

Challenges facing the Use of Electronic Databases for Academic Activities by Undergraduate Students in University Libraries in Kano State

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ABSTRACT

This study investigated the challenges faced by undergraduate students towards the use of electronic databases in university libraries in Kano State. The objectives of the study were to identify the types of electronic databases available in university libraries in Kano State, to find out the challenges of undergraduate students towards the use of electronic databases. The study adopted a quantitative research approach using a cross-sectional survey design to collect data from the respondents. The population of the study was thirty thousand, two hundred and one (30,201) undergraduate students in universities in Kano State. A proportionate sampling technique was used to calculate the sample size of the study. Three hundred and seventy-nine (379) undergraduate students were selected to form the sample size for the study. A self-developed questionnaire was the instrument used to collect data with Cronbach's alpha reliability coefficient results of .903 (90.5%) with 161 items. The data collected was analyzed using descriptive statistics; while chi-square test using SPSS version 26 to was used to determine the relationship between the variables of the study. Findings from the study revealed that university libraries in Kano State provides adequate number of electronic databases which are very relevant to the student but fairly accessible. The study also discovered that the perception of the undergraduate students towards the use of electronic databases was positive as the findings established that some of the databases; Science Direct, Proquest, Jstor, EBSCOHOST and Hinari are most positively perceived with the majority of 50 (47%) of them. likewise the study indicated there is a statistically significant relationship between perception and use of electronic databases.

Keywords: Challenges, Use, Electronic databases, Undergraduates students, Academic activities, University libraries, Kano State

INTRODUCTION

University libraries are libraries attached to Universities and patronized by students, teachers, researchers and administrative staff of the universities. According to Abubakar (2011), University libraries are at the forefront of providing information services to their respective communities, which comprise students, lecturers and researchers in order to support their teaching, learning and research needs. University libraries provide an absolutely fundamental service, which affects the whole university community and without which it will cease to function as a center of teaching and research. These libraries also provide all the necessary support in order to enhance the cardinal educational objectives of their parent bodies, that is, teaching, learning and research. Furthermore, it also serves as an intellectual arena and places for the generation and dissemination of knowledge, as well as centre for the provision of world class resources and services to their users.

Electronic databases are a significant resource in university libraries, containing searchable collections of information in various disciplines, accessible offline and online. These databases, either free or subscription-based, are provided by libraries to offer comprehensive information resources. According to Ibrahim (2018), electronic databases include textual, numerical, bibliographical, and non-bibliographical types, available both offline and online. Examples include Compact Disk-Read Only Memory, The Essential Electronic Agricultural Library (TEEAL), Access to Global Online Research in Agriculture (AGORA), Directory of Open Access Journals (DOAJ), Health Internet-work Access to Research Initiative (HINARI), Oxford Academic, and Journal Storage (JSTOR).

University libraries have increasingly acquired and subscribed to these electronic databases to meet user needs. Library managers actively inform and publicize the availability of these databases. Feng, Yanting, and Wenping (2020) describe a database as an electronic store of information with a retrieval mechanism for easy access, representing significant advancements in data processing. They arose from scientific and technological advances in industrialized countries, addressing needs associated with these developments. Databases have played a crucial role in the progress of business, science, and academia by managing extensive datasets systematically and adapting to changing technological environments. They facilitate rapid, efficient access to vast information stores and support data analysis. The development of databases, a key result of Information, Communication, and Technology (ICT) advances, has improved access to relevant information on specific topics. These information sources are classified into offline and online resources. Recognizing the importance of electronic information for research, libraries and information centers subscribe to international organizations or seek donor support to acquire electronic databases. Users of peer-reviewed online journals must register and access these resources through password authentication.

Undergraduate students extensively use electronic databases for their currency and rich content. Nisha & Ali (2013) found that library users preferred electronic databases for the up-to-date nature of e-journal articles. With modern computing technology, students in university libraries in Kano State can easily locate and access resources online. These technological

advancements have revolutionized libraries worldwide, enhancing user services and supporting academia's learning, teaching, and research activities.

The study covers five universities in Kano State, Nigeria: Bayero University, Kano, University of Science and Technology Wudil, Nigeria Police Academy Wudil, Yusuf Maitama Sule University, and Skyline University. These universities, a mix of federal, state, and private institutions, support teaching, learning, research, and offer higher degrees and certificates. Despite the widely accepted view about the significance of e-databases for academic activities in university libraries by undergraduate students, still face a number of challenges in utilizing the databases. These challenges require investigation with specific reference to university libraries in Kano State, Nigeria.

Objectives of the Study

The main objective of this study was to examine the perception of undergraduate students towards the use of electronic databases for academic activities in university libraries in Kano state. The specific objectives were to:

1. Identify the types of electronic databases available in university libraries in Kano State.
2. To find out the challenges affecting the use of electronic databases for academic activities by undergraduate students in the university libraries under study.

REVIEW OF LITERATURE

Evolution and growth of electronic publishing industry has given birth to electronic databases. It is a combination of those resources that are 'born digital' and 'made digital'. The term "database" according to Feng, Yanting and Wenping, (2020) is viewed as a stock of information stored electronically with a retrieval mechanism for easy and effective access. They are one of the most important advances of the last few decades as they ease research activities. They sprang up in response to rapid advances in scientific research and technological development in industrialized countries and the needs associated with these advances. Electronic databases are an essential tool for university libraries, providing improved access to information resources and supporting teaching, learning, and research activities. According to Encyclopedia Britannica (2023), a database is an organized collection of information or data usually in computer-readable form. Generally, they are made available either for use online or offline search services. These search services have computers and software that facilitate the retrospective search of one or more databases to locate information or references in answer to a specific query. Databases are mostly characterized by the kind of data they contain which may be words, numbers, or subject matter. Whereas word-oriented databases, contain words or text as the principal data, numbers-oriented databases are often referred to as databanks and they contain numbers, symbols, series, graphs, and tables e.g. CD-ROM, online databases to mention just a few. The role of the library in providing information materials and printed and electronic resources in today's digitally networked world is to actively incorporate features of online and offline databases into library services, thereby using databases to bring collaborative, interactive, user-centred, and web-based technologies to library services and collections.

There are number of empirical studies conducted on challenges on the use of electronic databases. For example, Kore and Samuel (2023) investigated the usage of electronic databases in academic libraries in Ghana. The experience of Ghana Communication Technology University Library (GCTUL). This study examines the use of electronic databases (e-databases) by faculty members at the Ghana Communication Technology University Library (GCTUL). The study used a descriptive research method. Questionnaire were used for the data collection. The Statistical Package for the Social Sciences (IBM-SPSS 21.0) was used for data analysis. The finding of the study revealed that most faculty members were aware of the availability of databases in the library. Additionally, the findings established that Emerald, as well as Taylor and Francis, were ranked highly in terms of availability and accessibility. The study also identified problems such as difficulty in downloading information as well as poor internet connectivity. Based on the results, the study recommended that library management should address all the challenges that users encounter as soon as possible.

In another study conducted by Adekunle and Ojemola (2021) in their study assessment of the use of electronic databases by academic staff, Bowen University, Nigeria. The study assessed the use of electronic databases by academic staff of Bowen University, Nigeria. Descriptive analysis including percentage and frequency count was used to analyze the data. From the total population of 500 academic staff, a sample of 75 was taken using the simple random sampling technique. Questionnaire was used as instrument for data collection. The questionnaire used was to collect data from the respondents. The results show that majority of academic staff were aware of available e-databases, use it to improve teaching delivery and research output. Challenges encountered include inadequate time and an overwhelming workload. The study concludes by recommending a drastic reduction in workload, increasing bandwidth, hotspots and entrenching customer-friendly policies in the library.

Similarly, Patricia and Sibanda (2023) in their study investigated user perceptions, use and challenges in accessing electronic resources by students and lecturers at Arrupe College Library.. The Technology Acceptance Model was adopted as the framework for analysis. The study employed both qualitative and quantitative approaches. The research design used was a descriptive survey while the sampling technique was stratified random sampling using proportional representation to select participants from a student population of 118. Data was collected using the questionnaire technique from students and supplemented by the observation technique on the use of electronic resources. Statistical Package for the Social Sciences (SPSS) and content analysis were used to analyse the quantitative and qualitative data. The study revealed that awareness and usage was high, but not uniform across all electronic resources offered by the library. Users found ease of use and were satisfied with the service but expressed the need to expand e-resources particularly e-books. The findings also revealed that there was low intake of open access resources. The findings of the also revealed that TAM is an effective model in understanding the use and adoption of technology. The main challenge was inadequacy of e-resources, computers, awareness, and training. The study recommends that the library should invests more in e-resources, particularly e-books, conducts more awareness and training, increase computers, and promote the use of open access.

Omeluzor, Akibu, Akinwoye (2016) Students' Perception, Use and Challenges of Electronic Information Resources in Federal of Petroleum Resources Effurun Library in Nigeria. The objective of this study is to investigate students' perception, use and challenges of electronic information resources in Federal University of Petroleum Resources Effurun, Nigeria. A descriptive survey research design was adopted. A census sampling technique was used and data was gathered from Two hundred and forty-nine students of 500 level in the Departments in College of Technology. The data gathered were analyzed using descriptive and inferential statistics, while regression analysis was used to analyze result of the hypothesis. The result revealed that electronic information resources are used at different level by the respondents with e-journal, e-database, web OPAC and repositories recording high usage. It shows that users' perception influences use of electronic information resources in academic libraries with ($\beta = .214, p < .05$). From the findings, it is deduced that users' perception influences use of e-resources in academic libraries, while lack of awareness, lack of training, unreliable Internet connectivity, insufficient e-resources in various study areas, unavailability of e-resources on 24/7 and difficulty of identifying relevant information to meet users' needs are challenges hindering use of e-resources. The study concludes that librarians should acquire more e-resources to cover various study areas, create more awareness of e-resources at the library to change users' perception and introduce a 24/7 internet services.

Emmasiegbu, and Anaehobi (2021) who identify several obstacles that hinder the use of electronic databases, and the conditions that will assist librarians in overcoming these obstacles thus facilitating its use in information service delivery. In his study, he indicated undergraduate library users and computer skills (skilled manpower and facilities) are the main factors for the successful use of electronic databases for information service use and delivery. He further emphasized that belief and attitude also play a fundamental role. This shows that the actual use of electronic databases depends largely on librarians' personal feelings, skills and attitudes. This implies that undergraduate library users who have a positive attitude towards the use of electronic databases and perceive them to be useful and vital will use them as a tool for effective information service use and satisfaction. Ternenge and Kashimana (2019) found that access to a computer and hence to the internet remains a significant factor in the use of information resources for service delivery. By this view, Yusuf (2016) in his study found out that in Nigeria generally, there is low internet connectivity, low participation in the development of IT equipment as well and low development in software development. This claim to an extent reflects the current situation of our libraries particularly in Kano state as some of the libraries visited during the researcher's preliminary study have no internet connectivity. In his study, Kamba (2010) found that the possible reasons for this have been identified to range from the low level of computer literacy, lack of interest, incessant power failure, poor or inadequate infrastructures, etc.

In a similar view, Jin, Yuan, & Zhou, (2023) in their study identified demographics as key antecedents that facilitate the use of technology. They stated that age, education, gender, income and computer skills as key factors that facilitate the use of technology. Moreover, studies conducted by Straub (2019) found some relationship between gender and level of computer skills. Studies of Cai, Fan, & Du, (2016) found that females reported greater computer anxiety than males, while others found no gender difference. However, to the researcher's knowledge after a thorough search of available databases from both and foreign journals, little or no studies about the perception and readiness of librarians towards social media in metropolitan Kano had been carried

out using the TAM as the foundation for a theoretical framework, hence, this study is aimed at investigating the extent to which some other external factors and technology acceptance construct jointly predict the use of social media by librarians in institutions of higher learning in metropolitan Kano. It is against this background that the researcher intends to investigate the factors facilitating the librarians' use of social media for information service delivery.

All technological development in library electronic resources during the 20th century was intended to make access to resources more direct, convenient, and timely for the user. However, despite the value of electronic information resources in the provision of effective and efficient information for learning and research purposes, available kinds of literature show that users' perceptions and attitude toward electronic databases are not up to the level expected. Despite the above-facilitating factors that influence the use of electronic databases in Universities in Kano state, Yusuf (2016) suggested that the introduction of electronic databases into higher education is not without barriers. These are the shortcomings by which people hesitate or avoid accepting electronic databases. He found barriers to electronic databases acceptance, which includes risks, problems, and skills by which learners and educators including undergraduate students hesitate or refuse to use electronic databases. Hall, (2022) discussed some of the barriers. Including institutional and network restrictions, lack of money to invest in technical infrastructure, lack of knowledge of some senior managers, inadequate ICT strategy, the consequent difficulty of remembering and managing passwords, the resistance of academic staff to learn new ICT tools and fear of losing control over the resources. This also challenges that vacillate undergraduate students' perceptions and attitudes toward the use of electronic databases.

In contrast, another recent study by Manjack, Dangani, and Fari (2019) titled Utilization of Electronic Databases by Undergraduate Students in University Libraries in Gombe State. The study indicates that the majority of the respondents in GSU showed that the challenges they encountered the most in accessing electronic information resources were power outages with a frequency of 183, poor internet connectivity has 168, Inadequate computers in the library have 146, Lack of information on how to use Electronic databases 125, Limited subscribe titles have 122, Non-availability of required information have 107 while insufficient search skills with the frequency of 94 have the lowest responses. On the part of FUK, respondents showed that inadequate computers in the library with a frequency of 83 were the major challenges, power outages 78, Poor internet connectivity 71, Limited subscribe titles 57, Lack of information on how to use Electronic information resources have 52, Non-availability of required information have 49 while insufficient search skills with a frequency of 26 have the lowest responses. From the mean angle, power outages with a mean of 130.5 have the highest mean while insufficient search skills with a mean of 60.0 have the lowest mean.

Sohail and Ahmad (2017) conducted a study on the Use of Electronic Resources and Services by Faculty Members and Students of Fiji National University and the findings revealed that 19(38%) faculty members and 29 (32.22%) students stated that IT Infrastructure is not good. 14(28%) faculty members and 17(18.88%) students responded that electronic information resources are not adequate for their needs. 46 (92%) faculty members and 82 (91.11%) students stated that some informative websites are blocked in the library. 5(10%) faculty members and 4(4.44%) students complained that slow downloading is a problem faced while accessing the

internet. Complaints of inconvenient library timing accounted for and the co-operation of library staff are 2(4%) faculty members and 6 (6.66%) a student of library responses, respectively. The gamut of problems confronted by the respondents is based upon serious infrastructural bottlenecks creating stumbling blocks for the wide use of electronic databases. The reason for these problems according to them might be the place from where the students usually use EIR, the majority of the students access Electronic databases from their home PCs where they find slow servers and electricity breakdown problems.

The literature shows that it is obvious that the use of electronic databases is essential in tertiary institutions and academic libraries are putting more effort into providing electronic databases in their libraries. However, users are faced with some constraints in the use of databases. Some kinds of the literature revealed that the challenges come from the libraries while others discovered that it is a result of some weaknesses of the users themselves such as lack of computer skills and lack of information literacy. The literature also revealed that most of the library users in Africa faced challenges in using electronic databases and information resources largely due to inadequate power supply, slow internet connectivity, and lack of infrastructure among others. It is against this background that the present study aimed to identify the challenges in the use of electronic databases in the libraries under study.

METHODOLOGY

Quantitative research methodology was adopted using cross sectional survey. The population of the study was thirty thousand two hundred and one (30,201) undergraduate students in university in Kano State. Out of this 379 undergraduate students were proportionately selected to serve as sample size for the study, self-developed questionnaire was the instrument used to collect data. Furthermore, the instrument was subjected to Cronbach Alpha reliability test and a reliability coefficient of .903 (90.5%) was found. A total number of 379 copies of the questionnaire were administered out of which 339 were returned and found usable for the analysis. Data collected was analyzed using descriptive statistics while chi-square using SPSS version 26 to determine the relationship between the variables of the study.

Presentation of Results and Discussion of the Findings

Response Rate

A total of 379 copies of the questionnaire were distributed to the respondents, out of which 339 were completed, returned and found usable for the analysis representing, 89.4% response rate. This shows that there was a high response rate which is good enough for the analysis. The high response rate was adequate for analysis in survey studies, which is significant enough for analysis in this study. According to Bryman (2015) a 50 per cent relative response rate is barely acceptable, arguing further that a response rate of 60 per cent is good, a response rate of 70 per cent is very good and a response of 80 percent is excellent. Therefore, based on Bryman criteria (2015), the response rate of 89.4% obtained in this study was deemed adequate.

Types of Electronic Databases Available

This section sought to find out the available types of electronic databases in the libraries.

Table 2.0: Types of Electronic Databases Available

S/N	ELECTRONIC DATABASES	SA	A	UD	NA	SNA	(X)	Remark
1.	African Digital Library	65(19.2%)	75(22.1%)	43(12.7%)	117(34.5%)	39(11.5%)	3.1	Agree
2.	AGORA	69(20.4%)	41(12.1%)	64(18.9%)	138(40.7%)	27(8.0%)	3.0	Agree
3.	AGRICULA	35(10.3%)	36(10.6%)	101(29.8%)	104(30.7%)	63(18.6%)	2.6	Disagree
4.	Al-Mausooah Al-Arabiyya	48(14.2%)	27(8.0%)	111(32.7%)	123(36.3%)	30(8.8%)	2.9	Disagree
5.	EBSCOHOST	134(39.5%)	85(25.1%)	66(19.5%)	45(13.3%)	9(2.7%)	3.9	Agree
6.	E-Granary	100(29.5%)	66(19.5%)	77(22.7%)	78(23.0%)	18(5.3%)	3.5	Agree
7.	Emerald	63(18.3%)	51(15.0%)	115(33.9%)	75(22.1%)	36(10.6%)	3.1	Agree
8.	Encyclopedia Americana	120(35.4%)	81(23.9%)	63(18.6%)	60(17.7%)	15(4.4%)	3.7	Agree
9.	Encyclopedia Britannica	102(30.1%)	77(22.7%)	64(18.9%)	78(23.0%)	18(5.3%)	3.5	Agree
10.	E-THESES	62(18.3%)	60(17.7%)	98(28.9%)	113(33.3%)	6(0.7%)	3.1	Agree
11.	HeinOnline	64(18.9%)	27(8.0%)	125(36.9%)	99(29.2%)	24(7.1%)	3.0	Agree
12.	HINARI	72(21.2%)	47(13.9%)	94(27.7%)	102(30.1%)	24(7.1%)	3.1	Agree
13.	Indiana University Press	30(8.8%)	39(11.5%)	104(30.7%)	119(35.1%)	47(13.9%)	2.7	Disagree
14.	JSTOR	95(28.0%)	71(20.9%)	69(20.4%)	74(21.8%)	30(8.8%)	3.4	Agree
15.	LANTHEAL	54(15.9%)	32(9.4%)	103(30.4%)	129(38.1%)	21(6.2%)	3.0	Agree
16.	Law Pavillion	55(16.2%)	48(14.2%)	87(25.7%)	134(39.5%)	15(4.4%)	3.0	Agree
17.	LexisNexis	48(14.2%)	45(13.3%)	107(31.6%)	121(35.7%)	18(5.3%)	3.0	Agree
18.	MEDLINE	39(11.5%)	63(18.6%)	106(31.3%)	74(21.8%)	57(16.8%)	2.9	Disagree
19.	Nigerian Virtual Library	60(17.7%)	84(24.8%)	88(26.0%)	80(23.6%)	27(8.0%)	3.2	Agree
20.	Oxford Academic Journals	85(25.1%)	72(21.2%)	68(20.1%)	99(29.2%)	15(4.4%)	3.3	Agree
21.	Proquest	116(34.2%)	57(16.8%)	80(23.6%)	71(20.9%)	15(4.4%)	3.5	Agree
22.	Sage	39(11.5%)	29(8.6%)	128(37.8%)	122(36.0%)	21(6.2%)	2.8	Agree

23.	ScienceDirect	125(36.9%)	83(24.5%)	51(15.0%)	65(19.2%)	15(4.4%)	3.7	Agree
24.	SHAMELA	78(23.0%)	38(11.2%)	97(28.6%)	120(35.4%)	6(1.8%)	3.2	Agree
25.	Springer	74(21.8%)	54(15.9%)	95(28.0%)	102(30.1%)	14(4.1%)	3.2	Agree
26.	Others	87(25.7%)	53(15.6%)	128(37.8%)	59(17.4%)	12(3.5%)	3.4	Agree

Table 2.0 presents the types of electronic databases available in university libraries that are known to the respondents based on a means score of ≥ 3.0 , from the list of the types of databases available, EBSCOhost has the highest ranking mean with the mean average of (3.9) showing that majority of the undergraduate student agree it's available. E-granary, Encyclopedia Britannica, Encyclopedia Americana, Proquest, ScienceDirect and JSTOR follow with a mean average of 3.9 and 3.5 respectively and all others with a ranking mean of 3.0 and 3.1 respectively. This implies that students' knowledge of the availability of electronic databases in university libraries has increased tremendously among students in university libraries in Kano State. The study justified the findings of Wickramasinghe and Raza, (2021). Who pointed out that availability and knowledge of its existence could be influenced by the interest and exposure that a user or a student has in the database, while perception encourages the users to utilize library resources. It also complied with the submission of Prangya and Rabindra (2013) who reiterated that availability and awareness are core to the usage of electronic information resources.

Challenges faces by Undergraduate Students towards the Use of Electronic Databases

The respondents were asked to indicate the challenges affecting the use of electronic databases. Use the following statement and rate your agreement or otherwise on the challenges affecting your use of the electronic databases. (Tick as applicable) The results of the findings is in Table 3.0

Table 4.11: Challenges Affecting the Use of Electronic Databases

S/No.	Challenges	Applicable	Not Applicable
1.	Lack of available electronic databases to satisfy user's needs	204 (60.2%)	135 (39.8%)
2.	Inability to use relevant materials from the databases	204 (60.2%)	135 (39.8%)
3.	Difficulty in searching and navigating within the electronic databases of the university libraries	207 (61.1%)	132 (38.9%)
4.	Lack of user orientation programs	287 (84.4%)	53 (15.6%)
5.	Inability to access the login ID and password to show the content available in the databases	250 (73.7%)	89 (26.3%)
6.	Lack of assistance from librarians	193 (56.9%)	146 (43.1%)
7.	Inability to use the electronic database remotely	235 (69.3%)	104 (30.7%)
8.	Inadequate knowledge of how to access electronic databases	250 (73.7%)	89 (26/3%)

9.	Lack of enabling infrastructural computer facilities	216 (63.7%)	123 (36.3%)
10.	Poor internet connectivity (bandwidth)	270 (79.6%)	69 (20.4%)
11.	Poor supply of electricity	262 (77.3%)	77 (22.7%)
12.	Lack of a conducive atmosphere	208 (61.4%)	131 (38.6%)
13.	Others (please specify)	119 (35.1%)	220 (64.9%)

From the table above, the majority of the respondents 204 (60.2%) consider the lack of available electronic databases to satisfy users' needs as a challenge affecting the use of electronic databases in university libraries in Kano state. While only 135(39.8%) of the respondents did not regard it as a challenge to the use of electronic databases in their university libraries in Kano State.

Also, 204(60.2%) of the respondents indicated that their inability to access relevant materials from the databases as a challenge in using electronic databases, while 135(39.8%) of the respondents were against the challenge. About 207(61.1%) of the respondents indicated that they have difficulty in searching and navigating within the electronic databases of the university libraries, while 132(38.9%) of the respondents did not regard it as a challenge towards the use of electronic databases in their university libraries.

Moreover, 287(84.4%) of the respondents indicated that the lack of user orientation programs also constitutes a serious challenge in using electronic databases against 53(15.6%). About 250(73.7%) of the respondents indicated that the inability to access the login ID and password to show the content available in the databases also constitutes a challenge to them. Whereas 89(26.3) of the respondents indicated that this does not constitute a challenge to them.

Additionally, Table 4.12 shows that 193 (56.9%) of the respondents indicated that lack of assistance from librarians was a challenge towards the use of electronic databases, while 146(43.1%) of the respondents did not consider that as a challenge. the table also shows that 235(69.3%) of the respondents indicated the inability to access the electronic database remotely which also constitute a challenge, while 104 (30.7%) of the respondent regard it as not a challenge to them.

The majority 250 (73.7%) of the respondents indicated that inadequate knowledge of how to access electronic databases also constitute a challenge against the use of electronic databases, while 89(26.3%) of the respondent go against it. Further, the tables show that 216(63.7%) of the respondents that the lack of enabling infrastructural computer facilities is another challenge towards the use of electronic databases, whereas 123(36.3%) of the respondents disregard it as a challenge.

However, the Table shows that 270 (79.6%) of the respondent which is most agree that poor internet connectivity (bandwidth) constitute a great challenge to the use of electronic databases in university libraries in Kano State, though only 69(20.4%) of the respondent disregard it. The table also shows that 262(77.3%) of the respondents considered the poor supply of electricity as a challenge towards the use of electronic databases in university libraries in Kano state as against 77(22.7%) who did not consider the poor supply of electricity as a challenge to using it.

Finally, 208 (61.4%) of them considered a lack of a conducive atmosphere as a challenge towards the use of electronic databases to 131 (38.6%) of the respondents did not consider it a challenge towards using electronic databases. Also, only 119 (35.1%) of the respondents considered others (low Wi-Fi connectivity and poor Wi-Fi connectivity) as challenges towards the use of electronic databases, while the majority 220(64.9%) of the respondents didn't believe this to be a challenge to them. These findings show undergraduate students in the Kano University libraries are being confronted with many challenges which make it very difficult for them to use electronic databases in their various university libraries. This corroborates the submission of Konappa (2014) who ascertained that electronic information resources are underutilized in many tertiary institutions because of various reasons. The study also agrees with the finding of Onwueme and Lulu-Pokubo (2017) who identified poor internet connection and inadequate or non-availability of the facilities to access the EIRs in the institution's library. It also corroborates the finding of Adeniran (2013) who conducted a study on the usage of electronic resources by undergraduates at the Redeemer's University, Nigeria and found the challenges encountered by the students to include a large mass of irrelevant information, the need to filter the results from a search, download delay, failure to find information, inadequate or lack of search skills, high cost of access, inaccessibility of some electronic resources, difficulties in navigating through electronic resource, etc.

Conclusion and Recommendation

The study concludes that various types of e-databases were held and maintained by the university libraries under study. Such e-databases include Agora, EbsCohost, E-Granary, Emerald, ScienceDirect, Hinari, Agricola, African Digital Library among others. It was also discovered that the low level of utilizing e-databases is as a result of the following challenges: instability of power supply and slow speed network as a result of low bandwidth which affect the internet connectivity, lack of well-trained personnel with knowledge in science of management of databases, technological equipment, poor funding, lack of user education and lack of continuous training.

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

1. The study recommended that modern ICTs are required for the management of e-databases which will definitely enhance the effective and efficient accessibility and utilization by undergraduates under study.
2. Also, qualified and competent personnel should serve as e-librarians with regular training and retraining in place for the staff to be able to provide effective and quality service to library users.
3. There should be a steady network by increasing the level of bandwidth
4. Provision of alternative power supply to cope with the problem of instability of power.

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