



# INFORMATION LITERACY SKILL AND USE OF ELECTRONIC RESOURCES BY UNDERGRADUATES OF KADUNA STATE UNIVERSITY

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## Abstract

**Purpose:** The main of the study is to examine information literacy skill and use of electronic resources by undergraduates of Kaduna State University. In addition, it sought to: identify the various electronic resources used by the undergraduate LIS students; ascertain the information literacy skills possessed by the undergraduates; determine the extent the undergraduates apply information literacy skills in the utilization of electronic resources and find out the obstacles faced by undergraduates in the acquisition of information literacy skills.

**Design/Methodology/Approach:** The survey method was used to conduct the research. The population of the study is a total of 8280 out of which a sample of 368 was drawn using the Krejcie and Morgan. Data collected were analyzed using mean scores and the criterion mean is 2.50.

**Findings:** The findings of the study indicate that: the electronic resources used by the undergraduates are e-journals, e-books and e-reference materials; the undergraduates possess information literacy skill to a low extent; information literacy skill is applied to the utilization of electronic resources to a low extent. Lastly, the obstacles faced in acquisition of information literacy skills are inadequate formal channels to learn the skills, inadequate allocation of time to teach information literacy, lack of necessary infrastructures and Non-existence of information literacy in university's curriculum.

**Practical Implications:** The effective utilization of electronic resources is dependent on undergraduates' information literacy skill. The possession of information literacy skills to a low extent will definitely affect the students' in their learning and research.

**Originality/Value:** The value of this work is on the identification of the extent undergraduates possess information literacy skills and the extent they apply it in the utilization of electronic resources. Its originality lies in the fact that it has not been published elsewhere.

**Keywords:** Information, Literacy, Skills, Electronic Resources, Undergraduates.

**Paper Type:** Empirical

## Introduction

Information is germane to human existence, and can come from virtually anywhere: personal experiences, books, articles, expert opinions, encyclopedias, and the Web. The type of information needed may change depending on its application. This has made human beings to continuously seek ways to improve on the way information is communicated and preserved for the use of those who need it and for posterity. Information has always been disseminated through different ways such as oral, songs,

writing and graphics on different media such as clay, stones, wax, tree, papyrus, paper and the most recent which is electronic format. The first form of information dissemination was oral, which is passed from one person to the other until it reaches the final destination. Then came information recorded in print format.

The advent of Information and Communication Technology (ICT) has broadened the scope of information sources available to human in this digital age. Information currently exists in several formats such as print and electronic

formats. The use of information technology in libraries has been profoundly affecting all aspects of information acquisition, storage and transfer as information is being produced more electronically. Currently, there is a shift from print to Electronic Information Resources (EIR) thus forcing traditional libraries to deliver its services using Information and Communication Technology (ICT) facilities. The shift from print to digital information has a high impact on libraries, information centres and other institutions directly involved in processing information (Kipkem, 2013). Online electronic resources are now a major component of modern libraries. Electronic resources also known as e-resources are defined by Ikeagwuani (2021) as materials in digital format that are accessible electronically.

Electronic information resources provision makes it possible for users to access new tools and applications for information seeking and retrieval. The manual system of searching for information resources does not permit multiple non-print, Akanwa and Udo-Anyanwu (2017) state that information resources in the library according to have evolved to include electronic information resources such as: e-books, e-journals, preprints, e-thesis or dissertation among others. Studies have also shown that factors such as information literacy skills or computer self-efficacy are the determining factors that may influence users' ability to use EIRs (Prangya & Rabindra, 2017).

The information technology literacy is applicable to countless life decisions, whether academic, financial, health, business, agricultural or technical dimensions (Weiner, 2013). The implication of Weiner's submission is that an information technology literate person should successfully complete a problem-solving process that is complex, requiring him to define the need for information, determine suitable information search strategy, locate the needed information resources, assess the information resources found, interpret and communicate the information, and offer conclusions in view of the identified original problem. The individual is expected to be a skilful and independent learner, who actively engages in the world of

access and usage of the same information resources by different users unlike online services. It is worthy of note that, EIRs are of great importance to the academic and research needs of undergraduate students in university libraries since they are available in various formats (Fabunmi, Paris & Fabunmi, 2016).

Users of university libraries are now more independent than before as they do not necessarily need to come physically to the library to access information resources that could meet their needs. With the emergence of ICT, users can access their libraries' Electronic Information Resources (EIR) from their hostels, offices and homes at their convenience. Moreover, Khan (2016) asserts that hundreds of thousands of monographic materials, journals, learning resources and databases among others, are now available in electronic formats, and these materials can be accessed from remote corners of a country, thereby increasing the use of information, literature and the efficiency of information services. Apart from the print and ideas, confidently solving problems, knows what is relevant information, uses digital tools to access information and communicate same, operates comfortably in situations where there are multiple answers or no answers, have high standards for his work, use information ethically, and create quality products (Tella, 2015).

To be literate according to Ajayi, Shorunke and Aboyade (2014) means having the skills of reading and writing in any language whatsoever. Moreover, information technology literacy can be defined as having the fundamental information about the components forming the information technologies, to have the skills of practicing these components to solve problems in societies facing the information age. Information literacy involves a continuous learning process that cut across abilities and knowledge, values, several other terms and combination of terms. Majestic and Pellegrino (2018) surmised that information literacy encompasses the ability to discover information, understand how it is produced, valued and used in creating new knowledge and to participate ethically in the learning

environment. Information literacy skills could therefore be regarded as instruments for undergraduates' empowerment to enhance abilities to determine information need, access, evaluate, use information and understand legal, ethical and economic issue of information use.

Information technology literacy is important for students' academic work, research and other personal engagements. A student that is information technology literate would have the ability and skill of accessing and critically evaluating information and knowledge resources, especially on contemporary issues and developments in his/her field of study. In this era of ICT development in library services, the use of contemporary media in creating necessary skills, such as basic computer skill, hardware skills, knowledge of Internet resources and searching skills cannot be overemphasized. Akpovire, Olawoyin, Adebayo and Esse (2019) acknowledged information literacy skills as essential tools for undergraduates to have full understanding of course content and expand their knowledge beyond the classroom. Parang, Raine and Stevenson, cited in Sahabi, Efe and Bukar (2021) posited that information literacy skills enables individuals to recognize not only when information is needed, but also the different kinds of information that are needed. It provides users of information resources with methods by which they can cope with the huge quantity of information coming from all directions, through all varieties of information resources. It can then be assumed that information literacy skills are needed by Nigerian academics for quality research output. Julien and Williamson cited in Sahabi, Efe and Bukar (2021) believe that an information literate person today should possess specific online searching skills such as the ability to select appropriate search terminology, logical search strategy and appropriate information evaluation skills. These are critically lacked by many undergraduates in Nigeria today.

Researchers have identified challenges to undergraduate students' information literacy skills acquisition. Singh (2014) lamented on the absence of formal channels for undergraduates to learn the skills. Aghauche, Nkamnebe and Nkamnebe (2019) identified lack basic

knowledge of information literacy, lack of integration of information literacy in University's curriculum, lack of interest, lack of necessary infrastructures, lack of well -trained instructors, information literacy instruction is taught only during their first year in school among others as challenges to the information literacy of students.

### **Statement of the Problem**

Electronic information resources offer the 21st century students new opportunities that were not available to previous generations, yet large number of students leave universities without necessary skills to cope within the information-based society. Omoisekejimi, Eghworo and Ogo (2015) are of the view that despite several advantages of electronic information resources and its positive effect on students' academic performance in universities, many university students are yet to harness the opportunities provided by these initiatives due to inadequate facilities or lack of maintenance culture and even where these facilities are in place, the potential users of these new information sources are not making use of the valuable electronic information resources owing to lack of awareness or lack of skills required to navigate the modern technology.

This study is carried out to ascertain what is obtainable in Kaduna State University with regards to the available electronic resources and the extent to which the undergraduates utilize them with the aid of information literacy skills.

### **Objectives of the Study**

The main objective of the study is to examine information literacy skill and use of electronic resources by undergraduates of Kaduna State University. Specifically, it seeks to:

1. identify the various electronic resources used by the undergraduates of Kaduna State University
2. ascertain the information literacy skills possessed by the undergraduates.
3. determine the extent the undergraduates apply information literacy skills in the utilization of electronic resources.

4. find out the obstacles faced by undergraduates in the acquisition of information literacy skills.

### **Research Questions**

In line with the objectives of the study, the following research questions were posed:

1. What are the various electronic resources used by the undergraduates of Kaduna State University?
2. What are the information literacy skills possessed by the undergraduates?
3. To what extent do the undergraduate students apply information literacy skill in the utilization of electronic resources?
4. What are the obstacles faced by undergraduates in the acquisition of information literacy skills?

### **Review of Empirical Studies**

Several authors have carried out researches on information literacy. Below are reviews of some of them.

Kabir, Efe and Bukar (2021) evaluated the influence of information literacy skills on the use of electronic information resources by undergraduate students in selected federal university libraries, North-West, Nigeria. Survey research design was adopted for the study. The population was 4,189 undergraduates of federal universities in North-West Nigeria. A sample size of 838 students was determined using Wimmer and Dominick's formula. Multistage sampling technique was used to select the respondents. Data were collected with a validated questionnaire. The Cronbach's alpha reliability coefficients for the constructs ranged from 0.79 to 0.92. A response rate of 76.4% was recorded. Data were analyzed using descriptive A self-structured questionnaire was used to elicit required information from the respondents. Data collected for this study was coded and analyzed through the use of SPSS V. 21. The findings revealed that the revealed a generally high level of information literacy skills with weighted mean score of 2.92 on the scale of 4 points, the study concluded that information literacy skills are major predictors of use of electronic information resources by

undergraduate students in in selected federal university libraries, North-West, Nigeria.

Toyo (2017) examined undergraduates' information literacy skills and the use of electronic resources in Delta State University, Abraka, Nigeria. The study adopted the survey method. A questionnaire was used for data collection. The sample size for the study is 121 undergraduate Library and Information Science students. The data collected were critically analyzed using frequency and percentage tool. The study revealed that undergraduate LIS students in Delta State University, Abraka make use of various electronic resources. The study further revealed that the respondents are well versed with information literacy skills which they use to exploit the millions of information available in electronic resources via the internet. It was also discovered that undergraduate students derive various benefits from the use of electronic resources and they include instructional delivery to support teaching and research activities, relatively easy to use, access to a wider range of information, aids access and retrieval of information, improvement in general communication, improved overall academic performance and high dependency value on research work. Also, it was discovered by the study that there are various obstacles faced by undergraduate LIS students on the use of electronic resources which include ineffective communication channels, slow internet access, lack of awareness of electronic information resources, erratic power supply and excessive academic workload amongst others.

Ilogho and Nkiko (2014) investigated the knowledge of information literacy and search skills of students in five selected private universities in Ogun State, Nigeria. It also examined students' ability to distinguish diverse information sources as well as assess the effectiveness of information literacy programmes of private universities. The sample consists of 359 respondents drawn proportionately from a population of 400 from the selected universities. Descriptive survey method was used to elicit data through the Monash University Library Questionnaire on Information Literacy in this study. The data

collected were analyzed using simple percentages. It was found that preponderance of respondents have low knowledge of information literacy skills, showed high deficiency in identifying diverse information sources and the various information literacy programmes of the respondents' institutions lacked hands-on. The study concluded that sound information literacy skills is a desideratum in knowledge acquisition in the twenty-first century and recommended inter alia; that information literacy skills be integrated into the secondary and tertiary schools' curricula.

Oyedapo and Akande (2020) studied patterns of information literacy skills among undergraduates in federal universities in southwestern Nigeria. The study aimed to: determine the level of information literacy skills possessed by undergraduates in federal universities in southwestern Nigeria and ascertain the relative contribution of socio-demographic factors (institution, faculty and gender) to undergraduates' information literacy skills. The study adopted a Mixed Method Approach (MMA) involving quantitative and qualitative methods. Questionnaire survey and focus group discussions were used to elicit information from 1,318 respondents. Out of the 1,318 copies of questionnaire administered, 1,169 were duly completed and analysed giving a response rate of 88.7%. Multi-stage sampling procedure was adopted for the selection of 300L undergraduates for the study. The study found that the level of information literacy skills of the respondents was relatively high. Focus group discussions substantiated the findings of the quantitative aspect of the study by affirming that the level of information literacy skills was relatively high. The study showed a significant relationship between information literacy skills and gender indicating, a significant difference in the information literacy skills of male and female undergraduates. Male undergraduate's level of information literacy skills was higher than that of their counterparts. Institution and faculty had no statistically significant relationship with the information literacy skills of undergraduates.

Aghauche, Nkamnebe and Nkamnebe (2019) appraised the information literacy skills of

undergraduates in Paul University Awka. The specific objectives were: determining the information literacy skills possessed by the undergraduates in Paul University, Awka; ascertaining the attitude of the undergraduates in Paul University, Awka towards information literacy; finding out challenges undergraduates of the University face with regards to information literacy skills acquisition; and suggesting strategies for improving the information literacy skills of undergraduates in Paul University, Awka. Descriptive survey was adopted. Population comprised 283 undergraduates of the University out of which, 60 were selected through proportionate stratified random sampling technique. The study was guided by four research questions. Two-in-one instrument – achievement test and questionnaire were used for data collection. Data were analyzed using simple percentages, frequency counts, and mean ratings. Findings revealed that the undergraduates in Paul University, Awka possess all the skill sets of information literacy covered by the study. It further revealed that the undergraduates have positive attitude towards information literacy although they face some challenges regarding skill acquisition. Strategies to be explored to improve the students' information literacy skills were also highlighted.

Amegashie and Ankamah (2020) carried out a study on information literacy among students of the University of Ghana Business School and Ghana Institute of Management and Public Administration Business School. The purpose of the study is to assess information literacy skills of levels 300 and 400 students of the University of Ghana Business School, Legon and Ghana Institute of Management and Public Administration Business School, Achimota. From a population of 2,579 respondents (students), a sample size of 202 that is, 86 UGBS and 116 GIMPABS were selected for the study. The questionnaire was used to gathered and analysed data. The findings of this study show that students agreed that information literacy is very important and helpful in academic work and research. It was also found that the students were not information literate.

**Research Methodology**

The survey method was used to conduct the research. The population of the study is a total of 8280. From the total population size of 8,280, the total sample size is 368 using the Krejcie and Morgan sampling technique table. Proportional sampling technique was used. Questionnaire rated with four-point Likert scale was used to

collect data for this study. A total number of 368 copies of questionnaire were administered to the regular undergraduates of Kaduna State University, Kaduna for the study but 300 copies of questionnaire were completed and found usable for this analysis. This represents 82% return rate. Data collected were analyzed using mean scores and the criterion mean is 2.50.

**Data Analyses and Presentation**

**Table 1: Types of Electronic Resources Utilized by Undergraduates of Kaduna State University.**

S/N	Online Resources	Electronic SA (4)	A (3)	D (2)	SD (1)	Mean	Remarks
1.	E-journals	121(484)	96(288)	46(92)	37	3.00	A
2.	E-books	86(344)	101(303)	56(112)	57	2.72	A
3.	Online database	47(188)	67(201)	121(242)	65	2.32	D
4.	E-reference materials	74(296)	81(243)	105(210)	40	2.63	A
5.	E-projects	12(48)	27(81)	125(250)	136	1.71	D
6.	CD-ROM resources	2(8)	4(12)	152(304)	142	1.55	D
7.	E-news/mail	84(336)	71(213)	55(110)	90	2.49	D
8.	E-conference proceedings	8(32)	7 (21)	102(204)	183	1.47	D
<b>Grand Mean</b>						<b>2.24</b>	<b>D</b>

Analyses in Table 1 show that respondents agree that the electronic resources they use are: e-journals (3.00), e-books (2.72) and e-reference materials (2.63). However, they disagree on the use of online database (2.32), E-

news/mail (2.49), CD-ROM resources (1.55), and e-conference proceedings (1.47). Conclusively, the grand mean of 2.24 indicates that the undergraduates use electronic resources poorly as it is not up to the criterion mean of 2.50.

**Table 2: Information Literacy Skills Possessed by the Undergraduates**

S/N	Item Statements	SA (4)	A (3)	D (2)	SD (1)	Mean	Remarks
1.	Basic computer skills like typing and formatting	198(782)	87(261)	14(28)	-	3.60	VHE
2.	Internet search skills using search engines	21(84)	17(51)	98(196)	164	1.65	LE
3.	Ability to convert files	27(108)	41(123)	96(192)	136	1.86	LE
4.	Online sharing of resources	42(168)	28(84)	69(138)	161	1.63	LE
5.	Utilization of Online Public Access Catalogue (OPAC).	55(88)	28(84)	105(210)	145	1.76	LE
6.	Use of Boolean operators (OR, AND, NOT).	-	-	98(196)	212	1.36	VLE
7.	Storage of retrieved information in external devices	92(368)	78(234)	85(170)	45	2.72	HE
<b>Grand Mean</b>						<b>2.11</b>	<b>LE</b>

Result of analyses in Table 2 reveal that the undergraduates of Kaduna State University possess basic computer skills like typing and formatting to a very high extent while skill in the storage of retrieved information in external devices is to a high extent. This is shown by their mean scores of 3.60 and 2.72 respectively. Ability to convert files (1.86), Internet search

skills using search engines (1.65), online sharing of resources (1.63) and utilization of Online Public Access Catalogue (OPAC) (1.76), is possessed to a low extent while the skill on use of Boolean operators (OR, AND, NOT) (1.64) is possessed to a very low extent. Based on the grand mean of 2.11 which is below the criterion mean of 2.50, it implies that the

undergraduates possess information literacy skill to a low extent.

**Table 3: Extent the Undergraduates Apply Information Literacy Skills in the Utilization of Electronic Resources**

S/N	Application of Information Literacy	VHE (4)	HE (3)	LE (2)	VLE (1)	Mean	Remarks
1.	I have ability to use several online resources to increase familiarity with a topic	67(268)	98(294)	46(92)	89	2.48	LE
2.	I can determine the authoritativeness, correctness and reliability of the information sources	-	12(36)	107(214)	181	1.44	VLE
3.	I have ability to take notes from electronic resources by printing or saving to disk	72(288)	74(222)	92(184)	62	2.52	HE
4.	I understand the nature of information freely available on the internet.	14(56)	10(30)	134(268)	142	1.65	LE
5.	I can select the information that is most appropriate to my needs from the myriads available.	61(244)	53(159)	85(170)	101	2.25	LE
6.	I have the ability to identify different sources of information	54(216)	59(177)	87(174)	100	2.22	LE
7.	I share information in electronic resources to others	21(84)	26(78)	113(226)	140	1.76	LE
8.	I apply ethical and legal issues about information use when using electronic information resources..	-	-	64(128)	236	1.21	VLE
<b>Grand Mean</b>						<b>1.66</b>	<b>LE</b>

It is observed in Table 3 that the only area of application of information literacy is in taking notes form electronic resources by printing and saving to disk. This is the only item that has up to the criterion mean of 2.52. all the other items

have mean scores below 2.50. From the grand mean, it can be deduced that the undergraduates of Kaduna State University apply information literacy skill in the utilization of electronic resources to a low extent.

**Table 4: Obstacles Faced in the Acquisition of Information Literacy Skills.**

S/N	Library Services	SA (4)	A (3)	D (2)	SD (1)	Mean	Remarks
1.	Inadequate formal channels to learn the skills	125(500)	92(276)	46(92)	37	3.02	A
2.	Difficulty in acquiring new skills	25(100)	36(108)	186(272)	53	2.11	D
3.	Non-existence of information literacy in university's curriculum	78(312)	82(246)	79(158)	61	2.59	A
4.	Lack of well-trained instructors	32(128)	40(120)	125(250)	103	2.00	D
5.	Lack of necessary infrastructures	86(344)	97(291)	60(120)	57	2.70	A
6.	Information literacy programmes of institution lacked hands-on.	69(276)	61(183)	74(148)	96	2.34	D
7.	Lack of interest in using them	59(236)	66(198)	106(212)	69	2.38	D
8.	Inadequate allocation of time to teach information literacy	121(484)	92(276)	34(68)	53	2.94	A
<b>Grand Mean</b>						<b>2.51</b>	

Analyses in Table 4 reveal that the obstacles faced in acquisition of information literacy skills are inadequate formal channels to learn the

skills (3.02), inadequate allocation of time to teach information literacy (2.94), lack of necessary infrastructures (2.70) and Non-existence of information literacy in university's

curriculum (2.59). The least ranked obstacle is difficulty in acquiring new skills with 2.11 mean score. The grand mean of 2.51 indicates that there are obstacles faced in the acquisition of information literacy skills.

### **Discussion of Findings**

It was discovered that the electronic resources used by undergraduates of Kaduna State University are: e-journals, e-books and e-reference materials. This finding is not in harmony with that of Toyo (2017) whose study revealed that undergraduate LIS students in Delta State University, Abraka make use of various electronic resources. The underutilization of electronic resources by the undergraduates of the university undermines the assertion of Fabunmi, Paris and Fabunmi (2016) that electronic resources are of great importance to the academic and research needs of undergraduate students in university libraries since they are available in various formats,

Undergraduates possess information literacy skill to a low extent. They only possess basic computer skills like typing and formatting and storage of retrieved information in external devices. This finding is in tandem with Amegashie and Ankamah (2020) who found that the students were not information literate. This finding is contrary to that of Aghauche, Nkamnebe and Nkamnebe (2019) who revealed that undergraduates in Paul University, Awka possess all the skill sets of information literacy covered by the study. Also Oyedapo and Akande (2020) found that the level of information literacy skills of the respondents was relatively high. Toyo's (2017) further revealed that the respondents are well versed with information literacy skills which they use to exploit the millions of information available in electronic resources via the internet.

The undergraduates of Kaduna State University apply information literacy skill in the utilization of electronic resources to a low extent. This finding is not farfetched from their low literacy skill as it may influence their ability to use electronic resources as opined by Prangya and Rabindra (2017). This finding in line with that of Ilogho and Nkiko (2014) who discovered that the respondents have low knowledge of

information literacy skills and showed high deficiency in identifying diverse information sources

The obstacles faced in acquisition of information literacy skills are inadequate formal channels to learn the skills, inadequate allocation of time to teach information literacy, lack of necessary infrastructures and Non-existence of information literacy in university's curriculum. the study of Aghauche, Nkamnebe and Nkamnebe (2019) discovered that undergraduates face some challenges regarding skill acquisition. Aghauche, Nkamnebe and Nkamnebe (2019) also identified lack of integration of information literacy in University's curriculum, lack of necessary infrastructures, information literacy instruction is taught only during their first year in school to the information literacy of students. Singh (2014) also lamented on the absence of formal channels for undergraduates to learn the skills.

### **Conclusion**

Electronic resources are now forms of information resources. The information contained therein are relevant for undergraduates to achieve their aspirations. However, they cannot be used effectively without the possession of the necessary information skill. Hence the emphasis on information literacy skills of students.

### **Recommendations**

Based on the findings of the study, the researchers recommend that:

1. Awareness should be created on the various electronic resources available through user education to enable them utilize more of them.
2. Information literacy skills should be fully integrated into the secondary and tertiary schools' curricula. Apart from the normal classroom teaching, workshops and seminars should also be organized.
3. Electronic resources have come to stay and they can only be accessed with information literacy skills hence emphasis should be led on it.



4. Facilities necessary for acquisition of information literacy skill – infrastructures, time among others should be put in place.

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