

THE CHALLENGES ON THE UTILIZATION AND MANAGEMENT OF ICT FACILITIES FOR INFORMATION ACCESS IN KATSINA, SOKOTO, AND ZAMFARA STATES' TERTIARY INSTITUTIONS IN THE NORTH WESTERN NIGERIA

BY

Murtala Garba Mada

Department of Library and Information Science,
Abdu Gusau Polytechnic Talata Mafara, Zamfara State.

Abstract

The development of information and communication technology (ICT) has made a huge impact on many aspects of human endeavour. This can be seen not only in the libraries but also in banking, transportation, instructions, and many information centres. Academic libraries have not only chosen, arrange, store, and recover information but also provides linkage, safeguard scholarly materials, gives guidelines, and help their clients in the utilization of its information resources. However, many academic libraries in developing countries like Nigeria have not yet fully applied ICT to its daily operations and services. This study employs a descriptive research method using questionnaires, observations, and personal interviews. The study confirmed that lack of access to information resources, insufficient budgetary help, absence of ICT specialized ability, absence of consistent power supply, and use of second-hand ICT facilities are the major challenge in the utilization and management of ICT facilities. The study suggests that constant acquisition and provision of ICT facilities, steady power supply in the libraries will ensure effective utilization and functioning of ICT facilities.

Keywords: *challenges, descriptive research method, tertiary institutions, utilization and management of ICT facilities, information access, Katsina, Sokoto, and Zamfara States in North Western Nigeria*

INTRODUCTION

Communication technology and computing technology, as well as bulk and large storage technology, are some of the areas of rapid and remains development which resulted to modifying and reshaping the way libraries access, retrieve, store, deploy as well as disseminate information to their users Castelli, (2013). Availability of ICT materials in academic libraries also allow

students to communicate and interact with their fellow students and lecturers effectively and efficiently (Laurence, 2013).

Adebayo, (2012) explained that “the use and utilization of information and communication technology in Nigerian academic

libraries have been profoundly affecting all aspects of information acquisition, storage, and transfer”. Its magnificent development has dramatically changed the mode of library operations and information services. Hundreds of thousands of monographic materials, journals, learning resources, databases, etc. are now available in electronic formats, and these materials can now be accessed from the remote corner of any country, thereby increasing the use of information and literature and the efficiency of information services in Nigerian tertiary institution. Users are now more independent than before; they can access these electronic formats from their home computers and search databases according to their information needs. Students, teachers, researchers, information professionals, and employees are among the categories of academic library users. Their needs vary; their information or literature seeking behaviour also varies, and they need to be cared accordingly. Today we have e-library and virtual library which provide access to electronic books and journals, online references, web-resources, web-catalogues etc. This “Web-eccentricity” poses a lot of Challenges to librarians and information scientists as well as the traditional library users. The challenges are both operational and strategic. The attitudinal challenge is another dimension that needs to be addressed (Berube, 2013).

Background of the Study

The development in information and communication technology (ICT) has made a huge effect on all circles of human life which are noticeable in case of administration activities for example banking, transportation, wellbeing, instruction and libraries and information centers.(Oyedipe, 2018;Abubakar, D. 2016).The Internet has been used widely as a useful resource as well as an apparatus that present realistic and efficient library and information offerings (Abubakar, D. 2016).Information and communication technology has meaningfully introduced a higher and fast development into the community day to day activities. Thus, information technology needs to be given much and higher consideration and distinguished with other fields taking a gander at its positive impact on human life Nwalo, K., (2018). Libraries are now utilizing a number of forms of information technologies to improve the quality of their services to their customers, meaning that every day new technological improvement affect the way information is controlled in libraries and information centres. Libraries in nearly every aspect feel the positive impacts of

new modern technology. Information and Communication Technology (ICT) has developed massively all over the world, mostly in the developed nations like UK, USA, France, and so on. This development, however, appears to be comparatively slower in the developing nations like Nigeria, Ghana, Zambia to mention but a few. Despite all the opportunities brought by ICTs in the Nigerian academic libraries there are a number of problems and challenges that tend to present themselves. Samuel, (2017); Prisca, (2018); Oluwatumbi, and Olubunmi, (2017); and Abdulganiyu, (2017) identified problems like lack of access to information resources, insufficient budgetary help, absence of ICT specialized ability, absence of consistent power supply, and use of second hand ICT facilities are among the major challenges affecting ICT implementation and management in most of the Nigerian academic libraries. And this is what led to the further investigation on the challenges and utilizations of ICT facilities for information access and management in Nigeria tertiary institutions. Therefore, Esther, G. 2014 pointed out that, collage Librarian, system librarian and system analyst were the classifications of staff who oversee IT units in their individual institutions in Nigeria. IT managers in academic libraries are in charge of examining, arranging, planning and prescribing programming and framework decisions to meet the organization's prerequisites.

With the present expansion in ICTs all over the world, academic libraries in most of the Nigeria tertiary institutions are now providing materials to their clients in automated formats. Many of these libraries have made noteworthy investment providing services through ICT means so that their clients can gain access to information that will improve their scholarly research work. However, they need to be more equipped with adequate ICT facilities to achieve their mission of sufficient information provision to their users. There are excellent conceivable outcomes for the utilisation of ICT in academic libraries in Nigeria; there is space for ICT application in the library from multiple points of views including the accompanying:

- Electronic Collection Management and ICT
- ICT and Records Management
- Bibliographic Access Tools in an Electronic World
- Interlibrary Loan Model
- Archiving Electronic Information Resources and ICT

Despite the achievements mentioned above, ICTs procurement and application is facing a lot of challenges about the provision of adequate services to the clients. This exploration work will, therefore be carried out to uncover some of the major issues that are hindering the utilisation and management of ICTs among Nigerian academic Libraries. Obtainable literature has shown the

different factors which are responsible for deterring the use of ICTs in most of the Nigerian academic Libraries, but these factors vary from one library to another, some of these include; inadequate capital asset to buy hardware, software and standby generators for the libraries due to epileptic power supply in Nigeria, poor search skills, automation at early stages, and lack of technical know-how are some of the problems encountered by the academic libraries in the most of the Nigeria tertiary institutions (Kingsley, N., 2013). Therefore, this study is intended to investigate the challenges and utilizations of ICT facilities for information access and management in Nigeria tertiary institutions with a particular attention to Sokoto, Katsina and Zamfara States academic libraries.

Research questions

- (1) What are the challenges on the utilizations of ICT facilities for information access and management in Nigeria tertiary institutions?
- (2) What are the available ICT facilities in Nigerian academic libraries?
- (3) What are the reasons for which students and other users use the available ICT facilities?
- (4) Are ICT facilities effectively and efficiently manage to provide the desired services?
- (5) What are the threats and challenges encountered in the utilization and management of ICT facilities in academic libraries?

Literature review

Application of information and communication technologies (automation) derived to be as a result of the events of 1980s and information stage, which has witnessed a revolution and experience in post-industrial societies. Taking this in to consideration the performance and roles of any library or information centre is for the acquisition of information resources, storage, processing, retrieval and distribution of this information to users (Aniyiebie 2014).

According to the International Encyclopedia of Library and Information science (2003), information communication technology refers to the application of modern electronic and computing capabilities (technologies) to the creation and storage of meaningful and useful facts or data (information) and its transmission to users by various electronic means (communication). (Burke, L. 2013) sees ICT as a term which encompasses the notion of the application of technologies to information handling processes, which include information generation, storage, processing, retrieval and dissemination.

(Breaks, M. 1999) define academic libraries as libraries that are attached to academic environment or can be found in higher institution of learning, they are purposely established to

support teaching and learning as well as research activities. For the past thirty years academic libraries have been affected by changes in information and communication technology. And the level of changes is still quickening in this area. However, the overview of several information technology (ICT) development has led to the re organization, Modification in work design as well as demand for new effort and skills, retraining and re-classification direction. New modern technology advancement of the last thirty years which involves, electronic database, online services, CD-ROMs, and with the introduction of internet has completely changed and transmitted access to information (Dulle,F.W. 2004).

Information and communication technologies has impacted on almost all circle of academic library day to day activities, most especially in terms of library collections development and policies (Madu,e.c., 2014).

Information and communication technology is essentially an opportunity to deliver added value information services to the users of the library. Academic libraries are truly patronising the new information and communication technology to automate their main functions and be able to implement efficient and effective library assistance and resource sharing networks in the library and implement management information system.

ICT in academic libraries

For the past thirty years academic libraries in Nigeria have been affected by modifications in ICTs and the level of changes is still quickening in this area. However, the overview of several information technology (ICT) development has led to the re organization, Modification in work design as well as demand for new effort and skills, retraining and re-classification direction. New modern technology advancement of the last thirty years which involves, automated databank, online services, CD-ROMs, and with the introduction of internet has completely changed and transmitted access to information (Rana, 2009).

Information and communication technologies (ICTs) have encourage simple access to very significant and monstrous sum information that guide the enlightening, learning and research exercises in academic foundation through web based learning offices and other relating ICT amenities. The Internet is utilized by staff and students in discovering data to take care of their different issues. ICTs help libraries in giving clever and current information managements Jumare, m., (2017).

ICTs constantly offer proper time, place cost effectiveness and improve the most current dissemination of information and end users involvement in the library and information service delivery. The development in Information and Communication Technologies gives a structure which has built a strong foundation for e-learning. It is comprises of internet facilities, and other materials that make the content delivery as easy as possible. Other areas of development as a result of ICT include image processing, multimedia software system etc. Technology has brought a lot of progress in our daily life activities. In fact It has turned the world into a global village and it is clear that all nations whether developed or under developed use technology for individual growth, progress and prosperity, Emmanuel, U, A., (2014).

The present-day academic library services in the 21st century is concentrating more on the area of advanced, virtual or libraries without limits all of which have changed academic libraries and prompted progress and change in the academic library condition. The progress and the change are accompanied with complexity in the changing pattern in the information needs of clients which is developing quickly. There is a change in perspective from independent libraries to library and information systems; from printed publication to computerized documents; and from possession to get to. The custom is because of the effect of ICTs, the Internet and the web which is influencing a wide range of libraries (Abubakar, 2011). He furthermore watched that developments in ICTs have now offered academic libraries an energizing and challenging openings that requires them to react decidedly in all aspects of their service and capacities in the event that they are to stay applicable in the 21st century. Hence, academic libraries must devise methods for survival.

Uses of ICT in academic library services

ICTs can be viewed as apparatuses that can upgrade teaching and learning through its dynamic, intuitive and drawing in content and can give certifiable opportunities to individualized direction and can possibly improve and extend chances, spur and connecting with students in learning, relate school exercises to work hone, help to make monetary reasonability for tomorrows specialists; adds to radical changes in schools, fortifies instructing and gives chances to association between the school and the world.

Some of the uses of ICTs in Nigeria's academic libraries therefore, include the followings;-

(a) Online public access catalogue (OPAC)

OPAC is a mechanized online catalogue of the resources held in a library (Singh, N. 2015). OPAC is an entrance apparatus and asset manual for the collection of a library or libraries which

give bibliographic information in machine clear shape and can be searched automatically on a computer terminal by clients. OPACs are frequently part of an incorporated library administration framework or programming. The library staff and general society can more often than not get to it in PCs inside the library, or from home by means of the Internet. OPAC has replaced the card catalogue in most academic libraries in Nigeria. (Azubogu and Madu 2017) uncovered that ICT has affected a great deal in the undertaking of libraries, in the region of reference administrations, current awareness services, bibliographic search, lending of library materials, classification and cataloguing services.

(b) Library Networking

Library Networking: This implies a gathering Libraries and information Centres that are interconnected for some common outline for information exchange and correspondence with a view to enhance effectiveness in information provision. The basic function of network is to interconnect PCs and other specialized gadgets with the goal that information can be exchanged starting with one area then onto the next as quickly as possible. Network enables numerous clients to impart a typical pathway and communicate to each other. The network used in most Nigerian academic libraries incorporate; (a) Local area network (LAN) in library housekeeping and asset sharing. (b) Wide area network (WAN) this covers wide geographic zone, for example, a nation or state that covers restricted geographic place, for example, building or campus (Mishra and Lakshmikank 2014).

(C) Internet opportunities

Internet is shortened version of internetworking, which alludes to interconnecting at least two PC systems. Internet is depicted as an overall system of PC and individuals (Mishra and Lakshmikank 2014). Moreover, (Eseohe, G. 2014) depicted internet as a far reaching system keep running along the line of the World Wide Web, making it conceivable to share documents, data bases and application.

With the approach of digital revolution, communication has turned out to be simpler and quicker and choice are made promptly. The internet which is the most recent among the superhighways has chopped down the distance and made it less demanding to approach information to all individuals at all places and at all the circumstances (Vijiyan, S. 2011). Internet is a vital device for worldwide on line administrations. The development of Internet offers high data transfer capacity, which will augment the scope for data processing and spreading as not ever before. Internet links colleges, universities, schools and other instructive foundations for information

sharing and trade. Access to information through Internet has changed the aggregate situation of librarianship (Mishra and Lakshmikanth 2014).

(D) Library automation

Samuel, Avemari U. E. (2011) depicts library automation as the utilization of PCs and general/modified software design composed in accordance with the library and information administrations techniques that are intended to be utilized to carry out indicated lines of data administrations services. Presently, academic libraries in Nigeria, have significantly used information and communication technologies (ICTs) to automate their basic functions with the aim of providing efficient and effective library functions and services to their patrons (Rexwhite, T., 2017).

A mechanized library gives one access to any electronic library in any place on the planet. It is the snappiest method to access data in any automated library on the planet. It is one of the major technological leaps forward that were created to improve the learning procedure particularly in the area of instructive innovative work. Library automation and different amenities made conceivable by Information and Communication Technology (ICT) have extremely made the world a worldwide village, The pointer (2018).

The challenge of ICT Utilization and Management in Nigerian Tertiary Institutions

Cognisant of the substantial opportunities that ICT can provide to academic libraries in Nigeria, there are a number of problems and challenges that tend to present themselves. Academic libraries are confronted with both internal and external problems coming from their own structure and culture.

(a) Funds for acquisition of ICT facilities and services

Libraries require sufficient funds to acquire modern ICT facilities such as computers, servers, scanners, photocopiers, software as well as paying for online and offline services such as e-journals and digital libraries. Most of these facilities and services are very expensive and can be purchased from developed countries. Another study reveals that most of the tertiary institutions in Africa and other developing countries get very little funds from their parent institutions and the government to support their activities; this is due to poor perception of library services by top leaders and other stake holders in the parent institutions. Therefore, the little funds received fall far below the standard costs of ICT facilities and services (Breaks, M., 2009).

In adequate ICT facilities

Shortage of available computer offices in the library, shortage of internet resources, lack of ICT abilities by the library staff and absence of ICT strategy and many more are some of the challenges militating against the utilization of ICTs in Nigerian academic libraries (Madu, C., and Azubogu, N., 2017). Similarly (Samuel O. 2017) also discovered that few students in those libraries use ICT facilities for assignment, research and updating lecture notes due to inadequate ICT facilities.

Awareness and commitment among key stake holders

Continues commitment and involvement of key stake holders is important when integrating ICTs in organizational functions. Low awareness on the importance of ICTs among the top management has been a great obstacle to ICT development in Nigeria tertiary institutions. It has been difficult for college top officials to support initiative that aim at increasing availability, access and utilization of electronic information resources in the college (Dulle, et al. 2000).

Information literacy among library users

Library users need both computer and information literacy (IL) skills to effectively use the rapidly growing and changing information resources. (Samuel O. 2017) observed that about (60%) users of some academic libraries in Nigeria lack good knowledge of ICT facilities provided in the library because they were not trained before.

Unreliable power supply

Absence of consistent power supply in the libraries: ICT amenities depend on power for their working. Constant power supply cut is a determined issue in Nigeria. These in addition to other things, influence the Management and use of ICT amenities and administrations.

Oluwatumbi, S. and Olubunmi, A. (2017) in their study titled "Availability and utilization of internet facilities among undergraduate students of colleges of education Nigeria" discovered that the ICT facilities were not adequately available in most of the Nigerian collages which led to underutilization of ICT facilities. In adequate electric power supply was also discovered among the major hindrance of ICTs services in the above mentioned institutions.

Lack of adequate trained manpower in the use of IT

There is an extreme and articulated low level PC knowledge among Nigerians (Ridwan, S. 2015). This makes it troublesome for them as clients and benefactors of academic libraries to

make full utilization of accessible ICT amenities. This issue is additionally frustrated by the deficiency of technology proficient staff in library, the absence of gifted human resource to introduce and oversee technology systems and poor financing to fascinate such staff or grow such aptitude in existing staff. The poor ICT information among clients and experts in Nigeria makes it troublesome for the academic Libraries to go far in their utilization of ICT.

Tokunbo (second hand) ICT

ICT propels globalization crosswise over professions, organizations and disciplines crosswise over universal limits. Despite the broad usage of ICT, Nigeria specifically and Africa by and large linger behind in the ICT upheaval. Nigeria is somewhat subject to the developed countries for ICT access and use. In fact an incredible volume of ICTs come through second hand market. The main parts of the utilized ICTs traded into Nigeria are non-usable piece, while those that are useful or usable are at the last part of their life cycles (Omobowale, 2013).

Lack of full access to information resources

Some of the challenges faced by the users of academic library in the utilization of library databases includes; the library databases can't be gotten to outside the college surrounding, some books and academic journal article are restricted, library staff/users inadequate knowledge on the best way to look through the library databases, absence of attention to the databases subscribed by the library, and low-speed web availability Njoku, S., (2018). It is further observed that Lack of adequate ICT amenities, Nonexistence of or poor connectivity of internet and Unfavorable library staff attitude are among the factors that inhibit accessibility of ICT facilities in most of the Nigerian academic libraries (Abdul-Ganiyu, G., 2017).

Security issues

Academic libraries in Nigeria need safety efforts which urge clients to perform such unethical acts for example, burglary, mutilation, ruination, and cybercrime (Obioye, A.2013). Cybercrime comprises of every single criminal activity against ICT offices in a system, for example, web, phone lines or versatile systems. IT directors must have a reasonable vision and spotlight on the contemporary reality of security break in scholastic libraries, particularly those focusing on the accumulations and offices accommodated powerful and proficient data benefit conveyance.

METHODOLOGY

This chapter gave the description of the methods and processes adopted in the study. Therefore, For the sake of clarity and analytical presentation, the chapter has been written under the following titles;

Research design

Research has been defined by various authors and scholars. Research is a process of thinking and finding solutions to a particular problem. Shuttleworth (2008) defined research as "any gathering of data, information and facts for the advancement of knowledge." In our day to day activities we come across so many problems which make us to ask questions that need answers to these problems thereby leading to the conduct of a research work. Research design is defined as the plan and arrangement of research so conceived as to obtain responses to research questions (Blumberg, Cooper & Schindler, 2005). This research will be based on both qualitative approach to review the relevant available literatures to identify the challenges and usage of ICT in Nigerian tertiary institutions. In this research work the researcher used secondary sources to collect the relevant information such as academic journals, web sites, term papers, textbooks, and other relevant sources of information for obtaining wide-ranging information on challenges and usage of ICTs in Nigerian tertiary institutions.

Choice of research method

Johnston, (2010) defined methodology as approaches, practices, and techniques, as well as guidelines used by an individual researcher in a particular field of study who involved in such an inquiry or theoretical analyses of working in a specific method.

The study adopted the survey research method. The choice of the survey was informed by the nature of the study, which entails eliciting information from respondents (population sample) with the help of the questionnaire and interview about the subject under investigation. 2500 copies of the questionnaire were administered with the help of some research assistants to the respondents within the library premises and the offices of staff while interview was conducted with the University librarians of the selected institutions. part A of the questionnaire contained the demographic information of the respondents while section B contained relevant information on availability, use, challenges and ICT services provided to library clients.

Population of study

The population of study designed by the researcher consisted of 2,500 respondents which include under graduate, postgraduate and some library staffs of the institutions under investigation

DATA PRESENTATION AND ANALYSIS

Demographic data

TABLE 1 Gender of the Respondents

Sex	Frequency	Percentage (%)
Male	1,425	57
Female	842	33.68
Total	226	
Age Range	Frequency	Percentage (%)
18 – 25	1,621	64.84
26 – 50	701	28.04
Total	1,301	52.04

TABLE 2 Qualifications/Marital Status

Marital status	Frequency	Percentage(%)
Married	576	23.04
Single	1740	69.6
Separated	42	1.68
Widow	25	1
Total	2,385	95.4
Qualification		
Staff	30	1.2
Student	2,280	91.2
Total	2,310	92.4

status. Meaning that 1,425 representing 57% of the respondents were male while 842 representing 33.68% were female. Also, from the above table, 1621 (64.84%) of the respondents were within the age range of 18 – 25, while 28.04% which is 701 were within 26 – 50 years, more over 2,280 representing 91.2 were students while the remaining 30 or 1.2% were staff. In terms of marital status of respondents, 576 representing 23.04% of the respondents are married, while

69.6% representing 1740 are single, 25 representing 1% are widowed, and 1.68% representing 42 separated while 30 representing 7.9 are divorced.

TABLE 3 Do you have ICT Facilities in your Library

	STUDENT			STAFF		
			%			%
YES		2,101	84.0	YES	27	1.08
NO		195	7.8	NO	NIL	

Table three above shows the availability or otherwise of ICT facilities indicated that 2,101 respondents equivalent to 84.0% showed that ICT facilities are available in their libraries while 7.8% indicated that there are no ICT facilities in their libraries.

TABLE 4 ICT Facilities Available in the Library

computer systems			Staff	
	Frequency	Percentage (%)	frequency	Percentage (%)
Email/internet facilities	1480	59.2	27	1.08
Online public access catalogue (OPAC)	1042	41.68	24	41.68
Mobile application services (MAS)	NIL	NILL	NIL	NILL
Scanning machine	925	37	26	1.04
Fax machine	200	8	20	0.8
Printers	1002	40.08	28	1.12
Mobile Phones wireless application protocol WAP	NIL	NILL	NIL	NILL
	TOTAL		TOTAL	

With regard to the facilities available in the library Email/Internet facilities got the highest response that these facilities are available in almost all the libraries, it recorded 1480 (59.2%) and 27(1.08%) from both students and staff of these institutions, it is also observed that table with 1042 which represent 41.68% indicated the availability of **Online public access catalogue (OPAC)** this was followed by the **Scanning machine** and **Printers** with 925 and 40.08 equivalent to 37%. and 28% respectively. None of the respondents indicated the availability of **Mobile application services (MAS)** and **Mobile Phones wireless application protocol WAP**.

TABLE 5 access to the Facilities Provided

	STUDENTS	%
YES	2026	81.04%
NO	280	11.2%

Table five above indicated that 2026 students equivalent to 81.04% have direct access to ICT facilities in their respective libraries while 280 student or 11.2% indicated that they don't have full access to the facilities provided.

TABLE 6 ICT Facilities mostly used in the Libraries

ICT FACILITIES	Staff		Users	
		Frequency (%)		Frequency (%)
Internet services	27	1.08	1206	48.24
Computer hardware and software	30	1.2	1420	56.8
OPAC in the library and campus network	22	0.88	800	32
E-books through Elsevier	21	0.84	721	28.84
Virtual library (e-library)	24	0.96	1320	52.8
MIS for library services	20	0.8	75	3
Electronic database	25	1	1720	68.8
TOTAL				

Table shows the ICT facilities mostly used in the library. A greater number 1720(16.0%) of students indicated the use of electronic database in the library. While internet usage has 49.32% from both staff and students. Computer hard ware and soft ware system with a high frequency of 1420 representing 56.8%. The ICT facility that has the lowest use by both students and staff is the MIS and E-books services with frequencies of 75 and 721 representing 0.8% and 28.84% respectively.

TABLE 7 Reasons for using ICT Facilities

ICT facilities mostly used	Student		Staff	
	Frequency	(%)	Frequency	(%)
For online registration of students	2240	89.6	17	0.68
To source for reference materials	104	4.16	21	0.84
To complete project work	1620	64.8	2	0.08
To update knowledge	1450	58	25	1
Up-dating lecture notes For communication/interaction	2015	80.6	2	0.08
For communication/interaction	1418	56.72	11	0.44

Table 8 revealed reasons for using ICT facilities (especially internet, OPAC and e-library) by both students and staff of Majority of students with the highest frequency of 2240 representing 89.6% use ICT facilities, especially internet and OPAC in the library to source for reference materials. This was followed by 1620 or 64.8% of students who indicated they use the facilities for knowledge update, while 25 representing 1% of staff uses the facilities to up-date their knowledge. Table with 1418 (56.72%) indicated that both students and staff use ICT facilities for communication The least number 104 representing 4.16% of students used the facilities to source for reference materials.

TABLE 9 Challenges Encountered in using ICT Facilities in the Library

Challenges	Students		Staff	
	frequency	(%)	frequency	(%)
Insufficient availability of ICT facilities	120	4.8%	20	0.8%
Irregular power supply	2140	85.6%	27	1.08%
Outdated equipment	2076	83.04%	24	0.96%
Inadequate training of library staff	2001	80.04%	22	0.88%
Total				

Source Questionnaire

Table 9 above revealed the challenges encountered by both students and library users in using ICT facilities in their respective libraries. They have indicated that insufficient power supply is the highest challenge encountered in using ICT facilities in the library with the highest frequencies of 2140 and 27 representing 85.6% and 1.08% respectively. This was followed by outdated equipment as indicated by both students and staff with the frequency of 2076 and 24 representing 83.04% and 0.96% respectively. Also, 2,001 representing 80.04% of student of students indicated Inadequate training of library staff as one of the challenges encountered while the least 120 representing 4.8% of staff indicated Insufficient availability ICT facilities as one of the challenges.

Discussion of Findings

From the information gathered and analysis made, it can be observed that ICT facilities are available in academic libraries in the north western part of Nigeria, but some are more available than others as revealed by the responses as presented on the tables above. From table 4, students indicated provision of OPAC and Email/internet facilities as the highest with the frequency of 1480, 1042 representing 59.2 and 41.68% respectively. Also, personal observation and interview conducted with some of the library staff confirmed the availability of ICT facilities, though some are more available than others, scanning and lamination services recorded the lowest score of usage because of lack of awareness of their existence in the library by the students.

The reasons given by majority 1206 (48.24%) of students for using these ICT facilities is to source for current audiovisual and reference materials to complete project work and to update knowledge as indicated by 1620 or 64.8% and 1450 or (58%) of these students. This finding corroborates by (Rana, 2009). study which found that the major reason attached to the use of ICT resources was for information storage and retrieval and that the ICT resources mostly used are CD-ROM, online database, World Wide Web and the Internet. He further said “New modern technology advancement of the last thirty years which involves, automated databank, online services, CD-ROMs, and with the introduction of internet has completely changed and transmitted access to information.

Despite all the benefits of ICT facilities in our academic libraries, respondents (students and library staff) revealed the challenges encountered in using ICT facilities in North western part of Nigeria. They have indicated that irregular power supply is the highest challenge encountered in using ICT facilities in these libraries with the highest frequency of 2140 and 27 representing 85.6% and 1.08% respectively. This was followed outdated ICT facilities as indicated by both students and staff with the frequency of 2076 and 24 representing 83.04% and 0.96% respectively. It was followed by inadequate training of library staff on how to manage ICT

facilities which further confirmed the findings of Ridwan, S. (2015) where he said “There is an extreme and articulated low level PC knowledge among Nigerians “This makes it troublesome for them as clients and benefactors of academic libraries to make full utilization of accessible ICT amenities. This issue is additionally frustrated by the deficiency of technology proficient staff in library, the absence of gifted human resource to introduce and oversee technology systems and poor financing to fascinate such staff or grow such aptitude in existing staff.

The least number 120 representing 0.8% of students indicated Insufficient availability of ICT facilities as one of the challenges encountered. One major challenge pointed out by the library staff in an interview is the high cost of acquiring ICT facilities with which to equip the library

SUMMARY CONCLUSION AND RECOMMENDATIONS

Summary

This chapter is a summary of the finding of the study and provides conclusion and recommendations base on the findings of the research.

The findings from the above research as a result of the reviewed literature and collected primary data show that ICT facility are available in almost all academic institution in Nigeria. The finding shows that majority of the students in the above institutions who form 80-90% of the beneficiaries of the services of academic library are aware of the available ICT facilities provided in the library. Nevertheless, the levels to which ICT facilities are utilized are very low because of some significant factors militating against the utilization of these facilities. These factors includes; lack of access to information resources, insufficient budgetary help, absence of ICT specialized ability, absence of consistent power supply, and use of second hand ICT facilities.

Conclusions

This piece of research work on the challenges and utilizations of ICT facilities for information access and management in Nigeria tertiary institutions was able to identify most of the uses and challenges of ICT facilities in academic library through a thorough review of relevant secondary and primary sources of information related to the case study. The study confirmed that lack of access to information resources, insufficient budgetary help, absence of ICT specialized ability, absence of constant power supply and use of second hand ICT facilities are the major challenges in the utilization and management of ICT facilities. Thus, the study suggest that constant acquisition and provision of ICT facilities, steady power supply in the above libraries will ensure effective utilization and functioning of ICT facilities.

Recommendations

The utilization of ICT to academic libraries in Nigeria tertiary institutions for information access and management promises compelling and productive services to the whole library clients. Despite all the opportunities ICT gives to academic libraries in Nigeria a great deal of variables remains as threats and difficulties to the proficient and powerful utilization of ICT offices in most of the Nigerian academic libraries. Subsequently, for these libraries to persistently satisfy its essential objective which is, the fulfilment of information needs of clients, the accompanying suggestions on the challenges and utilizations of ICT facilities for information access in Nigeria tertiary institutions ought to be considered and executed.

- Library staffs in collaboration with the stakeholders (the institution stakeholders) should jointly take decision towards realization of set goals of the library to achieve effective and efficient information service provision to their clients.
- The management of the above institutions should adequately fund ICT department to promote the acquisition and management of ICT facilities used by the institution so that more current ICT facilities can be deployed in to the library for effective services.
- Information and communication technologies under the watch of ICT librarian should be made available and accessible to all registered members of the institution. An effective learning can be achieved if the essential IT facilities are provided to support the learning.
- ICT department and ICT facilities heavily rely on electricity/power supply to function, as such there is need for the management to provide the IT section with power supply alternative e.g. stand by generators so that the challenge of in adequate power supply can equally be mitigated.
- Academic librarian should consider the importance of training users on how to make use of ICT facilities whenever he discovers the need for doing so, this will help towards ensuring proper management of the ICT facilities provided by the institution.

SUGGESTIONS FOR FURTHER RESEARCH

As an individual researcher, I was able to learn allot of lessons in terms of carrying out a research of this kind, academic environment gives a lot of support and cooperation to researchers to enable them get the required information needed for their investigation success, Having observed this and discovered the challenges of ICTs in the above institutions, in my future research I will like to cover a wide range of institutions in both higher and lower learning level so that libraries can make use of it to improve their services to their customers.

I also observed that with the help of financial support from the federal government of Nigeria through TETFUND, researchers are no longer facing financial constraints, because enough funds and supports are provided to all government academic staff whenever the need arise.

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