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AVAILABILITY, ACCESSIBILITY AND UTILIZATION OF ELECTRONIC INFORMATION RESOURCES BY UNDERGRADUATES OF LADOKE AKINTOLA UNIVERSITY OF TECHNOLOGY, OGBOMOSO, OYO STATE, NIGERIA

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AVAILABILITY, ACCESSIBILITY AND UTILIZATION OF ELECTRONIC INFORMATION RESOURCES BY UNDERGRADUATES OF LADOKE AKINTOLA UNIVERSITY OF TECHNOLOGY, OGBOMOSO, OYO STATE, NIGERIA

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Abstract

The study investigates the availability, accessibility and utilization of electronic information resources by undergraduates of Ladoke Akintola University of Technology, Ogbomoso, Oyo state, Nigeria. Survey research design was adopted for this study. A population of six thousand three hundred and forty (6340) undergraduates were involved in the study. A total number of Three hundred and seventeen 317 undergraduates were drawn as sample size through stratified sampling techniques. Questionnaire was the main instrument used for data collection. Two hundred and seventy 274 four dally filed questionnaires were received, given an overall response rate of 86.49%. Data were collected and analyzed using descriptive and correlation analyses. Pear Correlation Coefficient was the statistical analysis adopted to test the hypothesis under study at 0.05 level of significance.

The finding of this study revealed that availability, accessibility and utilization of electronic information resources significantly influenced the utilization of electronic information resources in LAUTECH Library (Adj. R-squared 474, F(3) =41.985,p =000). The findings further revealed individual significant influence of availability and accessibility of EIR on its utilization. Each of availability and accessibility had relative influences on utilization of EIR. EIR were available, accessible and utilized in LAUTECH library.

The study concluded that availability and accessibility of e-resources lead to EIR utilization. It is recommended that adequate budgetary allocation should be given to LAUTECH library for subscription to online databases and acquisition of e-books and e-journals. The library management should create awareness on how to use the e-resources available in the university library and its importance to undergraduates. The librarian should train and retrain both lecturers and undergraduates on how well to use online databases for maximum gain.

Keywords: Accessibility of EIR, Availability of EIR, Electronic Information Resources, Undergraduates, Utilization of EIR.

Introduction

The 21st Century has experienced a remarkable proliferation of electronic information resources (e-resources) which has tremendously changed the information seeking attitude of students and researchers globally. In recent times, electronic information resources have been identified as the major sources for information dissemination in the universities, especially for researchers (Edem, 2016). The availability of ICT has made possible the access and use of electronic resources. People in many academic institutions no longer depend on printed materials only; they also use e-resources to meet their information needs. Electronic resources have become vital resources and source of information in academic areas whereby students, researchers, and faculty members use them to complement or supplement printed books. There are different types of electronic information resources which include electronic books (e-books), electronic journals (e-journals) and other electronic resources (Anajoyce, 2016).

E-resources are veritable sources of information and thus provide a wide range of opportunities for students to access irrespective of place or time. The emergence of information and communication technologies (ICT) has altered the packaging and delivery of information services, libraries and allied information agencies. These technologies have reduced the human exertion associated with librarianship, completely diversified information products, and increased access to library services. As a result of these changes, there are now libraries in which most chores are electronically managed. These modern libraries are known by various names among which are virtual library, online library, digital and electronic library. These emergent bibliographic institutions are differentiated by the application of electronic devices to deliver information to patrons in immediate and remote locations.

University libraries acquire and provide access to print and e-resources in the various disciplines offered in the universities. The role of the university library is subsumed in developing highly visible collections that are well organized and served as academic support for teaching, learning and research of faculty members and students. The accessibility and availability of information has increased remarkably due to the digitization of information. This development has rapidly increased the scholars' exposure to a wider range of literature than would otherwise be available.

There are some indications that scholars ways of accessing literature for their work has changed in the electronic information environment. There are larger volumes of information than ever before, news ways of collecting information, new information containers and new tools for working on information. Researchers can access electronic information through a variety of technologies.

1.2 Statement of the problem

Undergraduates of are expected to utilize the university electronic information resources as one of their major sources of information. Also accessing electronic information resources offer opportunities to obtain accurate and timely literature.

Unfortunately, libraries in Nigerian universities are poorly funded causing students to experience dearth of information resources to supplement classroom instructions. Additionally, when electronic information resources are available they are neither accessible nor utilized due to one problem or other associated with the technical processing of library resources. Moreover, the provision of information resources in sufficient balance and the proper organization encourages students to utilize library information resources. Therefore, this study investigates availability, accessibility and utilization of electronic information resources by undergraduate students of Ladoke Akintola University of Technology, Ogbomoso.

1.3 Objective of the study

The main objective of this study is to find out the effect of electronic information resources availability and accessibility on its utilization. The specific objectives of this study are to:

- 1. Identify the types of electronic information resources available for use in LAUTECH library
- 2. Find out the means through which electronic information resources are accessible in LAUTECH library.
- 3. Identify the extent to which undergraduates of LAUTECH utilize the available of electronic information resources in LAUTECH library.

1.4 Research Questions

This study will provide answers to the following questions

- 1. What types of electronic information resources are available for use in the (LAUTECH) library?
- 2. What are the means through which electronic information resources are accessible in LAUTECH library?
- 3. To what extent do the undergraduate students of LAUTECH library utilize the available electronic information resources in the LAUTECH library?

1.5 Research Hypotheses

The study will test the following hypotheses stated in the null format measured at 5% level of significance

- 1. There is no significant effect of availability of electronic information resources on its utilization in LAUTECH.
- 2. There is no significant effect of accessibility of electronic information resources on its utilization in LAUTECH.
- 3. Availability and accessibility of electronic information resources have no combined effect on utilization of electronic information resources

Literature review

Electronic information resources in libraries are considered essential part of modern society. This is because they play a very important role in education. The provision of electronic information resources in libraries is important to any educational program that intends to achieve objectives in line with the present day global best practices. Electronic information resources (EIR) are now recognized as being of great importance to even small academic libraries.

Akporhonor and Akpojotor (2016) observed that electronic resources are systems in which information is stored mechanically and made accessible through electronic and computer network. These resources include Online Public Access Catalogue (OPAC), CD-ROMs, (Compact Disc-Read Only Memory), Online-databases, e-journals, e-books, internet resources etc (Nnadozieand

Chuckwueke, 2016). Multiple accesses speed, richer content, reuse, timeliness universal accesses are some of the features of electronic information resources (Prangyaand Rabinda, 2013).

Furthermore, the incursion of the electronic resources into library services in the educational sector provides the possibilities to solve most teaching, learning, research and overall information creation, organization, dissemination, preservation and conservation problems even more rapidly and accurately than hitherto conceived. This has eventually made the computer and other electronic systems the doyen of research as it continues to extract greater acceptance (Nwachukwuand Asom, 2015). In addition electronic resources in university libraries plays a vital role in all fields of endeavours and the world has increasingly become more dependent on it.

Availability of electronic information resources is about information being accessible as needed and when needed. The objective of availability is to enable access to authorized information or resources. Availability, in the context of a computer system, refers to the ability of a user to access information, or resources in a specified location and in the correct format.

The tremendous change 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 in the university. Information is now accessible on the computer, CD-ROMs, the Internet or other digital networks. Due to the relative ease of accessibility of electronic information resources, there have been corresponding innovations and a shift in paradigm in information seeking behaviour of academic staff in the universities toward electronic information resources from the print. Information access is any means through which an information seeker gets required information to meet his/her information need. Access is also termed as the freedom and ability to obtain and make use of library and information resources and services.

Adediran (2013) in her study of usage of electronic resources at Redeemers University in Nigeria found that even though respondents were aware of the different types of electronic information resources available in the university library, their use rate of these resources was low. The factors that impede effective utilization of electronic resources were large mass of irrelevant information, the need to filter the results from search, download delay, failure to find information and adequate or lack of research skills. The study concluded that electronic resources has imparted positive on

the academic performances of the undergraduate, but recommended the need for them to acquire more skills in the use of electronic resources.

Gakibayo (2013) opined that the merit of electronic resources over printed ones include the speedy access, ease of use, ability to search multiple files at a time and ability to access documents from outside the university library to mention but few. Availability of electronic resources in the library is not enough, users must be aware of their existence to be able to use them effectively. To put to use what is available; users must possess requisite skills that will enable them to exploit these resources and services. Gakibayo (2013) lamented that for students to utilize the growing range of electronic resources they must acquire and practice the Information Technology (IT) skills necessary to exploit them.

Methodology

The study adopted survey research design. The populations of this study are the undergraduate students of Ladoke Akintola University of Technology, Ogbomoso, Oyo State (LAUTECH) library. The population sample was 10,800. Based on the large size of the population of the study, proportionate random sampling technique was adopted. The technique was employed to ensure fair representation of all subjects under investigation. Based on this technique, a total of 540 undergraduate students was selected from the population sample. This figure represents 5% of the entire undergraduate students of LAUTECH library sampled. Questionnaire was the instrument used for data collection. The data collected for this research was analysed using the Statistical Package for Social Sciences version 20 (SPSS) in order to obtain answers to the research questions formulated and also test the hypotheses respectively. Frequency counts, table, charts, and percentages, Pearson Product Moment Correlation Coefficient (PPMC) and T-Test will be used to analyze the data. PPMC will be used to determine the relationship between variables while T-test will be used to determine the difference between two variables. All the hypotheses will be tested at 0.05 level of significance.

DATA ANALYSIS, RESULTS AND DISCUSSION OF FINDINGS

Table 1: Distribution of Questionnaire Administered, Returned and the Response Rate

Faculties	Questionnaire	Questionnaire	Response Rate
	Administered	Returned	
Faculty of	50	43	86.0
Agricultural Sciences			
College of Health	46	42	91.3
Sciences			
Faculty of	60	-	-
Engineering and			
Technology			
Faculty of	42	30	71.4
Environmental			
Sciences			
Faculty of Pure and	49	43	87.8
Applied Sciences			
Faculty of	70	64	91.4
Management			
Sciences			
Total	317	274	86.4

Source: Researcher's Field work (2019)

Table 1 shows that the highest response was from the Faculty of Management Sciences . A total number of 64 (91.4%) copies out of 70 administered were retrieved and valid for analysis. This was closely followed by College of Health Sciences with 42 (87.8%) copies of questionnaire were retrieved out of 49 copies that was administered. Likewise, 52 (86.7%) , 43 (86.0%) and 30 (71.4%) copies of the questionnaire were retrieved from the Faculties of Engineering ,Agricultural Sciences and Environmental Sciences respectively

4.2 Demographic Characteristics of the Respondents

The following are the demographic characteristics of the respondents in LAUTECH Library.

Table 2: Distribution of Respondents by Gender

	Frequency	Percent%
Male	117	42.7
Female	157	57.3
Total	274	100.0
Age Range(in years)	Frequency	Percent%
15-17	4	1.5
18-20	80	29.2

21-30	190	69.3
Total	274	100.0
Faculty	Frequency	Percent%
Agricultural Sciences	43	15.7
Basic Medical Sciences	42	15.3
Engineering	52	19.0
Environmental Sciences	30	11.0
Management Sciences	64	23.3
Pure and Applied Sciences	43	15.7
Educational Qualification	Frequency	Percent%
WASCE/SSCE	195	71.2
N.C.E	-	-
OND/HND	79	28.8
Total	274	100.0

Table 2 shows the distribution of the respondents by LAUTECH Library. Majority of the respondents 157 (57.3%) were female while 117 (42.7%) were male. The implication of this could be that the university is admitting more female undergraduates than their male counterpart. It could be that the female undergraduate students were utilizing the electronic information resources in the library more than their male counterpart.

Table 2 shows the distribution of the respondents on accessibility, availability and utilization of electronic information resources in LAUTECH Library, Ogbomoso. Majority of the respondents 190 (69.3%) were between the age range of 21 and 30 years while 80(29.2%) were between the age range of 18 and 20 years.

Table 2 shows the distribution of the respondents by the faculty accessibility, availability and utilization of electronic information resources in LAUTECH Library, Ogbomoso. A total of 64 (23.3%) respondents by the Faculty of Management Sciences utilized electronic information resources in the library. This was followed by the Faculty of Engineering and Technology with 52 (19%) respondents who utilized the electronic information resources in the library. The respondents 43(15.7%) from Faculties of Agricultural Sciences and Pure and Applied Sciences were found to have utilized electronic information resources in the library.

Table 2 shows the distribution of the respondents by educational qualifications Majority, 195 (71.2%) of the respondents 'educational qualification was WASCE/SSCE while 79(28.8%) respondents 'educational qualification was OND/HND.

Presentation of the Results of the Research Questions

The empirical investigation requires postulation of research questions which could be verified for sound scientific claim. For this study, the findings of research questions postulated were discussed here.

Research Question One: What types of electronic information resources are available for use in LAUTECH library

The frequency, percentage (%) mean and standard deviation values of their responses were calculated and provided in Table 3

Table 3: Types of Electronic Information Resources available to Undergraduates in LAUTECH Library

Electronic Resources information	Highly Available	Available	Rarely Available	Not Available	Mean	SD
Online Databases	Tivanable		71 variable	71vanaoic		
EBSCOHost	40 (14.6%)	75 (27.4%)	56 (20.4%)	103 (37.6%)	2.19	1.096
HINARI	26 (9.5%)	92 (33.6%)	53 (19.3%)	103 (37.6%)	2.15	1.036
JSTOR	23 (8.4%)	77 (28.1%)	92 (33.6%)	82 (29.9%)	2.15	0.947
AJOL	35 (12.8%)	86 (31.4%)	61(22.3%)	92 (33.6%)	2.23	1.054
AGORA	44 (16.1%)	101(36.9%	61 (22.3%)	68 (24.8%)	2.44	1.033
Google Scholar	81 (29.6%)	104(38.0%)	52 (19.0%)	37 (13.15%)	2,84	1.001
Total Mean and SD Scores					2.33	1.028
Electronic Databases						
E-books	119 (43.2%)	108 (39.4%)	33 (12.0%)	14 (5.1%)	3.21	0.847
E-journals	96 (35.0%)	124 (45.3%)	41 (15.0%)	13 (4.7%)	3.11	0.825
Encyclopedia	108 (39.4%)	124 (45.3%)	26 (9.5%)	16 (5.8%)	3.18	0.832
E-reference tools	112 (40.9%)	102 (37.2%)	46 (16.8%)	14 (5.1%)	3.14	0.874
Total Mean and SD Scores					3.16	0.845
Institutional Repository						
Working papers	116 (42.3%)	101 (36.9%)	41 (15.0%)	16 (5.8%)	3.16	0.886
Technical report	90 (32.8%)	121 (44.2%)	42 (15.3%)	21 (7.7%)	3.02	0.889
Electronic theses and	97 (35.4%)	91 (33.2%)	62 (22.6%)	24 (8.8%)	2.95	0.965
dissertations						

Datasets	76 (27.7%)	130 (47.7%)	60 (21.9%)	80 (29.2%)	3.00	0.784
Administrative documents	80 (29.2%)	119 (42.3%)	59 (21.5%)	19 (6.9%)	2.94	0.885
Total Mean and SD Scores					3.01	0.885
Grand total of mean Score					2.89	0.913

^{**}Decision Rule: if mean is less or equal to 1.49= Not available, 1.5 to

2.49=RarelyAvailable, 2.5 to 3.49= Available, 3.5 to 4= Highly Available

Comparing the mean scores and standard deviation for items under online databases the highest is Google scholar with a mean of 2.84 followed by Agora with a mean of 2.44 and the least are JSTOR and HINARI with a mean value of 2.15 each. This implies that on the average, Google scholar is more preferred as a better online database and the most available. However looking at the standard deviation, we can see that the undergraduates of JSTOR are more consistent with a standard deviation of (0.947) followed by users of Google scholar (SD= 1.001). The users of other online databases are somewhat not consistent in their usage thus higher standard deviations are recorded.

For electronic database, comparing the mean scores that E-book Pure and Applied Sciences has the highest value of 3.21 followed by encyclopedia with a mean value of 3.18, then E-reference tools which value of 3.14 and finally e-journals with value of 3.11. So on the average, E-books are most preferred by the respondents thus making it highly available but in terms of consistency in usage, e-journals ranking better has others with a standard deviation of 0.825 followed by encyclopedia with a standard deviation of 0.832. The less consistent in terms of usage is e-reference tools with a standard deviation of 0.874.

In addition, working papers topped the list of available electronic information resources through the institutional repository with 217 (79.2%) respondents indicating that working papers were available for their utilization in the library. Likewise, technical report, dataset, administrative documents and electronic these and dissertation with 211 (77.0%), 206 (75.1%), documents and electronic these and dissertations respectively were available in the library for utilization by the respondents.

For institutional repository, working papers have a high mean value o 3.16, followed by technical report with a mean value of 3.02, then datasets 3.02, then 3.00, electronic these and dissertation 2.95 and the least is administrative 2.94. Thus shows that on the average, working papers are more available than other sources but in terms of consistency and use, the datasets ranked better to be close to its mean than other sources of institutional repositories and the least in terms of cluster and consistency is electronic theses and dissertations.

To provide answer for research questions two using the same table above, it could be seen that the grand total of means score is 2.89. Going by the decision rule, this implies that electronic

information resources were available for students' use at LAUTECH library to a reasonable extent. The grand total of mean score gives the indication that electronic information resources were available in the school.

Research Question Two: What are the means through which electronic information resources are accessible to undergraduates in LAUTECH library?

The means through which Electronic Information Resources are accessible in LAUTECH Library by undergraduate students is shown in the table that follows. In other to examine means of accessibility of electronic information resources in LAUTECH Library by undergraduates students, the students were asked to indicate the means by which electronics information resources are accessible to them in the library by answering 'yes' or 'no' to the provided questions.

Table 4: Means of Accessibility of EIR in the LAUTECH Library

Electronic Information	Yes	No	Total
Resources			
E-mail Service	271 (98.9%)	3 (1.1%)	274 (100%)
Internet Enabled	266 (97.0%)	8 (3.0%)	274 (100%)
Computers			
Data Enabled Smart	247 (90.1%)	27 (9.9%)	274 (100%)
Phones			
Internet Enabled Tablets	221 (80.6%)	53 (19.4%)	274 (100%)
OPAC	186 (67.8%)	88 (32.2%)	274 (100%)

Source: Reseacher's Field Work (2019)

Table 4: Means of Accessibility of EIR in the LAUTECH Library

Table 4.4 depicts the means of accessibility to electronic information resources by LAUTECH students. Data from the responses show that email services with 98.9% of respondents has the highest accessibility ratio. This is closely followed by Internet enabled computers (97%), data enabled smart phones (90.1%) and Internet enabled Tablets (80.6%) while the least accessible is OPAC, with (67.8%). This therefore reflects that email services are more available to undergraduate students of LAUTECH with nearly all of them indicating access to the facility.

Thus email services stand out as being more accessible compared to other electronic information resources.

Research Question Three: To what extent do the undergraduates utilize the available electronic information resources in the LAUTECH library?

Table 5: The Extent of Access to Electronic Information Resources by undergraduate students in LAUTECH Library

Electronic Information Resources	Highly Accessible	Accessible	Rarely Accessible	Not Accessible	Mean	SD
Online Databases						
EBSCOHost	34 (12.4%)	72 (26.3%)	92 (33.6%)	76 (27.7%)	2.23	0.993
HINARI	31 (11.3%)	78 (28.5%)	83 (30.3%)	82 (29.9%)	2.21	0.998
JSTOR	15 (5.5%)	84 (30.7%)	91 (33.2%)	84 (30.7%)	2.11	0.907
AJOL	27 (9.9%)	78 (28.5%)	81 (29.6%)	88 (32.1%)	2.16	0.989
AGORA	25 (9.1%)	100 (36.5%)	74 (27.0%)	75 (27.4%)	2.27	0.965
Google Scholars	72 (26.3%)	99 (36.1%)	60 (21.9%)	43 (15.7%)	2.73	1.020
Total Mean and Sl	D Scores				2.29	0.979
Electronic Databa	ses					
E-books	102 (37.2%)	113 (41.2%)	50 (18.2%)	9 (3.3%)	3.12	0.820
E-journals	106 (38.7%)	111 (40.5%)	48 (17.5%)	9 (3.3%)	3.15	0.821
Encyclopedia	105 (38.3%)	107 (39.1%)	52 (19.0%)	10 (3.6%)	3.12	0.841
E-reference tools	107 (39.1%)	109 (39.8%)	43 (15.7%)	15 (5.5%)	3.12	0.868
Total Mean and Sl	D Scores				3.13	0.836
Institutional Repo	sitory					
Working papers	99 (36.1%)	92 (33.6%)	48 (17.5%)	35 (12.8%)	2.93	1.023
Technical report	79 (28.8%)	125(45.6%)	49 (17.9%)	21 (7.7%)	2.96	0.880
Electronic theses	49 (17.9%)	126 (46.0%)	76 (27.7%)	23 (8.4%)	2.73	0.851
and dissertations						
Datasets	87 (31.8%)	137 (50.0%)	33 (12.0%)	17 (6.2%)	3.07	0.827
Administrative	78 (28.5%)	96 (35.0%)	72 (26.3%)	28 (10.2%)	2.82	0.962
documents						
Total Mean and S	D Scores				2.90	0.909
Grand total for m	ean scores				3.03	0.917

^{***} Decision Rule: if mean is less or equal to 1,49= Not Accessible, 1.5 to 2.49 = Rarely Accessible, 2.5 to 3.49 = Accessible, 3.5 to 4= Highly Accessible

The Online database, Google scholar ranked the best with a mean value of 2.73 followed by JSTOR and AGORA with same mean values of 2.28 each. The least in the spread is HINARI with a mean score of 2.17. This thus on the average make Google scholar to be the most utilized

platform for Electronic Databases. The Standard Deviation value of 0.925 shows that the scores for AGORA are more clustered around the mean than others.

In the utilization of Electronic Databases, e-books stands out as the most utilized with a mean value of 3.17, followed by encyclopedia with a mean value 3.12 and the least in that category is e-reference tools with a mean values of 3.04. The standard deviation reveals that e-journals have it scores to cluster around the mean values compared to other items which their scores are dispersed.

In the utilization of Institutional Repository electronic information resources, repository electronic these and dissertations stood out as the most utilized with a mean value of 2.88, followed by technical report with a mean of 2.87 and least in the distribution is administrative documents with a mean of 2.77. The standard deviation reveals that electronic theses and dissertations have its scores clustered around the mean unlike others that gave dispersed scores from the mean.

Research Question Four: What types of electronic information resources in LAUTECH Library do the undergraduate students prefer most?

Table 6: Type of Electronic Information Resources preferred by undergraduates students in LAUTECH Library

Electronic Information	Highly Preferred	Preferred	Moderately Preferred I	Not Preferred	Mean	SD
Resources						
Online Databases						
EBSCOHost	53 (19.3%)	78 (28.5%)	88(32.1%)	55 (20.1%)	2.47	1.020
HINARI	51 (18.6%)	73 (26.6%)	96 (35.0%)	52 (19.7%)	2.44	1.008
JSTOR	86 (31.4%)	73 (26.6%	65(23.7%)	50(18.2%)	2.71	1.096
AJOL	57 (20.8%)	88(32.1%)	92 (33.6%)	37 (13.5%)	2.60	0.964
AGORA	102 (37.2%)	73 (26.6%)	62(22.6%)	37 (13.5%)	2.88	1.062
Google Scholars	116 (42.3%)	97 (35.4%)	58 (21.2%)	3 (1.1%)	3.19	0.803
Total Mean and SI	O Scores				2.72	0.832
Electronic Databas	ses					
E-books	141 (5.5%)	104 (36.9%)	24 (8.8%)	8(2.9%)	3.37	0.765
E-journals	145 (52.9%)	99(36.1%)	26 (9.5%)	4 (1.5%)	3.41	0.721
Encyclopedia	146 (53.3%)	92 (33.6%)	32(11.7%)	4(1.5%)	3.39	0.749
E-reference tools	122 (44.4%)	111 (40.5%)	28 (10.2%)	13 (4.7%)	3.25	0.823
Total Mean and SI	O Scores				3.36	0.765
Institutional Repos	sitory					
Working papers	112 (40.9%)	110(40.1%)	42(15.3%)	10(3.6%)	3.18	0.823
Technical report	98 (35.8%)	110(40.1%)	53 (19.3%)	13 (4.7%)	3.07	0.860
Electronic theses	111 (40.5%)	117(42,7%)	34(12.4%)	12 (4.4%)	3.19	0.818

Grand total for m	ean scores				3.19	0.735	
Total Mean and S					3.17	0.821	
documents							
Administrative	103 (37.6%)	117 (42.7%)	45 (16.4%)	9(3.3%)	3.15	0.808	
Datasets	123 (44.9%)	104(38.0%)	40(14.6%)	7 (2.6%)	3.25	0.797	
and dissertations							

^{***} Decision Rule: if mean is less or equal to 1,49= Not Accessible, 1.5 to 2.49 = Rarely Accessible, 2.5 to 3.49 = Accessible, 3.5 to 4= Highly Accessible

Table 6: Types of Electronic Information Resources Preferred by undergraduate in LAUTECH Library

Table 6 shows the types of electronic information resources the undergraduate prefer in LAUTECH Library, Ogbomosho. In discussing the preference of electronic information sources, Google scholar stood out well in online databases with a mean score of 3.19 followed by AGORA (2.88) and the least in the category is HINARI (2.44). So on the average, Google scholar is the most preferred than others. The standard deviation values however shows that the scores of Google scholar are center more around its mean (0.803) compared to others who have their scores a little dispersed from their mean,

For Electronic Database, e-Journals ranked best on average with a mean of 3.41 followed by Encyclopedia with a mean of 3.39. The least in that category is e-reference tools with a mean of 3.25. The standard deviation however shows that e-journals have its scores related to its mean compared to the scores of other which are dispersed from their mean values.

For institutional repositories, Electronic Datasets have the highest mean of 3.25 thus making it to be most preferred in that category. This is followed by electronic theses and dissertations with a mean score of 3.19 and the least preferred is technical report with a mean score of 3.07. The standard deviation thus show that datasets have its scores clustered more around it means than the scores of other items around their means.

Research Question Four: What types of electronic information resources in LAUTECH Library do the undergraduate students prefer most?

Table 7: Type of Electronic Information Resources preferred by undergraduates students in LAUTECH Library

Electronic	Very High	High Extent	Low Extent	No Extent	Mean	SD
Information	Extent					
Resources						

Online Databases						
EBSCOHost	34(12.4%)	93 (33.9%)	60(21.9%)	87(31.8%)	2.27	1.041
HINARI	26(9.5%)	83(30.3%)	77(28.1%)	88 (32.1%)	2.17	0.989
JSTOR	27 (9.9%)	109 (39.8%	52(19.0%)	86(31.4%)	2.28	1.015
AJOL	29(10.6%)	90(32.8%)	77(28.1%)	78 (28.5%)	2.26	0.987
AGORA	20 (7.3%)	107(39.1%)	78(28.5%)	69 (25.2%)	2.28	0.925
Google Scholars	68(24.8%)	108(39.4%)	53 (19.3%)	45(16.4%)	2.73	1014
Total Mean and SI) Scores				2.35	0.841
Electronic Databas	es					
E-books	132(48.2%)	75(27.4%)	48(17.5%)	19(6.9%)	3.17	0.954
E-journals	108 (39.4%)	99(36.1%)	43(15.7%)	24 (8.8%)	3.06	0.949
Encyclopedia	122(44.5%)	83(30.3%)	49(17.9%)	20(7.3%)	3.12	0.951
E-reference tools	123(44.9%)	64(23.4%)	63(23.0%)	24 (8.8%)	3.04	1.015
Total Mean and SI) Scores				3.10	0.967
Institutional Repos	sitory					
Working papers	95 (34.7%)	69(25.2%)	77(28.1%)	33(12.0%)	2.82	1.041
Technical report	92 (33.6%)	89(35.5%)	59(21.5%)	34 (12.4%)	2.87	1.017
Electronic theses	74 (27.0%)	115(42.0%)	63(23.0%)	22 (8.0%)	2.88	0.900
and dissertations						
Datasets	84(30.7%)	92(33.6%)	74(27.0%)	24(8.8%)	2.86	0.955
Administrative	80 (29.2%)	78 (28.5%)	88 (32.1%)	28(10.2%)	2.77	0.985
documents						
Total Mean and SI	O Scores				2.84	0.980
Grand total for me	ean scores				2.78	0.967

*** Decision Rule: if mean is less or equal to 1,49= Not Accessible, 1.5 to 2.49 = Rarely Accessible, 2.5 to 3.49 = Accessible, 3.5 to 4= Highly Accessible

Table 7: Extent of Undergraduates Utilization of Electronic Information Resources in LAUTECH Library

The Online database, Google scholar ranked the best with a mean value of 2.73 followed by JSTOR and AGORA with same mean values of 2.28 each. The least in the spread is HINARI with a mean score of 2.17. This thus on the average make Google scholar to be the most utilized platform for Electronic Databases. The Standard Deviation value of 0.925 shows that the scores for AGORA are more clustered around the mean than others.

In the utilization of Electronic Databases, e-books stands out as the most utilized with a mean value of 3.17, followed by encyclopedia with a mean value 3.12 and the least in that category is e-reference tools with a mean values of 3.04. The standard deviation reveals that e-journals have it scores to cluster around the mean values compared to other items which their scores are dispersed.

In the utilization of Institutional Repository electronic information resources, repository electronic these and dissertations stood out as the most utilized with a mean value of 2.88,

followed by technical report with a mean of 2.87 and least in the distribution is administrative documents with a mean of 2.77. The standard deviation reveals that electronic theses and dissertations have its scores clustered around the mean unlike others that gave dispersed scores from the mean.

Research Question Six: For what purpose do undergraduates use electronic information resources in LAUTECH library?

Table 8: The purpose of the use of electronic information Resources by undergraduates in LAUTECH library.

Research Purposes	Strongly Agree	Agree	Disagree	Strongly Disagree	Mean SD
I easily Make use of EIR for conducting my assignment.	90 (32,8%)	98(35.8%)	45(16.4%)	41(15.0%)	2.86 1.038
I regularly make use Of EIR for updating My academic Knowledge.	85(31.0%)	69(25.2%)	84(30.7%)	36(13.1%)	2.74 1.039
I make use of EIR For the purpose of Academic research.	118(43.1%)	94(34.3%)	32(11.7%)	30(10.9%)	3.090, 0990
I make use of EIR That are readily Available due to My awareness Level about its Ease of use.	61(22.3%)	118(43.1%)	58(21.2%)	37(13.5%)	2.74 0.954
I make regular use of EIR because of the e-resources quality	105(38.3%)	96(35.0%)	45(16.4%)	28(10.2%)	3.01 0.980

*** Decision Rule: if mean is less or equal to 1.49= Strongly Disagree, 1.5 to 2.49 = Disagree, 2.5

to 3.49 = Agree, 3.5 to 4 = Strongly Agree

The purpose for the use of electronic information resources was analyzed and the purpose for academic research stood out better with a mean value of 3.09. followed by quality of the eresources with a value of 3.01, while the least is for the purposes of the update of academic knowledge and readiness or availability with mean values of 2.74 each. However the standard deviation reveals that the scores for the purpose of readily available resources are centered on its mean with a value of 0.954. This shows that others are dispersed from the mean.

Hypotheses

Three hypothesis were tested at 0.05 level of significance in this study.

1 Hypothesis One: Availability of electronic information resources does not have any significant influence on its utilization by undergraduate students of LAUTECH.

In order to determine the influence of availability of electronic information resources by undergraduate students in LAUTECH library Ogbomosho, this hypothesis was tested using multiple regression model. Information on Utilization of electronic information resources was used as dependent variable while independent variables of availability of electronic information resources are in multiple; they are, online databases, electronic databases and institutional repository.

Table 9a: Multiple Regression Analysis Showing Model Summary of Influence of Availability of electronic information resources of Online Databases, Institutional Repository

Summary							
Model	R	R Square	Adjusted R Square	td. Error of the Estimate			
1	0.577	0.332	0.323	0.62231			

a. Predictors: (constant), Availability of Electronic Information resources, ONLINE
 Databases, Institutional Repository

b. Utilization of EIR

The result of multiple regression analysis, as shown in Table 4.9a, R determines the correlation among the independent variables: electronic past examination papers (XI), advanced search engines (X2), online databases (X3) and institutional repository (X4) and the dependent variable: utilization of electronic information resources (Y). The correlation among the variables (0.58) explained a positive significant relationship. Coefficient of determination R² that predicted the relationship among the independent variables and dependent variable is 0.33. this means that 33 percent of the total variance in the dependent variable utilization of electronic information resources accounted for the independent variables: electronic pas examination papers, advanced search engines, online databases and institutional repository. The adjusted R² shows the precise effect of the independent variables on the dependent variable. This 32.3% of the total variance in utilization of electronic information resources can be accounted for by the independent variable.

The result of multiple regression analysis, R determines the correlation among the independent variables: online databases (XI), electronic databases (X2) and institutional repository (X3) and the dependant variable: utilization of electronic information resources (Y). the correlation among the variables (0.58) explained a positive significant relationship. Coefficient of determination R² that predicted the relationship among the independent variables and dependent variable is 0.33. This means that 33 percent of the accounted for the independent variables: online databases, electronic databases and institutional repository.

The adjusted R² shows the precise effect of the independent variables on the dependent variable. This 32.3% of the total variance in utilization of electronic information resources can be accounted for by the independent variables. This result affirmed that the availability of constructs of independent variables significantly influenced utilization of electronic information resources of undergraduate students in LAUTECH library Ogbomoso. This is affirmed further in the analysis of variance (ANOVA) test result shown in the table that follows.

The result of multiple regression analysis, as shown in table 4.13a, R determines the correlation among the independent variables: electronic past examination papers (XI), advanced search engines (X2), online databases (X3) and institutional repository (X4) and the dependent variable: utilization of electronic information resources (Y). the correlation among the variables (0.58) explained a positive significant relationship. Coefficient of determination R² that predicted the relationship among the independent variables and dependent variable is 0.33. this means that 33 percent of the total variance in the dependent variable utilization of electronic information resources accounted for the independent variables: electronic past examination papers, advanced search engines, online databases and institutional repository. The adjusted R² shows the precise effect of the independent variables on the dependent variable. This 32.3% of the total variance in utilization of electronic information resources can be accounted for.

The result of multiple regression analysis, R determines the correlation among the independent variables: online database (XI), electronic databases (X2) and institutional repository (X3) and the dependent variable: utilization of electronic information resources (Y), the correlation among the variables (0.58) explained a positive significant relationship. Coefficient of determination R² that predicted the relationship among the independent variable and dependent variable is 0.33. This means that 33 percent of the total variance in the dependent variable utilization of electronic information resources accounted for the independent variables, electronic databases and institutional repository.

The adjusted R² shows the precise effect of the independent variables on the dependent variable. This 32.3% of the total variance in utilization of electronic information resources can be accounted for by the independent variables. This result affirmed that the availability of constructs of independent variables significantly influenced utilization of electronic information resources of undergraduate students in LAUTECH library Ogbomoso. This is affirmed further in the analysis of variance (ANOVA) test result shown in the table that follows.

Table 9b: Multiple Regression Analysis Showing ANOVA of Influence of Accessibility of Electronic Information Resources.

ANOVA

		Sum	of			
	Model	Squares	Df	Mean Square	F Sig.	
1	Regression	51.880	4	12.970	33.491 .000	
	Residual	104.175	269	387		
	Total	156.055	273			

- a. Predictors: (Constant) Online Databases, Institutional Repository
- b. Dependent Variable: utilization of EIR

The results of the F-ratio as shown on Table 4.9b confirmed that the regression model is significant at p < 0.05. It can be accomplished that the regression model predicted the influence of utilization of electronic information resources. In other words, the indicators availability of Electronic information Resources which are online databases, electronic databases and institutional repository significantly influenced utilization of electronic information resources in the library by the undergraduate students in LAUTECH.

The relative influence availability of electronic information Resources: online databases, electronic databases and institutional repository on dependent variable were further explained in the corresponding regression model. The regression model showed that the usage of online databases by undergraduates students influenced their utilization of electronic information resources in the library (β =0.175 at p=0.005). The result of the finding also showed that institutional repository and electronic databases had no significant influence on utilization of electronic information in LAUTECH Library (β = 0.076 at p = 0.286 and β = 0.065 at p = 0.198)

Hypothesis Two: There is no significant influence of accessibility of electronic information resources on its utilization by undergraduate of LAUTECH.

Table 10a: Multiple Regression Analysis Showing model summary of influence Availability of Electronic Information resources of Online Databases, Institutional Repository on Utilization of Electronic Information Resources.

Ī	Summary

,	Model	R	RSquare	adjusted R Square	Std. Error of the Estimate
	1	0.666ª	0.444	0.435	0.56807

a. Predictors: (Constant), availability of electronic information resources, Online Databases, Institutional Repository.

The result of multiple regression analysis, as shown in the Table 4.10a, R determines the correlation among the independent variables: electronic past examination papers (XI), Electronic Databases (X2), online databases (X3) and institutional repository (X4) and the dependent variable: utilization of electronic information resources (Y). The correlation among the variables 0.67 explained a strong positive significant relationship. Coefficient of determination R^2 that predicted the relationship among the independent variables and dependent variable is 0.44.

This means that 44 percent of the total variance in the dependent variable utilization of electronic information resources accounted for the independent variables: electronic past examination papers, electronic databases, online databases and institutional repository. The adjusted R^2 = value is given as 0.435. this implies that based on multiple regressions, the precise effect of the accessibility of electronic information sources on use of the sources. This result affirmed that accessibility of the constructs of independent variables significantly influenced utilization of electronic information resources of undergraduate students in LAUTECH Library Ogbomoso as shown in analysis of ANOVA table that follows.

To examine the influence of accessibility of electronic information resources by undergraduate students in LAUTECH Library Ogbomoso, this hypothesis was tested using multiple regression models. Information on utilization of electronic information resources was used as dependent variable while the independent variables of accessibility of electronic information resources are in multiple; they are online databases, electronic databases and institutional repository. The result R determines the correlation among the availability of online databases (X1), electronic databases (X2) and institutional repository (X3) and the dependent variable: utilization of electronic information resources (Y).

The correlation among the variables which was 0.67 explained a strong positive significant relationship. Coefficient of determination R^2 that predicted the relationship among the independent variables and dependent variable is 0.44. its means that 44 percent of the total variance in the dependent variable utilization of electronic information resources accounted for the independent variables: online databases, electronic databases and institutional repository. The adjusted R^2 = value is given as 0.435. This implies that based on multiple regressions, the precise effect of the accessibility of electronic information sources on use of the sources. This result affirmed that accessibility of the constructs of independent variables significantly influenced utilization of electronic information resources of undergraduate students in LAUTECH Library Ogbomoso as shown in the analysis of variance (ANOVA) table that follows

Table 10b: Multiple Regression Analysis Showing ANOVA of Influence of Accessibility of Electronic Information Resources of Online Databases, Institutional Repository on Utilization of Electronic Information Resources

ANOVA						
	Sum	of				
Model	Squa	res Df		Mean Square	\mathbf{F}	Sig.
1ic	Regression	69.248	4	17.312	53.6	46 .000
Databases	Residual	86.808	269	323		
	Total	156.055	273			

a. Predictors: (Constant), Accessibility of EIR of Online Databases, Electronic Databases, Institutional, Institutional Repository

b. Utilization of Electronic Information Resources

The results of the F-ratio as shown on Table 4.1b, confirmed that the regression model is significant at p < 0.05. it can be that the regression model predicted the influence of utilization of electronic information resources. In other words, the accessibility of the independent variables such as online databases, electronic databases and institutional repository significantly influenced utilization of electronic information resources in the library by the undergraduate students in LAUTECH.

The result shows the relative influence of independents variables: online databases, electronic databases and institutional repository on dependent variable. The regression model showed that accessibility of electronic databases was a major factor that influenced utilization of electronic information resources by undergraduate students in LAUTECH Library Ogbomoso, Oyo State, Nigeria $\beta = 0.35$ at p = 0.000. The regression model also showed that accessibility of electronic past examination papers by undergraduate students influenced their utilization of electronic information resources in the library $\beta = 0.41$ at p = 0.000.

Hypothesis Three: There is no combined significant influence of availability and accessibility of electronic information resources on their utilization by undergraduates of LAUTECH.

Table 11a: Multiple Regression Analysis Showing Model summary of Influence of Availability and Availability on Utilization of Electronic Information Resources.

		Square	Adjusted R Square	Error of the Estimate
1	.697 ^a	.485	.474	.54839

a. Predictors: (Constant), Availability of electronic information resources Online Databases,
 Electronic Databases institutional Repository (Availability) Online Databases, Institutional
 Repository

The result of multiple regression analysis is shown in Table 4.11a. R determines the correlation among the independent variables: Online databases (X1), institutional repository (X2), (X3), Electronic Database (X4), online databases (X5) and institutional repository (X2), (X3), Electronic Database (X4), Online database (X5) and institutional repository (X6) and the dependent variable: utilization of electronic information resources (Y). The correlation among the variables 0.70 explained a strong positive significant relationship. Coefficient of determination R² that predicted the relationship among the independent variables and dependent variables is 0.49.

This means that 49 percent of the total variance in the dependent variable utilization of electronic information resources accounted for the independent variables: electronic databases,

online databases and institutional repository. Since this is multiple regression, the adjusted R² which is 0.474 will be used. It signifies that precisely, the independent variables on the dependent variable are given as 47.4% after errors and discrepancies have been accounted for. This result affirmed that accessibility of the constructs of independent variables significantly influenced utilization of electronic information resources of undergraduate students in LAUTECH Library Ogbomoso.

Table 11b: Multiple Regression Analysis Showing ANOVA of Influence of Availability and Accessibility on Utilization of Electronic Information Resources ANOVA^b

lel	Sum of Squares	Df	Mean Square	F	Sig
Regression	75.759	6	12.626	41.985	.000
Residual Total	80.296 156,055	267 273	.301		

a. Predictors: (Constant), Accessibility of electronic information resources, Online
 Databases, Institutional Repository Electronic Databases. (Accessibility)

The results of the F-ratio as shown on Table 4.11b, confirmed that the regression model is significant at p < 0.05. It can be accomplished that the regression model predicted the influence of utilization of electronic information resources in the library by the undergraduate students.

The result shows the relative influence of availability and accessibility of electronic information resources on utilization of electronic information resources. In the area of availability, it can be seen that online databases, played an significant effect on utilization of electronic information resources ($\beta = 0.286$, at p = 0.000). it could also seen that on accessibility, online database and electronic databases has a significant effect with values of (* $\beta = 0.372$, at p = 0.000) and ($\beta = 0.231$, at p = 0.002) respectively. In summary, after a test of the hypotheses, the three null

hypotheses were rejected thus showing that availability and accessibility played significant roles in the use of electronic information resources by undergraduates of Ladoke Akintola University of Technology, Ogbomoso.

Discussion of Findings

The result of the findings revealed that electronic information resources were available in LAUTECH Library, Ogbomoso, Nigeria for utilization by undergraduates. The result of this research is in line with the study of Adedeji (2015) that electronic information resources are available in the library for undergraduate utilization. He noted that the level of electronic information resources available to any university library and the degree of use to which they are put determine the information services delivery of the library.

The finding of the study revealed that electronic information resources such as Goggle Scholar, AGORA, AJOL. E-books, were accessible in the library by the undergraduates. Also, the findings of the study revealed that online databases, Electronic Databases and institutional repository and technical reports, Administrative documents were the types of electronic information resources available in the library for undergraduate students' utilization. The result of the finding revealed that the extent of use and types of electronic information resources utilization in the library were low. The result of the finding also revealed that online databases, institutional repository and electronic databases is high. Also, the finding of the study revealed that availability and accessibility of electronic information resources had significant influence on its utilization.

SUMMARY, CONCLUSION AND RECOMMENDATIONS

Majority of undergraduates make use of EIR like EBSCO Host HINARI, AJOR, Google Scholar, JUSTOR E-journals, e-books, the result of the finding revealed that electronic information resources were available in the library.

The study find out that conducting research, assignment, updating knowledge and preparation of examination were the reasons why the undergraduates used LAUTECH library. The result of the finding also revealed that the means of accessibility the undergraduates preferred most in the library was email. The finding of the study revealed that the extent of utilization of electronic information resources by undergraduate students was high. Availability had significant influence

on utilization of electronic information resources in the library by undergraduates. Accessibility had significant influence on utilization of electronic information resources in LAUTECH Library by undergraduates.

Conclusion

Electronic information resources in the library are important sources of information for the undergraduates. Availability and accessibility of electronic information resources are also important for undergraduates to gain quicker and broader access to information resources in the library. Utilization of electronic information resources is a prerequisite to information acquisition for learning, teaching and research for undergraduates in the universities. It was specifically found there is significant correlation between availability, accessibility and utilization of electronic information resources in LAUTECH library. In spite of this fact the study documented some challenges facing undergraduates of LAUTECH in using those resources. As deduced in this study, the undergraduates have access to electronic information resources and use them for other purposes.

Recommendations

Based on the findings of this study, the following recommendations are made to increase the utilization of electronic information resources by undergraduates in the LAUTECH library:

- Adequate budgetary allocation should be given to LAUTECH Library for subscription to online databases and acquisition of electronic books since it has significant influence on its utilization by undergraduates in LAUTECH.
- 2. The library management should create awareness on the electronic resources available in the University library and its importance to undergraduate studies.
- 3. The librarians should train to retrain both lecturers and students on how to use online databases.

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