
INVESTIGATING THE CHALLENGES OF INFORMATION AND COMMUNICATION TECHNOLOGY FACILITIES FOR INFORMATION ACCESS IN ACADEMIC LIBRARIES (A CASE STUDY OF KANO, KADUNA AND JIGAWA STATES COLLEGE LIBRARIES)

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ABSTRACT

The expansion 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 centres. Academic libraries don't just choose, arrange, store and recover information; it provides linkage, safeguard scholarly flexibility and gives guide help and guidelines to its clients in the utilization of its information assets.

This research work elicits the challenges of ICT facilities for information access in academic libraries. The primary objectives were to ascertain the level of ICT access; to determine the usefulness and effectiveness of ICT resources; and the factors militating against the effective use of ICT. College of Education library Kano and College of Education library Zaria were used as case study. The survey research design was employed and the instrument used for data collection was the Questionnaire. Simple tables and percentages were used to analyze the data collected. The research work revealed that both Libraries have ICT facilities and library users access them regularly.

The study also revealed that; Inadequate training and retraining of staff by management; inadequate funding, epileptic power supply and lack of search skills are the major factors militating against the effective use of ICT in Nigerian college libraries. Adequate funding, capacity building, and regular power supply were recommended.

Key words: Information, Communication, Technology, Library

INTRODUCTION

The expansion 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 centres. 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. 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). 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); OSO S. O., Adesua, V. O. (2017); and Abdul-ganiyu, (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 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 utilisations of ICT facilities for information access and management in Nigeria tertiary institutions.

STATEMENT OF THE PROBLEM

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 libraries.

AIMS AND OBJECTIVES

The reason for this research was to investigate and examine the challenges and utilisations of ICT facilities for information access and management in Nigeria academic libraries. However, the study was to:

- (1) Examine the accessibility of ICT facilities as well as their management in Nigerian academic libraries with particular reference to Federal College of Education Kano and Federal College of Education Zaria academic libraries.
- (2) Examine the level of usage of information and communication technologies by the library users in these institutions.
- (3) To identifies threats and challenges affecting utilisation and management of ICT facilities in academic libraries.
- (4) To determine how skillful and knowledgeable the staff are in the use of ICT resources.
- (5) To make recommendations base on the findings of the study.

RESEARCH QUESTIONS

- (1) What is the usefulness of information and communication technology in Nigerian academic libraries?
- (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?

1.3 SIGNIFICANCE OF THE STUDY

The research will uncover the degree to which ICTs are being set up and keep running in Nigerian tertiary institutions libraries and the various challenges affecting ICT facilities in information access and management. In that capacity, the discoveries of the investigation will be of awesome significance to the government and college administration functionaries to design better keeping in mind the end goal to meet the changing innovative needs of their academic libraries Through ICT management.

BACKGROUND OF THE STUDY

Information and communication technology (ICT) came about because of the computerized union of computer technologies and other media transmission technologies. Presently the implementation and utilization of ICTs by people and businesses is more across the board on the planet than previously. ICT facilities are being utilized in numerous different fields like wellbeing, farming system, military, training, trading activities, and many more. ICTs are likewise being utilized in different kinds of libraries. Utilization of information and communication technologies (mechanization) derived to be because of the events of 1980s

and data stage, which has seen a transformation and experience in post-industrial societies. Taking this in to consideration the performance and roles of any kind of library or information centre is for the acquirement of information materials, storing, processing, retrieval and dissemination of this information to users. The utilization of Information Technology in contemporary libraries is optimistic to build right information at the fortunate time in the perfect place and at the right expense. Information Technology progresses the rank of the library and it shortens the work heap of the library occupations (Vijiyan, S. 2011).

ICT comprises of hardware and software, the accompanying technologies are currently well known among numerous academic libraries; laptop computers, desktop, PC, I-phone, I-pad and so forth, fringe like keyboard, speakers, scanning machine, and printers and so on. System apparatus and links like Cat-5, coaxial, fibre optics and their different connectors, routers, switches, satellite and their modem, others use by academic libraries are Software like operating system (OS), application and utilities programming design.

Today Nigerian academic libraries are moving their part from the overseer of conventional data assets to the service oriented supplier of advanced information assets. Ivwighreghweta, O. (2013) noticed that prevalent utilization of PCs, expanded dependence on PC systems, fast development of Internet and blast in the excellence, and amount of information constrained academic libraries to embrace new methods for the storage, recovery and sharing of information. Thus, development of computerized libraries and use of advanced (ICT) have massively expanded in light of the fact that it enhanced user satisfaction, quick responses, cost viability, and simpler operational methods. He presumed that academic libraries have been utilizing ICTs to fulfil the various information needs of their clients. EBooks, E-diaries, online databases, CD-ROM databases, electronic assets, and an assortment of other automated media are quick changing the ordinary resources of libraries. ICT has revolutionized the traditional perception of academic Libraries from an ordinary store house of books to an intellectual information centre.

INFORMATION AND COMMUNICATION TECHNOLOGY (ICT)

Information and Communication Technology (ICT), is a combined term, which embodies three essential ideas; (a) information (b) communication (c) technology.

INFORMATION

Information is well-defined as “all knowledge, ideas, facts, data and imaginative works of mind which are communicated formally and or informally in any format” (Vijiyan, S. 2011). Information can likewise be inexactly characterized as that which helps decision making. Information though abstract could likewise be pictured as a product/service which could be purchased or sold.

COMMUNICATION

Communication alludes to a procedure involving the passing of messages using images which all gatherings in the correspondence experience get it. It includes the exchange of thoughts, realities, feelings, mentalities and convictions between individuals. It is anything but a restricted issue. There must be a sender who transmits the message, and collector to settle on appropriate choices on how the rest of the conversation should continue. (James, S., 2004)

TECHNOLOGY

Technology refers to the utilisation of logical learning to design apparatuses that help people in their endeavours to defeat environmental perils and obstacles to comfort. In such a manner, technology alludes to the things like the PC, phone, mobile phone, GSM handsets, TV, radio, and so on (Womboh, B. and Abba, T 2008).

Technology has wiped out the enormity related with printed material. With technology, information would now have the capacity to be secured in every way that really matters in various limit devices, for instance, compact disks and microchips. Simply more along these lines, the information set away in these creative devices is secured with passwords and codes which are simply known by the proprietors of the information, enhancing it a strategy for securing private information.

ACADEMIC LIBRARIES

Libraries and information centres shape an imperative piece of the world's system of education, data stockpiling and retrieval. Library doesn't just choose, arrange, store and recover information; it provides linkage, safeguard scholarly flexibility and gives guide help and guidelines to its clients in the utilization of its information assets. As of late, new technology and specialized devices have transformed the configuration and style of library services all over the world. The channels for access and dissemination of information and learning have turned out to be significantly more diverse.

Abubakar M. (2011) defined academic libraries as libraries that are devoted 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. They comprise libraries found in universities, colleges of education polytechnics, and monotronics. Thus, academic libraries generally play all or most of the following roles;

- To serve the mission of its parent organization
- To provide appropriate reference services to staff and students of the institution
- To serve the entire information needs of the academic community.

ICTS 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 organisation, 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. 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 (Ajiji, Y., 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).

RESEARCH METHOD

The choice of the survey as the research design was necessitated by the nature of the study. This research is a survey research that gathered data from members of the selected population with the aid of the Questionnaire in order to determine the current status of the issue under study from the respective institutions.

POPULATION OF THE STUDY AND SAMPLE

The population of this study covers all the professional and Para-professional staff of the selected academic libraries.

Table 1: Population of Study

S/N	LIBRARIES	STAFF		TOTAL
		PROFESSIONAL	NON PROFESSIONAL	
1	FCE KANO LIBRARY	20	16	36
2	FCE ZARIA LIBRARI	15	20	35
	TOTAL			71

Table 1 shows staff population from the two college libraries used for the study. As shown in the table 1 FCE Kano Library has 20 professional and 16 Para-professional staff while FCE Zaria library has 15 professional and 20 paraprofessional staff. In all these there are 35 professional and 36 paraprofessional staff from the two selected libraries making a total number of 71 staff used as a sample size.

RESEARCH INSTRUMENT

The main research instrument used for the research was a designed Questionnaire. The choice of this research instrument was encouraged by its reliability and validity of the answers. Ifidon (2007) observed the following qualities of a good questionnaire; (i) Ability to gather information for gigantic investigations (ii) Its usefulness for obtaining opinion of judgments; and for surveying attitudes; (iii) practicability of using it to gather information by correspondence (iv) Applicability to the large assemblage, of people (vi) provision of more efficient data collection because many subjects can be tested at the same time (vii) Completion of the questionnaire at the respondents convenience (viii) Reactivity and social desirability may be reduced because of completing a questionnaire anonymously can be much less threatening, (ix) Low cost of data gathering (x) Case of collections and analysis of data. (xi) Elimination of research bias and (xii) possibility of mailing it.

METHOD OF DATA COLLECTION

71 copies of Questionnaire (100% of the population) were administered to both Professional and Para-professional library staff of these two selected college libraries. The researcher administered the copies of the Questionnaires to the respondents. Items which needed illumination were explained to the respondents. To make sure that the respondents do not have ready answers and to avoid preconceived notion responses, the respondents were not pre-informed of the visit by the researcher. Out of the 71 copies of the questionnaire administered, 65 (97.9%) were completed and returned.

METHOD OF DATA ANALYSIS

The method of analysis used in this research work was simplest form of organizing data, which aids understating of the research outcome. Equally, converting data to percentage responses enables the researcher to compare sub group of unequal size meaningfully.

DATA ANALYSIS

A total of 71 copies of the Questionnaires were administered to professional and paraprofessional staff in the two selected college libraries. 65 (97.9%) copies of the Questionnaires administered were returned; it was into various sections.

Table 2.1: Distribution of questionnaire to FCE Kano Library and FCE Zaria library

S/N	Cadre of staff	Cadre of staff	Percentage
1	Professional staff	35	51%
2	Para-Professional staff	36	49%
	Total	71	100%

Table 1.2 above shows staff population involved in to this research work

Table 2.2: Number of questionnaires retrieved from both college libraries

S/N	Retrieved	No. of respondents	percentage
1	Professional	35	51%
2	Non professional	30	42%
	Total	65	93%

A total of sixty five copies of the questionnaire were administered to the respondents of both college libraries which consist of professional and Paraprofessional staff. Out of the 71 questionnaire, 65 were retrieved (93%) of the questionnaires were eventually completed and returned.

Table 3: Gender analysis of respondents

S/N	GENDER	NO. OF RESPONDENTS	PERCENTAGE
1	MALE	42	66.4%
2	FRMALE	23	33.6%
	TOTAL	66	100%

The table above shows that out of the total number of respondents from both college libraries, 42 (66.4%) were male while 23(33.6%) were female. Meaning that male staff forms the majority of the staff in both libraries understudy.

Table 4: Distribution of Respondents by Age

S/N	AGE RANGE	NO. OF RESPONDENTS	PERCENTAGE%
1	20 – 30	15	24%
2	30 – 40	30	48%
3	40 -50	12	18%
4	50 – 60	8	12%
		65	100%

From the above table 4, in relation to the response of the respondents it was indicated that most of the respondents are within 30-40 years representing 30 (48.0%) which form the majority of the respondents working in both libraries, followed by 20 – 30 years representing 24 (24%) respondents; while 40 – 50 years representing 12 (18%) and 50 - 60 representing 8 (12%) respectively.

Table 5: Educational Qualification of respondents

S/N	QUALIFICATION	NO. OF RESPONDENTS	PERCENTAGE%
1	ND, NCE, OND	30	46.15%
2	B/A, BLS BSC, BA	20	30.76%
3	MSC, MLS, MA	10	15.38%
4	PHD	5	7.69%
		65	100%

30 (46.15%) respondents had OND/NCE/ND, followed by 20 (30.76%) respondents that had BSC/BLS/BA and 10 respondent representing 15.38% had master degrees in Art, Science or Library and information science. And lastly, 5 respondents (7.69%) had PhD.

Table 6: Level of automation

S/N	OPTION	NO. OF RESPONDENTS	PERCENTAGE %
1	YES	65	100%
2	NO	-	-
	TOTAL		100%

With regards to the response of the respondents, it shows that both college libraries under study were computerized/automated. Because all the respondents' responses were yes to the question posed by the researcher.

Table 7: Reason for the use of ICT resource

S/N	OPTION	NO. OF RESPONDENTS	PERCENTAGE
1	To acquire information	17	26.15%
2	To process information	13	20%
3	for information storage	10	15.38%
4	For information retrieval	14	21.53%
5	To disseminate information	16	24.62%
	TOTAL	65	100%

The table 7 above reveals that 17 (26.15%) use ICT resources mainly to acquire information; followed by 13 respondents representing (20%); who use ICT facility to process information. 10(15.38%) respondents use ICT resources for information storage; while 14 respondent representing (21.53%) use ICT resources to retrieve information that has been stored for posterity purpose and (24.62%) use ICT resources for information dissemination.

Table 8: Rating of ICT Skills

S/N	ICT LITERACY SKILLS	NO. OF RESPONDENTS	PERCENTAGE
1	Excellent	16	24.62%
2	Very good	14	21.53%
3	Good	10	15.38%
4	Fair	13	20%
5	No skills	17	26.15%
	Total	TOTAL	100%

Table 8 above shows that respondents with (24.62%) have an excellent computer skills while (21.53%) indicated very good skill in computer 10 and 13 respondents with (13.38 and 20%) were respectively found to be good and fair in computer literacy and lastly (26.15%) who are the majority were found to have no skills in computer operation.

Table 9: Factors militating against the application of ICT in Nigerian

S/N	Problem encountered	No of respondents	Percentage
1	poor funding	27	(41.54%)
2	Automation at babyhood level	7	(10.77%)
3	Lack of steady power supply	21	(23.31%)
4	Technical know-how	10	(15.38%)

The most serious problem militating against the application of ICT resources in the Nigerian academic Libraries was inadequate funding from the government side which attracted 27 (41.54%) responses from the respondents. epileptic power supply also attracted 21 (23.31%) respondents; 7 (10.77%) respondents indicates automation at infancy level as another factor that hinders ICT application in our academic libraries. The other reason include apathy attitudes of library staff to develop themselves, relapse to computer literacy due to lack of ICT facilities to practice with and lack of important/recognition attached to the library which is (15.38%).

SUMMARY

The findings from the above research as a result of the reviewed literature showed that ICT facilities are available in almost all academic institution in Nigeria. It is also indicated 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,

CONCLUSION

The inevitable conclusion that the researchers have arrived at in this study is that ICT has fulfilled its promise in academic libraries, there is remarkable rise in the use of ICT, many of the libraries activities are now ICT driven. This has led to the speed on acquisition, processing, storage, retrieval and dissemination operations. ICT has also help to curb the problem of information explosion in this information era.

RECOMMENDATION

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 FCE Kano and FCE Zaria college libraries. Subsequently, for these libraries to persistently satisfy their essential objective which is, the fulfilment of information needs of clients, the accompanying suggestions on the challenges and utilisations of ICT facilities for information access in Nigeria tertiary institutions ought to be considered and executed.

- Librarian 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 these colleges should adequately fund library 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 IT manager 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 learning.
- ICT facilities heavily rely on electricity/power supply to function, as such there is need for the management to provide ICT section with power supply alternative e.g. stand by generators so that the challenge of in adequate power supply can equally be mitigated.
- ICT manager should consider the importance of training users on how to make use ICT facilities whenever he discover the need for doing so, this will help towards ensuring proper management of the ICT facilities provided by the institution.
- Orientation programs on the use of computer for information retrieval should be conducted and made compulsory for new entrants into the profession.

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