

INFORMATION LITERACY SKILLS AS A FACTOR INFLUENCING USE OF ELECTRONIC INFORMATION RESOURCES BY UNDERGRADUATE STUDENTS IN SELECTED FEDERAL UNIVERSITY LIBRARIES, NORTH-WEST, NIGERIA

DR. SAHABI, MUHAMMAD KABIR
Library System and Information Services,
Kaduna State University, Kaduna
sahabikabir@gmail.com

Dr. OTOBO ELVIS EFE
Caleb University,
Imota, Lagos, Nigeria
Elvisotobo1978@gmail.com

&

BUKAR, SNIMBALYA S.
National Open University of Nigeria
Bauchi Study Center
ysnimbalya@gmail.com

ABSTRACT

This study evaluated the influence of information literacy skills on the use of electronic information resources by undergraduate students in selected federal university libraries, North-West, Nigeria. Survey research design was adopted for the study. The population was 4,189 undergraduates of federal universities in North-West Nigeria. A sample size of 838 students was determined using Wimmer and Dominick's formula. Multistage sampling technique was used to select the respondents. Data were collected with a validated questionnaire. The Cronbach's alpha reliability coefficients for the constructs ranged from 0.79 to 0.92. A response rate of 76.4% was recorded. Data were analyzed using descriptive A self-structured questionnaire was used to elicit required information from the respondents. Data collected for this study was coded and analyzed through the use of SPSS V. 21. The findings revealed that the revealed a generally high level of information literacy skills with weighted mean score of 2.92 on the scale of 4 points, the study concluded that information literacy skills are major predictors of use of electronic information resources by undergraduate students in in selected federal university libraries, North-West, Nigeria. This study recommended that, student should be encouraged to sharpen their information literacy skills by putting it into more use.

Keywords: information literacy skills, electronic information resources, undergraduates, university library, North-West Nigeria.

Introduction

Electronic information resources are needed for undergraduate students especially because they make information available, easier and provide faster access to information than information accessible via printed media (Ukachi, 2011). They serve as motivators for learners,

as they give them the opportunity to deliver, obtain, transfer and circulate information resources on any topic of interest. EIRs, help to develop access, increase usability and efficiency, and create new ways for students to use the available information in the university library. EIRs give users reliable information, and right information for the right user. In addition, the use of EIRs helps students to be well-informed and up-to-date in their respective thematic areas, unlike print information resources that are not updated regularly (Fabunmi, Paris & Fabunmi, 2016).

EIRs have many advantages over printed materials because they can be accessed anytime, anywhere and they do not occupy much space like printed materials. As Varghese (2008) asserted, the availability of information in electronic media has created opportunities for global access to information, enhanced the speed of service, increased the number of users served, increased the quality of information provided, and offered new opportunities for undergraduate students to find relevant information. Undergraduates' are able to access current international literature as soon as it is published on the Internet from the libraries, student information technology (IT) centers, internet cafes, work places and their homes. It is therefore important that university students be equipped with the research tools necessary to access EIRs. Moreover, Yalman, Basaran and Gonen (2016) averred that knowledge of EIRs and related skills plays an important role in today's educational activities. Therefore, every undergraduate should possess these skills in order to be able to participate effectively and successfully as they make use of EIRs in university libraries.

Use of EIRs in this new global economy implies that as information continues to grow exponentially, universities cannot remain mere avenues for the transmission of prescribed set of information from teacher to student over a fixed period of time but must promote learning as knowledge in more dynamic ways. The world is currently living in an information society where there is exponential growth in information accessible through Information and Communication Technology (ICT) especially the Internet which helps undergraduate students to use EIRs effectively. As a result, the use of electronic EIRs by undergraduate students in universities has become indispensable in this digital age where globalization of education is made possible through ICT. This development has given rise to global, current and up-to-date information with the advent of these technologies which aid the transmission of information through EIRs. Tofi (2019) averred that the use of EIRs and technological change have created a new global economy that is powered by technology, fueled by information and driven by knowledge.

Use of EIRs affords researchers and undergraduate students the opportunity to have access to global information resources, especially the Internet for their scholarly work. Undergraduate students in university libraries make use of EIRs for many purposes mostly for academic purposes that is, retrieving current literature for studies and preparing for examinations, doing class assignments, carrying out research projects, and communicating and collaborating with peers and teachers via the Internet on e-mail or by following blog discussions (Adeniran, 2013). Undergraduate students use e-books and e-journal articles to acquire knowledge and carry out research work (Ajayi, Shorunke & Aboyade, 2014). Course materials are provided on CD-ROM for students' use which helps them to use EIR at their convenient time. With the emergence of ICT, EIRs have become widely used and accepted

among scholars and have increased tremendously in volume around the globe (Oyedapo & Ojo, 2013). All these resources have really improved the quality of education as this is evident in the literature. However, literature has revealed low usage of EIRs by undergraduates in Nigeria (Omoike, 2013).

Use of EIRs have become necessary in the academic environment (Ku, 2008). They serve as motivating factors to users as they provide them with opportunities to share, acquire, transfer and disseminate information on any subject of concern. Electronic information resources provision makes it possible for users to access new tools and applications for information seeking and retrieval. E-resources have become invaluable research tools that complement the print collection in the traditional library setting. These resources serve as veritable sources of information which students could tap into to aid their class assignments, write research and term papers, and search for information on their subject areas among other things. The manual system of searching for information resources does not permit multiple access and usage of the same information resources by different users unlike online services. It is worthy of note that, EIRs are of great importance to the academic and research needs of undergraduate students in university libraries since they are available in various formats (Fabunmi, Paris & Fabunmi, 2016).

In the same vain, due to the several advantages of EIRs such as their timeliness, search facilities, remote access and up-datedness, they have become more indispensable after the arrival of the Internet in the academic environment. The provision of EIRs in tertiary institutions of learning is a new way of gaining quick access to a great number of research information globally (Aina, Okunnu, & Dapo-Asaju, 2014). As a result of the potential benefits offered, they have been embraced by university libraries. Undergraduates, would benefit from the EIRs if they are well harnessed as they will provide excellent opportunities to access scholarly information which are beyond the reach of libraries due to geographical barriers and limited finances.

Ekenna and Ukapho (2016) noted that EIRs were very well accepted in other countries of the world, as against the situation in Nigeria. It is inevitable to conclude that perhaps the poor use of EIRs could be due to lack of or inadequate information literacy skills or poor computer self-efficacy. Studies have also shown that factors such as information literacy skills or computer self-efficacy are the determining factors that may influence users' ability to use EIRs (Prangya & Rabindra, 2017). Therefore, underutilization of electronic information resources could be attributed to the lack of information literacy skills which limits the ability to effectively locate and make ethical use of needed information or reduce computer self-efficacy which could hinder the zeal for making use of electronic information resources in the university library.

In the same vein, various studies have been carried out on the use of EIRs by different categories of users. Surveyed users include students, lecturers, researchers, experts of various profession and scientists. While some researchers claim that there are more studies that have reported high usage of electronic information resources, others have argued that the opposite is the case. Romanove and Aarnio (2016) have argued that there is low usage of EIRs on studies that have been undertaken mainly in Northern Nigerian. They have explained that factors

that have led to the low usage of EIRs include lack of adequate ICT infrastructure, unaffordable online access and poor ICT skills of librarians to adequately serve their clients. Despite these differences between the two groups of researchers, most of them agree that online databases have not been equally patronized by students due to lack of awareness of the available EIRs, lack of time to access them and the use of passwords (Ani, 2015).

Use of EIRs can be measured using indicators provided by the unified theory of acceptance and use of technology (Venkatesh, Morris, Davis, & Davis, 2003). This has four key indicators which are: performance expectancy, effort expectancy, social influence, and facilitating conditions which are direct determinants of usage intention. This study will adopt the Performance Expectancy (PE) which refers to the fact that undergraduate students' use of EIRs depends on how they perceive the usefulness of the electronic information resources. If an undergraduate student believes that using of electronic resources in research may have a positive effect on his academic performance, then he/she may likely to use them. The extent of use of electronic resources depends on the perceived usefulness of the electronic information environment. In addition, undergraduate students who believe using the system frequently will help him or her to use EIRs effectively and efficiently and also improve their academic performance will take advantage over those who do not use. PE also refers to the degree to which an undergraduate believes that use of EIRs will help them to enhance their academic performance as well as their research output in the information era. To use the available electronic information resources, students must acquire and use the skills to explore them; this will help undergraduates to effectively search and have access to needed information.

Information literacy has as well been identified as a factor militating against students' optimum utilization of electronic information in academic institutions (Namugera, 2014). Whereas information in academic libraries was previously based upon the collection of physical library materials, it is now increasingly the case that academic libraries have moved into the virtual arena. It is in this light that students are expected to possess information literacy skills as they pursue academic success. In the field of library and information science (LIS), literacy skills are very vital to knowledge acquisition and its competence. These competencies are called 'information literacy' (IL). It is seen as the absolute critical literacy skill for the 21st century that foster the realization of most personal, academic and professional goals as well as for economic development. It is believed that IL can help bridge the digital divide, strengthen the employability of a workforce, counter information overload, and support evidence-based policy and decisions in governments and the professions (Corrall, 2013).

UNESCO (2009) was of the view that information literacy deals with the knowledge of one's information concerns and needs, and the ability to identify, locate, evaluate, organize and effectively create, use and communicate information to address issues or problems at hand. It is a prerequisite for participating effectively in the information society, and is part of the basic human right of lifelong learning. Information literacy is often viewed as an "ongoing process that is meant to be facilitated throughout a whole life, because it is a core educational goal that is "common to all disciplines, learning environments, and all levels of education" (Boekhorst, 2013, cited in Virkus, 2016:28). For library users to be seen as competent, they must first be

information literate. Being competent and information literate enhances personal growth, self-actualization, empowerment and social inclusion. Which means that information literacy is also an important factor in the workplace (Adeleke&Emeahara, 2016).

Information literacy involves a continuous learning process that cut across abilities and knowledge, values, several other terms and combination of terms. (Parang, Raine and Stevenson 2000, cited in Okiki O.C 2013) posited that information literacy skills enables individuals to recognize not only when information is needed, but also the different kinds of information that are needed. It provides users of information resources with methods by which they can cope with the huge quantity of information coming from all directions, through all varieties of information resources. It can then be assumed that information literacy skills are needed by Nigerian academics for quality research output. Julien and Williamson (2010) believe that an information literate person today should possess specific online searching skills such as the ability to select appropriate search terminology, logical search strategy and appropriate information evaluation skills. These are critically lacked by many undergraduates in Nigeria today.

Considering the complexity associated with the use of use of EIRs, students require information literacy skills to access and use information. Adeleke and Emeahara, (2016) noted that growth in literature, its volume, variety and complexity has put severe constraints on users' ability to search for needed information. The complexity of use of EIRs has also led to tedious and rigorous searches, which tend to discourage the students who lack the requisite skills thereby leading to low usage of electronic information and other automated library services in many parts of Nigeria. Although most students have their own laptops, iPads or mobile phones which exposes them to the use of technology, their use of such electronic devices do not guarantee knowledge of information literacy skills needed to access web-based resources from online library platforms as many students are not even aware that such platforms exist online. Therefore, being aware and acquiring requisite information literacy skills are essential for students, especially undergraduates as to enable thrive academically. This would not only give value to the result of their research work but also ensure that they do not engage in copying and pasting and other forms of plagiarism, which have characterized students' use of online resources (Trip, 2010).

Statement of the Problem

In many institutions of higher learning, undergraduate students constitute the greater percentage of library users and unrestricted access to library holding will not only increase their use of the electronic information resources but will also enhance their information literacy skills. The literature has revealed that undergraduates generally prefer to use the electronic information resources when compared with their interest in the traditional analogue library services (Adeniran 2013, Oluwabiyi, 2017; Adeleke&Emeahara, 2016; Ekwelem, et al, 2018). while this is expected considering the global transition from analogue to the digital library services, undergraduates in many universities in Nigeria usually experience restricted access to and use of electronic information resources and services probably due to their low level of information literacy skills. Thus, access to these EIRs initially meant to enhance learning outcomes of the undergraduates now becomes unattainable and by extension has resulted in low use of the EIRs. This current study therefore aimed at

investigating the influence of information literacy skills on the use of electronic information resources by undergraduate students in selected federal university libraries, North-West, Nigeria.

Objective of the Study

The general objective of this study is to investigate the influence of information literacy skills on the use of electronic information resources by undergraduate students in selected federal university libraries, North-West, Nigeria. The specific objective of the study is to:

1. ascertain the level of information literacy skills on the use of electronic information resources undergraduates in selected federal universities in North-West, Nigeria?

Research Questions

The study provided answers to the following research question:

1. what is the level of information literacy skills on the use of electronic information resources undergraduates in selected federal universities in North-West, Nigeria?

METHODOLOGY

Survey research design was adopted for the study. The population was 4,189 undergraduates of federal universities in North-West Nigeria. A sample size of 838 students was determined using Wimmer and Dominick's formula. Multistage sampling technique was used to select the respondents. The 1st stage: At first stage, the researcher adopted purposive sampling to select three (3) old generation universities from the seven (7) institutions, they are Ahmadu Bello University, Zaria, Bayero University, Kano and Danfodio University Sokoto. In the 2nd stage, proportionate stratified sampling technique using 20% fraction was used to select the registered undergraduate students from the three (3) university libraries in the study area. In the final stage, simple random sampling technique was used to select respondents from the university libraries. The sample size for the study comprised of 838 undergraduate students of in the study area. Data were collected with a validated questionnaire. The Cronbach's alpha reliability coefficients for the constructs ranged from 0.79 to 0.92. A response rate of 76.4% was recorded. Data were analyzed using descriptive statistics. A self-structured questionnaire was used to elicit required information from the respondents. Data collected for this study was coded and analyzed through the use of SPSS V. 21.

RESULTS

Analysis of Research Questions

Research question one: What is the level of information literacy skills of undergraduate in Abeokuta, Ogun State?

Table 1: Level of Information Literacy Skills

Column1	Very High level	High level	Low Level	Very Low Level	Mean	Std Dev.
I can define the information I need	83(29.5)	167(59.4)	31(11.0)	0(0.0)	3.19	0.61
I can select the information that is most appropriate to my needs	73(26.0)	177(63.0)	31(11.0)	0(0.0)	3.15	0.59
I have the ability to use information to answer questions and/or solve problems	62(22.1)	156(55.5)	53(18.9)	10(3.6)	2.96	0.74
I have the ability to identify different sources of information	72(25.6)	144(51.2)	44(15.7)	21(7.5)	2.95	0.84
I have the capability to organize, apply and communicate information to others	61(21.7)	155(55.2)	54(19.2)	11(3.9)	2.95	0.75
I can synthesize and build upon existing information	41(14.6)	164(58.4)	65(23.1)	11(3.9)	2.84	0.71
I can determine the authoritativeness, correctness and reliability of the information sources	50(17.8)	155(55.2)	55(19.6)	21(7.5)	2.83	0.8
I can initiate how and where to find the information I need	51(18.1)	145(51.6)	65(23.1)	20(7.1)	2.81	0.81
I can synthesize newly gathered information with previous information	41(14.6)	153(54.4)	65(23.1)	22(7.8)	2.76	0.79
I have the ability to select search strategies by date, subject and language	31(11.0)	186(66.2)	33(11.7)	31(11.0)	2.77	0.8
Weighted Mean Score = 2.92						

Source:Field Survey, 2021

Mean of

- 3.5 - 4.0 = Very high,
- 2.5 - 3.49 = High
- 2.0 - 2.49 = Moderate
- 1.0 - 1.99 = Low

Table 1 revealed a generally high level of information literacy skills with weighted mean score of 2.92 on the scale of 4 points. The table further reveals that the highest level of information literacy skills were define the information needed (mean = 3.19), closely followed by selecting

the information that is most appropriate to their needs (mean = 3.15), ability to use information to answer questions or solve problems (mean = 2.96), ability to identify different sources of information (mean = 2.95), capability to organize apply and communicate information to others (mean = 2.95), synthesize and build upon existing information (mean = 2.84), determine the authoritativeness, correctness and reliability of the information sources (mean = 2.83), initiate how and where to find the information needed (mean = 2.81), synthesize newly gathered information with previous information (mean = 2.77) and ability to select search strategies by date, subject and language (mean = 2.76). The implication of this result is that students level of information literacy skills seems to determine the extent to which undergraduates will explore the power of e-resources reference services

Discussion of findings

The study investigated the influence of information literacy skills on the use of electronic information resources by undergraduate students in selected university libraries in North-West, Nigeria. The discussion section is based on the major finding from the research questions.

As regards the level of information literacy skills, the finding revealed high level of information literacy skills with weighted mean score of 2.92. The table further reveals that the highest level of information literacy skills were define the information needed, selecting the information that is most appropriate to their needs, ability to use information to answer questions or solve problems, ability to identify different sources of information, capability to organize apply and communicate information to others, synthesize and build upon existing information, determine the authoritativeness, correctness and reliability of the information sources, initiate how and where to find the information needed, synthesize newly gathered information with previous information and ability to select search strategies by date, subject and language. The information literacy skills course equips students with the necessary skills and knowledge to enable them to use the library's information resources effectively, legally and ethically and also engage in lifelong learning (Sithole, Chisita&Jagero, 2015). Sithole, Chisita, and Jagero (2015) conducted a study on information literacy evaluation. The study aimed at evaluating the effectiveness of the information literacy skills course on the use of various information formats in an African university. The survey research design was employed by researchers.

Conclusion

The study also concluded that there is limited computer and ICT infrastructure to accommodate as many students that are willing to use the electronic information resources the same time. Hence, this calls for purchase of more computers to enhance effective use of the electronic information resources across the selected tertiary institutions. Lastly, the study concluded that information literacy skills are major predictors of electronic information resources use by undergraduate students in selected university libraries in North-West, Nigeria.

Recommendation

The following recommendation is suggested for policy intervention:

1. Student should be encouraged to sharpen their information literacy skills by putting it into more use.

REFERENCES

- Abinew and Vuda (2013) Empirical survey on acceptance and use of electronic library services in universities
- Adeniran, P. (2013). Usage of electronic resources by undergraduates at the Redeemers University, Nigeria. *Academic Journals* 5(10), 319-324, DOI: 10.5897/IJLIS2013.0392. accessed from: <http://www.academicjournals.org/IJLIS>
- Ademodi, O. (2011). Reference service in academic libraries: Accommodation of international students. *Library Philosophy and Practice* (e-journal). <http://digitalcommons.unl.edu/libphilprac/1197>. Accessed April 29, 2020.
- Ademodi, D.T (2004). Students awareness of reference services in AdekunleAjasin University library, Akungba-Akoko. *Journal of Library and Information Science* 1(1) 1 – 12.
- Adeleke, D. S. &Emeahara, E. N. (2016). Relationship between information literacy and use of electronic information resources by postgraduate students of the University of Ibadan. *Library Philosophy and Practice* (ejournal).
- Achebe, N (2012) Current trends and challenges in reference information services in Nigerian Libraries In: Daniel, J. O., Ifidon, E.I &Okegbola, T. (eds). Trends in library and information science in Nigeria. Lagos: Elis Associates.
- ACRL, (2000) Information Literacy, (Association of college and research libraries) Accessed 17 September 2020, from: <http://www.ala.org/ala/acrl/>
- Adam, L. & Wood, F. (2013). An investigation of the impact of information and communications technologies in Sub-saharan African. *Journal of Information Science*, 25(4), pp. 307-18.
- Ademodi, D. T. (2015). Empirical study of awareness and use of reference sources by undergraduates in AdekunleAjasin University Library. *Information and Knowledge Management* 5 (8). www.iiste.org
- Akpojotor, L.O. (2016). Awareness and usage of electronic information resources among postgraduate students of library and information science in Southern Nigeria. *Library Philosophy and Practice (ejournal)*. Retrieved from: <http://digitalcommons.unl.edu/libphilprac/1408> on 15/10/2020
- Akinbobola, O. I., &Adeleke, A. A. (2016). External variables as antecedents of users' perception in virtual library usage. *Interdisciplinary Journal of Information, Knowledge, and Management*, 11, 73-87. <https://doi.org/10.28945/3450>.
- Chirra, R. &Madhusudhan, M. (2009). Use of electronic journals by doctoral research scholars of Goa University, India. *Library Hi Tech News*, 26(10): 12-15.
- Ekwelem, V. O., Okpala, H. N., Igbokwe J. C. &Ekwelem, C. (2018). Evaluation of online reference services: Reflections from Nigeria academic libraries. *Library Philosophy and Practice (ejournal)*. 1777.
- Herget, J., &Hierl, S. (2017). Excellence in libraries: A systematic and integrated approach. *New Library World*, 108(11/12), 526-544.

- Iroaganachi, M. A. & Ilogho, J. E. (2012). Utilization of reference books by students: A Case Study of Covenant University, Nigeria. *Chinese Librarianship: an International Electronic Journal*, 34: <http://www.iclc.us/cliej/cl34II.pdf>. [12/04/2020]
- Malik, A. & Mahmood, K. (2014). Readiness for digital reference service (DRS) in university libraries: a survey in the Punjab, Pakistan. *Information Development* (30), 181 – 188.
- Oketunji, I. (2014), Reference services: Its functions and importance in libraries and information centres. Paper presented at the 2005 national interactive library seminar on application and utilization of ICT to reference services in libraries and information held in Jos, 26-28 April.
- Okiki, O. C. (2013), Information literacy skills and availability of information resources as factors influencing research productivity of academic staff of federal universities in Nigeria.
- Okiki, O. C. (2011). Information communication technology support for an e-learning environment at University of Lagos, Nigeria. *Library Philosophy and Practice (ejournal)*. Paper 610.
- Oluwabiyi, M. O. (2017). Digital reference services: an overview. *Information Impact. Journal of Information and Knowledge Management* 2017, 8 (1), 66 – 75.