

Availability and Utilization of ICT for Information Retrieval By Undergraduate Students In Ramat Library, University of Maiduguri: A Case Study.

Augustine Uzoma Madu¹, Ibrahim Vandi², Saratu Mada Chagwa³

¹(Department of Library and Information Science/ University of Maiduguri, Nigeria)

²(Ramat Library/ University of Maiduguri, Nigeria)

(Department of Library and Information Science/ University of Maiduguri, Nigeria)

Corresponding Author: Augustine Uzoma Madu

Abstract: The study determined availability and utilization of information and communication technology (ICT) for information retrieval in Ramat Library University of Maiduguri, Borno State, Nigeria. The study was guided by four (4) objectives and four research questions, questionnaire was used to survey 400 registered users through convenience sampling technique out of 10,600 registered users for 2016/2017 academic session. Meanwhile, 44 questionnaire were rejected for wrong and incomplete entries and the remaining 356 valid questionnaire was considered acceptable. Descriptive analyses was applied while results were presented in tables of frequency counts and percentages. Findings revealed low level of computer utilization for information retrieval in the library under study, utilization of CD –ROM was very low, low level of Internet utilization. Also, majority of the respondents do not use e-mail for information retrieval in the Library. The study made recommendations for adequate power supply for effective computer utilization, information literacy training and awareness on the availability of CD-ROM and how to use them for effective information retrieval. Also, free access to the Internet as against fee payment which poses great hindrance to utilization of ICT by the library users. Also, strong network and adequate bandwidth to ensure quick information retrieval and downloading in the library.

Keywords: Availability, Utilization, Information and Communication Technology, Information retrieval.

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I. INTRODUCTION

Technology has proven to be the major driver of knowledge, research and innovation, and information and communication technology has become the most impacting variables of the present information society. The term ICT is a combination of interconnected hardware and software with peripheral equipment that are programmed for convenience information transfer (Qutab, Bhatti, & Ullah, 2014). It additionally covers web access arrangement, information innovation hardware and administrations, media and broadcasting, library and documentation centres, network based information administrations and other related communication exercises (Anie & Achugbue, 2009). Today, it is very obvious that, the use of information and communication technology system in all areas of human endeavour is now known and widely acceptable. In library set up, information and communication technology is used to manage one or several library routine services such as acquisition, serial control, cataloguing and classification and the on-line public access catalogue (OPAC). University libraries in Nigeria, according to Akintunde (2006), naturally display different stages of development in structure and information service delivery to their clients, to meet the millennium developmental target in the area of ICT as enunciated in West African Information system (WAIS) agenda. Within this context and setting, ICT is defined as electronic gadgets that are used to gather, process, store, retrieve and disseminate or transmit information for the purpose of teaching, learning and research. ICT has brought profound improvement in every aspects of academic library operations particularly in resources building planning, reference and information services and collaboration. It presents the library a chance to offer some benefit added information services and access to various forms of electronic information materials to their clients. Additionally, academic libraries are in like manner using current ICTs to modernize their main services, adopt strong and ingenious cooperation and consortia, “implement management information systems, create institutional stores of digitized local contents, and conceived computerized assets: and start ICT based capacity building programmes for library users:” and library users orientation. ICT has conveyed remarkable transformations and innovation to academic library and

information services, popular Library and Information housekeeping services, for example, OPAC, user services, reference and information services, bibliographic services, current awareness services, resource sharing etc., can be conducted productively and adequately with ICT, as it offers effective, quicker, less costly services in a short time with active participation of the user in information services.

The effect of ICT is obvious on information benefits through changes in types, substance and technique for generation and in addition to conveyance of information items. Development of web as the biggest storehouse of information and learning has changed parts of library and information science experts from mediator to facilitators, provide improved instruments for information transmission, and transform most conventional library services to a web based information services. Availability and utilization of ICT facilities are preceded by user's ICT skills, available tools and facilities which enables them to take advantage of ICT and satisfy their information need. It has been established through literature that ICT components such as computers, Internet, e-mail and CD-ROMs are relevant in the delivery of information services in libraries and information centers (Gilbert, 2016; Owolabi, S., Idowu, Okocha, & Ogundare, 2016). This study therefore assessed availability and extent of utilization of ICT for information service delivery and retrieval in Ramat Library University of Maiduguri.

II. STATEMENT OF THE PROBLEM

Information services in the libraries, especially the academic have experienced innovations due largely to application of ICT and other electronic devices in most library housekeeping and information services. Also, growth in knowledge with its attendant impact in teaching and learning as well as research has increased the need to employ ICT to expedite action regarding these services. Notwithstanding the advantages, most libraries are still struggling to tap into these opportunities provided by ICT towards users' satisfaction. The library under study has provided good number of computers, OPAC, PowerPoint projectors in addition to internet services, personal observation showed that the users are yet to take full advantage of these facilities for research studies and learning. It is against this background the study determines level of utilization of computers, Internet, CD-ROM, OPAC and e-mail in Ramat Library University of Maiduguri.

III. OBJECTIVES OF THE STUDY

The main objective of this study is to assess the availability and utilization of Information and Communication Technology (ICT) for Information Services Retrieval in Ramat Library University of Maiduguri, Borno State, Nigeria. The specific objectives are to determine:

- a. The level of utilization of computers for information service retrieval by undergraduate students in Ramat Library, University of Maiduguri.
- b. The level of utilization of compact disk read only Memory (CD-ROM) for information service retrieval by undergraduate students in Ramat Library, University of Maiduguri.
- c. The extent of utilization of Internet for information service retrieval by undergraduate students in Ramat Library, University of Maiduguri.
- d. The extent of utilization of e-mail (electronic mail) for information services retrieval by undergraduate students in Ramat Library, University of Maiduguri.
- e. The level of computer literacy skill of the undergraduate students.

IV. RESEARCH QUESTIONS

The study was guided by the following research questions:

- a. What is the level of utilization of computer for information service retrieval by undergraduate students in Ramat Library, University of Maiduguri?
- b. What is the level of utilization of CD-ROM for information service retrieval by undergraduate students in Ramat Library, University of Maiduguri?
- c. To what extent is the Internet utilized for information service retrieval by undergraduate students in Ramat Library, University of Maiduguri?
- f. What is the level of utilization of e-mail for information services retrieval by undergraduate students in Ramat Library, University of Maiduguri?
- d. What is the level of computer literacy skill of the undergraduate students?

V. REVIEW OF THE RELATED LITERATURE

Availability and utilization of ICT and its impact in the libraries, especially in information retrieval has been reported in literature over the past years. ICT has formed the basic channel through every electronic information resources can be accessed and utilized by the library patron, as a result, most studies on utilization of E-resources have often inquired regarding the ICT skills or competence of the respondents among the research questions (Ozoemelem, 2009; Deng, 2010; Edem & Nsata, 2016). Alemna (1994) reported that the use

of computers and Internet facilities is growing in popularity throughout the world of information and in libraries as repositories of knowledge. One of the arguments in favour of computer utilization in libraries is to alleviate and solve the problem of bibliographic search. The support of computer and its application for data makes possible the maintenance of more complex structures than it is feasible or economical to maintain by hand, (Onuoha, 2006). Automation as applied in libraries could be seen as a direct response to the need to offer adequate information services. According to Eguavoen and Adeyemi (2004) modern computer and Communication Technology now collectively referred to as information technology have made an enormous impact on man's capacity to gather, organize, store, retrieve, and disseminate vast quantities of information. Oketunji (1998) reported that the application of computers to the library processes is now firmly established in Nigerian libraries, and that they make it possible to analyze the whole operational system of the library and aid library service as well as decision making at various levels. Olatokun (2002) eulogized the contributions of personal computers to the library, the author stated that the PC can be used in many facets of the library activities such as word processing, cataloguing, information retrieval system and interlibrary loan as well as gateway to the internet.

In the past decade, advances in ICT and globalization have liberalized information retrieval and use of electronic information resources for students. The reason is that most education related information resources now exist in digital format like internet, CD-ROM, OPACs, electronic journals and electronic books. And this makes it easy for scholars to retrieve large amount of information for their studies. This was confirmed by Adeyemi (2002) in a study of issues relating to computer application in cataloguing. The author outlined the benefits of e-resources to scholars due to its large information coverage. The huge amount of information at their disposal enable students to have an in depth view of the area of study. Ekenna and Iyabo (2013) studied Information Retrieval Skills and Use of Library Electronic Resources by University Undergraduates in Nigeria. The study revealed that CD-ROM was used more than the other e-resources studied. Similarly, Ani and Ani (2016) investigated the strategies for enhancing the utilization of Information and Communication Technology (ICT) in university libraries in North East, Nigeria. The result indicated low level of CD-ROM utilization by post-graduate students in the universities under study. The significance and colossal extent of electronic assets for general correspondence, information retrieval; and instructional delivery to help teaching and research exercises in higher institutions is recognized around the world. In addition, investigation likewise demonstrates that various important research have been completed in utilization of e-resources by researchers, and students around the world (Quadri, Adetiminin & Idowu, 2014; Deng, 2010). Overall perception for utilization of e-resources, especially CD-ROM, has been significant, as students find joy while using them with few challenges (Ray & Day, 1998). This was confirmed in a survey at Oakland University by Deng, (2010) analyzed the developing designs and direction in using electronic resources in an advanced education context. The result revealed the prevalence in utilization of E-resources in university environment commensurate to fast and steady growth in ICTs. In another study of Ali (2005) studied use of e-resources at IIT Library, Delhi and discovered that 83% of students in the study perceived that utilizing this source spared them time, and is generally simple to utilize. About 66% of the respondents expressed their determination to wait if CD-ROM instead of utilizing the print device. In any case, an investigation of internet searching scientific information in science and technology libraries of Delhi uncovers a sizeable number of clients (nearly 60%) are confronted by various issues while browsing electronic information, like lack of knowledge about the resources, trained personnel and inadequate terminals. In another study of E-readiness and Utilization of University E-Information Facilities among serving Nigerian Law students, Mosterd and Olorunfemi (2013) found low level of CD-ROM utilization in the twelve (12) public university libraries studied in Nigeria.

Al-Ansari (2006) studied Internet use by the faculty members at Kuwait University, with aim to understand reason for use and effect on research and learning, types of devices and challenges associated with the use. Among other findings, large number of the respondents have used computer and internet for over five years to find up to date information while all of them indicated interest to improve their internet use through formal training. Genoni, Merrick and Willson, (2006) study of Scholarly communities, e- research literacy and the academic librarian demonstrated that the respondents were sure with respect to the value of the Internet for research purposes and for growing their intellectual circle. Over the years, the Internet as component of ICT has become a significant instrument global information management. Bemah (2002) declared that the exponential development in information, knowledge and the related increment in clients' needs have stipulated a more prominent level of innovative developments and plans towards the administration, transferring/delivery, organization and the utilization of information. Internet usage and satisfaction by students of Federal University of Technology, Minna was the focus of study by Oyedum (2006), the result showed that 30.8% of the respondents indicated satisfaction with the provision of Internet services while 62.2% answered negatively. Study of Nwenzeh (2010) on the use of ICT in Nigerian Universities with Obafemi Awolowo University, Ile Ife as case study revealed moderate level of Internet utilization by faculty members and students. Availability and utilization are important determinants of information resources value. As a result, Nkoyo and Nsanta, (2016)

undertook a study of Availability and Utilization of Electronic Resources by Postgraduate Students in University of Calabar, the outcome showed that electronic resources were available in the Library and Postgraduate students utilized them. But online databases were not utilized as expected despite the availability according to the study. In a similar investigation of the roles of availability and use of information resources Okiki (2013) measured academic staff members' perception in a Multistage sampling technique of 1,057 academic staff from twelve government colleges drawn all over the country. Outcome of the study showed huge connection between availability of information resources and academic staff research productivity. The mean score of information resources availability was satisfactory in federal university libraries in Nigeria. (Mean = 2.41; SD = 0.90) this indicates availability of information resources. Ganiyu, Airen, and Quadri, Adetimirin, & Idowu, 2014 (2014) investigated "availability and utilization of library electronic resources by undergraduate students in private universities in Ogun State, Nigeria". The study adopted a Descriptive survey design of 291 drawn from population of 9700 in a simple random method. The availability of Internet in Babcock was (83.5%) while Redeemer was (92.8%) according to the findings. Also, (64.0%) of the respondents in Babcock and (89.1%) from Redeemer utilize the e-resources to complete assignment and research/project writing. The focus of a study by Abubakar and Akor (2017) on Availability and Utilization of Electronic Information Databases for Research among Agricultural Scientists in Federal University Libraries in North Central Nigeria. The aim was to determine the Availability and Utilization of Electronic Information Database for Research by 195 selected from 415 in a Stratified sampling method. The study revealed among others that databases were readily available and are utilized by the scientists for various research activities. Studies have established a symbiotic relationship between availability and utilization of ICT and related electronic information resources (Apotiade, Oyewole, and Belau, 2015; Ekwom, 2015). Utilization or usage is often considered as sequel to availability, and studies have revealed their connection. Asemi (2005) conducted a study on frequent use of ICT and found out that all the participants were having access to internet facilities frequently because all senior members were offered internet connectivity. The study again discovered that the researchers of the university were receiving relevant and quality information through the use of internet. Devendra (2010) examined the use of the internet services at the University of Agriculture & Technology, Meerut. The study established that majority of the library patrons use the internet facilities daily for the purpose of research work. Bhatti (2010) has explored on the internet use among faculty members in the growing educational community at the Islamiya University of Bahawalpur, Pakistan. Result revealed that internet has positively changed the higher learning institutions. The study also confirmed the level of internet utilization by faculty member is far beyond expectation. Similarly, Biradar, Rajashekar, and Sampath (2006) studied internet usage among students and staff in Kuvempu University. The results revealed among others that large number of students and staff utilize internet for research and pedagogy. Also, Dong (2003) "investigated internet use by researchers, and students in the Chinese faculty". The findings indicated that males use the internet than females. The respondents' rate showed that the young spent more of their time on the internet than the adults.

Ibegwam (2004) investigated on internet use by students of the College of Medicine, University of Lagos, Nigeria and established that all the 200 respondents used the internet and a greater number used it to search for academic resources and also to explore other university websites. A study was conducted by Ajuwon (2003) engaged 322 students in study of computer and internet use among first year clinical and nursing students in University College Hospital, Ibadan, Nigeria. The work revealed that the students used internet facilities to look for reliable information in order to prepare for their academic work. Frequency of use the internet showed that 39 (12.11%) of them use the internet Daily, while the other 62 (19.25 %) use it occasionally. The remaining 50 (15.53%) and 171(53.11%) use the internet Often and Weekly respectively. It could be concluded that a smaller percentage of students use the internet Daily while majority of the students use the internet Weekly due to the structure of their study. Oyedum (2006) pointed out that most clients use the E-mail to communicate with friends family members, course mates, and to seek help in research work. Olanlokun and Akinade (2002), Odhigba and Oshile (2006) posits that as an acceptable channel of communication and telephone, fax and other services cost saving, it permits clients to exchange messages through the computer. Okentunji (2002) stated that e-mail is important in the library as it is useful in resource sharing among libraries. Akor (2012) in his study on availability and utilization of ICT for information services retrieval in federal university of technology library, Minna, Niger State. The study revealed high level of E-mail utilization in the library studied.

VI. METHODOLOGY

Survey research type was adopted for this study. The population of this study comprised of 10,600 registered users (Membership Registration File for 2016/2017) in Ramat Library, University of Maiduguri, Borno State Nigeria. The study employed accidental sampling technique with questionnaire as instrument on the users daily for one week till 400 users were surveyed for the study. Accidental sampling, a form of non-probability was preferred for this study because survey of users took place after examination, before second semester break, it was not possible to get proper sampling as some had left after examination. Aina (2004) stated

that questionnaire is the most commonly used instrument for collecting data. It basically seeks the opinions of individuals in a sample or a population on issues directly related to the objectives of the research study. The valid questionnaire was analyzed through descriptive statistics of frequency distribution and percentages which was displayed in tables. Four hundred copies of questionnaire were distributed among students of University of Maiduguri; from which 356 valid copies were retrieved, indicating 89% rate. The respondents were required to indicate their level of availability and utilization of ICT for information retrieval in the Library.

VII. DATA ANALYSIS AND DISCUSSION

Table 1. Question 1: What is the level of utilization of computer in Ramat Library University of Maiduguri?

Computer Utilization	Frequency	Percentage
High	60	16.9
Moderate	76	21.3
Low	165	46.4
Very Low	55	15.4
Total	356	100

Results in Table 1 shows that 60(16.9%) of the respondents indicated that their level of computer utilization was high, 76(21.3%) for moderate, 165(46.4%) indicated that it was low, while 55(15.4%) maintained that the utilization of computer in Ramat Library University of Maiduguri was low. It can be concluded that there is low level of computer utilization for information retrieval in the library under study.

Table 2. Question 2: what is the level of utilization of CD-ROM in Ramat Library University of Maiduguri?

Utilization of CD-ROM	Frequency	Percentage
High	40	11.3
Moderate	55	15.4
Low	61	17.2
Very Low	200	56.1
Total	356	100

Table 2 shows that 40(11.3%) of the respondents indicated high level CD-ROM utilization for information retrieval in Ramat Library, 55(15.4%) moderate, 61(17.2%) and 200(56.1%) indicated it was very low. This shows that CD-ROM utilization in Ramat Library is very low.

Table 3. Question 3: What is the level of utilization of Internet in Ramat Library University of Maiduguri?

Utilization of Internet	Frequency	Percentage
High	76	21.3
Moderate	85	23.9
Low	133	37.4
Very Low	62	17.4
Total	356	100

The data in Table 3 indicates that 76(21.3%) of the respondents stated that their level of Internet utilization for information retrieval in the library under study was high,85(23.9%) were with the view that it was moderate,133(37.4%) low, while 62(17.4%) agreed that utilization of Internet was very low. Based on the analysis there is low level of Internet utilization in the library under study.

Table 4. Question 4: what is the level of utilization of E-mail in Ramat Library University of Maiduguri?

Utilization of e-mail	Frequency	Percentage
High	30	8.4
Moderate	20	5.6
Low	51	14.4
Very Low	255	71.6
Total	356	100

The results on Table 4 revealed that 30(8.4%) asserted that their level of utilization of e-mail was high, 20(5.6%) felt it was moderate, 51(14.4%) low, while majority of the respondents indicated that e-mail utilization was very low in Ramat Library in University of Maiduguri. It can be clearly conclude that majority of the respondents do not use e-mail for information retrieval in the library under study.

Table 5. Question 5:

Computer literacy skill	Frequency	Percentage
High	184	51.68
Moderate	113	31.74
Low	49	13.76
Very low	10	2.82
Total	356	100

How can you rate your computer literacy skill?

VIII. CONCLUSION

Based on the findings, it can be concluded that ICT facilities that can be used for information retrieval in Ramat Library University of Maiduguri are available. Meanwhile the level of utilization of these ICT facilities (computer, CD-ROM, Internet and e-mail) is still a subject of concern because of the low level of utilization. This could be attributed to the low level of ICT compliance among developing countries which Nigeria is included. Moreover, high dependency on hand phones like iPad and tablet could impede students' utilization of ICT facilities in the library. Also, attitude of staff and students towards ICT, and low level of support could prove a hindrance to utilization. Poor network connectivity, poor power supply are part of the problems for effective use of such facilities.

IX. SUMMARY OF FINDINGS

Based on the analysis, the major findings of this study are presented as follows:

- There is low level of computer utilization for information retrieval in Ramat Library university of Maiduguri.
- The study indicated that CD-ROM utilization in Ramat Library is very low.
- Based on the analysis there is low level of Internet utilization in the library under study.
- That majority of the respondents do not use e-mail for information retrieval in the library under study.

RECOMMENDATIONS

- Based on the findings the following recommendations were made
- There should be adequate power supply for effective computer utilization in Ramat Library.
- Library staff should work hard to create awareness on the availability of CD-ROM and how to use them for effective information retrieval in Ramat Library.
- Students should be allow to have free access to the Internet instead of paying for the units before their can use the library Internet and good network should be provided for quick information retrieval in the library.
- Students should be encouraged to use their e-mail for information retrieval in the library.

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