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Information Literacy Skills as Predictor of Electronic Information Resources Use by Lecturers in Select Private Universities in South-West Nigeria

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Abstract

This study examined the influence of information literacy skills on electronic information resources (EIRs) use by lecturers in private universities in South-West, Nigeria. Survey research design was adopted for the study. The target population for this study comprised 3201 lecturers in fifteen selected private universities in South-West, Nigeria which were established between 1999 and 2007. Out of 3201 study population, the researcher used Taro Yamane statistical formula to get a sample size of 356. A multistage sampling technique was adopted for the study. Bourley Proportional Distribution Formula was used to distribute the figure proportionally across the selected universities to ensure that the universities were proportionally represented. Data were collected with a validated questionnaire. The internal consistency of the instrument was measured using Cronbach's alpha test which ranged from 0.74 – 0.96. A response rate of 76.2% was recorded. Data were analysed using descriptive and inferential statistics. Findings from the study revealed that information literacy skills ($\beta=0.441$, $t(275) = 8.156$, $p < 0.05$) has a positive and significant influence on EIRs use by lecturers of universities in South-West, Nigeria.

Keywords

Electronic information resources, literacy skills, social media, access,

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Introduction

Electronic information resources (EIRs), an offshoot of ICT are becoming indispensable for teaching, learning and research activities. The EIRs are significantly providing better opportunities for lecturers to have easier access to needed information. They are vital information research and teaching-learning tools that are making accessibility of relevant and updated information quicker and faster than the traditional print information resources. It is therefore germane to state that EIRs have lots of advantages over print resources. Some of the advantages of EIRs over print resources are: easier accessibility of information resources, faster or speedy retrieval of needed information and not limited by geographical demarcation or physical boundary called library building. EIRs give room for multiple users to access same information simultaneously unrestricted.

Importantly, accessibility and use of EIRs are dependent on information literacy a skill of the lecturers. Information literacy has been explained by many researchers. Webber and Johnston (2003) cited in Ekong & Ekong, (2018) explained information literacy as the capability of individuals to locate, being able to critically evaluate information sources and to make effective use of information acquired in decision making and knowledge creation. In addition, Information literacy competence entails the ability of any user to be able identify information needs, search for relevant resources to meet those needs, analyze, evaluate, synthesize and communicate the resultant knowledge (Tella, 2015).

In the current age, students and scholars have at their disposals, innumerable EIRs and databases. Individuals are faced with diverse and abundant information choices in their academic environment, workplace, and personal lives. Information is available through libraries, the Internet, community resources centre, peer groups, multiple media sources, as well as in religious circles. On daily basis, people are bombarded with information emanating from the radio, television, newspapers, magazines, journals, books, e-mail, wikis, Facebook, Twitters, etc. (Anunobi & Udem, 2015). With increase in the volumes of information, it is expected that there should be a corresponding increasing search skills competence and ability required for synthesizing and accessing the right and relevant information to meets daily needs. As a result of multiple sources of information in this information age, it is a must for university lecturers to possess relevant information literacy skills that would enable them to acquire relevant information and translate such to desired knowledge. Studies carried out by Adeleke and Emeahara (2016) and Ndagi and Madu (2018)revealed that there was as trong positive correlation between information literacy skills and utilization of electronic

resources. The studies revealed further that information literacy skills had great positive effect on the utilization of electronic resources.

The Big Six Information Literacy Model propounded by Eisenberg and Berkowitz (1990) which deals with information literacy knowledge and skills was the model upon which this study was based. It is a model that consists of six components. It incorporates skills in a systematic approach to information problem solving. It is a process model for information problem-solving. It integrates information search and use skills along with technology tools in a systematic process to find, use, apply, and evaluate information for specific needs and tasks. The Big6 Skills comprise a unified set of information and technology skills that are systematically arranged in systematic order to lead lecturers to easy understanding of electronic information resources accessibility and utilization. Through the Big6, people learn how to recognize their information needs and how to progress through a series of stages to solve information problems effectively and efficiently. The six steps of the Big Six Information Skills Model are measured by the following indicators: Task definition, information seeking strategies, location access, and use of information, synthesis and evaluation.

Statement of Problem

there is an unsubstantiated claims going round that despite the efforts of the academic libraries in creating awareness about the availability of various types of EIR in their libraries, the lecturers in private universities in South-West, Nigeria are not making effective use of the E-resources acquired with huge financial resources. Low use of electronic information resources could have negative impact on academic survival and research productivity of the lecturers. Therefore, there is need to investigate the level of information literacy skills of lecturers in private universities in South-West, Nigeria, because accessibility of EIR requires having some level of information literacy skills.

Objectives of the Study

The main objective of this study is to investigate social media engagement and electronic information resources use by lecturers in selected private universities in south -west, Nigeria. The specific objectives are to:

- i. Determine the level of information literacy skills of the lecturers in selected private universities in South-West, Nigeria;
- ii. Determine the influence of information literacy skills on electronic information resources use by lecturers in selected private universities in South-West, Nigeria.

Research Question

The research question below guided the study:

What is the level of information literacy skills of the lecturers in selected private universities in South-West, Nigeria?

Hypothesis

The null hypothesis below guided the study and was tested at 0.05 significant levels:

Information literacy skills has no significant influence on electronic information resources use by lecturers in selected private universities in South-West, Nigeria.

Scope of Study

The population scope of this study comprised of three thousand, two hundred and one (3201) lecturers in fifteen selected private universities in South-West, Nigeria which were established between 1999 and 2007, having a record of at least fifteen years of existence.

Methodology

Survey research design was adopted for the study. The target population for this study comprised 3201 lecturers in fifteen selected private universities in South-West, Nigeria which were established between 1999 and 2007. Out of 3201 study population, the researcher used Taro Yamane statistical formula to get a sample size of 356. A multistage sampling technique was adopted for the study. The first stage involved the use of purposive sampling technique to select the fifteen private universities established between 1999 and 2007 in the study area. At the second stage, Bourley Proportional Distribution Formula was used to distribute the figure proportionately across the fifteen selected universities to ensure that the universities were proportionally represented. Data were collected with a validated questionnaire. The internal consistency of the instrument was measured using Cronbach's alpha test which ranged from 0.74 – 0.96. A response rate of 76.2% was recorded. Data were analysed using descriptive and inferential statistics.

Table 1: Sample size for the Study

S/N	University	Population	Sample Size
1	Babcock University	500	56
2	Bowen University	380	42
3	Covenant University	420	47
4	Pan-Atlantic University	133	15
5	Crawford University	134	15
6	Bells University Technology	224	25
7	Crescent University	132	15
8	Ajayi Crowder University	160	18

9	Lead City University	131	14
10	Redeemers University	250	28
11	Joseph Ayodele Babalola University	211	23
12	Achievers University	131	14
13	Caleb University	145	16
14	Fountain University	124	14
15	Wesley University of Science and Technology	126	14
Total		3201	356

Designed by the researcher, 2023

Research Question: What is the level of information literacy skills of lecturers in selected private universities in South-West, Nigeria?

Data collected on the research question was analyzed using descriptive statistics.

Table 2: Level of Information Literacy Skills of Lecturers in Private Universities

Level of information literacy skills	Very High	High	Low	Very Low	Mean	SD
Ability to formulate and identify a need for information					3.56	.36
Ability to identify a topic using simple language	172(61.9)	105(37.8)	1(0.4)		3.62	.49
Ability to formulate questions based on specific information need	165(59.4)	111(39.9)	2(0.7)		3.59	.50
Ability to identify information need using e-resources	163(58.6)	114(41.0)	1(0.4)		3.58	.50
Ability to recognize a need for information to achieve a specific purpose	155(55.8)	120(43.2)	3(1.1)		3.55	.52
Ability to use several sources to increase familiarity with topic	118(42.4)	123(44.2)	35(12.6)	2(0.7)	3.48	.53

Knowledge of information seeking strategies					3.33	.58
Knowledge of using encyclopedia to understand background information to a particular topic is	130(26.8)	122(43.9)	26(9.4)	()	3.37	.65
Knowledge of using abstracting and indexing journal	131(47.1)	111(39.9)	34(12.2)	2(0.7)	3.33	.71
Knowledge of using bibliography or reference list on the book to find other documents on the topic is	130(46.8)	122(43.9)	26(9.4)		3.32	.71
Knowledge to effectively use library catalogues [both card catalogue and online public access catalogue (OPAC)]	118(42.4)	123(44.2)	35(12.6)	2(0.7)	3.28	.70
Ability to locate and access information					3.44	.45
My ability to use Google scholar to find a research article online	144(51.8)	115(41.4)	19(6.8)		3.45	.62
Ability to select appropriate information search tools to access the needed information	137(49.3)	127(45.7)	13(4.7)	1(0.4)	3.44	.60
Ability to access the accurate EIRs found on the Internet	137(49.3)	127(45.7)	13(4.7)	1(0.4)	3.44	.60
Ability to find all the documents about a particular author in the library catalogue through access points search (either by author, title, subject or keywords)	135(48.6)	128(46.0)	15(5.4)		3.43	.59
Ability to use information					3.57	.38

Ability to communicate and present information to others in appropriate and usable format	170(61.2)	104(37.4)	4(1.4)		3.60	.52
Ability to use the information gathered for teaching-research purposes	164(59.0)	110(41.0)			3.59	.49
Ability to select materials and summarize them in my own words for personal use	165(59.4)	110(39.6)	3(1.1)		3.58	.51
Ability to use acquired information as a lead to produce an article or thesis	148(53.2)	128(46.0)	2(0.7)		3.53	.51
Ability to synthesize information					3.36	.56
Ability to formulate right keywords in searching for information Online	148(53.2)	102(36.7)	28(10.1)		3.43	.67
Ability to cite bibliographic references in search reports using appropriate style (e.g. APA, Chicago)	133(47.8)	122(43.9)	23(8.3)		3.40	.63
My ability to narrow my search on a particular topic using the Boolean operator is ...	125(45.0)	117(42.1)	35(12.6)	1(0.4)	3.32	.70
Ability to remove unwanted documents from my search using the Boolean operator	126(45.3)	114(41.0)	37(13.3)	1(0.4)	3.31	.71
Ability to evaluate information					3.49	.43
Ability to competently evaluate information no matter the source	143(51.4)	131(47.1)	143(51.4)		3.50	.52

Ability to evaluate print sources based on its criterion	145(52.2)	123(44.2)	10(3.6)		3.49	.56
Ability to draw conclusions based upon information I got on the Internet	147(52.9)	118(42.4)	13(4.7)		3.48	.58
Ability to evaluate online sources based on its criterion	145(52.2)	123(44.2)	9(3.2)	1(0.4)	3.48	.58

Grand Mean = 3.46

Decision Rule: If mean is 1.0 to 1.74 = Very Low; 1.75 to 2.49 = Low; 2.50 to 3.24 = High; 3.25 to 4.0 = Very High.

Respondents were asked to indicate their level of information literacy skills. As presented in Table 4.5, the level of information literacy skills of the lecturers was examined with six main items which were sub-divided into twenty five items. The results from the findings revealed that the level of information literacy skills of lecturers in private universities in South-West, Nigeria was very high ($\bar{x} = 3.46$ on a scale of 4). Further analysis shows that all the measures for information literacy skills for this study: ability to use information ($\bar{x} = 3.57$), ability to formulate and identify a need for information ($\bar{x} = 3.56$), ability to evaluate information ($\bar{x} = 3.49$), ability to locate and access information ($\bar{x} = 3.44$), ability to synthesis information ($\bar{x} = 3.36$) and knowledge of information seeking strategies ($\bar{x} = 3.33$) were considerably very high. The results with very high mean scores for each of the main items suggested that the lecturers in private universities in South-West, Nigeria possessed very high information literacy skills. Analyses of the six main items with the sub-items under each of them are presented below:

Ability to formulate and identify a need for information had a group mean of $\bar{x} = 3.56$. All the sub-items attracted very high mean scores: ability to identify a topic using simple language attracted the highest mean of ($\bar{x} = 3.62$), ability to formulate questions based on specific information need ($\bar{x} = 3.59$), ability to identify information need using e-resources ($\bar{x} = 3.58$), ability to recognize a need for information to achieve a specific purpose ($\bar{x} = 3.55$) and ability to use several sources to increase familiarity with topic ($\bar{x} = 3.48$). This implies that lecturers in universities in South-West, Nigeria possessed very high level in formulating and identifying a need for information.

Importantly, ability to use information had a group mean of $\bar{x}=3.57$. All the sub-items had very high mean scores. For instance, the item, ability to communicate and present information to others recorded the highest mean ($\bar{x}=3.60$) while item on ability to use information to produce an article or thesis polled the lowest mean ($\bar{x}=3.50$), which is still higher than the criterion mean ($\bar{x}=2.5$). This implies that lecturers in private universities in South-West, Nigeria possess very high level of ability to use information.

Moreover, under the ability to locate and access information, the lecturers possessed very high level of information literacy skill for locating and accessing information (group mean =3.44). Sub-item analysis showed that ability to use Google scholar to find a research article online ($\bar{x}=3.45$), ability to select appropriate information search tools to access the needed information ($\bar{x}=3.44$), ability to access the accurate EIRs found on the Internet ($\bar{x}=3.44$) and ability to find all the documents about a particular author in the library catalogue through access points search ($\bar{x}=3.43$) were rated very high.

In addition, an assessment of knowledge of information seeking strategies of the lecturers indicated a group mean score of $\bar{x}=3.33$. All the sub-items were above the criterion mean of 2.5. Also, the analysis of all the sub-items indicate very high levels: knowledge of using encyclopedia to understand background information was ($\bar{x}=3.37$), knowledge of using abstracting and indexing journal ($\bar{x}=3.33$), knowledge of using bibliography or reference list was ($\bar{x}=3.32$) and knowledge to using library catalogues ($\bar{x}=3.28$). This result shows that lecturers in private universities in South-West, Nigeria possess very high level of knowledge of information seeking.

Furthermore, ability to synthesize information attracted a group mean score of $\bar{x}=3.36$, with all its items being above the group mean. Ability to formulate right keywords in searching for information Online, polled a very high mean score of $\bar{x}=3.43$, while sub-item on ability to remove unwanted documents from searching using the Boolean operator had the lowest mean score of $\bar{x}=3.31$, though still higher than the criteria mean of 2.5. This showed that the lecturers in private universities in South-West, Nigeria possessed very ability in synthesizing information.

Ability to evaluate information sub-items attracted a group score of $\bar{x}=3.49$. All its sub-items being above the group mean. Ability to evaluate information no matter the source ($\bar{x}=3.50$), ability to evaluate print sources based on its criterion ($\bar{x}=3.49$), ability to draw conclusions based upon information on the Internet ($\bar{x}=3.48$) and ability to evaluate online sources based on its criterion ($\bar{x}=3.48$) polled very high mean scores.

This signifies that lecturers in private universities in South-West, Nigeria possessed very high ability in evaluating information.

Hypothesis for the Study: Information literacy skills have no significant influence on electronic information resources use by lecturers of universities in South-West, Nigeria.

To test this hypothesis, multiple linear regression method was adopted. The results and conclusions are explained below.

Table 3: Simple regression model on influence of information literacy skills on electronic information resources use

	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	1.602	.258		6.213	.000
Information literacy skills	.605	.074	.441	8.156	.000

Dependent Variable: electronic information resources use. $F(1, 276) = 66.158$, $p < 0.05$. $R^2 = .194$, $Adj. R^2 = .191$

The result relating to the study hypothesis is presented in Table 3. The result revealed that information literacy skills ($\beta = 0.441$, $t(275) = 8.156$, $p < 0.05$) has a positive and significant influence on electronic information resources use by lecturers of universities in South-West, Nigeria. The F-test (1, 276) is 66.158 showed that there is sufficient evidence to substantiate the model's usefulness in EIRs use. The R^2 (0.194) of the regression model indicates that 19.4% of the variation in EIRs use is explained by information literacy skills of lecturers in private universities in South-West, Nigeria. The finding suggested that information literacy skills are vital predictor of EIRs use by lecturers in private universities in South-West, Nigeria. The regression model is presented as:

$$\text{Electronic Information Resources Use} = 1.602 + .605 \text{ Information Literacy Skills}$$

This implied that EIRs use increases by .605 when information literacy skills go up by 1 index unit. Based on the F ratio and Adjusted coefficient of determination with p-value less than conventional probability of 0.05, the null hypothesis (H_0) which states that information literacy skills have no significant influence on electronic information resources use by lecturers in private universities in South-West, Nigeria was hereby rejected. The finding suggested that Information literacy skills contribute positively to EIRs use by lecturers in private universities in South-West, Nigeria.

Discussion of Findings

This study investigated the influence of information literacy skills on electronic information resources use by lecturers in selected private universities in South-West, Nigeria. To carry out this study, one research question and one hypothesis were tested. The discussion of findings was based on the results of the research questions and hypothesis of the study, which were derived from the objectives of the study. Consequently, the study reviewed the relationship between information literacy skills and EIRs use. The research question for the study was formulated to establish the level of information literacy skills of lecturers of private universities in South-West, Nigeria. The result as presented on Table 2 showed that the level of information literacy skills of lecturers of in selected private universities in South-West, Nigeria was high ($\bar{x} = 3.46$, on a scale of 4). Five dimensions were used to measure information literacy skills of the lecturers and all the dimensions revealed high use. The implication of this analysis is that the private universities in South-West, Nigeria are versatile in all areas of information literacy skills, most especially in the area of identifying a need for information. The results of this study contradict that of Odunlade, and Ojo (2012) who found that lecturers in universities and colleges of education in South- West, Nigeria lack information literacy skills.

A research hypothesis was formulated to establish the influences of the independent variables (information literacy skills) on the dependent variable (electronic information resources use by lecturers in private universities in South-West, Nigeria). Hypothesis one was formulated to investigate the influence of information literacy skills on the use of EIRs by lecturers in selected private universities in South-West, Nigeria. The hypothesis states that information literacy skills will not significantly influence electronic resources use by lecturers in selected private universities in South-West, Nigeria. The hypothesis was rejected because findings in Table 4.9 revealed a positive influence of the level of information literacy skills of lecturers on EIRs use. The finding of this study corroborates that of Odede and Zawedde (2018) which revealed that the use of EIRs is determined by competency in the various dimensional constructs of information literacy skills. Moreover, in agreement with the result of this study that there is a link between information literacy skills and the use of EIRs, Adebayo and Esse (2019) revealed that low patronage of scholarly electronic journals in the library was largely as a result of lack of information literacy skills among library users. Similarly, Adeniran and Onuoha (2020) found out in the study they carried out on the "Influence of Information Literacy Skills on Postgraduate Students' Use of Electronic Resources in

Private University Libraries in South-West, Nigeria” that a direct relationship exists between information literacy skills and e-resources use among postgraduates students in South-West, Nigeria. Also, Echem and Wokoma (2022) found out in the study they carried out on ‘Information Literacy Skills and Use of Electronic Resources by Undergraduate Students of University of Port Harcourt’ that electronic resources have significant relationship with information literacy skills. Moreover, the study carried out by Bankole, Ajiboye and Otunla (2015) on use of electronic information resources by undergraduates also agreed with the finding of the present study. Their findings revealed that the major barriers hindering effective use of electronic resources were insufficient skills and difficulty in finding relevant information. Moreover, findings by the study carried out by Ndagi and Madu (2018) revealed that there is strong positive correlation between information literacy skills and utilization of EIRs is perfectly in agreement with the findings of this study.

Conclusion

To meet up with global standard and to be able to make meaningful contributions and impacts in this information and knowledge age, the use of EIRs is very crucial for lecturers in private universities in South-West, Nigeria. The lecturers need to use EIR to have access to qualitative, updated, reliable and valid information resources because they need various kinds of information resources for effective teaching, productive research outcomes, and for the purposes of impacting knowledge to students and for self-development. However, the lecturers neither use EIRs effectively without possessing information literacy skills nor without engagement with social media platforms. Findings from the study revealed high level of EIRs use and high level of information literacy skills by lecturers in private universities in South-West, Nigeria. Moreover, the findings indicated that there was significant positive influence of both information literacy skills and social media engagement on electronic information resources use by lecturers in selected private universities in South-West, Nigeria. In addition, the results from the study revealed that there was a joint influence of information literacy skills and social media engagement on EIRs use by lecturers in selected private universities in South-West, Nigeria

Recommendations

Based on the findings of this study, the following recommendations are made:

1. For sustainability and improvement in the use of EIRs by the lecturers, there is need for the school management as well as librarians of private universities in South-West, Nigeria to ensure that lecturers are sponsored to conferences, seminars and workshops

where they could improve on their information literacy skills regularly for more effective and efficient use of EIRs.

2. The study recommends that academic libraries in private universities in South-West, Nigeria should create awareness, educate and encourage the lecturers through library orientation, workshops and seminars on the need to acquire up-to-date information literacy skills so as to be able to accessing and utilizing EIRs effectively.

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