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ICT Literacy Skills And Electronic Information Resources Use By Lecturers In Two Private Universities In Oyo State, Nigeria

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ABSTRACT

The purpose of this study was to investigate the influence of Information and Communication Technology (ICT) literacy skills on electronic information resources (EIR) use among lecturers of two private universities in Oyo State, Nigeria. Descriptive survey design was adopted for the study and using total enumeration sampling technique, the study population and study sample consisted of 234 (Two hundred and thirty four) academic staff from both Ajayi Crowther University (ACU) and Lead City University (LCU). Questionnaire was the data collection instrument used. Data was analyzed using descriptive and inferential statistics. The findings revealed that E-mail and Websites were the most available resources to lecturers of both universities. Lecturers in ACU had high ICT literacy skills in General Computer Operation while those in LCU had high ICT literacy skills in General Computer Operation, Internet Browsing, Internet Searching and Computer Appreciation. E-Mail and website were the most often used e-resources among lecturers of both universities, erratic power supply and poor internet connection were the major challenges encountered in the use of e-resources. There was a positive significant relationship between ICT literacy skills and e-resources use of lecturers.

Keyword: Electronic Resources Use, ICT literacy Skills, Lecturers, Private Universities, Electronic Information Resources, Nigeria

Introduction

The academic roles of the university lecturers are geared towards achieving the university's goals and objectives as stated in the National Policy on Education (2004 revised) which are: teaching, research, dissemination of existing and new information, pursuit of service to the community and being a store house of knowledge. The university professor or academic is expected to impart knowledge to his students, assist them in writing research reports, offer public services to his community by public lectures, extra mural lessons, etc. and above all, he is to publish original research of which he is evaluated for productivity/promotion.

The Federal Government of Nigeria through the National Universities Commission (NUC) initiated various programmes designed to launch Nigerian Universities into information global society. Among the projects according to Nok (2006) include automation of university libraries using Management Information Systems (MIS) and Nigerian Universities Network (NUNET). NUNET was aimed at developing a viable local and wide area network in each institution, especially in the library, so that through the network there could be a wide access to various e-resources across the globe. Nigeria virtual library initiative is another step by Federal Government of Nigeria to provide higher institutions access to relevant and current electronic information resources (Fabunmi, 2009).

Electronic information resources (EIR) as defined by Pathak and Das (2000) is "Information stored in a medium, which requires an electronic device to read its content". Digital data may be processed or stored on various types of media, including magnetic (RAM, hard drive, diskettes, tapes) and optical (CD-ROM, DVD) media. The data can be made accessible either through portable media or, increasingly, online. E-resources sprang up in response to rapid advances in scientific research and technological development in industrialized countries and

the needs associated with these advances. Not only have they laid the basis for easy, rapid and efficient access to the vast fund of information available, but also analyzing the information. Their development has made easier the access to relevant information on specific topic in all academic fields.

Aina (2004) defined e-resources as information medium in electronic formats while Shim, et al (2001) defined them as those information that users access electronically via a computing network. E-resources are invaluable research tools which complement print-based resources in any traditional library, because they provide access to information that might be restricted to the user because of geographical location or finances (Sabouri et al, 2010). The emergence of electronic technology has cut the barrier to valuable information resources which until now were difficult to access especially by scholars in the developing nations of the world.

EIR include CD-ROM databases, electronic mails, Online Public Access Catalogues (OPAC) and internet resources (Oduwole and Akpati, 2003). The Internet which is the most prominent of this source has made possible access to electronic books and journals, various databases and search engines. The opportunity brought about by EIR has in recent years been noticed to have exerted pressure on the educational institutions and their libraries. The pressure on the institutions is the provision of the necessary infrastructure and the actual access to these resources. The pressure on the library and information centres is in the sourcing, acquisition and repackaging of these resources, as well as the provision of necessary guidance to end users. Salaam (2008) attributed the popularity of e-resources to flexibility in searching than their paper-based counterpart and that they can be accessed remotely at anytime.

Brennan, et al (2002) in a study that centered on how the adoption of electronic information resources (EIR) has affected academics' information behaviour revealed that faculty members make fewer visits to the library and read broader number of e-journals more than the print. Corroborating this, Dilek-Kayaoglu (2008) in a research on use of electronic journals by faculty at Istanbul University, Turkey also revealed that majority of the respondents supported the transition from print to electronic resources.

There have been many studies on the purpose and frequency of e-resources use in the professional literature in the last few years. This include Obaje and Camble (2008) who report that CD-ROMs are mostly used for literature searches during project/dissertation and thesis writing as well as personal research by academic staff in Nigeria university. Omotayo (2010) in a study on use of EIR by academics in Obafemi Awolowo University, Ile-Ife, Nigeria stated that academics used e-journals at a regular and frequent interval mostly for literature search and research related purposes. This supports the findings of Renwick (2005), who found that most faculties used e-resources for research and professional growth. Also, Azubogu and Madu (2007) opine that academics in Nigeria are rapidly continually embracing online resources since the print counterpart cannot satisfy their personal and professional information needs.

Watts and Ibegbulam (2006) examined some of the barriers to the usage of electronic information resources available for academic and research purposes at the medical library of College of Medicine, University of Nigeria, Nsukka, Nigeria and revealed that lack of an adequate ICT infrastructure and affordable online access, absence of in-depth ICT skills and information searching skills are barriers to the use of e-resources. This corroborated Omotayo (2010) findings that power supply outage is the major constraints to use of electronic resources.

The successful integration of ICT in academic system depends largely on the competence derived from ICT literacy skills acquired over the time and on the attitude of lecturers towards the role of modern technologies for teaching, learning and research purposes. Thus, experienced lecturers and newly qualified ones need to be confident in using ICT effectively for their teaching and research purposes (Connell et al, 2000). Idowu et al, (2004), stated that ICT literacy include being able to install and configure common software, familiar with and making use of computer modem regularly, able to access computer bulletin board or online service. Others include ability to send and receive messages via electronic devices, able to upload and download computer files with ease, to print from computer and so on.

ICT literacy skills comprise a 21st century form of literacy, in which research and communication of information via digital technology are as important as reading and writing were in earlier centuries (Katz, 2005). In 2002, the Educational Testing Service (ETS) convened an international panel which comprised of academics, development specialists and telecommunications experts representing the governmental and private sectors to study the growing importance of existing and emerging ICT (Katz and Macklin, 2006; Pernia, 2008). The international panel defines ICT literacy as the ability to use digital technology, communications tools and networks to access, manage, integrate, evaluate and create information in order to function in a knowledge-driven society (Kenney, 2006).

The necessity for a working familiarity with computer is becoming important because of the value placed on it by employers of labour. In the labour market, personnel with adequate knowledge, skills and confidence in computer usage seem to have rising hope. Merritt et al. (2005) emphasizes that even in the education industry, high level of teacher's computer literacy is a contributing factor to scholastic performance in schools.

In Nigeria, the Federal Ministry of Education with an intention of improving the quality of education and facilitating national development set up a committee in 1988 to ensure the democratization of computer literacy at the national level. One of the recommendations of that committee was that computer literacy should be introduced to lecturers and students at all levels of education system (Idowu et al, 2004; Gupta and Hassan, 2002). Since then, both the Federal and State governments including the management of private institutions in Nigeria have called for increased training and retraining of academic staff on various ICT skills in order to provide them with the needed ability required to meet the challenges of academic activities.

This development is noticeable in the developed nations of the world as African countries and other developing nations are still struggling to bridge the digital divide that is preventing them from the full benefits of electronic era. However, different efforts have been made to launch African Universities into the digital society with different initiatives by both National and International bodies toward providing the required networked infrastructure that would enable them have access to free or heavily discounted journals and databases through programmes like AGORA, eIFL, HINARI and PERI, JSTOR, PUBMED and others. However, ICT literacy has been viewed as a prerequisite to adoption, integration and use of e-resources in the university system for teaching, learning and research purposes.

It has however been observed that the use of ICT by most Nigerian university lecturers is far below expectation as a result of inadequacy of relevant ICT literacy skills. Many lecturers are not even aware of the EIR resources that are available as a result of effective usage of ICT facilities; they do not know the sources of these electronic resources and cannot locate and retrieve them through the use of ICT because they are not ICT literate and lack the technical knowhow of ICTs (Ngare, 2007). For electronic resources to be used effectively among

lecturers they must firstly be available, then lecturers must be aware of their availability, must possess the technical knowhow and much needed information literacy and other skills required for their effective use.

Objectives of the Study

This research work is being carried out to investigate the influence of ICT literacy skills on electronic resources use among lecturers of Ajayi Crowther University (ACU) and Lead City University (LCU).

The specific objectives are, to:

1. identify the type of e-resources available to the lecturers of the selected universities.
2. investigate the ICT literacy skills of the lecturers of the selected universities.
3. determine the frequency of e-resources use among the lecturers.
4. find out the challenges to the e-resources use among lecturers.
5. find out the influence of ICT literacy skills on e-resources use of lecturers.

Research Hypotheses

H₀: There is no relationship between ICT literacy skills and e-resources use of lecturers of the selected universities.

Methodology

Descriptive survey research was adopted for the study and the population comprised Two Hundred and Thirty Four lecturers out of which 145 (One hundred and forty five) were in Ajayi Crowther University, Oyo, Nigeria (ACU) and 89 (Eighty Nine) were in Lead City University, Ibadan, Nigeria (LCU). Total enumeration sampling technique was used to get a

sample of 234 (Two hundred and thirty four) academic staff from both Ajayi Crowther University and Lead City University. Questionnaire was the instrument for data collection and data was analysed using frequency count and percentages.

Results and Discussion

Type of Electronic Resources available to Lecturers of the selected universities

The result in Figure 1 revealed that E-mail, Websites and E-Journals were available to respondents in ACU having responses of 77(98.7%), 68(87.2%) and 52(66.7%), while Web Blog was the least available e-resources with 22(33.3%). In LCU, E-mail and Websites were the most available resources with 124(94.7%) in each e-resource, OPAC was the least available with 51(39.0%).

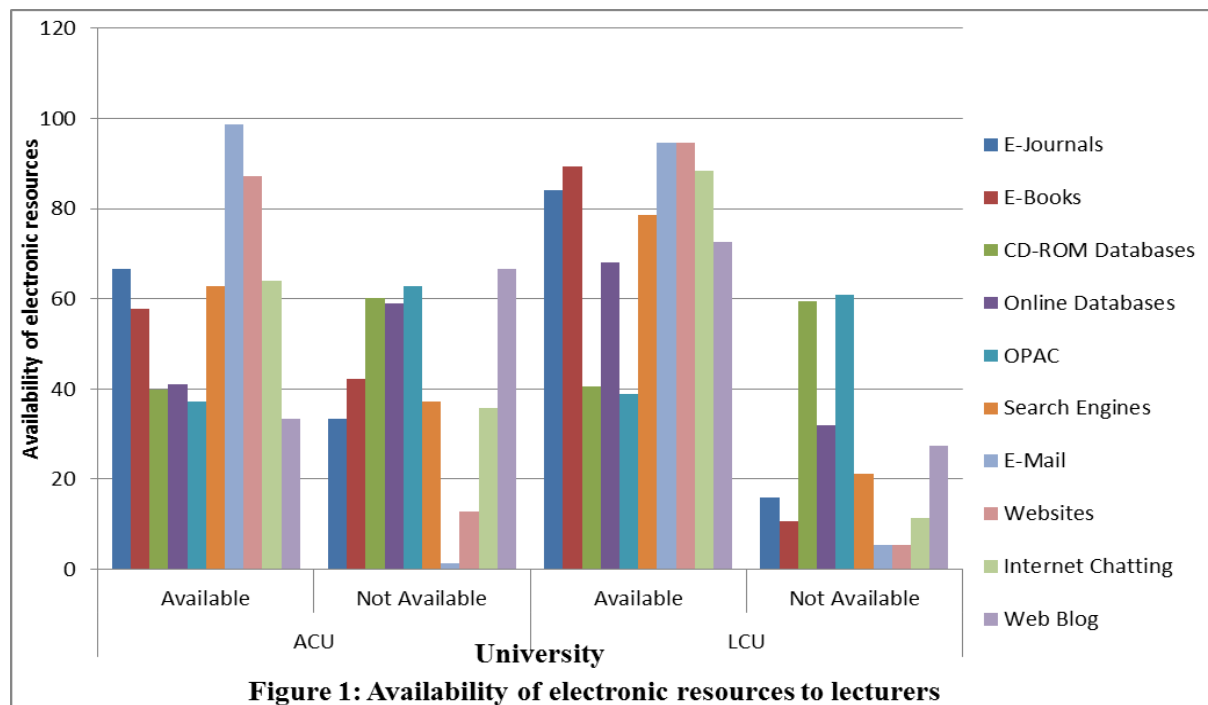


Figure 1: Availability of electronic resources to Lecturers

This finding is in line with Egberongbe (2011) on a study on the use and impact of e-resources at the University of Lagos who agreed that there was heavy usage of popular and

well known e-resources by faculty members and research scholars in his study. These e-resources include e-journals, e-mail, World Wide Web and e-research report. This finding also supported those of Naidu et al (2007) who found that of the academics who were current users of national and international computer networks, over 90 percent used them for e-mail.

Level of ICT literacy skills of lecturers of the selected universities

The study revealed that respondents from ACU had high ICT literacy skills in General Computer Operation with 60(76.9%) and Internet Browsing with 59(75.7%). In LCU, 124(94.7%) had high ICT literacy skills in each of general computer operation, internet browsing, internet searching and computer appreciation. It was observed that there was no lecturer in both universities who did not have at least one ICT literacy skills or the other (Figure 2).

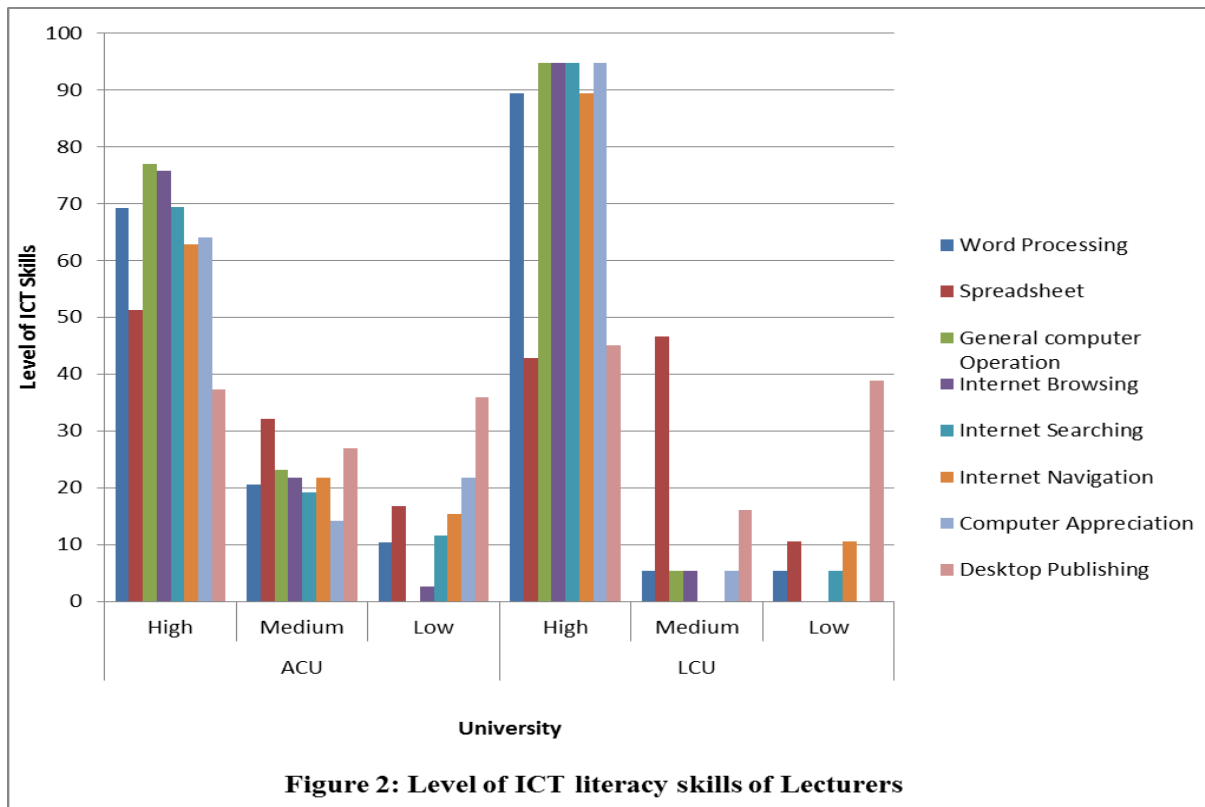


Figure 2: Level of ICT literacy skills of lecturers

This finding corroborates that of Agbonlahor (2005) that computer applications that were mostly used by academics in Nigerian universities were word processing, but others included e-mail, and web-browsing applications. This situation may be accounted for by the fact that lecturers of the selected private universities were skillful in the use of ICT for research communication. Also, this findings support Safahieh and Asemi (2008) who found out that the ability of operating computer system and other ICT resources to perform personal task, job related tasks, use of web browsers and searching on the internet to retrieve information and communicating with others by sending and receiving e-mail has become an essential part of every Nigerian academics.

Frequency of Electronic Resources use among the lecturers

The result in Figure 2 revealed that E-Mail and website were the most often used e-resources among lecturers of both universities with response rate of 60(76.9%) and 55(70.5%) in ACU and 115(87.8%) and 101(77.1%) in LCU respectively. Other often used resources included search engine 50(64.1%) in ACU and Web Blog 85(64.9%) in LCU. It was also observed that in LCU, there was no lecturer who had not often used E-journals, E-Books, Search Engine, E-Mail and Websites (Figure 3).

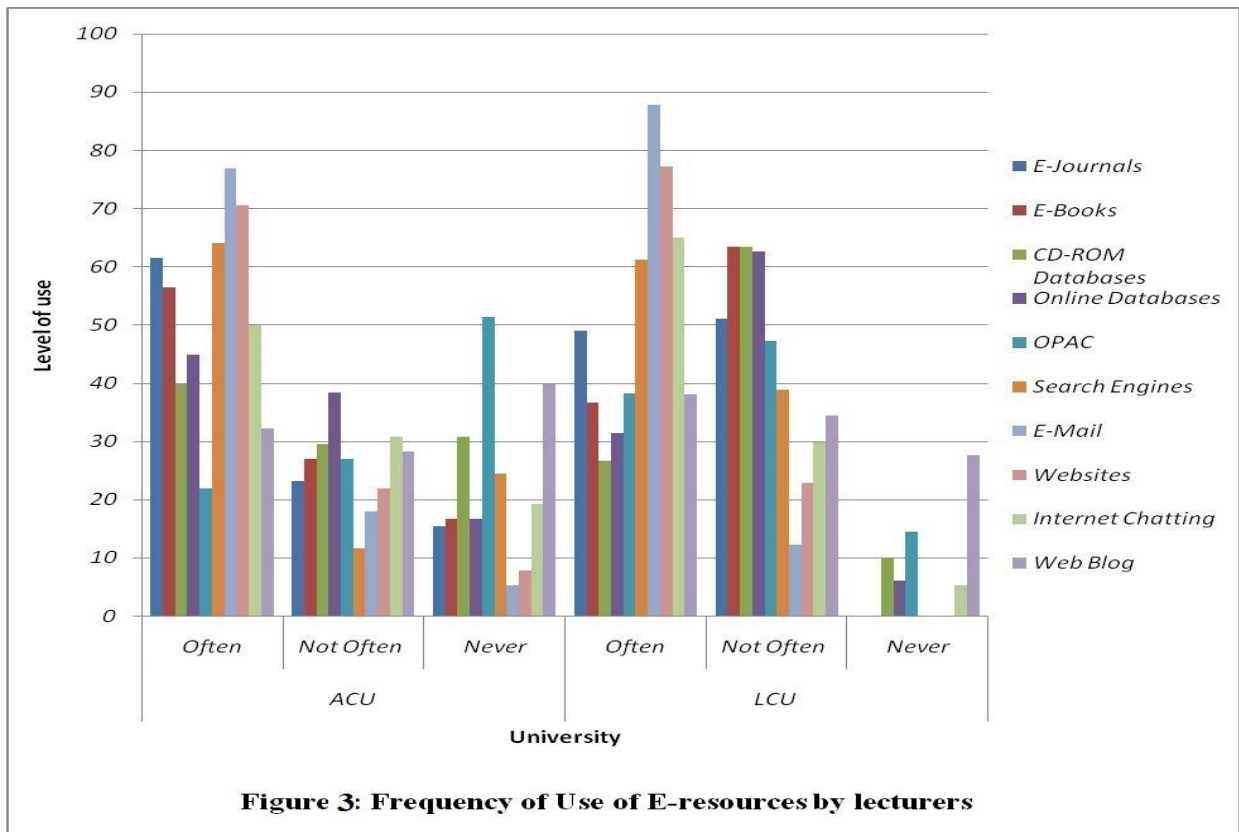


Figure 3: Frequency of Use of E-resources by lecturers

Figure 3: Frequency of Electronic Resources use of lecturers

This is corroborated by a research conducted by Mulla (2011) on academics in Tanzanian universities which revealed that majority of the faculty members used e-resources for searching relevant information in their area of specialization, communication and teaching purpose, hence it is used very often. Also, the reasons for this may be related to the findings by Pew Internet & American Research Project (2000) that 71% of respondents used the Internet as their primary source for their major projects or reports. Also, Isah (2010) in a study on electronic library use by academic staff at the University of Ilorin, Nigeria agreed that 84% of the academic staff visited or used the e-resources of the e-library, while 66.6% used the internet on daily basis to access free e-resources.

Challenges to use of E-Resources among the lecturers

It was revealed that in both universities, erratic power supply and poor internet connection were the major challenges encountered in the use of e-resources with responses of 74(94.9%) and 108(82.4%) in erratic power supply at ACU and LCU respectively and 73(93.6%) and 101(77.1%) in poor internet connection at ACU and LCU respectively (Table 1). .

Table 1: Challenges to the use of electronic resources by lecturers

Challenges	Ajayi Crowther University (ACU)				Lead City University (LCU)			
	Agree		Disagree		Agree		Disagree	
	No	%	No	%	No	%	No	%
Limited access to computer	48	61.5	30	38.5	35	26.7	96	73.3
Too much information retrieved therefore reducing relevance	40	51.3	38	48.7	34	26.0	97	74.0
Restriction from vendors	49	62.8	29	37.2	80	61.1	51	38.9
Poor internet connection	73	93.6	5	6.4	101	77.1	30	22.9
Erratic power supply	74	94.9	4	5.1	108	82.4	23	17.6
Costly to access and use	57	73.0	21	27.0	65	49.6	66	50.4
Lack of technical know-how	40	51.3	38	48.7	21	16.0	110	84.0
Lack of relevant e-resources in my discipline	28	35.9	50	64.1	28	21.3	103	78.7
Difficult to access	36	46.2	42	53.8	7	5.3	124	94.7
Technophobia	25	32.1	53	67.9	0	0	131	100.0
My Age	17	21.8	61	78.2	0	0	131	100.0
Not conducive environment	29	37.2	49	62.8	21	16.0	110	84.0
Difficulty using search terms	24	30.8	54	69.2	21	16.0	110	84.0
My gender	11	14.1	67	85.9	0	0	131	100.0

This finding agreed with those of Abdullahi and Haruna (2008) who found out that the major constraint in the use of e-resources among university lecturers in Adamawa State University,

Nigeria was the problem of erratic power supply. Also, Isah (2010) reported that slow internet access and lack of constant power supply were the major constraints encountered by academic staff at University of Ilorin, Nigeria while using e-resources.

Hypothesis (H₀): There is no significant relationship between ICT literacy skills and e-resources use among lecturers of private universities.

A correlation analysis was carried out on the frequency of ICT literacy skills of lecturers with the scores of their electronic resources use to show relationship; if any (Table 2). The table revealed that there was a positive significant relationship between ICT literacy skills and e-resources use of the lecturers ($r=0.397^{**}$, $N=209$, $P<0.01$). Hence the null hypothesis was rejected. ICT literacy skills had a positive significant influence on the e-resources use among the lecturers. This also implied that as ICT literacy skills of lecturers increased, their rate of e-resources use increased. Furthermore, this implied that about 15.8% of the variation was accounted for by ICT literacy skills for e-resources use among lecturers of selected private Universities in Oyo State, while the remaining 84.2% was not, due to chances by other related factors which were not accounted for in this study.

Table 2: Correlation of ICT literacy skills and Electronic resources use of lecturers

Variable	Mean	Std. Dev.	N	R	P	Remark
ICT literacy Skills	15.0191	6.41510	209	0.397**	0.000	Sig
Electronic resources use	38.2679	13.54639				

This finding agrees with Majid and Abazova (1999) as cited in Waldman (2003) who in a study of faculties' use of e-resources found a significant relationship between computing

skills and use of electronic resources. This is further supported by a study that the level of ICT skills any users possesses may affect use of such ICT to retrieve relevant e-resources and many studies have been carried out to investigate the influence which ICT skills have on e-resources usage (Kazu & Yavulzalp, 2008; Kirschner & Davies, 2003).

Conclusion and Recommendations

The availability and utilization of EIR is a sine qua non to information acquisition and use to support teaching, research and professional growth by academic staff of any private university. There will always be the need to consult and use the e-resources for information, communication, academics and research needs and every academic staff should be adequately equipped with necessary ICT literacy skills to facilitate easy access and retrieval of relevant information to meet their personal and professional related everyday need. The main challenges faced by the academics in their zeal to use the available e-resources in the universities were erratic power supply and poor internet connection. Efforts should be made by the university administrators and library management to improve on the bandwidth and enhance the internet connectivity to facilitate lecturers have easy access to online e-resources. Adequate provision should be made for alternative source of power generation in order to solve the problem of erratic and epileptic power supply which is hindering the effective use of the e-resources in the university libraries and other academic information centers. Lecturers should as well be encouraged and motivated to go for up-to-date training on related and relevant ICT training and skills acquisition programmes both within and outside the country to increase their ICT literacy skills.

References

- Abdullahi, Z. M., and Haruna, I. (2008). "Utilization of information and communication technology (ICT) for information service delivery in university libraries in Adamawa State". *The Information Scientist: An International Journal of Information and Communication Technology (ICT)*, Vol. 5 No. 2, pp. 26-27
- Agbonlahor, R. O. (2005). *Utilization levels and attitudes towards Information Technology among Nigeria University Lecturers*. Thesis, African Regional Centre for Information Science. University of Ibadan.
- Aina, L. O. (2004). The impact of and visibility of Nigeria-based scholarly journals in the international scholarly community. Improving the quality of library and information science journals in West Africa: A Stakeholders Conference. *Proceeding of the conference held at the conference center, university of Ibadan, Nigeria 7-8 December, 2005*.
- Azubogu, N.C., and Madu, C. (2007). "Use of computer and Internet technology among the teaching staff of Imo State University, Owerri". *H-JOLIS (Heartland Journal of Library and Information Science)*, Vol. 1 No. 2, pp. 38-49.
- Brennan, M. J., Hurd, J. M., Blecic, D. D. and Weller, A. C. (2002). "A snapshot of early adopters of e-journals: Challenges to the library". *College and Research Libraries*, Vol. 63 No. 6, pp. 515-526.
- Connell, T. H., Rogers S. A. and Diedrichs, C. P. (2000). "OhioLINK electronic journal use at Ohio State University portal:." *Libraries and the Academy*, Vol. 5 No. 3, pp. 371- 390.
- Dilek-Kayaoglu, H. (2008). "Use of electronic journals by faculty at Istanbul University, Turkey: the results of a survey". *The Journal of Academic Librarianship*, Vol. 34 NO. 3, pp. 239-247

- Educational Testing Service (ETS). (2002). *Digital Transformation: A Framework for ICT Literacy. A Report of the International ICT Literacy Panel*. available at:
<http://www.ets.org/media/research/pdf/ictreport.pdf> (Accessed 5 December 2013)
- Egberongbe, H. (2011). "The Use and Impact of Electronic Resources at the University of Lagos". *Library Philosophy and Practice*, 2011.
- Fabunmi, B. A. (2009). "Challenges and Prospects of Virtual Libraries in Universities in Nigeria". *European Journal of Scientific Research* 33 (1), 202-208
- Federal Government of Nigeria (2004 Revised) *National Policy on Education*. Lagos: Federal Ministry of Information, Nigeria.
- Gupta, A. and Hassan, N. (2002). "Meeting the Digital Literacy Needs of Growing Workforce". *The Reading Matrix* Vol. 4 No. 1, Retrieved April 4, 2005 from EBSCO.
- Idowu, B., Adagunodo, R. and Idowu, B. (2004). "Gender differences in computer literacy among Nigeria undergraduate students: A case study of Obafemi Awolowo University students, Nigeria". *Educational Research Journal*, Vol. 4 No. 3. Available at: from <http://ncsu.edu/ncs/aern/corngend.htm>. (Accessed 14 March 2015).
- Isah, A. (2010). "Electronic library use by academic staff at the University of Ilorin, Nigeria". *Journal of Library and Information Science (JOLIS) A Publication of the University Library, O. O. U., Ago-Iwoye, Nigeria*, Vol. 7 No. 1 & 2.
- Katz, I. R. (2005). "Beyond technical competence: Literacy in information and communication technology". *Educational Technology Magazine*, Vol. 45 No. 6, pp. 44-77.
- Katz, I. R. and Macklin, A. S. (2006). "Information and Communication technology (ICT) literacy: Integration and assessment in higher education". *Journal of Systemics, Cybernetics and informatics*, Vol. 5 No. 4, pp. 42-50.

- Kazu, L., and Yavulzalp, C. (2008). "ICT skills for information professional in developing countries: perspectives from a study of the electronic environment in Nigeria". *IFLA Journal*, Vol. 31 No.1, pp. 6-12.
- Kenney, A. J. (2006). "The final hurdle? A new test may finally bring information literacy the recognition it deserves". *School library journal*. Vol. 52 No. 3, pp. 62-65.
available at: <http://www.schoollibraryjournal.com/article> (accessed 11 January 2015).
- Kirschner, P. and Davies, N. (2003). "Pedagogic benchmarks for information and communication technology in teacher education". *Technology, Pedagogy and Education*, Vol. 12 No. 1, pp. 125-147.
- Majid, S. and Abazora, A. F. (1999). "Computer literacy and use of electronic information sources by academics: A case study of International Islamic University Malaysia". *Asian Libraries*, Vol. 8 No. 4, pp. 100-111.
- Merritt, K., Smith, K. D. and Di Renzo, J. C. (2005). "An investigation on self-reported computer-literacy: Is it reliable?". *Issues in information system*, Vol. 6 No. 1, pp. 289-295.
- Mulla, K. R. (2011). "Use of Electronic Resources by Faculty Members in HKBK College of engineering: A Survey". *Library Philosophy and Practice* 2011
- Naidu, G., Rajput, P. and Motiyani, K. (2007). *Use of Electronic Resources and services in University Libraries: A study of DAVV Central Library*, Indore, In: NAACLIN 309 – 319.
- Ngare, P. (2007). *Kenya: Country takes steps to adopt e-learning*. allAfrica.com. Available at: <http://allafrica.com/stories/200706080176.html> (Accessed 15 March 2014)
- Nok, G. (2006). "The challenges of computerizing a university library in Nigeria: The case of Kashim Ibrahim Library, Ahmadu Bello University, Zaria". *Library Philosophy and Practice*, Vol. 8 No. 2, Available at:

- <http://www.webpages.uidaho.edu/~mbolin/nok.pdf> (Accessed 15 March 2014)
- Obaje, M. A., and Camble, E. (2008). "Use of CD-ROM database by staff and students in the University of Jos Library". *The Information Scientist: An International Journal of Information and Communication Technology (ICT)* Vol. 5 No. 1, pp 7-8
- Oduwole, A. A. and Akpati, C. B. (2003). "Accessibility and retrieval of electronic information at University of Agriculture library, Abeokuta Nigeria". *Library Review* Vol. 52 No. 5, pp. 228-233
- Omotayo, B.O. (2010). "Access, Use, and Attitudes of Academics toward Electronic Journals: A Case Study of Obafemi Awolowo University, Ile-Ife". *Library Philosophy and Practice* 2010. Available at: <http://unllib.unl.edu/LPP/omotayo.htm> (Accessed 5 Dec 2013).
- Pathak, P. J. and Das, S. (2001). "Utilization of Electronic information at IPR Library: a case study". *Information Studies* Vol. 7 No. 2, Available at: <https://drtc.isibang.ac.in/bitstream/handle/1849/86/Ba.pdf?sequence=2> pg2 (Accesses 12 December 2014).
- Pernia, E. E. (2008). *Strategy framework for promoting ICT literacy in the Asia-Pacific region*. Publication of UNESCO Bangkok Communication and information unit. Asia and Pacific Regional Bureau for Education, Bangkok 10110, Thailand. Available at: http://portal.unesco.org/ci/en/ev.php-RL_ID=27445&URL_DO=DO_TOPIC&URL_SECTION=201.html (Accessed 15 March 2014).
- Pew Internet and American Research Project. (2000). The internet goes to college. Available at: http://www.pewinternet.org/pdfs/PIP_Schools_Reports.pdf. (Accessed 14 December 2013)
- Renwick, S. (2005). "Knowledge and use of electronic information resources by medical

- sciences faculty of the University of the West Indies”. *Journal of Medical Library Association* Vol. 93 No. 1, pp. 21-31.
- Sabouri, M. S., Shamsaii, A. H., Sinaki, J. M. and Aboueye, F. (2010). “Use of electronic resources by users in the Faculty of Agriculture, Islamic Azad University”. *Middle-East Journal of Scientific Research*, Vol. 6 No. 5, pp. 490-499
- Safahieh, H. and Asemi, A. (2010). “Computer Literacy Skills of Librarians: A case study of Isfahan University libraries, Iran”. *The Electronic Library*, Vol. 28 No. 1, pp. 89-99
- Salaam, M. O. (2008). “Option for access to journals, print, CD-ROM, on-line in a Nigerian Agricultural University library. Samaru”, *Journal of Information Studies*, Vol. 7 No. 2, pp. 24-27.
- Shim, W. J., McClure. C. R. and Bertot, J. C. (2001). Measure and statistics for research library networked services: Procedures and issues (ARL E-metrics Phase II Report). Washington DC: Association of Research Libraries. Available at: <http://www.arl.org/stats/newmeas/emetrics/phasetwo.pdf> (Accessed 27 March 2012)
- Waldman, M. (2003). “Freshmen’s use of library electronic resources and self-efficacy”. *Information Research* Vol. 8 No. 2, pp. 1-24.
- Watts, C., and Ibegbulam, I. (2006). “Access to electronic healthcare information resources in developing countries: Experiences from the medical library, College of Medicine, University of Nigeria”. *IFLA Journal*, Vol. 32 No. 54, Available at: <http://ifl.sagepub.com/content/32/1/54.full.pdf+html>. (Accessed 28 January 2013).