

Research Article

Electronic Information Resources for Learning and Research Activities among Undergraduate Students in the University Library

Wisdom O. Anyim

Library Department, Rhema University, Nigeria

Corresponding Author: Wisdom O. Anyim, E-mail: wisdomaris@gmail.com

ARTICLE INFO

Article History

Received: October 21, 2019

Accepted: December 15, 2019

Volume: 1

Issue: 1

KEYWORDS

Electronic Resources, Information Resources, Learning, Research, Students, National Open University of Nigeria, Dutse, Abuja Model Study Centre.

ABSTRACT

The study investigated electronic information resources for learning and research activities among undergraduate students in National Open University of Nigeria library, Dutse, Abuja Model Study Centre. Descriptive survey research design was adopted for this study. A convenience sampling technique was used to select a sample size of 366 registered users of the university library from a population of 5,124 respondents comprises undergraduate students. Instruments for data collection that were used for the study include a structured questionnaire. Copies of questionnaires were distributed to the users of the library through a research assistant while frequency counts, percentages, mean scores were statistical measures used for data analysis. Findings revealed that online databases, search engines, the World Wide Web (www), e-journal, e-book, OPAC, Portal, e-newspaper/magazine, online indexes and abstracts were among the electronic information resources available in the library and were used to a great extent for research by students. From the result, poor internet connectivity, lack of steady power supply, lack of information retrieval skills, inadequate ICT infrastructure and insufficient functional computers constitute the challenges associated with utilization of electronic information resources for research by students. Based on the findings of the study, recommendations were made for library to provide other electronic information resources that were not available. to the students in order to widen the scope of the resources currently employed to serve users; students should be provided with a platform where they can give feedback regarding their perception of the facilities, resources and services provided at the library; librarians and other staff must be committed and willing to act promptly on the complaints of the users and also continuously review and improve the digital library system. University authority must also ensure that adequate fund is released for acquisition of facilities and resources.

1. Introduction

The need for timely and easy access to knowledge has transformed the formats in which information is packaged to meet the need of users. The time has passed when traditional or orthodox information resources constitute the sole repository of knowledge in the library. Electronic information resources are gradually dominating the university library although they cannot be said to have replaced print resources in the library. Electronic resources can serve as complement or supplement for traditional resources if the access to information yield more result (Viswanatha & Sasireka, 2016).

Electronic information resources in university libraries make research activities effective when they are rightly provided for effective use. Material availability and utilization comprise a calculated effort towards ensuring adequate provision or deployment of e-resources for learning or conducting research by the students, faculty members and other users of the library. Access to electronic information resources for the members of the university community makes the library occupy an

important position in learning, teaching and research. Research is an important aspect of learning process that is mandatory for every student in Nigerian higher education system. Students in tertiary institutions in Nigeria including National Open University of Nigeria engage in a research either for expansion of what was learned in classroom or for project in their final year which is mandatory as a partial fulfillment for the award of degrees. For research to be carried out, relevant information resources are necessary. Students engage in research to discover, rediscover, identify, validate and solve a particular problem through a systematic, logical, scientific and painstaking enquiry using available information resources.

National Open University Library is described as information gateway due to its online presence. It is the gateway to a wide range of information resources that help in academic studies, research, general development and pursuit of scholarship. Each resource provides essential tools to assist and navigate through the contents. It was established to support teaching, learning, research and other academic and developmental activities of the university. Its main objective is to facilitate access to scholarly information resources. The library provides reference, information literacy, current awareness services and other services. Internet access through local area networks and wireless connectivity is running. Internet access through local area networks and wireless connectivity is running 24/7. The E-library laboratory is equipped with 45 state-of-the-art high speed computers. National Open University of Nigeria houses numerous e-resources that cover a wide array of subject areas inform of e-books, e-journals, e-magazines, virtual library, online subscribed and open access resources etc. (National Open University of Nigeria, 2020).

1.1 Statement of the Problem

From the literature, casual observation and interaction with great number of students from National Open University of Nigeria gave impression that students seemed not to utilize enough electronic information resources available in the university library for their research activities. The problem may be attributed to lack of relevant electronic information resources in the library. Consequently, this will affect producing quality research by the students if not addressed. Despite the rich information resources abundant in most of the libraries, resources are still underutilized; and this has become a recurring issue that libraries must address (Anyim, 2020).

There is evidence in literature about existing studies in the area of availability and utilization of electronic information resources in academic libraries; but from reviewed literature, it seems there is dearth of empirical evidence with respect to utilization of electronic information resources for learning and research activities among undergraduate students in National Open University of Nigeria Library Dutse, Abuja model study centre. Therefore, this study tries to investigate the prevailing situation and offer recommendation.

1.2 Objective of the Study:

The objective of this study is to find out the electronic information resources used for learning and research among undergraduate students in National Open University of Nigeria, Dutse, Abuja Model Study Centre. Specifically, the study intended to answer the following research questions:

1. What types of electronic information resources are available for learning and research in the university library?
2. What is the extent of utilization of electronic information resources for learning and research in the university library?
3. What are the challenges with the use of electronic information resources for learning and research in the university library?

2. Literature Review

Electronic information resources refer to information materials that are in electronic or digital format instead of print. They still contain the same information that is obtainable in printed material but differ in form, method of access, retrieval and required computer technology to be used. Anyim (2018) defines electronic information resources as information resources in which contents could be accessed through the use of internet; CD-ROMs, electronic books (e-books), electronic journals (e-journal), electronic indexes, digital reference materials, online databases and other e-collection.

Electronic information resources could be subscription-based or developed and customized using local information resources or a combination of both. Resources in a digital library include both electronic information resources including virtual library and the facilities used to access them (Anyim, 2018). Some examples include visual materials, news or other media sources and archives, portals that provide links or URLs relevant to particular disciplinary topics, online reference digital readers, digital film or video, maps, online or digitized documents, audio materials, data archives, digital facsimiles, curricular

materials and web sites created by other faculty and/or other institutions, personal online diaries (blogs) etc. other online information resources, including bibliographic databases, electronic reference books, search engines for full text collections, digital collections of data and data sets (Harley, 2007).

Different terms are used to describe electronic information resources. According to Graham (2003), electronic resources also mean electronic library resources, digital resources, digital materials and soft library resources. Regarding the information seeking attitude of students in the information age, it is obvious that the whole process accessing and its concomitant proliferation of electronic resources. Lefuna reports that in recent times, electronic resources have been identified as the major sources for information dissemination in the universities, especially for researchers including students and teaching staff (Ternenge and Kashimana, 2019).

However, electronic information resources have become more prevalent in university libraries across the globe as e-libraries become one of the standard requirements in measuring digital exploits of universities. The use electronic information resources have been encouraged by several authors including Renwick in Ankrah and Atuase (2018). With respect to the above recommendation, it was revealed that library users patronize several relevant electronic resources including online databases, multimedia resources, CD-ROMs, and availability of different electronic resources in the faculty library is widespread (Singh and Sharma, 2018). Most types of electronic resources that are used in this study are: e-journals, e-books, online databases, electronic conference proceedings and CD-ROM databases (Amankwah, 2014). Online databases that are patronized by the students are loaded with avalanche e-books, e-journals, e-magazines and other e-materials. Despite availability of electronic resources in the library, their suitability and highly use is an issue for investigation (Alzahrani, 2019).

Libraries provide relevant information resources in electronic formats and organize them in ways that facilitates ease of access by the users are sole responsibility of the library. It is when these resources are readily available and accessible that users can utilize them. Ternenge and Kashimana (2019) define availability of electronic information resources as ready access to information in electronic format with little or no stress to the library user. They further opined that availability of electronic information resources in the library is not just enough, users must know of their existence to be able to use them effectively; and to put to use what's available, users must possess requisite skills that will enable them to exploit these resources and services.

Availability of electronic information resources includes the provision for and inclusion of the resources in the collection of the libraries at the disposal of users in academic institutions. Electronic resources provide access to authoritative, reliable, accurate and timely access to information (Anyim, 2018). Researchers were in dire need of palatable ways of conducting research with relative ease of access to accurate and authoritative information and without compromising standard until the advent of electronic information resources powered by information technologies.

Utilization of electronic information resources involves accessing and using of the e-resources for academic activities including teaching, learning and research. Students in carrying out their research projects turn to the library to access information. Since advent of Information Communication Technologies in academic libraries, demand for electronic information resources seemed to have overtaken that of print resources, although not totally replaced it. Electronic information resources provide a far reaching advantages to both users and library in ways that include hyperlinks to other resources; huge information reservoirs; quick information; various search options; easy citations; ease in uploading and updating; ease in storage and dissemination; flexibility; time, space and cost are not major hurdles; ease of archiving (Tekale and Dalve, 2012). Electronic resources make access to accurate and timely information possible for users especially, those of the institution of higher learning that are greatly involved in research (Ukpebor, 2012).

One of the advantages of electronic information resources for libraries and researcher in the information age is the reduction of pressure on academic libraries for physical storage space for books and journals and unlimited access to information by the users (Lefuna, 2007). In university and other academic institutions, focus of users has shifted more to electronic information resources as it dominates research activities of researchers and opens their eyes to realize the importance of such resources (Hadagali, Kumbar, Nelogal and Bachalapur, 2012). E-library in most universities manages electronic resources and these stands as vital academic resources that support teaching, learning and research activities (Zhang & Liu, 2011). As reported by Ternenge and Kashimana (2019), electronic resources are invaluable research tools for students in higher institution of learning.

Electronic information resources in the aspect of use are not without its own challenges. The difficulties encountered in getting and making use of electronic information resources come in different forms. According to Uzoagba (2019), one major factor hindering effective utilization of libraries resources is lack of ICTs infrastructure, and added that there is often epileptic supply in Nigeria, and even when there is electricity, the current may be low thereby damaging ICT equipment in the libraries.

Ukoha (2011) discovered another factor that militates against effective utilization of electronic information resources was discovered by which include lack of adequate bandwidth size (for effective internet connectivity) and appropriate anti-virus and other necessary software in academic libraries. As discovered by Abiolu and Okere (2009), lack of adequate skills of the staff in the management of ICT facilities in the libraries affect the use of resources. They also include factors such as inadequate skillful human resources, inadequate finance, power supply, system law, ICT literacy and inadequate ICTs infrastructure as challenges affecting adequate utilization of electronic information resources. The consequence of student's inability to use the library leads to significant decline on the quality of university education (Olewonefa and Musa, 2011).

Research dominates the activities of students in the universities. It is the bedrock of learning and professional development. Research develops the students' minds and helps them to rediscover themselves and the world around them. The excitement of exploring new concept or phenomenon, discovering innovations and creatively improving knowledge enriches students' experiences through research. Research is a carefully purposeful search in a quest to solve an identified problem or new knowledge (Ternenge and Kashimana, 2019). Therefore, research is an inquiry or investigation conducted by students in collaboration with faculty mentor (supervisor) that makes an original intellectual or creative contribution to the discipline. In this study, research is defined as undergraduate student's project writing which serve as a basic requirement for the award of Bachelor of Science degree in any discipline (Ugbagir, 2011). It is mandatory for students in Nigerian universities to carry out research projects in their final year as a requirement for partial fulfillment for the award of degree in their respective field of study. Electronic information resources present students with the opportunity to access and retrieve relevant information for effective research undertaken in the university.

3. Methodology

The descriptive survey research design was adopted for this study. The area of study was Abuja located in Dutse, at the Federal Capital Territory, north central region of Nigeria Three objectives and three research questions were formulated to guide this study. A convenience sampling technique was used to select a sample size of 366 registered users of the university library from a population of 5,724 respondents comprises undergraduate students. Information on the number of registered users was obtained from the Librarian's office. Instruments for data collection were a well-structured questionnaire. Copies of questionnaire were distributed to the users of the library. The study used frequency counts, percentages, mean scores and ranking as statistical measures for data analysis.

4. Results

The data obtained from this study was organized and analyzed using mean scores and percentages which are presented in tables in line with research questions as follows:

Research Questions One: What types of electronic information resources are available for learning and research in the university library?

Table 1: Frequency and percentage scores of types of electronic information resources available for learning and research.

S/N	Items	N	Available	%	Not Available	%	Remark
1	Online databases	366	310	85%	56	15%	Available
2	Search Engines	366	308	84%	58	16%	Available
3	The World Wide Web	366	305	83%	61	17%	Available
4	E-journal	366	302	83%	64	17%	Available
5	E-book	366	302	83%	64	17%	Available
6	OPAC	366	265	72%	98	28%	Available
7	Portal	366	258	70%	108	30%	Available
8	E-newspaper/Magazine	366	244	67%	122	33%	Available
9	Online indexes and Abstracts	366	198	54%	168	46%	Available
10	Video-CD	366	198	54%	168	46%	Not Available
11	CD-ROM	366	190	52%	176	48%	Not Available

Field Survey, 2019

The result presented in table 1 showed that nine types of electronic information resources are available to users in the National Open University of Nigeria library, Dutse, Abuja while two electronic information resources are not available. Analysis shows that online databases was available with (85%); Search Engine was available with (84%); The World Wide Web (www) was available with (83%); E-journal was available with (83%); E-book was available with (83%); OPAC was available with (72%); Portal was available with (70%); E-newspaper/Magazine was available with (67%); while Online indexes and abstracts were available with (54%). The study also revealed that Video-CD scoring 54% and CD-ROM scoring 52% were not available.

Research Question Two: What is the extent of utilization of electronic information resources for learning and research in the university library?

Table 2: Mean score of the extent of utilization of electronic information resources for learning and research.

S/N	Items	Mean	Rank	Remark
1	Online databases	3.42	1	GE
2	Search Engines	3.39	2	GE
3	The World Wide Web	3.36	3	GE
4	E-journal	3.35	4	GE
5	E-book	3.34	5	GE
6	OPAC	3.32	6	GE
7	Portal	3.32	6	GE
8	E-newspaper/Magazine	3.30	7	GE
9	Online Indexes and Abstracts	2.41	8	LE

Field Survey, 2019

Hints: 0.00 – 0.59 = Very Low Extent (VLE). 1.00 – 2.49 = Low Extent (LE). 2.50 – 3.49 = Great Extent (GE) and 3.50- 4.00 = Very Great Extent (VGE).

Table 2 above shows the mean rating of the respondents on the extent of utilization of electronic information resources for research by students in NOUN libraries, Dutse, Abuja. The mean results reveal that students utilize to a great extent the following electronic information resources, which include: Online databases with the mean score of (3.42); Search Engines (3.39); The World Wide Web (3.36); E-journal (3.35); E-book (3.34); OPAC (3.32); Portal (3.32) and E-newspaper/Magazine (3.30). The table further showed that students utilize to a low extent, online indexes and abstracts with mean rating of (2.41). The result shows that online databases are the most electronic information resources utilized for research by students.

Research Question Three: What are the challenges with the use of electronic information resources for learning and research in the university library?

Table 3: Mean scores of challenges with the use of electronic information resources for learning and research

S/N	Items	Mean	Rank	Remark
1	Poor Internet connectivity	3.39	1	A
2	Lack of steady power supply	3.35	2	A
3	Lack of information retrieval skills	3.32	3	A
4	Inadequate ICT infrastructure	3.29	4	A
5	Insufficient functional Computers	3.24	5	A
6	Lack of adequate computer skills	3.22	6	A
7	Lack of adequate assistance from librarians	3.21	7	A
8	Lack of relevant databases	3.19	8	A
9	Internet disruption	3.18	9	A

10	Difficulties in accessing electronic resources	2.18	9	A
11	Lack of adequate knowledge in the use of e-library	3.14	10	A

Field Survey, 2019

Hints: 0.00 – 0.59 = Strongly Disagree (SD). 1.00 – 2.49 = Disagree (D). 2.50 – 3.49 = Agree (A) and 3.50- 4.00 = Strongly Agree (SA).

Table 3 above shows the mean rating of the respondents on the challenges with the use of electronic information resources for learning and research. The mean results show that poor internet connectivity with the mean score of (3.39); lack of steady power supply (mean =3.35); lack of information retrieval skills (mean = 3.32); inadequate ICT infrastructure (mean = 3.29) and insufficient functional computers (mean = 3.24) are major challenges associated with utilizing electronic information resources for research by students. While the respondents agreed on the whole items as the challenges encountered with the use of electronic information resources for research by students, poor internet connectivity (mean =3.39) ranked highest among the items.

5. Discussion of findings

It was discovered in the study that online databases, search engines, the World Wide Web (www), e-journal, e-book, OPAC, Portal, e-newspaper/magazine, online indexes and abstracts were among the electronic information resources available in National Open University of Nigeria library, Dutse, Abuja . This is in line with the findings of Ekere, Omekwu and Nwoha (2016) who discovered that e-resources available in academic libraries include the World Wide Web, WIFI and search engines as opposed to online indexes and abstracts, video CDs, CD-ROMs, online databases and portals. In relation to the findings of the study, Mesagan, Anyim, Ubogu and Echezona (2017) revealed that most available electronic information resources in university libraries include Online Public Access Catalogue and internet resources. Findings of this study also showed that CD-ROM and Video-CD are not available in university library. In disagreement, Ekere, Omekwu and Nwoha (2016) discovered that video CD and CD-ROM are readily available in university libraries.

With respect to extent of utilization of electronic information resources, findings show that students utilize online databases, search engines, the World Wide Web, e-journal, e-book, OPAC, portal, and e-newspaper/magazine to a great extent. The result is in line with Ternenge and Kashimana (2019) who discovered that e-journals, e-newspapers, Online Public Access Catalogue (OPAC), CD-Rom database, e-magazines, e-books, online database, e-research reports, virtual library online, science direct online and Ebscohost reference databases were electronic information resources utilized to a great extent for learning and research among students.

Findings show that challenges encountered with the use of electronic information resources for learning and research among students include poor internet connectivity, lack of steady power supply, lack of information retrieval skills, inadequate ICT infrastructure and insufficient functional computers. The finding is in line with Ternenge and Kashimana (2019) who found that inadequate computers in the library, poor internet connectivity limited subscribed titles, power outages, difficulty to access and use, lack of relevant e-resources in various disciplines as well as no assistance from the library, were the problems encountered by students while accessing and using electronic information resources for research. Also in line with the finding of Abiolu and Okere (2009) who opine that lack of human capacity management of the ICT facilities, inadequate skillful human resources, inadequate finance, power supply, system law, ICT literacy and inadequate ICTs infrastructure are challenges affecting adequate utilization of electronic information resources in the university libraries.

This study has serious implications for libraries in academic institutions Nigeria, as the gap between the availability of electronic information resources and the utilization of such resources for research by students is still very wide. In more developed countries this gap is seemingly non-existent, because most academic libraries enjoy adequate provision of e-resources and facilities. In addition, this study has implications for the following groups: The university management and staff will benefit from this research in terms of providing adequate electronic information resources followed by necessary electronic information retrieval training which will enrich the knowledge of both students and staff of the library. The findings of this study will have far reaching benefits to the students of National Open University of Nigeria as this can be used as a guideline by the university administration in the provision of viable, efficient and effective facilities, resources and services

that foster user satisfaction, information, dissemination and retrieval. Researchers and lecturers will benefit from this study as it would serve as a basis for enhancement and effectiveness of further research works on availability and utilization of electronic information resources.

6. Conclusion and Recommendations

With respect to the findings of this study, it was concluded that there is availability of electronic information resources in National Open University of Nigeria, Dutse, Abuja Study Centre which include the online databases, search engines, the World Wide Web, e-journal, e-book, OPAC, portal, and e-newspaper/magazine. However, the above e-resources were utilized at a great extent. Nevertheless, students admitted that they encountered several challenges in utilizing electronic information resources in the library such as poor internet connectivity, lack of steady power supply, lack of information retrieval skills, inadequate ICT infrastructure and insufficient functional computers. The university library environment has received tremendous transformations as a result of emergence of information technologies. In order to stay in control, librarians, especially, those in academic institutions and other organizations should improve their skills to meet the demand the users. Providing relevant and unlimited access to electronic information resources in the university libraries is one of the ways to encourage adequate learning and research among students. The easier it is for users to assess electronic information resources, the more they meet their information needs leading to fulfillment of the objective of the library. Hence, the library must provide other electronic information resources that were not readily available to the students in order to widen the limited scope of the resources currently employed to serve users.

Libraries should provide students with a platform where they can give feedback regarding their perception of facilities, resources and services provided at the library. With respect to that,, librarians and other staff must be committed and willing to act promptly on the complaints of the users and also continuously review and improve the digital library system as a constant evaluation of the library will ultimately reveal the exact state of the library at any given point in time. University authority must ensure adequate fund for acquisition of effective digital facilities, resources and other infrastructures are provided to encourage smooth access of electronic information resources.

References

- [1] Abiolu, O. A and Okere, O. O. (2009). Rethinking Information Services in the 21st Century a Nigerian Perspective. Nigerian Library Association 47th Annual National Conference and AGM, Ibadan, (Pp44)
- [2] Alzahrani, J. B. (2019). Use and Impact of Electronic Resources at King Abdulaziz University, Jeddah, Saudi Arabia. *International Journal of Library and Information Studies*, 9(4): pp.60-66. Available at <http://www.ijlis.org>
- [3] Amankwah, P.B (2014) Use of Electronic Resources by undergraduate students of the Ghana Institute of Management and Public Administration (GIMPA). An unpublished dissertation submitted to the University of Ghana, Legon in partial fulfillment of the requirement for the award of Masters of Art in Information studies.
- [4] Ankrah, E & Atuase, D (2018). The use of Electronic Resources by postgraduate students of the University of Cape Coast, *Library Philosophy and Practice (e-journal)*. Available <https://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=4675&context=libphilprac> retrieved 10th Feb, 2020.
- [5] Anyim, W. O. (2020). Knowledge and Use of Information Retrieval Tools by Lawyers at Miyetti Law Abuja, Nigeria. *International Journal of Library and Information Studies*, 10(1): pp.36-44. Available at <http://www.ijlis.org>
- [6] Anyim, W. O. (2018). E-Library Resources and Services: Improvement and Innovation of Access and Retrieval for Effective Research Activities in University E-libraries in Kogi State Nigeria. *Library Philosophy and Practice (e-journal)*. 1647. <https://digitalcommons.unl.edu/libphilprac/1647>
- [7] Ekere, J. N., Omekwu, C. O. & Nwoha, C. M. (2016). Users' Perception of the Facilities, Resources and Services of the MTN Digital Library at the University of Nigeria, Nsukka *Library Philosophy and Practice (e-journal)*. 1390. <http://digitalcommons.unl.edu/libphilprac/1390>
- [8] Hadagali, G. S., Kumbar, B. D., Nelogal, S. B. & Bachalapur, M. M. (2012). Use of electronic resources by post-graduate students in different universities of Karnataka State. *International Journal of Information Dissemination and Technology*, 2(3): 189-195.
- [9] Harley, D. (2007). Use and Users of Digital Resources. *Educause Review Online*. Available at <http://www.educause.edu/ero/article/use-and-users-digital-resources>
- [10] Iyoro, A.O. (2004). Serials availability, accessibility for use: Perception of in training information professionals in Nigeria University. *The Nigerian link* 11(2):66-72.
- [11] Lefuma, S. (2007). Access to and use of Electronic Information Resources in the academic libraries of the Lesotho Library Consortium. Unpublished dissertation submitted to College of Humanities University of Kwazulu-Natal, South Africa. Available at https://researchspace.ukzn.ac.za/bitstream/handle/10413/14345/Sejane_Lefuma_2017.pdf?sequence=1&isAllowed=y retrieved 15th Feb, 2020.
- [12] Mesagan, F. O., Anyim, W. O., Ubogu, J. O. & Echezona, N. P. (2017). Availability and utilization of information and communication technology resources in Nigerian academic libraries. Book of Abstracts, *Journal of Applied Information Science and Technology*.

- [13] National Open University of Nigeria (2020). Library. Available at <http://www.noun.edu.ng>
- [14] Olowonefa, G.S and Musa, I.F (2011). Availability and Accessibility of Information Sources to Distance Learning Student. A Case Study of University of Abuja. *Nigerian Libraries Journals*, 2 (44): pp 75-88;
- [13] Singh, J. and Sharma, A. K. (2018). To Study the Frequency, Availability and Purpose of Using CD-ROMs and internet resources by the students in Amity University, Jaipur Library of Progress-Library Science. *Information Technology and Computer*, 38(1): pp. 114-122
- [14] Tekale, R. B. & Dalve, D. B. (2012). E-resources review of research. Available at [http://www.reviewofresearch.net/ PublishArticles/45.pdf](http://www.reviewofresearch.net/PublishArticles/45.pdf) Retrieved 15th January,2020.
- [15] Ternenge, T. S. and Kashimana, F. (2019). Availability, Accessibility, and Use of Electronic Information Resources for Research by Students in Francis Sulemanu Idachaba Library University of Agriculture, Makurdi" (2019). *Library Philosophy and Practice (e-journal)*.2352. <https://digitalcommons.unl.edu/libphilprac/2352>
- [16] Ubogu, F. N (2006). Trends in Digital Library Services in Academic Libraries in South Africa Library Portal & ETD System. Conference Proceeding of 445 Annual National Conference of NCA held in Abuja Nigeria intuits.
- [17] Ugbagir, N. N. (2011). Undergraduate students' use of Internet resources for research project in Universities in North-Central zone of Nigeria. Unpublished dissertation submitted to department of library and information science, University of Nigeria, Nsukka.
- [18] Ukoha, O. I. (2011). Libraries without Walls and Open Distance Learning in Africa; The Nigerian Experience, National Open University of Nigeria www.nou.edu.ng. Accessed Online on 4/2/2020.
- [19] Ukpebor, C.O. (2012). Availability and use of electronic resources in African universities: The Nigerian perspective. *PNLA Quarterly*, 76(3): 190-199. Retrieved March 11, 2020, from www.pnla.org University of Calabar Graduate School (2014). The New Graduate School Digital Library. (Flyer). Calabar: University of Calabar Graduate School
- [20] Uzoagba, N. C. (2019). Availability and Use of Library Resources and Services in National Open University of Nigeria (NOUN). Unpublished dissertation submitted to department of library and information science, University of Nigeria, Nsukka.
- [21] Viswanatha, V. and Sasireka, I. (2016). Use of Library Electronic Resources among Selected Art and Science Colleges in Tamil Nadu. *International Journal of Library Science and Research (IJLSR)*, 6(4): pp. 17-22.
- [22] Zhang, L., Ye, P. & Liu, Q. (2011). A survey of the use of e-resources at seven universities in Wuhan, China. *Electronic Library and Information Systems*, 45(1), 67-87.