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#### **Utilization of Electronic Resources by Undergraduate Students in the Department of Agricultural Economic Extension, Kano University of Science and Technology, Wudil, Nigeria.**

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#### **Abstract**

The research examined utilization of electronic information resources in the University library by 400 level undergraduate students in the Department of Agricultural Economic Extension, Kano University of Science and Technology, Wudil, Kano State, Nigeria. Total enumeration sampling technique was used to select entire population of 100 students for the study. One hundred structured Questionnaires were administered to the one hundred students. Eighty-Seven (87%) were completed and returned. The study revealed that majority of the respondents are aware of the availability of many of the electronic resources in the library. Equally the undergraduate students utilize many of the online databases and offline databases. Challenges facing the respondents in accessing the electronic resources include poor power supply, low bandwidth, non-functioning Online Public Access Catalogue (OPAC), staff and students lack of computer skills. The study recommends that the library should be funded adequately by the Management of the University and be provided with uninterrupted power supply to enable it serve the information needs of students maximally.

**Keywords:** Information Resources Utilization, E-Resources, Undergraduate students, Academic library

## Introduction

The rapid developments in the field of Information and Communication Technology (ICT) have created changes in all fields of knowledge. Libraries being the reservoirs of knowledge are no exception to this development. As a result of information explosion users are getting access to vast amount of information. In this information explosion era, libraries play a pivotal role in preserving and serving the information requirements of the users. In the present scenario, libraries are the main facilitators in the scholarly communication system. Library resources are being expanded to include both print and online resources to support learning, teaching and research. The use of ICTs in libraries brought tremendous advantage to librarians and libraries for accommodating huge information resources which can be accessed anytime and anywhere. Electronic resources have been identified as the major sources for information dissemination in academic libraries which support teaching, learning and research in the digital era.

The emergence of electronic information resources has tremendously transformed information management in university environment in Nigeria (Ani and Ahiazu, 2008). In explaining this proposition; Ani and Ahiazu (2008) further stated that some of the university library services and operations have been automated. Many university libraries in Nigeria provide online reference services as well as train users on advanced online searching. Some of these libraries also provide services to support e-learning programmes of their parent institutions.

University libraries are greatly under pressure to provide these resources to students. Quite a number of initiatives are now in place in some universities to facilitate the development, training and use of electronic information resources. This research examines the utilization of electronic resources in Kano University of Science and Technology, Wudil University Library by undergraduate students of the Department of Agricultural Economic Extension.

## Literature Review

Various scholars' defined electronic resources according to their perception Sharma (2009) defined electronic resources as library's information materials that are in electronic form which include electronic books (e-book); electronic newspaper (e-newspaper); electronic journal (e-journal) as well as internet resources. According to Nkoyo and Nsanta (2016), the term "electronic resources" appear not to be used consistently; they may be referred to as electronic information resources, electronic library resources, digital resources, digital materials and soft library resources and other terminologies used for electronic information resources.

Electronic resources in the library include e-books, e-journals, e-databases, e-magazines, and other documents in electronic format such as theses, conference papers, government documents, scripts and monographs in an electronic form (Deng, 2010). Science Direct, AGORA (Access to Global Online

Research in Agriculture), HINARI, OARE (Online Access to Research in the Environment), Lexis Nexis, EBSCOHOST were mentioned as example of databases (Ani and Edem, 2012).

Electronic resources is very important to students and academic libraries, the staff, students and researchers get the opportunity to access current and relevant information resources electronically from different disciplines from any location. The emergence of electronic resources, according to Ani and Edem, (2012) has tremendously transformed the handling and management of information in Nigerian academic environment and universities in particular. Nkoyo and Nsanta (2016) cited Ukpebor (2012) noted that electronic resources provide accurate and timely information, especially for students who depend greatly on the electronics resources for information to advance research and collaboration with other researchers around the world for intellectual growth. It is very common to find electronic resources in most university libraries.

According to Dadzie (2005), electronic resources are invaluable research tools that complement the printed ones that are based in the traditional library, these advantage include access to information restricted to the users due to geographical location or finance and provision of extensive link to additional resources or related content.

## **Utilization of Electronic Resources**

Some researchers have studied extent of utilization of electronic resources with varied results. While some reports record good use of electronic resources available in libraries, some report that their availability does not necessary equate to their utilization.

According to Gakibayo, Ikoja-Odonga and Okello-Oburo (2013), the responsibility of understanding how students access and use library resources rest upon the library managers. They are expected to find out the reasons for low patronage of both print and electronic resources in their libraries. Tiefel (2004) stated that most library users are unaware of the quality and variety of information available. He pointed out that students are often satisfied with materials that an experienced librarian would find inadequate and/ or inappropriate.

Gakibayo, Ikoja-Odonga and Okello-Obura (2013) studied electronic information resources utilization by students in Mbarara University library. The result showed a low utilization of electronic resources by the students in the library, which was seen as a challenge to the library management, because the librarians were the one who trained the students on how to use electronic resources.

Studies such as Mollel, (2016), Alphonse (2015) and Okiki (2012) indicate insignificant use of the electronic resources subscribed to by libraries. On the other hand, studies carried out by s Kumar (2016), Mammo and Ngulube (2015), Singh (2013), and Swain and

Panda (2009) found significant use of electronic resources by academic and research communities. In particular, Swain and Panda (2009) showed that some of the faculty members are shifting their attention more to the utilization of electronic resources than print materials. Singh (2013) submitted that 100 percent of faculty members and research scholars at the University of Jamia Millia Islamia used electronic resources. In the same vein, Uplaonkar and Keshva (2013) observed that faculty members at Nijalingappa Medical College were positive towards the use of electronic resources for studying, research and teaching, specifically online databases such Emerald, EBSCO, and PROQUEST were frequently utilized by faculty members and researchers generally. Korobili, Tilikidou and Delistavrou (2006) underscored the value of electronic resources by asserting that a great majority of the faculty members use electronic resources quite frequently. Accessing and utilization of electronic resources were mainly to support their teaching, learning, and research and projects (Swain and Panda, 2009).

Ankrah and Atuase (2018) studied the use of electronic resources among postgraduate students of the University of Cape Coast. The aim of the study was to determine the students' awareness of electronic resources to know the frequency of the use of e-resources, determine the computer literacy level of and identify problems associated with utilization of resources by the postgraduate students. The results showed that majority of the postgraduate students were aware of e-resources and preferred to

access information from e-resources instead of the offline database in the library

Yebowaah and Plockey (2017) investigated the awareness and use of electronic resources by faculty members of university for development studies library. The report showed that the lecturers were well aware of the e-resources, which they however, marginally use them due to some challenges of access in the libraries which include inadequate infrastructure, low internet bandwidth and untrained library staff.

According to Anunobi (2009), the problem of utilization of online information resources arises basically from information pollution, destabilization potential, information insecurity, socio-technical issues and potential lack of control over communication. Mammo and Ngulube (2015) opined that low bandwidth and unclear institutional policy constitute potential problems that are likely to hamper such information access and eventual use. Ubogu (2009) contended that failure to develop institutional capacities and technical capabilities is another challenge. On the whole, lack of necessary knowledge, skills and competency among researchers in Tanzania limit the usage of electronic resources, this problem is attributable to lack of the information literacy programmes in some institutions in Tanzania (Angello, 2010). Other challenges include: lack of computer use skills, poor internet connectivity, lack of motivation among librarians, heavy academic and teaching loads that deter the

use of electronic resources in teaching, learning and research.

Furthermore, some researchers have to contend with time constraints when it comes to searching for, retrieving and using the new information available on online databases (Swain & Panda, 2009). Also, unfamiliar, technical hitches, slow downloading and lack of information training can hinder access to and use of electronic resources (Harridasan & Khan, 2009). Furthermore, the shortage of computer terminals, difficulties in finding relevant information, information overload, inadequate knowledge, Information Technology savvies, and slow internet, lack of time and assistance from library staff were some of the problems research scholars faced (Khan, 2016; Kumar, 2016; Singh, 2013; Okiki, 2012; Mardhusudhan, 2010). As a result, the proliferation of information and communication technologies (ICTs) has led to more dependency on electronic resources among information users than on print or traditional resources (Bhatt and Rana, 2011). In fact, the use of print resources to support teaching, learning and research is declining among engineering academics in India. Moreover, there was a lack of awareness, high maintenance cost, high purchase, uneasy-to-read, technical problems, outdated materials and lack of statutory provision as the main challenges and problems to utilize effectively electronic resources (ibid.). Okiki (2012) associated with computer illiteracy, technophobia, erratic power supply and disliking reading from a computer screen

as the problems besetting effective utilization of electronic resources.

### **Objectives of the Study:**

1. To find out the awareness about electronic resources available in Kano University of Science and Technology, Wudil University Library.
2. To determine the level of utilization of electronic in Kano University of Science and Technology, Wudil University Library.
3. What problems do undergraduate students encounter while accessing and using electronic resources in Kano University of Science and Technology, Wudil University Library?

### **Methods**

This study adopted descriptive survey design. The population of study comprised level 400 undergraduate students in the Department of Agricultural Economic Extension in the Faculty of Agriculture and Agricultural Technology. Total enumeration sampling was used. Questionnaire was administered to the entire population of 100 students. Eighty-Seven were completed and returned. In addition, observation technique was used to ascertain the availability and utilization of electronic resources in the library. Data collected was analyzed using descriptive statistics and presented in tables.

## Results

**Table 1: Awareness of Availability of Electronic Resources in Kano University of Science and Technology, Wudil Library**

S/No	Items	Response (87)	Percentage (%)
1.	E-Granary	85	98
2.	Basic Electronic Information library (BEIL)	85	98
3.	AGORA	72	82
4.	E-Books	71	81
5.	Science Direct	68	78
6.	The Essential Electronic Agriculture Library (TEEAL)	66	76
7.	JSTOR	66	76
8.	E-Journals	63	72
9.	EBSCOHOST	53	61
10.	European American Journals	-	-
11.	INASP	-	-
12.	Scopus	-	-
13.	Library on a Flash (Loaf)	-	-
14.	OARE	-	-
15.	Pubmed	-	-
16.	CD-ROM	-	-

Table 1 revealed that majority of the respondents are aware of the availability of e-resources in the library. Responses showed that the respondents have greatest awareness (98% respondents each) on the availability of E-Granary and Basic Electronic Information Library (BEIL). Level of awareness for other resources are AGORA 82%; E-Books 81%; Science Direct 78%,; The Essential Electronic Agriculture Library (TEEAL), and E-Journals 76% respectively, EBSCOHOST 61%, and African Journal Online 53%. However, no respondent is aware of the availability of resources such as European Americans Journals, INASP, SCOPUS, Library on a Flash (Loaf) OARE, Pubmed and CD-ROM resources.

**Table 2: Levels of Utilization of Electronic Resources (n=87)**

No	Items	Very Often/ Often		Occasionally		Never	
			%		%		%
1.	Science Direct	47	54	21	24	19	22
2.	EBSCOHOST	36	41	17	20	34	39
3.	AGORA	50	58	22	25	15	17
4.	African Journal Online	-	-	46	53	41	47
5.	European American Journals	-	-	-	-	-	-
6.	INASP	-	-	-	-	-	-
7.	Scopus	-	-	-	-	-	-
8.	E-Granary	65	75	20	23	2	2
9.	The Essential Electronic Agriculture Library (TEEAL)	40	46	26	30	21	24
10.	Library on a Flash (sLoaf)	-	-	-	-	-	-
11.	Basic Electronic Information library (BEIL)s	65	75	20	23	2	2
12.	JSTOR	40	46	26	30	21	24
13.	OARE	-	-	-	-	-	-
14.	PUBMED	-	-	-	-	-	-
15.	E-Books	50	58	21	24	16	18
16.	E-Journals	43	49	20	23	24	28
17.	CD-ROM		-	-	-	-	-

Table 2 revealed that majority (75%) of the respondents utilizes e-granary and Basic Electronic Information Library (BEIL) very often and often. 58% highly utilize AGORA and E-books. Percentages that highly utilize other resources are Science Direct 54%; .E-journal 49%; Essential Electronic Agriculture Library (TEEAL) and JSTOR 40% each; EBSCO HOST 36%. However, none of the respondents access databases such as African Journal, European American Journals, INASP, Scopus, Library on a Flash (LOAF), OARE, and PUBMED

**Table 3: Major Challenges in Accessing Electronic Resources by Respondents.**

S/N	Item	Response	%
1.	Unstable Power Supply	21	24
2.	Low Bandwidth	20	22
3.	Inadequate Funding	10	12
4.	Non Functioning OPAC	10	12
5.	Lack of Computer Skills of Students	8	9
6.	Lack of Maintenance	7	8
7.	Lack of Computer Skills of Library Personnel	6	7
8.	Inadequate E-Resources	5	6
	<b>Total</b>	<b>87</b>	<b>100</b>

Respondents were requested to indicate their major challenge in accessing electronic resources in the library. Table 3: revealed that unstable power supply is the main problems in the library for highest respondents of 24%. followed by low bandwidth 22%, Inadequate funding 12%, non functioning of OPAC 12%, lack of computer skills of students 9%, lack of maintenance 8%, lack of computer skills of library personnel 6%, and inadequate E-Resources 6%.

## Discussion of Findings

The study found out that the undergraduate students of Kano University of Science and Technology, Wudil were aware of the availability of many electronic information resources in the library. Almost all respondents (98%) were aware that The E-Granary and Basic Electronic Information library (BEIL) are available. Awareness for Agriculture subject database AGORA and E-Books was also high. There is also some level of awareness for other resources, and databases. However, the students were not aware of some of the electronic resources available in the Library such as European Americans Journals, INASP, SCOPUS, Library on a Flash (Loaf) OARE, Pubmed and CD-ROM resources.

It is important to note that these students showed high awareness of availability of subject databases related to their field of study. This buttress the need for libraries to endeavour to subscribe to subject databases that relate to students field of study.

Findings indicate that the students often use the electronic resources to support their studies. E-resources often utilized by the undergraduate students include E-Granary, Basic Electronic Information library (BEIL), AGORA, Science Direct,

These findings are in-line with Erhabor (2012) that some electronic resources such as the internet, online databases, OPAC, electronic journals and electronic books are used regularly by library users due to the fact that more current information are found in the electronic resources.

The study revealed that the major challenge encountered by the respondents in accessing electronic resources was power supply. Others include inadequate funding, low bandwidth, lack of maintenance and lack of functioning OPAC, lack of computer skills by students and personnel are other constraints to the provision and accessing electronic resources in the library. Bitagi and Udoudou (2013) found that that the major factor militating against the provision and utilization of information resources are inadequate funding, technophobia, lack of computer skills among staff and students. The authors argued that the availability of all forms and types of information resources in academics libraries is highly imperatives if these libraries are to meet with the information needs of researchers in their parent organizations. Gbaje and Okojie (2010) corroborated this finding when the author discovered that gross underfunding of state universities has adverse effect on the services they offer.

## Conclusion

Electronic information resources enable the library to time of the users and also provide current information. There is need for library management to create awareness about the electronic resources available in the university library and their importance to undergraduate studies. Lack of computer skills and slow network were the major reasons that discouraged some undergraduate students from effective utilization of electronic resources in the Kano University of science and Technology, Wudil, University Library. Users should be made to understand that even if they cannot use a computer system, staff would assist them to meet their information needs. This will increase the use of these important information resources.

## Recommendations

In view of the findings of this study, these recommendations are made in order to improve the effective utilization of e-resources in the University Library:

1. Adequate budgetary allocation should be given to the University

Library for subscription to online databases and acquisition of electronic books.

2. Librarians should be given training and also user education should be organized for undergraduate students to enable them better utilize electronic resources in the University Library.
3. The University Library should ensure sufficient networked computers and other facilities for the use of the undergraduate students.
4. Information retrieval skills using information technology should be included in the curriculum for the undergraduate. Hands-on training on the use of these resources should be actively promoted.
5. Adequate provision should be made for alternative power supply to solve the problem of erratic and epileptic power supply which makes accessibility to the electronic resources difficult for the undergraduate students.

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