

AVAILABILITY, ACCESSIBILITY AND UTILIZATION OF INFORMATION AND COMMUNICATION TECHNOLOGY FACILITIES BY USERS IN RAMAT LIBRARY, UNIVERSITY OF MAIDUGURI, NIGERIA

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Abstract

This study examined the Availability, Accessibility and Utilization of Information and Communication Technology Facilities in Ramat Library, University of Maiduguri. The objectives are to determine the extent of: availability, accessibility, utilization and users' satisfaction with information and communication technology facilities, and the study also determined the combined relationship between availability, accessibility and utilization of information and communication technology facilities. Survey research method was used for the study and the data was collected using a self-designed questionnaire with reliability index of $r=0.89$. The results indicated that information and communication technology facilities were available to a high extent, while accessibility to the information and communication facilities were to a low extent, the findings also revealed that the facilities under study were utilized to a low extent and the users are satisfied to the low extent with the information and communication technology facilities in Ramat Library. The study recommended among others that the Library should provide awareness and information and communication technology literacy programmes for the users to be more knowledgeable on the utilization of information and communication technology facilities in Ramat Library University of Maiduguri.

Keywords: Availability, Accessibility, Utilization, Information and Communication Technology Facilities, Ramat Library

Introduction

One of the striking international developments in the last five decades is the emergence of a new information infrastructure known as information and communication technology. Before the period, communication and information channels were mainly either in written (print) or oral, through the telephone,

television, and radio. Today, technology has brought about different modern electronic tools that enhance effective service delivery and ensure good quality of service, (Dadzie 2005). As many institutions are embracing the new information technology, university libraries are not left out because information is essential for general academic development

of students and staff. In line with this, university libraries acquire and make available in organized order both printed and electronic information resources to ensure availability of information resources in such a way as to generate maximum accessibility and utilization, (Armstrong 2001).

The use of information and communication technology can drastically modify our very social structure and mode of operation, and this social change will in turn force our educational institutions to react and change as well. It is however important to note that, provided ICT facilities are adequately available and can be accessed by users at all times, then utilization can be optimal. This implies that users can derive satisfaction and the library can achieve its goals of meeting teaching, learning and research needs of the institutions it is serving. Utilization of ICT facilities is dependent on availability and accessibility, and satisfaction is or can be derived when the three (availability, accessibility and utilization) are achieved *see figure 1*. That is why Shields (2000) with the view the role of technology in higher education went on to break down the socio-technological movements into three phases. The first phase which he sees as the personal computing movement of the early to mid – 1980s produced the second, the networking of the late 1980s to mid-1990s; the latter, in turn, envisions the rise of virtual universities during the 2000s (Rosemberg, 2001). What becomes of interest concerning the third movement is that some of the promoters of virtual education believe that the traditional model of campus-based teaching, learning and scholarship must adjust to new technological realities, (such as the Internet, digital libraries, broadband multimedia capabilities among others) or the protagonists of distance learning believe that an ICT driven revolution can make higher education more affordable and

more acceptable. Most importantly, ICT significantly changes the way learning is conducted with the increase of information and communication technologies for instructional design, delivery and technology supported learning (Barclay, 2001). With the development of information technology, electronic resources are now available for use in libraries. New trends in computing technology provide libraries with tools to effectively and efficiently manage resources and deliver services.

According to Ikoja-Odongo (2002), over a long period, human beings have been able to record their memories, ideas and discoveries into forms that are classifiable such that information organizers have been able to produce certain categories of information resources. He asserts that information can be classified by content matter or by the physical format by which information is kept. The information resources classified by physical format includes written sources, databases, technical reports, grey literature and electronic resources, among others. Muteshewa (2004) reveals that traditional libraries stored different types of information resources in different formats in buildings. Various tools and guides to locate these resources were available only when a patron physically visited the library. The situation has now changed and access to these guides has become paramount. Muteshewa Further asserted that with the advent of computers and telecommunication technologies, libraries and information services can provide access to these resources through workstations like PCs and terminals that are in patron's offices, as well as in the Library. Hawkins (2000) emphasizes that the library of the future will have the daunting mission of helping scholars discover what relevant information exists anywhere in the world and in a variety of formats and media. Understanding how students navigate this

maze of resources is important in helping the librarians to develop and assess pedagogy designed to instruct students on library usage.

The application of computers to information processing has brought huge progress in information provision and service delivery to library operations. Therefore, the academic community has undergone tremendous changes during these years, assuming new dimensions influenced by technology-driven applications. Libraries have witnessed a great metamorphosis in recent years both in their collection development and in their service structures. Thus Libraries are using technology to improve the management of scholarly information to strengthen and speed access to scholarly information not held locally. Over the last several years a significant transformation has been noticed in collection development policies and practices. The print medium is increasingly giving way to the electronic form of materials (Sharma, 2009). Ani (2008) quoting Tsakonas and Papatheodorou (2006), states that “the transition from print to electronic medium apart from resulting in a growth of electronic information, has provided users with new tools and applications for information seeking and retrieval. Electronic resources are invaluable research tools that complement the print-based resources in a traditional library setting. Commenting on the advantages of electronic resources, Dadzie (2007) writes that electronic resources are invaluable research tools that complement the print-based resources in a traditional library setting. Their advantages, according to her include access to information that might be restricted to the user due to geographical location or finances, access to more current information, and provision of extensive links to additional resources related contents. This rapid emergence and development of electronic information technologies, therefore, makes it possible to

envison radically different ways of organizing the collections and services the library has traditionally provided. While libraries approach a crisis point in financing collection development, these new technologies offer possible ways to mitigate costs and revolutionize ways to access information. Navjyoyi (2007) also finds that speedy publication and availability on the desktop are the key advantages that attract research scholars.

Statement of the Problem

Information is a vital resource needed by students to perform well in their academic pursuits. However, observation by the researchers reveals that students sit long hours in the library in the quest for information, however, the type of information available, sought, accessed and utilized to the required information and problem encountered during information retrieving remains largely unknown. This phenomenon affects the library (users) in the sense that the library may not effectively meet the information needs of the students and as such students waste time in futile searches that would have been used for study.

Information and Communication Technology Facilities are therefore available in many higher academic institutions worldwide and can be accessed anywhere by many users at the same time, which makes it convenient to use. To satisfy the information needs of many users, huge amount of money is spent by library management to subscribe to the ICT facilities and to improve timely and accurate information need as well as to satisfy the teaching, learning and research need of the university. The role of ICT in the provision of information resources in university libraries is crucial to students' academic growth. Therefore, the way students access and utilize available ICT facilities in Ramat Library is still generally poor. Therefore, this study sought to

investigate the extent of Availability, Accessibility and Utilization of ICT Facilities in Ramat Library University of Maiduguri, Borno State.

Objectives of the study

The objectives of this study are to determine:

1. The extend of Availability of ICT facilities in Ramat Library University of Maiduguri;
2. The extend of Accessibility of ICT facilities in Ramat Library University of Maiduguri;
3. The extend of Utilization of ICT facilities by users in Ramat Library University of Maiduguri;
4. The extend of users' satisfaction of ICT facilities in Ramat Library University Maiduguri.
5. The joint relationship among availability, accessibility, utilization of ICT facilities and the level of satisfaction by users in Ramat Library University of Maiduguri.

Research Questions

1. What is the extend of Availability of ICT facilities in Ramat Library University of Maiduguri?
2. What is the extend of Accessibility of ICT facilities in Ramat Library University of Maiduguri?
3. What is the extend of Utilization of ICT facilities in Ramat Library University of Maiduguri?
4. What is the extend of users' satisfaction with ICT facilities in Ramat Library University Maiduguri?

Hypotheses

H₀₁ There is no significant joint relationship among availability, accessibility, utilization of ICT facilities and the level of satisfaction by users in Ramat Library University of Maiduguri.

Literature Review

Availability, Accessibility and Utilization of Information and Communication Technology Facilities

Availability of ICT facilities and service can be measured by the number of ICT facilities available in academic libraries for students to use in sourcing for information. Lack of such access affects the ability of users to improve their learning with educational software, acquire valuable technology skill. Availability not only means that the "thing" is provided but it also entails accessibility. availability is meaningless if those who want to make use of the substance cannot have access to it. Above all, it must be accessible that utilization is possible the availability of information and communication technology is the presence of ICT facilities in the provision of information resources in the libraries. Afolabi (2007) also observed that the prospects of ICT and the ideal situation of educational research in our ICT driven campus is still a mirage. This is why university libraries should endeavor to make ICT facilities available and accessible to their users. More so, accessibility of ICT is the ability of a person to perceive, use, navigate, communicate and interact with the ICT facilities. Meanwhile, increasing the availability of accessible ICTs is considered a positive step in removing barriers that limit students to effective use of ICT facilities in the university libraries in Nigeria.

The application of computers to information processing has brought several products and services to the scene. Consequently, the academic community has undergone tremendous changes during these years, assuming new dimensions influenced by technology-driven applications. Libraries have witnessed a great metamorphosis in recent years both in their collection development and in their service structures. Thus Libraries are using technology to improve the management of

scholarly information to strengthen and speed access to scholarly information not held locally. Over the last several years a significant transformation has been noticed in collection development policies and practices. The print medium is increasingly giving way to the electronic form of materials (Sharma, 2009). Ani (2008) quoting Tsakonas and Papatheodorou (2006), states that “the transition from print to electronic medium apart from resulting in a growth of electronic information, has provided users with new tools and applications for information seeking and retrieval. Electronic resources are invaluable research tools that complement the print-based resources in a traditional library setting. Commenting on the advantages of electronic resources, Dadzie (2007) writes that electronic resources are invaluable research tools that complement the print-based resources in a traditional library setting. Their advantages, according to Dadzie (2007) include access to information that might be restricted to the user due to geographical location or finances, access to more current information, and provision of extensive links to additional resources related contents. This rapid emergence and development of electronic information technologies, therefore, makes it possible to envision radically different ways of organizing the collections and services the library has traditionally provided. While libraries approach a crisis point in financing collection development, these new technologies offer possible ways to mitigate costs and revolutionize ways to access information.

According to Shuling (2007), electronic information has gradually become a major resource in every university library. The emergence of electronic information resources, simply referred to as electronic resources, has tremendously transformed information handling and management in academic environments and the University

libraries in particular. Ellis and Oldman (2005) note that through the use of electronic resources, researchers and students; now have access to global information resources, particularly the Internet for their scholarly intercourse. The death of current and up-to-date information for research in University libraries is attributed to poor levels of developing electronic information resources, (Afolabi, 2007; Faborode, 2007; Bozimo, 2007). Libraries need to be vanguards for technology transfer from the developed world to the developing economies of Africa; to meet these expectations African university libraries must provide a link between local researchers, scholars and their counterparts in other parts of the world. Utilization of online information resources is the way of achieving this objective. According to Tsakonas et al. (2006) electronic information resources are information resources provided in electronic form, and these include resources available on the Internet such as e-books e-journals, online databases, CD-ROM databases and other computer-based electronic networks, among others.

According to Shuling (2007), electronic information has gradually become a major resource in every university library in recent years. The growth and diversity of electronic resources, especially e-journals, has led many to predict the extinction of printed journals. It has been suggested that a new paradigm is sweeping scholarship (Liew 2000; Harper, 2006). In the global information communications technology (ICT)-dominated world, “place” is less important. The impact of moving from text-based to resource-based learning has involved heavier use of library materials and a demand for more and varied media sources (Kinengyere, 2007). This makes the provision and use of electronic information systems in academic libraries a critical issue for those working in information and library services

(Armstrong, 2001). The pace at which information resources are being produced and converted into electronic formats is greater today than in previous years (Armstrong, 2001). In today's information age it would seem that library users would not only be eager to take advantage of the convenience electronic resources have to offer but would be fully immersed in the new technologies (Faboyinde, 2006). Electronic information resources offer today's students new opportunities not available to previous generations. Liew, (2000) argue that while reading an e-journal is not the same as reading a printed issue, many people now acknowledge that electronic documents offer users advanced features and novel forms of functionality beyond those possible in printed form. Brophy (1993) noted that the advantages of electronic resources over print include speed, ease of use, ability to search multiple files at the same time, ability to save, print and repeat searches, more frequent updating, and the ability to access documents from outside the library (a particular advantage for the distance learner).

Electronic resources are invaluable research tools that complement the print-based resources in a traditional library. Their advantages include access to

information that might be restricted to the user due to geographical location or finances, access to more current information, and provision of extensive links to additional resources or related content (Dadzie, 2005). The arguments for students using electronic resources are compelling. However, a knowledge of computers and retrieval techniques is needed to search these resources effectively. It is therefore necessary to determine what computer skills students need to access library electronic information resources (Okello-Obura and Magara, 2008). Tella, (2007) noted that students' ability to find and retrieve information effectively is a transferable skill useful for their future lives as well as enabling the positive and successful use of academic electronic resources. The ability to explore the digital environment is a requirement for academic success today. Students are increasingly expected to use electronic information resources at the university. To make use of the growing range of electronic resources, students must acquire and practise the skills necessary to exploit them. Skills learning is essential in a technology-driven environment, and it can be enhanced through the use of innovative learning strategies (Lawson, 2005).

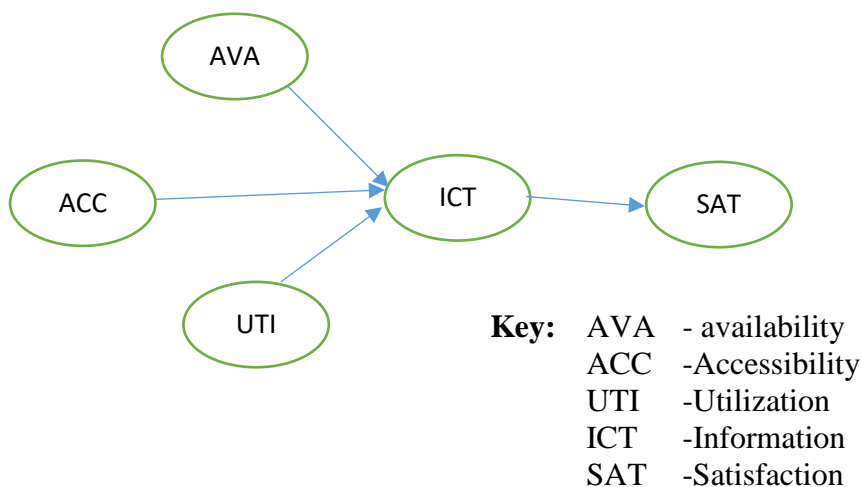


Fig. 1 Study Model

Methodology

Survey research design was found suitable and adopted for this study because it is concerned with testing people's feelings, behaviour, opinion, belief, attitude and or ideas. The target population for the study was seven Hundred and Seventy-Eight (778) registered users of the library under study, out of which One Hundred and Fifty-Six (156) sample size was drawn using Yamane (1967) formula for determining sample size for research activities. The sample size was found suitable due to Nwana's (2005) recommendation that a researcher can study only a sample of a population due to any of the following reasons:

- i. When the entire size of the population is large.
- ii. When the time available for the project is limited.
- iii. When the resources (human and material) available for the project are inadequate.

Data was collected from the respondents through the use of a self-designed

questionnaire administered to the One Hundred and Fifty-Six (156) respondents. Descriptive statistics of frequency counts and percentages were used in analyzing the data to answer the research questions; results were presented in tables while the hypotheses were tested with multiple regression analysis at 0.05 level of significance.

Data Analysis, Results and Discussion Response Rate

Out of the 156 questionnaires administered to the respondent, 122 (78.2%) copies were duly completed, returned and found valid for the analysis to determine the availability, accessibility and utilization of information and communication technology facilities in Ramat library, University of Maiduguri. In order to determine the extent of availability, accessibility and utilization of Information and communication technology facilities in the library under study, the results were presented in the tables below:

Table 1: Extent of Availability of Information and Communication Technology Facilities

S/No.	Items	N	V.H.E (%)	H.E (%)	T.H.E (%)	L.E (%)	V.L.E (%)	T.L.E (%)
1.	e-journals	122	28 (23.0)	42 (34.4)	70 (57.4)	42 (34.4)	10 (8.2)	52 (42.6)
2.	e-conference proceedings		8 (6.5)	44 (36.0)	52 (42.5)	51 (42.0)	19 (15.5)	70 (57.5)
3.	e-books		36 (30.0)	37 (30.0)	73 (60.0)	30 (24.5)	19 (15.5)	49 (40.0)
4.	Online Database		33 (27.0)	44 (30.0)	77 (63.0)	27 (22.0)	18 (15.0)	45 (37.0)
5.	Internet Service		37 (30.0)	47 (39.0)	84 (69.0)	19 (15.5)	19 (15.15)	38 (31.0)
6.	CD-ROMs		24 (20.0)	41 (34.0)	65 (54.0)	44 (36.0)	13 (10.0)	57 (46.0)
7.	e-encyclopedias		22 (18.0)	41 (34.0)	62 (52.0)	39 (32.0)	20 (16.0)	59 (48.0)
	GROSS	122	188	296	484	252	118	370
	AVERAGE	122	27 (22.0)	42 (34.0)	69 (56.0)	36 (30.0)	17 (14.0)	53 (44.0)

Key: - V.H.E = Very High Extent, H.E = High Extent, L.E = Low Extent, V.L.E = Very Low Extent, T.H.E = Total High Extent, T.L.E = Total Low Extent and N = Number of respondents.

Table 1 above indicates the extent of availability of Information and communication technology Facilities in the library under study and it revealed that 27 (22.0%) of the respondents indicated that the extent of availability of information and communication technology facilities were to the very high extent, 42 (34.0%) of the respondents indicated that it was to the high extent, 36 (30.0%) of the respondents indicated that it was to the low extent, while 17 (14.0%) of the respondents indicated that it was to the very extent.

The result revealed that majority of the respondents that is, 69 (56.0%) indicated that the extent of availability of information and communication technology facilities was to the high extent while 53 (44.0%) respondents indicated that the facilities were to the low extent in the Ramat Library University of Maiduguri. This implies that the extent of availability of information and communication technology facilities was high in the Ramat Library University of Maiduguri.

Table 2: Extent of Accessibility of Information and Communication Facilities

S/No.	Items	N	V.H.E (%)	H.E (%)	T.H.E (%)	L.E (%)	V.L.E (%)	T.L.E (%)
1.	e-journals	122	40 (33.0)	16 (13.0)	58 (46.0)	28 (23.0)	38 (31.0)	66 (54.0)
2.	e-conference proceedings		47 (38.5)	18 (15.0)	65 (53.5)	21 (17.0)	36 (29.5)	45 (46.5)
3.	e-books		48 (39.0)	17 (14.0)	65 (53.0)	29 (24.0)	28 (23.0)	57 (47.0)
4.	Online Database		38 (31.1)	23 (18.8)	61 (49.9)	22 (18.0)	39 (31.9)	61 (49.9)
5.	Internet Service		29 (23.7)	18 (14.7)	47 (38.4)	39 (31.9)	36 (29.5)	75 (61.4)
6.	CD-ROMs		43 (35.2)	12 (9.8)	55 (46.0)	19 (15.5)	48 (39.3)	67 (54.8)
7.	e-encyclopedias		50 (40.9)	11 (9.0)	61 (49.9)	25 (20.4)	36 (29.5)	61 (49.9)
	GROSS	122	295	115	410	183	261	444
	AVERAGE	122	42 (34.4)	16 (13.2)	58 (48.0)	26 (21.3)	37 (30.3)	63 (52.0)

Table 2 above shows the extent of accessibility of information and communication technology facilities in the library under study, it revealed that 42 (34.4%) of the respondents indicated that access to information and communication technology facilities was to the very high extent, 16 (13.2%) of the respondents indicated that it was to the high extent while 26 (21.6%) of the respondents indicated that it was to the low extent and 37 (30.3%) of the respondents indicated that it was to the very low extent.

The result revealed that majority of the respondents that is, 63(52.0%) indicated that access to information and communication technology facilities was to the low extent while 58 (48.0%) of the respondents indicated that it was to the high extent in the Ramat Library university of Maiduguri. This implies that accessibility to information and communication technology facilities was to the low extent in the Ramat Library University of Maiduguri.

Table 3: Extent of Utilization of Information and Communication Technology Facilities

S/No.	Items	N	V.H.E (%)	H.E (%)	T.H.E (%)	L.E (%)	V.L.E (%)	T.L.E (%)
1.	e-journals	122	27 (22.1)	39 (31.9)	66 (54.0)	39 (31.9)	19 (13.9)	56 (45.8)
2.	e-conference proceedings		14 (11.0)	32 (26.0)	46 (37.0)	47 (39.0)	29 (24.0)	76 (63.0)
3.	e-books		18 (14.7)	38 (31.1)	56 (45.8)	44 (36.0)	22 (18.0)	66 (54.0)
4.	Online Database		28 (22.9)	41 (33.6)	69 (56.5)	31 (24.4)	22 (18.0)	53 (43.4)
5.	Internet Service		29 (23.7)	39 (31.9)	68 (55.6)	32 (26.2)	22 (18.0)	54 (44.2)
6.	CD-ROMs		19 (15.5)	42 (34.4)	61 (49.9)	41 (33.6)	20 (15.5)	61 (49.9)
7.	e-encyclopedias		24 (19.6)	29 (23.7)	53 (43.3)	50 (40.9)	19 (15.5)	69 (56.4)
	GROSS	122	159	260	419	284	151	435
	AVERAGE	122	23 (19.0)	37 (30.0)	60 (49.0)	41 (33.0)	22 (18.0)	63 (51.0)

Table 3 above shows the analysis of the extent of utilization of information and communication technology facilities in the library under study, it revealed that 23 (19.0%) of the respondents utilized information and communication technology facilities to the very high extent, 37 (30.0%) of the respondents utilized the facilities to the high extent, while 41 (33.0%) of the respondents indicated that they utilized it to the low extent and 22 (18.0%) of the respondents indicated that they utilize it to the very low extent.

The result revealed that majority of the respondents that is, 63 (51.0%) indicated that they utilization of information and communication technology facilities to the low extent while 60 (49.0%) of the respondents indicated that they utilized it to the very low extent. This implies that the respondents utilize information and communication technology facilities to the low extent in the Ramat Library University of Maiduguri.

Table 4: Extent of User's Satisfaction

S/N	STATEMENT	NO. OF RESPONDENTS	PARCENTAGES %
1	Very high extent	5	4.1
2	High extent	14	11.5
3	Low extent	20	16.4
4	Very low extent	83	68.0
	TOTAL	122	100

Table 4: above shows the analysis of the extent of the user's satisfaction with information and communication

technology facilities in the library under study, it revealed that 5 (4.1%) of the respondents indicated that they were

satisfied to the very high extent, 14 (11.5%) of the respondents indicated that they were satisfied to the high extent, while 20 (16.4%) of the respondents indicated that they were satisfied to the low extent and 83 (68.0%) of the respondents indicated that they were satisfied to the very low extent.

This implies that the level of users' satisfaction with the information and communication technology facilities was to the very low extent in Ramat Library University of Maiduguri.

Table 5: Joint Relationships among availability, accessibility, utilization of ICT facilities and the level of satisfaction by users in Ramat Library University of Maiduguri.

Model	R	R-Square	Adjusted Square	R-STD Error of the estimate
1	0.492	0.242	0.242	0.27797

The calculated r-value (.492) in Table 5 was greater than the critical r-value of .062 at alpha level with 120 degree of freedom. The r-value (coefficient of .492) predicts 24.21% of the combined influence of these independent factors on the level of users' satisfaction with ICT facilities in Ramat Library University of Maiduguri. This strength of the percentage is averagely positive and, therefore, implied that the joint availability, accessibility and

utilization have relationship with the users' satisfaction with ICT facilities in Ramat Library University of Maiduguri. This implies that the more the information and communication technology facilities have improved with respect to availability, accessibility and utilization by users of such facilities, the higher the level of satisfaction by the users in Ramat Library University of Maiduguri.

Table 6: Analysis of Variance of Joint Relationships among availability, accessibility, utilization of ICT facilities and the level of satisfaction by users in Ramat Library University of Maiduguri.

Model	Sum of square	Df	Mean square	f-value	Sign
Regression	25.455	3	4.243	54.906	0.000
Residual	79.896	119	0.77		
Total	105.351	122			

The calculated f-value of 54.906 was greater than the table f-value of 2.09 at alpha level with 119 Degree of Freedom. This implies that there is a significant relationship between the two variables. In summary, the result in table 5 and 6 above signify that there is a positive correlation between the availability, accessibility and utilization of information and communication technology facilities and the level of satisfaction by the users in Ramat Library University of Maiduguri.

Summary

This study was carried out to determine the extent of Availability, Accessibility and Utilization of ICT Facilities in Ramat Library University of Maiduguri, Borno State. Availability or when we say available we mean the capability of something being at one's disposal, something being obtainable within one's reach; something being free and not otherwise occupied. Availability is a performance criterion for repairable systems that accounts for both the reliability and maintainability properties of a component or system. It is mean to be

the probability that the system is operating properly when it is requested for use, while accessibility can be that the information resources or the system is practically present and can give or produce output to meet the need of the user and utilization means when a user or user can lay hand on the system or information resources and translate such to suit their quest for knowledge. The study reviewed relevant literatures on the concept of the problem investigated. This has become very crucial so as to set the basis upon which the study was developed. Library users of the universities under study were used as the population of the study out of whom a sample was drawn. The instruments used for the data collection was questionnaire. Survey method was adopted for the study.

Findings:

1. The study revealed that the extent of availability of information and communication technology facilities was to the high in the Ramat Library University of Maiduguri. This was evident by the fact that majority of the respondents that is, 69 (56.0%) indicated that the extent of availability of information and communication technology facilities was to the high extent.
2. The study further discovered that majority of the respondents that is, 63(52.0%) indicated that accessibility to information and communication technology facilities was to the low extent in the Ramat Library university of Maiduguri.
3. It was also established that majority of the respondents that is, 63 (51.0%) indicated that they utilization of information and communication technology facilities to the low extent.
4. The study also revealed that the level of users' satisfaction with the information and communication technology facilities was to the very low extent in Ramat Library University of Maiduguri. This was evident because majority of the respondents that is, 83

(68.0%) indicated that they were satisfied were satisfied to the very low extent.

5. The study established that there was significant joint relationship between availability, accessibility, utilization and the users' satisfaction with ICT facilities in Ramat Library University of Maiduguri.

Conclusions and Recommendations

Information is a vital resource needed by student to perform well in their academic pursuit. However, type(s) of information available, sought, accessed and utilized to the required information and problem encountered during information retrieving remains largely unknown. Findings revealed that the extent of availability of information and communication technology facilities was to the high in the Ramat Library University of Maiduguri. Likewise, it was revealed that accessibility to information and communication technology facilities was to the low extent, utilization of information and communication technology facilities was to the low extent. Furthermore, the level of users' satisfaction with the information and communication technology facilities was to the low extent. However, it was also revealed that there was significant joint relationship between availability, accessibility, utilization and the users' satisfaction with ICT facilities in Ramat Library University of Maiduguri. It can thus be concluded that the level of users' satisfaction with the information and communication facilities in a library depends largely on the extent of availability, accessibility and utilization by user. On the other hand, the study thus recommended the following: -

1. The library management of Ramat Library University of Maiduguri should maintain the spirit of high provision of information and communication technology facilities.
2. The library management should provide access to the information and communication facilities provided ensure the provision of orientation or

training for effective use of the ICT facilities, this will however improve their skills for use of the facilities.

3. The library and university management should ensure the provision of orientation or training for effective use of the ICT facilities.
4. The management of the library should provide or subscribe to relevant and current resources so as to meet the desired needs of the users of the library.

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