, accessibility to EIRs, and Computer skills of post graduate students.

5.3 Implication of the Study

From the findings of the study, it has indicated that there is very slow internet access at the university e-library since majority of the respondents admitted that electronic information resources provide access to relevant electronic resources such as books and journals which are accessed to search for scholarship opportunities (3.73 mean mark) but few respondents with mean mark of 1.28 rated they access electronic information resources from the e-library and the University Network. In addition, the study found out that very few respondents access the university library's electronic information resources to source materials for research (1.77 mean marks) this is an indication that either the resources are very few in the e-Library or the university library does not

properly index their e-collections and provide internet access to library users. The findings also show that the major electronic information literacy skills of the users of knowing the appropriate search tools to use when searching for information through effectively using Boolean search techniques (1.86 mean marks) to be very few among the postgraduate students. This has a direct effect on optimum utilization.

Conclusions and Recommendations

This study concludes that Electronic Information Resources (EIRs) is necessary for postgraduate students mainly because they provide better, faster and easier access to information than information accessed through print media and also help to expand access, increase usability and effectiveness and establish new ways for students to use information to be more productive in their academic activities. But the access point of these resources from the university library is insignificant. The study also concludes that there are positive correlations between all the independent variables of the study with research development which indicate a strong correlation between Electronic Information Literacy Skills and Utilization of EIRs and the Research Development of postgraduate students with a very weak relationship with the accessibility of the resources and research development in the university library due to lack of access point in the library. In this regard, the study recommends the following:

1. The university libraries should provide adequate and relevant Electronic Information Resources in the e-Library for the benefits of students and researchers alike.

2. Internet connectivity should be enhanced and access points be provided at strategic locations in university libraries.

3. User education and orientation lectures

should also be routinely provided by the management of university libraries to their users

4. Postgraduate students need to maximize the utilization of reference librarian to have adequate knowledge about the availability and access points of relevant Electronic Information Resources in the E-Library

5. University libraries need to subscribe to relevant databases and make them readily available to students.

References

Abubakar, D. & Adetimirin, A. (2015). Influence of Computer Literacy on Postgraduates' Use of E-Resources in Nigerian University Libraries. *Library Philosophy and Practice (e-journal).* Paper 1207. http://digitalcommons. unl.edu/libphilprac/1207 (accessed on Monday 13th of February, 2017)

Ani, O. E., Edem, M. & Ottong, E. (2010). Analysis of Internet Access and Use by Academic Staff in the University of Calabar, Calabar, Nigeria, *Library Managemen*t 31 (7): 535-545.

Chimah, J. N. & Nwokocha, U. (2015). *Categories, Availability and Awareness of Electronic Information resources by Postgraduate Library Users in South East Nigerian Federal Universities. International Journal of Library Science,* 4(1), 7 – 12

Namukasa, F. (2013). Electronic information resources availability, utilization and performance of Post Graduate Students in two selected Colleges at Makere University. A MastersThesis submitted at the Information Communication Technology of Makerere University. Available at http://hdl.handle. net/10570/3809

Nwezeh, C. M. (2010) The Impact of Internet Use on Teaching, Learning and Research Activities in Nigerian Universities: A Case Study of Obafemi Awolowo University. *The Electronic Library* 28 (5): 688-701.

Nwezeh, CM. 2010. The Impact of Internet Use on Teaching, Learning and Research Activities in Nigerian Universities: A Case Study of Obafemi Awolowo University. *The Electronic Library* 28 (5): 688-701.

Okafor, V. N. (2011). Comparative Analysis of Research Output of Federal Universities in Southern Nigeria. *Library Philosophy and Practice.* Available at: http: www.webpages. uidaho.edu/~mbolin/okafor.pdf. (Accessed 10 June 2016)

Seth, M. K. & Parida, B. (2006). Information needs and use pattern of disadvantages communities: a case study. *Library Philosophy and Practice.* 9 (1). http://www.webpages.uidaho.edu/~mbolin/seth.htm Accessed on 14/08/16.

Ukachi, N. B. (2015). Information literacy of students as a correlate of their use of electronic resources in university libraries in Nigeria, *The Electronic Library*, 33 (3), pp.486-501, Available at https://doi.org/10.1108/EL-05-2013-0085 Retrieved June 2017