

An Assessment of Use of Electronic Resources by Undergraduates in a Nigerian University of Technology: A Case Study of Olusegun Oke Library

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Abstract

Library information resources, most especially electronic resources, must be used if the goal of setting up academic library is to be realised. The primary

aim of this paper is to investigate the assessment of availability and use of e-resources by undergraduates in Nigeria. This study was carried out at Ladoke Akintola University of Technology (LAUTECH), Ogbomoso among the undergraduates. Data was collected by the distributing a questionnaire to users of the library, those who visited the library during a particular period. The study was exploratory in nature and employed descriptive survey to determine undergraduates' assessment of e-resources, reasons for use, extent of use and factors hindering the use of e-resources by the students. Results revealed that e-resources in LAUTECH were effective, the students use e-library resources for researches and to do assignment. The study also revealed that the extent of use of electronic was low. The study recommends that the university management should come out with workable measures aimed at reducing the cost of internet browsing and provide functional network to facilitate students access to and use of e-resources on regular basis.

Keywords: *Electronic resources, Academic libraries, Undergraduates, LAUTECH.*

Introduction

Advances in Information Communication Technologies (ICTs) application in the past few years in Nigeria have brought radical changes in the way information is gathered, stored, organised, accessed, retrieved, and consumed in the Nigerian academic libraries. The importance of computer and Internet in library's service cannot be over-emphasised. One of the ways in which a library becomes rich is through the provision of electronic resources in their collection and how this affects quality of service to the library clientele.

This is important because the quality of library resources i.e., print and electronic determines quality of graduates produced and research development. The libraries are at the forefront of this mandate.

Electronic resources are very important for the provision of accurate and timely information retrieval for better educational outcomes. Biokuromoye, Victor and Loveth (2014) described electronic resources as all the information resources that a library provides through computer network to the library

users. The authors defined e-resources as all codified information resources available via web and computer channels that are used for personal and research development. These include electronic books, electronic journals, bibliographic databases, library web pages articles from magazines, encyclopaedias, dictionaries, handbooks, grey literatures, gazettes, pamphlets and other resources that are accessed electronically. In university libraries, the electronic resources that are of critical importance for use are e-journals and e-books. This is so because they are the electronic type of the conventional books and journals found in the libraries. These e-resources are stored and organised in various forms to permit easy availability and accessibility. Some of these forms are subject based while some cover a wide range of subject area.

Libraries all over the world make available a wide variety of electronic information sources use by the undergraduates, postgraduates, researchers and faculty members in their respective institutions. These e-resources form an essential part of the reference service provided

by the university libraries (Chimal and Nwokocha, 2015). However, the optimal use of electronic resources by undergraduates may depend on the availability of the e-resources. The availability of information has increased remarkably due to the e-resources version of information sources in the university libraries. The growing supply of literature in libraries that is available in e-resources format facilitates effective searching for the material needed by the undergraduates. This development has rapidly increased the undergraduates' exposure to a wider range of material than would otherwise be available. There are some indications that undergraduates' ways of accessing library materials for their work has changed in the electronic information environment. Such resources are directly connected to computer, such as CD-ROM drive, or remotely via network, such as the Internet. The category includes software applications, electronic texts, bibliographic databases, institutional repositories, websites, e-books, and collections of e-journal; therefore, electronic resources facilitate research and play a

complimentary role to print library resources.

Literature Review

The library plays a significant role in any institution of higher learning. Olusegun Oke library (LAUTECH) is equipped with current print and electronic resources. All these facilitate and support research and teaching. In any given library, quite a number of e-resources (e-books, e-journals and CD-ROM) are usually devoted towards achieving its target objectives. Ogbouiyi and Okpe (2013) citing Ogunsheye (1978) emphasised that neither a good book nor a good library can make the individual educated. Therefore, it is the availability, relevancy and successful use of the library materials that makes the well informed, stable and well-adjusted learned individual. Reitz (2004) defined electronic resources (e-resources) as "material consisting of a data and/or computer program(s) encoded for reading and manipulation by a computer and the use of peripheral devices directly connected to the computer. However, the optimal use of e-resources by undergradu-

ates may depend on the availability of e-resources present in the library. Aina, Mutula and Timamiyu (2008), Aina (2014) stressed that electronic resources are information resources that are available in computer process-able form. Examples of e-resources databases subscribed to by OlusegunOke library (LAUTECH) are AGORA, DOAJ, LAN-TEAL, AJOL, HINARI, EBSCOHOST, E-journal, JUSTOR, etc. The users of the library, among who are undergraduates, are informed of the available materials. It is expected that those e-resources should be well organised for easy accessibility and use. Electronic information are updated more often than printed materials. In addition, electronic resources can be accessed from outside the university library most especially by distance learners.

In the past decade, advances in electronic resources (e-resources) and the concept of digital library have made retrieval and use of electronic information resources easy for students. This is due to the fact that most of the documents to be consulted for educational outcomes are available in electronic

formats on the Internet, CD-ROM, OPAC, and in electronic journals and books. University students now retrieve vast amount of information for their literature from electronic sources. According to Pauline (2013), e-resources that are available and used by undergraduates at the Redeemer's University library, Nigeria are: Internet, Online Databases, CD-ROM, OPAC and E-Journal. The findings of the study showed that the undergraduates even though were aware of the different types of electronic information resources available in the university library; their use of these resources was low. Oyewusi and Oyeboade (2009), in their work on an empirical study of accessibility and use of library resources by undergraduates in a Nigerian state university of technology, the results on the use of electronic resources revealed that 94.4% undergraduates use the photocopy machine while electronic databases, OPAC, Close Circuit TV (CCTV), e-journal, microfilm and facsimile were not accessible for use. The quality and currency of e-resources materials are fundamental to the survival of a library and its service rendered to

the prospective users. Most of the university libraries in Nigeria are with obsolete resources due to unfriendly economic situation facing their parent institutions. Oyeronke (2012) posited that the reasons for lack of subscription to current journal titles and books, as well as library materials that are of great value to users are due to financial constraints. According to Jubril (2015), limited access to computer terminals, lack of IT knowledge to effectively utilise the service, network failure, poor network/internet connectivity and power failure were the major factors that hinder the effective use of e-resources by the undergraduate students in both Federal University of Technology (FUT) Minna and Ibrahim Badamasi Babangida University (IBBU), Lapai. Electronic resources, are beneficial for teaching, learning and research, however lack of skill would probably inhibit students' retrieval of information from electronic sources. Herring (2010) revealed that to effectively retrieve information, students need to value and implement information retrieval skills effectively as this would have an effect on how they find and use infor-

mation, concepts and ideas for their study.

Objectives of the Study

The main objective of this study is to explore the availability and use of e-resources in the Olusegun Oke Library, LadokeAkintola University of Technology (LAUTECH), Ogbomoso. The specific objectives are to:

1. find out the assessment of e-library in Olusegun Oke Library, LAUTECH, Ogbomoso,
2. determine what e-resources is used for in Olusegun Oke Library, LAUTECH, Ogbomoso,
3. find out the extent of use of databases in the e-library of Olusegun Oke library, LAUTECH, Ogbomoso, and
4. ascertain the challenges that hinder the use of e-resources in Olusegun Oke Library, LAUTECH, Ogbomoso.

Research Questions

1. What is your assessment of e-library in Olusegun Oke Library, LAUTECH Ogbomoso?

2. What do you use e-resources for in Olusegun Oke Library, LAUTECH, Ogbomoso?
3. What is the extent of use of e-resources in Olusegun Oke Library, LAUTECH, Ogbomoso?
4. What are the challenges that hinder the use of e-resources in Olusegun Oke Library, LAUTECH, Ogbomoso?

Hypotheses

H₀₁: There is no significant relationship between level of use and e-library resources available in Olusegun Oke Library, LAUTECH, Ogbomoso.

H₀₂: There is no significant relationship between level of use and challenges encountered by undergraduates of Olusegun Oke Library, LAUTECH, Ogbomoso.

Methodology

The descriptive survey design was employed to carry out the research. The instrument of data collection was questionnaire. The scope of this study is limited to undergraduates of LadokeAkintola University of Technology, Ogbomoso. Specifi-

cally, the study is limited to the availability and use of e-resources at the virtual library of Olusegun Oke library, LAUTECH. The research instrument used for data collection was administered to the respondents in the library. Simple random sampling technique was used. Both Science and Engineering reading room was used during the administration of questionnaire.

200 copies of the questionnaire was administered, 153 were error free and found valid for the analysis, given a response rate of 76.5%. Data collected in this study was analysed with the use of descriptive statistics of frequency counts, presented in tables. Pearson Moment Correlation Coefficient was used to test the hypotheses at 0.05 level of significance.

Result Analysis and Discussion

Table 1: Distribution of the respondents by faculty of study

Faculty of study	Frequency	Percentage
Engineering and Technology	50	32.7
Agricultural Sciences	55	35.9
Management Sciences	3	2.0
Pure and Applied Sciences	29	19.0
Environmental Sciences	4	2.6
Basic Medical Science	12	7.8
Total	153	100.0

Table 1 shows that 55(35.9%) respondents were from Agricultural Sciences, 50(32.7%) respondents were from Engineering and Technology, 29(19.0%) respondents were from Pure and Applied Sciences, while 3(2.0%) respondents were from Management Sciences

Table 2: Distribution of the respondents by level of study

Level of study	Frequency	Percentage
200 level	44	28.8
300 level	43	28.1
400 level	23	15.0
500 level	43	28.1
Total	153	100.0

It is shown in Table 2 that 44(28.8%) of the respondents were in 200 level, 43(28.1%) respondents were in 300 and 500 level, while 23(15.0%) respondents were in 400 level.

Table 3: Distribution of the respondents by gender

Gender	Frequency	Percentage
Male	113	73.9
Female	40	26.1
Total	153	100.0

Table 3 shows that 113(73.9%) respondents were males, while 40(26.1%) respondents were female.

Research questions

Research question one: What is your assessment of e-library in Olusegun Oke Library, Ogbomoso?

Table 4: Assessment of e-library in LAUTECH, Ogbomoso

S\N	Variables	Labels	Frequency	Percentage
1	Does your institution have e-library, virtual library?	No	4	2.6
		Yes	149	97.4
2	Are you aware of the availability of e-resources in your library?	No	22	14.4
		Yes	131	85.6
3	If your answer to question 1 is yes, how often do you use, visit the e-library, virtual library?	Daily	50	32.7
		Once in a week	50	32.7
		Fortnightly	10	6.5
		Monthly	8	5.2
		Rarely	35	22.9
4	How effective is the e-library of your institution?	Excellent	57	37.3
		Better	36	23.5
		Good	42	27.5
		Average	11	7.2
		Not effective	7	4.6

Table 4 shows the assessment of the e-library in Olusegun Oke Library by the students. 149(97.4%) respondents agreed there is e-library in their institution, 131(85.6%) respondents affirmed the availability of e-resources in their library. 50(32.7%) respondents used e-resources daily/once in a week, 35(22.9%) rarely used the e-resources. 57(37.3%) respondents adjudged it was excellent, 42(27.5%) said it was good while 7(4.6%) declared it as in-effective.

Research question two: What do you use e-resources for in Olusegun Oke Library, LAUTECH, Ogbomoso?

Table 5: Reasons for the use of e-resources.

1	Personal research	No	53	34.6
		Yes	100	65.4
2	To do assignment	No	62	40.5
		Yes	91	59.5
3	For social connectivity	No	153	100.0
4	To check my e-mail account	No	151	98.7
		Yes	2	1.3

Table 5 shows that 64.4% respondents use e-resources to do personal researches, while 59.5% respondents use e-resources to do assignments. It is to be noted that the respondents do not use electronic resources for social connectivity or to check their e-mail account. The reason for this, from observation, is that students are not allowed to use virtual library, where these electronic resources are housed for such purpose.

Research question three: To what extent have you used the following databases in your e-library?

Table 6: Extent of use of databases

NS= Not Sure, NU= Not Used, OU= Occasionally Used, HU= Highly Used, VHU= Very Highly Used.

S/N	Databases	NS	NU	OU	HU	VHU	Mean	S.D.
1	NIGERIA VIRTUAL LIBRARY	5 3.3%	59 38.6%	22 14.4%	38 24.8%	29 19.0%	3.18	1.23
2	SEARCH ENGINE	6 3.9%	78 51.0%	6 3.9%	27 17.6%	36 23.5%	3.06	1.34
3	BOOK SEARCH	12 7.8%	73 47.7%	5 3.3%	22 14.4%	41 26.8%	3.05	1.42
4	AFRICAN JOURNALS ONLINE	10 6.5%	87 56.9%	7 4.6%	29 19.0%	20 13.1%	2.75	1.22
5	E-JOURNALS	12 7.8%	81 52.9%	12 7.8%	33 21.6%	15 9.8%	2.73	1.18
6	OPEN GATE	16 10.5%	92 60.1%	10 6.5%	20 13.1%	15 9.8%	2.52	1.15
7	WILOLUD JOURNALS	12 7.8%	100 65.4%	9 5.9%	14 9.2%	18 11.8%	2.52	1.14
8	HIGHWIRE ARCHIVE	15 9.8%	95 62.1%	14 9.2%	20 13.1%	9 5.9%	2.43	1.03
9	ICAO	17 11.1%	96 62.7%	11 7.2%	16 10.5%	13 8.5%	2.42	1.09
10	PUBMED CENTRAL	22 14.4%	96 62.7%	6 3.9%	11 7.2%	18 11.8%	2.39	1.18
11	AGORA	19 12.4%	97 63.4%	9 5.9%	16 10.5%	12 7.8%	2.38	1.08
12	BIOMED CENTRAL	22 14.4%	95 62.1%	7 4.6%	19 12.4%	10 6.5%	2.35	1.08
13	EBSCOHOST	21 13.7%	95 62.1%	15 9.8%	12 7.8%	10 6.5%	2.31	1.02
14	DOAJ	22 14.4%	95 62.1%	13 8.5%	15 9.8%	8 5.2%	2.29	1.01

15	LAN-TEAL	26 17.0%	92 60.1%	9 5.9%	16 10.5%	10 6.5%	2.29	1.08
16	BENTHAM DIRECT	22 14.4%	99 64.7%	12 7.8%	7 4.6%	13 8.5%	2.28	1.05
17	HINARI	24 15.7%	99 64.7%	8 5.2%	10 6.5%	12 7.8%	2.26	1.06
18	PLOS	22 14.4%	99 64.7%	10 6.5%	15 9.8%	7 4.6%	2.25	.98
19	ARXIV	23 15.0%	99 64.7%	8 5.2%	16 10.5%	7 4.6%	2.25	.99
20	ICRISAT	23 15.0%	99 64.7%	9 5.9%	16 10.5%	6 3.9%	2.24	.96

The extent of use of these databases in e-library of Olusegun Oke library are rated as follows:

NIGERIA VIRTUAL LIBRARY (Mean =3.18) was rated highest in the mean score rating, and was followed by SEARCH ENGINE (Mean =3.06), BOOK SEARCH (Mean =3.05), AFRICAN JOURNALS ONLINE (Mean =2.75), E-JOURNALS (Mean =2.73), OPEN GATE (Mean =2.52), WILOLUD JOURNALS (Mean =2.52), HIHWIRE ARCHIVE (Mean =2.43), ICAO (Mean =2.42), PUBMED CENTRAL (Mean =2.39), AGORA (Mean =2.38), BIOMED CENTRAL (Mean =2.35), EBSCOHOST (Mean =2.31), DOAJ (Mean =2.29), LAN-TEAL (Mean =2.29), BENTHAM DIRECT (Mean =2.28), HINARI (Mean =2.26), PLOS (Mean =2.25), ARXIV (Mean =2.25) and ICRISAT (Mean =2.24) respectively.

Research question four: What are the challenges that inhibit/hinder the use of e-resources in Olusegun Oke Library, Ogbomoso?

Table 7: The challenges that inhibit/hinder to the use of e-resources in Olusegun Oke Library, Ogbomoso

S/N	Challenges	No	Yes
1	Erratic power supply	131 85.6%	22 14.4%
2	Inadequate space	127 83.0%	26 17.0%

3	Insufficient time allotted to each user	72 47.1%	81 52.9%
4	Poor connection to the internet	123 80.4%	30 19.6%
5	Restricted accessibility	106 69.3%	47 30.7%
6	Problem of low bandwidth	126 82.4%	27 17.6%
7	Insufficient personal computers	117 76.5%	36 23.5%

The above table presents the challenges that inhibit/hinder the use of electronic resources. It was discovered that erratic power supply was not a challenge to the respondents. Similarly, inadequate space, poor internet connection, restricted accessibility, low bandwidth and insufficient personal computers did not constitute a major challenge to the respondents. The only traceable challenge was the issue of insufficient time allotted to each user.

Hypotheses

H₀₁: There is no significant relationship between level of use and availability of information of e-library resources.

Table 8: Level of use of e-resources and availability of e-library resources

Variable	Mean	Std. Dev.	N	R	P	Remark
Level of use Availability of information of e-library resources	49.9477 9.8301	15.7492 1.9993	153	-.116	.154	n.s.

It is shown in the above table that there was no significant relationship between level of use and information of e-library and resources ($r = -.116$, $N = 153$, $P > .01$). The result shows that the respondents were aware of the availability of electronic resources in the library, but their level of use was low.

Null hypothesis is accepted.

H02: There is no significant relationship between level of use and challenges encountered.

Table 9: Level of use of e-resources and challenges encountered by undergraduates

Variable	Mean	Std. Dev.	N	R	P	Remark
Level of use	49.9477	15.7492	153	.113	.163	n.s.
Challenges Encountered	1.7582	1.7660				

It is shown in the above table that there was no significant relationship between level of use and challenges encountered ($r = .113$, $N = 153$, $P < .01$).

Null hypothesis is accepted.

Discussion of finding

Biokuromoye *et al* (2014) described e-resources that supply all the information that a library provides through computer network. This study clearly shows that OlusugunOke Library uses e-resources to provide information materials to their users. The idea of the university library exposing the students to a wide range of e-resources is in line with ICT-based component of the library services. The level of use of e-resources databases in the library is low and not encouraging. Only few databases like Nigerian Virtual Library and Search Engine were used, while

only few respondents used other database. The findings is in line with the finding of Pauline (2013) which stated some e-resources that were available and used by undergraduates at the Redeemer's University library as internet, online databases, CD-ROM, OPAC and e-journals, though they were aware of the availability of the different types of electronic resources in the university library, the degree of usage was low.

This research disagrees with the findings of Oyeronke (2012) who posited that the reasons for low use of electronic resources are lack of subscription

to current journals, books and other library material that are of great value to users due to financial constraints. Arising from the challenges that may hinder the use of e-resources by the undergraduates, the findings of this study disagreed with earlier findings of Jubril (2015) which stated that erratic power supply, inadequate space, poor connection to the internet, problem of low bandwidth and insufficient personal computers are major challenges that hinder the use of e-resources in the university by undergraduate students. The research also reveals that no meaningful relationship exists between level of use of e-resources and availability of information of e-library resources. Also no significant relationship between level of use and challenges encountered. This result negates Herring (2010) which revealed that to effectively retrieve information students need to value and implement information retrieval skills effectively as this would have an effect on how they find and use information concepts and ideals for their assignment.

Conclusion and Recommendations

The study concludes that LadokeAkintola University of Technology undergraduates use of electronic resources in their library was low, despite being aware of its availability. However, only insufficient time allotted to each user was the major barrier to the students' effective use of e-resources. Considering the large sum of money invested on subscription to majority of databases, the author recommend that both the university and library management should increase the level of awareness on databases that are available for the use of students in the institution. Also, the library management, as a matter of urgency, should embark on training and retraining, seminars and workshops for the student from one faculty to the other on information retrieval skills.

The library management should make recommendation to the university management to come out with workable measures aimed at reducing the cost of internet browsing. One of such measures is to ensure that university library have functional network to facilitate students

access to and use of e-resources and time should be allotted to on regular basis without any the use of e-resources by the hindrance. Also, sufficient space students.

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