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Challenges of Access and Use of Electronic Information Resources among Students of Higher Institutions in Taraba State, Nigeria

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Abstract

Purpose: The objective of this study was to explore the challenges of access and use of electronic information resources (EIRs) among students of higher institutions in Taraba State, Nigeria.

Design/Method/Approach: The study employed quantitative research methodology, with a cross-sectional survey design to elicit data from the respondents. The study population comprises the three (3) higher institutions with available and functional electronic information resources namely: Taraba State University, Federal University, Wukari and Taraba State College of Nursing and Midwifery with 10748 registered users who constituted the population and out of these, 370 users were selected using a simple random sampling technique. This was done by selecting the respondents from all areas of study regardless of their course, level, age and gender. Research advisors table 2006 was used in determining the sample size of the study. A self-developed questionnaire was used as an instrument for data collection. The data gathered were analyzed through descriptive statistics, via the statistical package for social sciences (SPSS) version 16.0.

Findings: The results of the study revealed that various types of electronic information resources were available in the higher institutions libraries in Taraba State. These include e-books, online databases, e-journals, as well as CD-ROMs. It was also found that the extent of access to the available EIRs was moderate and also poor internet connectivity, insufficient computer terminals, inadequacy of Information and Communication and Communication Technology (ICT) skills were some of the major factors working against the smooth access and use of EIRs in the institutions studied.

Originality/Value: This research is novel to Taraba State, in that it examines the extent of access and use of electronic information resources in the state. It also identify the challenges bedeviling the smooth access and use of EIRS among students of higher institutions in Taraba State as well as proffer solutions to the challenges.

Keywords: Challenges, Access, Use, Electronic Information Resources, Higher Institutions, Taraba State, Nigeria

Introduction

The speedy advancements in Information and Communication Technologies (ICTs) in the 21st century have brought about incredible explosion of electronic information resources (EIRs). EIRs or basically electronic resources (e-resources) are information that are available and presented in electronic format through computer or computer-related services like the Internet, CD-ROMs, digital libraries, and flash drives that are normally operated through electronic methods and systems. EIRs are electronic type of print formats which are significant part of library collections in the digital era. They are resources requiring computer access through the use of desktops or hand set or mobile devices like Ipad, laptop and Smartphone either in the library or at home for the purpose of teaching, studying and research (Osinulu, 2020). Gausul-Hog and Armanul-Haque (2018), considered EIRs as information resources that are created, preserved, managed, used and shared by

electronic means to ensure their easy accessibility.

Access to EIRs could be regarded as the ability to have access to the available EIRs with little or less difficulty. While the use of EIRs on the other hand, could be viewed as the capability to make hands-on and judicious use of the available electronic resources. Use of EIRs also denotes the action of making actual use of the available EIRs. Challenges to acess and use of electronic information resources are the factors militiating smooth access and use of electronic information resources. According to Daramola (2016) usage of of online information resources in advanced institution libraries is mainly aimed at widening the variety of available information resources and improving their value through making them available through digital means so that users can access them at any point in time irrespective of their location. The author further stated that libraries typically within academic settings provides necessary infrastructures and internet facilities to improve users' access to online resources. Hence, access and use of electronic information resources are very crucial to the end users in advanced institutions libraries. However, in some cases EIRs may be provided but the users may not be able to have access to them. In this regard, Amos (2012) opined that libraries should employ the use of Selective Dissemination of Information (SDI) services with the objective of marketing and publicizing their available EIRS to those in need of them. It is against this background that this research investigates the challenges of access and use of EIRs among students of higher institutions in Taraba State through a quantitative methodology.

Historical Background of the Institutions Under Study

Taraba State is located in the North-Eastern part of Nigeria. It was founded on 27 August 1991 out of the former Gongola State. The state acquired its name from River Taraba and lies in the Northeast geopolitical region of Nigeria. Taraba State is bordered in the West by Nasarawa and Benue State, Northwest by Plateau State, North by Bauchi State and Gombe State, Northeast by Adamawa State, East and South by the Republic of Cameroon (Nigerian Investment Promotion Commission, 2022). Aditionally, the state is situated mainly in the central part of the country and comprises of a surging landscape with a few amazing hilly topographies. These include the beautiful and famous Mambilla Plateau. Taraba state is situated mainly within the tropical zone and is characterized by flora of low forest in the southern part and grassland in the northern part. Also, the Mambilla Plateau with a height of 1,800 meters (6000 ft) above sea level has a temperate climate through out the year (Nigeria Galleria, 2021). Taraba State has numerous tertiary institutions tha were mainly established to advance learning, teaching and research endeavors.

Taraba State University is situated in Jalingo the state capital. The university was created by the Taraba State Government in 2008, to broaden access to university education essentially for the indigenes of the state and to also encourage economic advancement in the nation. The university is steered by trained national and international manpower and was accredited by the National Universities Commission (NUC). While Taraba State College of Nursing and Midwifery Jalingo was founded in 2005 with the objective of training and preparing diverse health workers and to conduct research aimed at moving the community forward. The Federal University, Wukari on the other hand, was established in 2011 by the Federal Government of Nigeria led by the then President Goodluck Ebele Jonathan. The institution was established as one of the nine universities established at that time. The University is located in Wukari town in Taraba State. Therefore, all the three (3) institutions were principally established to support teaching,

learning and research activities in the state (Taraba State University, 2018; Taraba State College of Nursing and Midwifery, 2022; Federal University Wukari, 2018).

Statement of the Problem

Generally speaking, EIRs serve as platforms for global information access which makes it easy for scholars and students to have access to vast amounts of information for maximum utilization. Despite the advantages of EIRs in the institutions of higher learning, observation has shown that access and use of EIRs in higher institutions in Taraba state appears to be very low which perhaps could be attributed to poor Internet connectivity, insufficient computer terminals, lack of constant power supply, lack of Information Technology (IT) skills among the library users in the institutions. This situation has been reported by Akuffo & Budu (2019) in a foremost postgraduate theological University in Ghana which revealed that the challenges affecting electronic resources use were mainly that of searching and retrieval challenges, difficulty in having acess by the users and staff related issues. Similarly, a study conducted by Alhassan and Macaulay (2015) established that limited access to computer terminals, lack of IT knowledge to effectively utilize the services, non-assistance from library staff to facilitate easy access and network failure were some of the hindrances to effective use of electronic information resources in universities in Niger State, Nigeria. Considering the impending challenges, investigating the challenges of access and use of EIRs among students of higher institutions in Taraba State was considered imperative.

Objectives of the Study

The objectives of this study are to:
1. Identify the types of electronic information resources available in the tertiary institutions in Taraba State, Nigeria.
2. Ascertain the extent of access to the available electronic information resources in the institutions under study.
3. Examine the extent of use of electronic information resources by the students in the higher institutions under the study;
4. Identify the challenges confronted by the students in:
    (a) Access to electronic information resources
    (b) Use of electronic information resources

Research Questions

The study sought to provide answers to the following questions:

1. What types of electronic information resources are available in tertiary institution libraries in Taraba State?
2. What is the extent of access to EIRs by the students in the institutions under study?
3. What is the extent of use of the available electronic information resources by the students in the institutions under study?
4. What challenges are confronted by the students in:
    (a) Access to electronic information resources?
    (b) Use of electronic information resources?

Literature Review

Electronic information resources (EIRs) are significant to researchers, scholars and writers in this contemporary period. The roles they play in enhancing and supporting research cannot be over emphasized. They have, in addition, become indispensable in the present-day teaching, research and learning processes, particularly in higher institutions of learning. Several studies have been conducted on the challenges of access and use of electronic information resources particularly in higher institutions globally.

However, it is vital to recognize that regardless of the provision of EIRs and their immense contributions to higher education, their effective utilization is being hampered by varying factors, especially in developing nations which include; poor funding for higher institutions, exorbitant cost of Information and Communication Technology (ICT) infrastructure, poor internet connectivity, unfavorable foreign exchange and many others (Fatoki, 2004; Adeoti-Adekeye 2007). A study carried out by Omosekejimi, Eghworo and Ogo (2015) on the usage of EIRs by undergraduate students of Federal University of Petroleum Resources Effurun found that the factors affecting the use of e-resources were mainly problems of downloading caused by sluggish network, insufficient EIRs facilities, inaccessibility of some electronic resources and difficulty in traversing through electronic resource as a result of poor training for users.

Alhassan and Macaulay (2015) found in their study that inadequate access to computer terminals, inadequate ICT knowledge to properly use the e-reources services, lack of assistance from library staff and network issues were some of the obstacles to efficient use of EIRs in university libraries in Niger State, Nigeria. In another vein, Ankrah & Atuase (2018), also conducted a study at the University of Cape Coast, Ghana and found that e-resources were not fully used by postgraduate students because of inadequate publicity, insufficient training, limitations of access such as passwords and usernames, and other challenges such as poor internet connection, inadequate computers, as well as power outage and inadequate searching skills.

Ingutia-Oyieke and Dick (2010), conducted a study titled "comparative analysis on the use of electronic information resources by undergraduate students in two Kenyan universities". The study revealed two (2) categories of barriers to the use of EIRs with the first category consisting of physical obstacles to the use of EIRs which includes; insufficient

infrastructure networks such as the intranet and internet, frequent power outage, limited access to ICTs particularly the internet, lack of natural language content and software; while the second group includes personal obstacles to the use of EIRs that include some of the following:

- Patrons not having the knowledge of what information is needed or available.
- Patrons not having the knowledge whether they have problem or where to look for help.
- Patrons not familiar with the sources of that may help them to use the existing EIRs existing available in their libraries.

Meanwhile, a study conducted by Oduwale and Apati (2006), regarding the use of EIRs at the University of Agriculture Library Abeokuta Nigeria reported paucity of ICTs and irregular power supply as maladies to the use of available electronic resources. Ogunsola (2004) on the other hand, reported that inadequate manpower, unreliable electricity supply as the major challenges Nigerian libraries faced in utilizing electronic information resources.

Iyabosa and Adomi (2018), examined the awareness and use of EIRs by pre-clinical medical students in universities in South-South Nigeria through a descriptive survey method. The study revealed among others; slow Internet connectivity, epileptic and erratic power supply as well as exorbitant cost of access to the Internet as the foremost impediments affecting the use of EIRs in the studied institutions. Also, in another similar study, Sambo, Ntogo and Eda (2022), investigated the challenges faced by undergraduate students in the use of EIRs in universities in Southwest Nigeria through a quantitative approach with survey method. The study found that cost of access, poor power supply, absence of proper maintenance as well as poor funding as the major problems confronting the use of EIRs in universities. Abubakar and Yar'adua (2021) on the other hand, explored the use of electronic information

resources (EIRs) in academic libraries in Katsina State, Nigeria through a quantitative approach. The research found that scarcity of computers, slow Internet services, erratic power supply as well as insufficiency of searching skills as the major challenges affecting EIRs use in the academic libraries studied.

From Ghana, the study of Kwafoa, Osman and Afful-Arthur (2014), established that the obstacles faced by faculty members in using online resources were exorbitant charges to access EIRs (18.31%), nonexistence of suitable guidance (19.31%), sluggish internet services (35.92%) and lack of awareness about tools and techniques used for searching and retrieving EIRs (8.45%). In another related study, Sejane (2017) in Lesotho found that shrinking budgets, limited Internet bandwidth, shortage of up-to-date ICT infrastructure, poor searching skills and excessive cost of subscription as some of the prominent threats affecting the access and use of EIRs in academic libraries in Lesotho.

Notwithstanding, the success that is being recorded in the area of access and use of EIRs and services in higher institutions libraries, several factors still act as barriers. For instance, Watts and Ibegbulam (2006), surveyed the obstacles to the use of EIRs provided at the Medical Library, College of Medicine University of Nigeria Nsukka. The study discovered that scarcity of ICT, infrastructure, limited online access, lack of thorough ICT skills and improper information searching skills by both the library staff and students and high cost of using the cyber café were problems confronting the use of EIRs. Similarly, Amidu, Jibril and Ayodele (2021), examined EIRs utilization by postgraduate students of Nasarawa State University, Keffi, Nigeria through quantitative approach. The research found among others; that e-books, e-journals, Internet CD-ROM, etc. were provided in the University. While in terms of the challenges affecting the use of EIRs, the research established that lack of appropriate searching skills, irregular subscription of subject databases, poor ICT facilities as well as irregular and erratic power supply were the key threats to the use of EIRs.

Based on the foregoing, it is clear that there are many impediments affecting the use of EIRs that comprises inadequate searching skills, scarcity of ICT infrastructure and inadequate awareness as the major reasons for their lack of usage. It is important to note that the use of EIRs is solely contingent on a number of factors that include acquisition of proper and comprehensive searching skills as well as having up to date training and familiarity with them. In addition to all these, information literacy skills of users are developed through various ways, specially in the academic setting, and therefore, strong synergy between academic staff and library could bountifully improved and enhanced usage of EIRs by the students (Urquhart, 2003).

Methodology

A quantitative research methodology with survey and cross-sectional design was employed in the conduct of the research. The study population comprises three (3) higher institutions in Taraba State that have available and functional electronic information resources namely: Taraba State University, Federal University Wukari and Taraba State College of Nursing and Midwifery with 10748 registered users who constituted the population of this study. Out of this, 370 users were randomly selected from the libraries. The research advisor table 2006 was used in determining the sample size of the students. Thus, the table greatly simplified sample size decisions to ensure good decision making. Given that the total population of the study was 10748 and taking the confidence interval of 95% with a margin error of 5.0% as suggested by the table, the sample size of 370 was arrived at using simple random sampling technique in selecting the respondents, the percentage of the randomization for each library are as follows: Taraba State University 212, Taraba State College of Nursing and

Midwifery 38 and Federal University Wukar 120; totaling 370. A self-developed questionnaire by the researchers was the instrument used for the collection of data. The data analysis was through descriptive and inferential statistics, via the statistical package for social sciences SPSS version 16.0.

Presentation of Results

Response Rate

This part presents the response rate for the study. The summary of the responses is presented in Table 1.

Table 1: Response Rate

S/N	Questionnaire Administered	Frequency	Percentage%
1	Number of questionnaires administered	370	100%
2	Number of questionnaires returned	327	88%
3	Number of questionnaires missing	43	12%

Source: generated by the researchers using SPSS from questionnaire responses, N=327

Table 1, shows 370 copies of the questionnaire were administered to the users out of which 327 were completed and returned representing 88% response rate. It was reported by Osuala (2005) that the higher the response rate, the more credible the findings of the study.

Types of Electronic Information Resources Available

The respondents were asked to indicate the types of electronic information resources available in their institutions' libraries. The summary of their responses is presented in Table 2.

Table 2: Types of Electronic Information Resources Available

S/N	Types of electronic information resources	Frequency/ percentage (%) Available	Frequency/ percentage (%) Not available
1.	CD ROMs	207 (63.3%)	120 (36.7%)
2.	E-reference	49 (15.0%)	278 (85.0%)
3.	E- books	242 (74.1%)	85 (25.9%)
4.	E-journals	231 (70.7%)	96(29.3%)
5.	E-manuscripts	86 (26.3%)	241 (73.7%)
6.	E-newspapers	85 (26.0%)	242 (74.0%)
7.	E-dissertations	46 (14.1%)	281 (85.9%)
8.	E-conferences	24 (7.3%)	303 (92.7%)
9.	E- magazines	71 (21.7%)	256 (78.3%)
10.	Online databases	230 (70.3%)	97 (29.7%)
11.	Others please specify	1 (.3%)	326 (99.7%)

Source: generated by the researchers using SPSS from questionnaire responses, N=327

Table 2, shows the results of the data gathered and analyzed to determine the various types of electronic information resources available in the libraries studied. From the results, it can be observed that a significant number of the respondents indicated the availability of e-books with 242 (74.1%) responses, e-journals 231 (70.7%), online databases 230 (70.3%), and CD-ROM 207 (63.3%) among others. This finding implies that various types of electronic information resources were available in the libraries studied that ranges from e-books, e-journals and online databases among others.

The extent of Access to the Available Electronic Information Resources

The respondents were asked to indicate how much they agreed and disagreed about some statements on access to electronic information resources in their institutional libraries. The summary of their responses is presented in Table 3.

Table 3: **Extent of Access to Electronic Information Resources**

S/N	Statement	Frequency / percentage (%)					
		SA/A		UD		D/SD	
1.	CD ROMs is accessible in my institutional library	207	(63.3%)	12(3.7%)		108	(33.0%)
2.	Online databases is accessible in my institutional library	211	(64.5%)	3(0.9%)		113	(34.5%)
3.	I accessed E- books in my institutional library	225	(68.9%)	47(14.3%)		55	(16.8%)
4.	I accessed E-journals in my instutional library	208	(63.6%)	32(9.8%)		87	(26.6%)
5.	E-manuscripts is accessible in my institutional library	134	(40.9%)	40(12.2%)		153	(46.8%)
6.	I accessed E-newspapers in my institutional library	179	(54.8%)	70(21.4%)		78	(23.8%)
7.	E-dissertations is accessible in my institutional library	178	(54.4%)	47(14.3%)		102	(31.1%)
8.	E-conferences is accessible in my institutional library	95	(29.0%)	34(10.3%)		198	(60.5%)
9.	I accessed E- magazines in my institutional library	176	(53.9%)	31(9.4%)		120	(36.7%)
10.	E-reference is accessible my institutional library	171	(52.2%)	23(7.0%)		133	(40.8%)

Source: generated by the researchers using SPSS from questionnaire responses, N=327

Based on the Table 3, it was found that (68.9%), (64.5%), (63.6%) and (85.1%) strongly agreed that they had accessed e-books, online databases, e-journal and CD ROMs in their institutional library. The finding indicates that the majority of the students have moderate access to the available electronic information resources in their institutional libraries which is a good development.

Use of Electronic Information Resources

The respondents were asked to indicate how much they agreed and disagreed about some statements on the use of electronic information resources in their institutional libraries. The summary of their responses is presented in Table 4.

Table 4: Extent of Use of Electronic Information Resources

S/N	Statement	Frequency / percentage (%)					
		SA/A		UD		D/SD	
1.	I used CD ROMs in my institutional library	202	(61.8%)	51	(15.5%)	74	(22.7%)
2.	I used Online databases in my institutional library for learning and research	207	(63.3%)	52	(26.7%)	68	(15.9%)
3.	I used E- books in my institutional library	209	(63.9%)	15	(4.5%)	103	(31.4%)
4.	I used E-journals in my instutional library for learnig and research	204	(62.3%)	34	(10.3%)	89	(27.2%)
5.	I used E-manuscripts in my institutional library	93	(28.4%)	91	(27.9%)	143	(43.8%)
6.	I used E-newspapers in my institutional library for current awareness	172	(52.5%)	73	(22.3%)	82	(25.0%)
7.	I used E-dissertationsin my institutional library for research	175	(53.5%)	48	(14.7%)	104	(31.8%)
8.	I attended E-conference in my institutional library	65	(19.9%)	89	(27.2%)	173	(52.9%)
9.	I used E-magazines in my institutional library for entertainment	96	(29.3%)	72	(22.0%)	159	(48.7%)
10.	I used E-reference my institutional library for assignments	89	(27.2%)	73	(22.3%)	165	(50.4%)

Source: generated by the researchers using SPSS from questionnaire responses, N=327

As indicated in Table 4, it was found that (63.9%), (63.3%), (62.3%) and (61.8%) of the respondents strongly agreed that they utilized e-books, online databses, e-journals for learning and research in their institutional libraries. This clearly depicts that the extent of use of the EIRs was positive as indicated by the respondents.

Table 5: Challenges of Access to Electronic Information Resources

S/N	Challenges	Frequency / percentage (%)					
		SA/A		UD		D/SD	
1.	Poor network/internet connectivity	311	(95.1%)	5	(1.5%)	11	(3.3%)
2.	Lack of constant power supply	310	(94.8%)	6	(1.9%)	11	(3.3%)
3.	Limited access to computer terminals	247	(75.5%)	12	(3.7%)	68	(20.7%)
4.	Too much information retrieved	107	(32.8%)	73	(22.3%)	147	(44.9%)
5.	Time consuming	122	(37.3%)	27	(8.2%)	178	(54.4%)
6.	Lack of information technology (IT) skills	176	(53.8%)	18	(5.5%)	133	(40.7%)
7.	Lack of skilled manpower to facilitates easy access	240	(73.3%)	14	(4.2%)	73	(22.3%)

Source: generated by the researchers using SPSS from questionnaire responses, N=327

Challenges of Access to Electronic Information Resources

The respondents were asked to indicate how much they agreed or disagreed to some statements regarding the challenges they

encounter in accessing electronic information resources in their institutional libraries. The

As seen in Table 5, majority of the respondents (95.1%), (94.8%), (75.5%) and (73.3%) strongly agreed/agreed that, poor network/internet connectivity, lack of constant power supply, limited access to computer terminals and lack of skilled manpower to facilitate easy access as some of major constraints to the access of electronic information resources in the surveyed institutions. One can infer from the above analysis that poor internet, lack of skilled manpower as well as limited access to

summary of their responses is presented in Table 5.

computers were the major limitations bedeviling acces to EIRs which is a similar problem to most academic libraries in the country.

Challenges Affecting Use of Electronic Information Resources

The respondents were asked to indicate their agreement or disagreement on the challenges encountered in the use of electronic information resources in their institutional libraries. The summary of their responses is presented in Table 6

Table 6: Challenges of Use of Electronic Information Resources

S/N	Challenges	Frequency / percentage (%)					
		SA/A		**UD**		**D/SD**	
1.	Unstable power supply	307	(93.9%)	6 (1.9%)		14	(4.2%)
2.	Slow network	228	(69.7%)	19 (5.9%)		80	(24.4%)
3.	Irrelevant information resources	108	(33.0%)	31 (9.4%)		188	(57.4%)
4.	Insufficient computers	180	(55.0%)	52 (15.9%)		95	(29.5%)
5.	Time consuming	121	(37.0%)	71 (21.8%)		135	(41.2%)
6.	Inaccessibility of username and password to some databases	110	(33.6%)	80 (24.4%)		137	(41.9%)
7.	Lack of information technology (IT) skills	220	(67.3%)	14 (4.2%)		93	(28.4%)

Source: generated by the researchers using SPSS from questionnaire responses, N=327

Based on the results in Table 6, it was found that (93.9%), (69.7%), (67.3%) and (55.0%) of the respondents strongly agreed/agreed that unstable power supply, slow network, lack of information technology (IT) skills and insufficient computer terminals were the major obstacles in the use of electronic information resources in the libraries under study. One can deduce from the above analysis that unstable power supply, slow network, insufficient computers as well as lack of IT skills as the major impediments to the use of EIRs which is a similar problem to most academic libraries in the country.

Discussion of the Findings

The study aimed at investigating the challenges of access and use of EIRs among students of

higher institutions in Taraba State. In respect of the types of electronic information resources available in the libraries, the study found that there were various types of EIRs in the institutional libraries under study. These includes; e-books, e-journals, online databases, CD-ROMs among others. This corroborates the findings of Abubakar and Mamman (2020) who found that variety of electronic EIRs were available in Taraba state higher institutions libraries studied ranging from e-books, e-journals, online databases, to mention just a few. Similarly, Amidu, Jibril and Ayodele (2021) reported that CD-ROM, Internet, e-journals, e-books etc. were the most available EIRs at the Nasarawa State University, Library. The finding also corroborates the findings of Edem and Egbe (2006) who discovered that EIRs were available and accessible at the University of Calabar

Library. According to the same authors, the available e-resources were; e-journals, online databases, reference databases and virtual library. Also, the findings of this study is in agreement with Amankwah (2014) who studied the use of EIRs by undergraduate students of the Ghana institute of management and public administration. The study revealed that EIRs such as e-books, e-journals, other internet based online resources, OPAC were the most prominent EIRs in the library for use by researchers.

The study also found that the extent of access to the available EIRs in the surveyed institutions was reasonable as significant number of the respondents agreed that they had accessed e-books, online databases, e-journals, CD-ROMs among others principally for research purposes. This is contrary to the findings of Uzoamaka, Ogwo, Victor and Nwachukwu (2019), who investigated the availability and access of EIRs by Medical Library users in Universities in South-South, Nigeria and found that most of the respondents indicated that they rarely accessed EIRs which clearly indicates that users were not maximally having access to the available EIRs provided by the library. From their finding it is obvious that EIRs were rarely accessible to all the categories of medical library users in South-South Nigeria. However, the findings of the current study is almost similar with the findings of Nwezeh (2010) who investigated the impact of Internet use on teaching and research at Obafemi Awolowo University, Nigeria and found encouraging level of access and use of ICTs mainly the internet by the users.

In determining the extent of use to the available electronic information resources among students in Taraba state higher institutions, it was revealed that significant number of the respondents indicated that they use e-books, online databses, e-journals for learning and research in their institutional libraries. This also affirms the findings of Swain (2010) who discovered that the use of e-journals, e-books an

other electronic-based information resources were popular in Business School, in Orissa, India.

Additionally, in respect to the challenges hindering smooth access and use of EIRs in the libraries under study, the present study revealed that poor network/Internet connectivity, lack of constant power supply, limited access to computer terminals, inadequate (ICT) skills, and shortage of skilled manpower that would facilitate easy access to electronic information resources were the major factors working against proper access and utilization of EIRs. This finding agrees with the report of Ankrah and Atuase (2018), that poor internet connection, frequent power outage in the library, insufficient skills, limited subscribed titles, as well as inadequate computers were hindrances to effective access and use of electronic resources in academic libraries in Cape Coast. This also authenticates the report of Abdulrahman and Onuoha, (2019) who examined the challenges associated with the access of EIRs by Economics Education students in South-South Nigeria and found that sluggish internet speed, excessive difficulty in finding proper information, as well as excess of information on the Internet were the most prominent barriers.

In respect of the challenges bedeviling the use of EIRs in the libraries studied it was revealed that insufficiency of computer terminals, unreliable and erratic power supply, inadequate ICT skills were the major constraints faced in using EIRs in the libraries. This is in line with the findings of Lolade (2020) who investigated the awareness and use of EIRs by students of College of Health Sciences in Olabisi Onabanjo University, Nigeria. The study found that low usage of EIRs was ascribed to scarcity of computers, erratic and epileptic power supply, poor and unreliable network and slow internet speed among others.

Conclusion

This study primarily aimed at examining the challenges of access and use of electronic information resources (EIRs) among students of higher institutions in Taraba State, Nigeria. The overall conclusion of the study is that various types of EIRs were available in Taraba State higher institutions. This is proven by the fact that a significant number of the students had accessed and used the resources in their learning and research activities. The extent of access and use of electronic information resources in the surveyed institutions was reasonable. The study additionally concludes that slow internet connectivity, insufficiency of constant power supply, scarcity of computer terminals, lack of ICT skills are some of the major factors working against smooth access and use of EIRs in the institutions studied.

Recommendations

Based on the findings from the study, the following recommendations are offered:

1. There is need for more efforts to improve the extent of access and use of EIRs in the institutions studied. This can be done by organizing appropriate user education for students for better access and use of the available EIRs.
2. In a situation where power supply is generally unstable, there is need for the libraries to look for alternative source of power supply such as inverters and solar energy so as to continue providing support to the learning and research activities in the libraries.
3. The institutions should provide adequate number of computer terminals in their libraries. Also, the provision of skilled manpower to facilitate easy access and use of the available EIRs is highly desirable.
4. Appropriate ICTs gadgets that can gurantee speed and steady internet services are required to address the issue of slow network in the libraries. Priority

should also be given to the regular training of the library staff especially those who work with automation and ICTs unit. This can be done by sponsoring them to attend national and international seminars, workshops, and conferences on ICTs to upgrade their knowledge for better service delivery.

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