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APPLICATION OF ICTS IN FEDERAL UNIVERSITY LOKOJA LIBRARY

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ABSTRACT
This research study, application of ICT in newly Established Federal University Library in Nigeria; a case study of Federal University Lokoja. The research was guided by five research questions. Survey research method was used and questionnaire was the instrument for data collection. Mean scores where used to analyze the data generated. From the analyzed data, it was discovered that ICTs are averagely applicable though it has enormously benefited some library services in Federal University Lokoja, Library. The challenges identified were inadequate ICT facilities, Epileptic power supply and poor network facilities. In consonant with the vision of Federal University Lokoja Library, the library management has fully embraced the use of ICT in information handling and services so as to fit in with the ICT drive of the 21st century. Based on the findings it was recommended that there should be financial assistance from both government and non-governmental bodies, for effective and efficient power supply, there should be a supplementary standby generator to ensure the continuity of work in the case of power outage, every division in the library should be completely automated in order to facilitate and create an avenue for effective service delivery and computer training and re-training programs should be organized from time to time to assist librarians who do not have knowledge in computer skills as this will aid awareness of computer potentials and capabilities.

Keywords: Information, Information and communication technology (ICT), Electronic library, Academic library, Library services

Introduction

Information and Communication Technology (ICT) has made a significant impact in every human endeavor. The impact has been rather prominent in areas of service activities such as banking, health, transportation, education and libraries. Devchoudhary (2007) observed that ICT has influenced the traditional library services; bringing out fundamental changes in the process of acquiring, processing, storing, retrieving and information delivery.

The term, Information and Communication Technology (ICT) as it relates to library and as noted by deWatteville and Gilbert (2000), is the acquisition, analysis, manipulation, storage and distribution of information; and the design and provision of equipment and software for these purposes. Similarly, Daniel (2010) sees ICT as forms of technology that are used to create, store, transmit, share or exchange information. This broad definition of ICT includes such technologies as: radio, television, video, Digital Versatile Disk (DVD), telephone (both fixed line and mobile phones), satellite systems, computer and network hardware, software and the Internet, as well as the equipment and services associated with these technologies, such as videoconferencing and electronic mail. Kaling and Gautam (2008) observed that the common theme behind ICT application in the library is to enhance library functions and make service delivery such as acquisition, organisation, storage, retrieval, dissemination and maintenance of information resources more effective.

The bulkiness, growth rate of information and difficulties positioned by updating of manually based system makes it difficult for effective service in modern time. (Ikem and Ajala, 2000 in Anunobi… et-al, 2011). Librarians and information professional are then challenged to create information system for the collection, organization, dissemination and preservation of information and new knowledge regardless of format. This new age of information offers possibilities for the future with information delivered in different format limited by the boundaries of imaginations.

The current shift from the age – long conventional means of providing library services to technology driven approaches necessitated by advancements in computer technology, telecommunication systems and the integration of both have given rise to a new digital paradigm known as Information and Communication Technologies (ICTs). In the educational sector, Information and Communication Technologies (ICTs) is bridging the gap or rather blurring the boundaries between students and lecturers, the research scholar and his users and library resources. The application of technology to inform and make teaching, learning and research entertaining is almost limitless.

Prior to introduction of ICTs in service delivery, there are many activities and services performed and rendered in the library by the librarians, which were strenuous and time consuming. The use of ICT is rapidly influencing the society and our lives, thereby bringing us more closely to what is happening around the wider world. Information and Communication Technologies (ICTs) includes data, information systems, services (e.g. Web services), computers, telecommunication network, and associated assets (e.g. telephones, facsimiles, cell phones, laptops, digital cameras) radio, television etc. The use of internet in higher institutions to access Information and Communication Technologies (ICTs) is an exciting prospect, especially where there are significant impediments to obtaining relevant current information the print collections and CD ROM databases available locally in the institutional libraries.

Frederick, Kefah and Benard (2013), broadly define ICT as a diverse set of technological tools and resources used to communicate, create, disseminate, store and manage information.

ICT has transformed the nature of library services over a period of time enabling several functions and activities that have been performed manually to be done better and at the same time, other services that were previously difficult or impossible to carry out humanly and made possible as a result of ICT. It has revolutionized the traditional concept of libraries from a "store house to an intellectual Information Centre" connoting the concept of electronic library.   The   term

library no longer refers only to physical building located in a specific geographical location but also to electronic or digital or virtual library that can be access from anywhere. Therefore, as there is seemingly no option to the integration of ICT in library services, many libraries all over the world are making attempts to embrace ICT in their services and also the library of the newly established University Lokoja, Kogi State.

Literature review

Overview of ICT

Information and Communication Technologies (ICTs) is an umbrella term that embraces three major terms: Information, Communication and Technology stands out. Utulu (2008) opined that, the term Information and Communication Technology (ICT) evolves from Information Technology (IT) when the processing of information with electronic technology integrated with telecommunication technology. ICT and Information Technology (IT) are similar concepts that can be used interchangeably. IT implies tools used for communication and therefore it becomes obvious that the two terms are synonymous and can be applied in the delivery of Library services.

National council for curriculum and assessment (2008), has it that ICT has become an integral and accepted part of everyday life for many people. it is increasing in importance in people's lives and it is expected that this trend will continue to the extent that ICT literacy will become a functional requirement for peoples work, social and personal lives.

ICT includes the range of hardware and software devices and programs such as personal computers, assistive technology scanners, digital camera, multimedia programs, and image editing software, data basis and spread sheet programs. It also includes the communication equipment through people seek and access information including the internet, Email and video conferencing.

Undoubtedly, ICT is affecting positively on all facets of library and information services, and the Nigerian community is now aware of the role which the library can play in the information super-high way. Aguolu and Aguolu, (2002), also affirmed that computers are well-established

feature in modern libraries. That, since the 1960s, computers have been used to effect, to perform many library functions from clerical housekeeping activities such as ordering, cataloguing, control and circulation of books and journals to reference and information services. The latest relate to indexing and abstracting services, inter-library services, current awareness services, selective dissemination of information services etc.

Today ICT facilities such as computers, software, audio tapes, video tapes, scanners, printers and other information gadgets have been derived to cope with and make for a quicker, wider flow of quality information and better library services.

Challenges of ICT in Library Service Delivery

The process of transforming and integrating ICT in library service is a challenging task. Is on this note that, Anunobi et al. (2011), reviewed that ICT use for library operation and services requires library practitioners who are highly skilled both in the traditional library operation and high level of computer literacy, besides being committed and flexible librarians who are ready to engage in sustained reasoning and can manage complex situation.

The research carried out by Kellerman, also reported that the rapid growth of student populations have provided enormous challenges to the application of ICT in university library of developing countries. As financial support for this libraries have not kept pace with increasing level of student enrollment and growth. Without substantial support from the government and, in some instances, the inability to charge tuition fee, university libraries are struggling to provide the necessary and essential services. More so, there is complete lack of physical facilities adequate enough to provide library service for all the students.

Ghuloum and Ahmed (2011), supported that most staff in academic libraries of developing countries need more experience and training to deal with ICT services. Noting that, in most cases, there is a complete lack of exposure of library staff to international standard and best practices;

which in a way affects the adoption of ICT in there libraries. The author stressed that most librarians have never had opportunities to attend conferences outside the region and, therefore, have limited access to cutting-edge knowledge such that the library staff develop internal standards unaware of the assistance of international standards.

Again, Islam and Islam (2006), in the study discussed the various challenges faced by libraries in the application of ICT in rendering services as follows:

Changing roles of library and librarians

Copyright management

Information access

Preservation of digital information resources

Legal deposit.

Changing roles of library and librarians: more and more library users are using digital technologies and have access to global information resources via the web. Unfortunately, the huge amount of information available on the web is generally overwhelming information users and a large number of web users are still not able to use the web efficiently.

Copyright management: digitization and provision of access to digital collections accessed via electronic networks, especially the internet, is presenting bigger challenges to libraries. The ease at which digital information resources can be copied and manipulated unlike print-based document, may result in governments, under pressure from information producers, to put in place rigid copyright laws in which the rights of the right-holder are increased at the expense of users and this may affect provision of access to digital information sources in barriers

Information access: whereas libraries generally contain and provide access to selected information resources, this is not the case with information accessed on the web. Distribution of pornographic materials and information produced for deliberate disinformation is very easy to do on the web and these present problems to many librarians on how to exclude access to such type

of information, especially on internet work stations located in the libraries.

Preservation of digital information resources: the print based library and archives environment, as opposed to the digital information environment, has evolved over centauries. Preservation methods and format for print based documents have also being developed and tested. There are print based documents that are over 2000 years old in the world today and can still be read. The digital information era is in its infancy and already some of the information is stored in format on media that cannot be accessed or read.

Legal deposit: in the print based environment, producers of publication are required by law to deposit copies of their document with the national library or national archives, or any agency designated to receive and preserve such publications. In the digital information environment, the situation in many countries is still not clear as to who is responsible for the long time preservation of digital Information resources.

Strategies for Improving ICT Application to Library Resources

Strategies are usually the measures, scheme, and plan of action, approach, schedule, master plan or blueprint adopted by an organizations, institutions, or individuals in order to carry out any action for the purpose of accomplishing tasks. The developing world is driven by ICTs and information service providers have been preparing to catch up with the global trend so that they will not be abandoned. Etim (2006) observed that the strategies to cope with the challenges of ICTs application in Nigerian university libraries must start with education for librarianship. He stressed that the advocacy for continuing professional education becomes inevitable, especially, in core competencies of ICT.

To improve the application of ICT in libraries, Ademodi and Adepoju (2009) noted that the following strategies be adopted:

a.   More attention and funds should be committed to the training and procurement of ICT

infrastructure in Nigerian university libraries.

b.   Training should be aimed at the upcoming computerization of libraries

c.   Library administrators should seek funds from many foreign agencies and foundations who give financial assistance and equipment to libraries.

d.   Finally, policy should be put in place by National Universities Commission mandating all universities to automate their libraries within a specific period of time.

Similarly, Mutula and Mutula (2007) outline some of the strategies to be adopted for improving the ICT application and job performances of the library staff in the digital age as:

a.   Enhancing universal access through deployment of affordable ICTs.

b.   Improvement of connectivity in libraries.

c.   Enabling access by all people to information through the use of ICTs.

d.   Building of public awareness on the capabilities of ICTs.

e.   Developing human capacity to exploit the benefits of ICTs.

f.   Providing technical assistance and support to ICT and making available appropriate electric power sources.

Motivation is a major strategy that can be adopted to enhance ICT application and improve human resources development in Nigerian university libraries. According to Kamali et al (2009), in a study on the power of ICT in the human resource development in India, noted that when employees enjoy their jobs, find the work challenging, and like the work environment, they will usually put forth efforts and perform their tasks enthusiastically. In other words, if employees cannot wait for the end of the workday, are alienated from the results of their efforts, and feel their work is terribly boring, they will not do their best. They will do the minimum required to keep their jobs. That is to say, they are not very motivated to perform well. Job motivation is important for organizational effectiveness.

Objective of the Study

The main objective of this study is to determine the application of ICT in newly established Federal University libraries in Nigeria; case study of Federal University Lokoja.

Specifically, the study intended to;

1.   Determine the availability of ICT in the library.

2.   Identify the challenges militating against the application of ICT in the library.

3.   Proffer possible solution to the challenges militating against the application of ICT in the library.

Scope and limitations of the Study

This research work covers Federal University Lokoja, Adankolo Campus. Emphases will be placed on the use of ICT resources by the staff and students of the institution and how the library has been able to apply ICT in rendering services to their clientele, and also to identify some challenges in the use of ICT in the institution. Therefore, this study is only limited to the application of ICT in Federal University Lokoja library and is also limited to the library staff and users of Federal University Lokoja.

Method for Data Collection

The researcher personally intends to administer copies of the questionnaire to the respondents. Items which needed clarification will be explained to the respondents. To ensure that the respondents do not have ready answers and to avoid bias responses, the respondents will not be pre-informed of the visit by the researcher. The researcher also administer the instruments with the help of two research assistants. The questionnaires were distributed and collected back immediately to ensure a high return rate and also conduct personal interviews.

Data Analysis

Data collected was analyzed in line with the research questions. Data collected was orderly organized in tabular forms to indicate raw scores which will be converted into frequency, simple

percentage and mean. The result was deduced by compiling the percentage and frequencies. Therefore, the researcher chooses mean and simple percentage as the method to use in analyzing. The formula for calculating the mean is:

X=

x= Mean

$\sum$ = Sum of all values of x

X= The score

N= Total number of respondents.

The researcher considered the average mean of 2.50 and above accepted, while any item scored below the average was rejected. The score of 2.50 was calculated using the weightings attached to the responses options of: Strongly Agree-4, Agree-3, Disagree-2, and Strongly Disagree-1.

Hence, $\underline{4+3+2+1}$

       4

   $= \underline{10}$

     4

   $= 2.50$

Table 1 Mean responses of respondents of the availability of Information and Communication Technologies (ICTs) in Federal University Library, Lokoja

S/N	ITEMS	SA	A	D	SD	MEAN	DECISION
1	Laptop computers	63	21	4	2	3.61	SA
2	Palmtop	15	32	18	25	2.41	D
3	Desktop computers	68	18	3	1	3.70	SA
4	CD-ROM	35	28	14	13	2.90	A
5	Printers	60	23	6	1	3.58	SA
6	Photocopying machine	55	26	7	2	3.49	A
7	Scanners	58	25	5	2	3.54	SA
8	E-mail	35	24	17	14	2.89	A
9	Electronic smartboard	68	19	2	1	3.69	SA
10	Land Area Network (LAN)	24	37	25	4	2.90	A
11	Wide Area Network (WAN)	51	28	7	4	3.40	A
12	Internet networks/facilities	24	37	25	4	2.90	A
13	Teleconferencing	15	34	16	25	2.43	D
14	World Wide Web (WWW)	34	30	19	7	3.01	A
15	Other please specify	-	-	-	-	-	

Key: SA- Strongly Agree, A- Agree, D- Disagree, SD- Strongly Disagree

The table presented in table1 above shows the ICT facilities identified as available in the library under study include, laptop computers, desktop computers, CD- ROM, printers, photocopying machine, scanners, E-mail, electronic smartboard, Land Area Network (LAN), Wide Area Network (WAN), internet networks/facilities and World Wide Web (WWW) with mean scores 3.61, 3.70, 2.90, 3.58, 3.49, 3.54, 2.89, 3.69, 2.90, 3.40, 2.90 and 3.01 respectively which are all above the benchmark of 2.50 indicating that all the listed items are available in Federal University Library, Lokoja except palmtop and teleconferencing with mean scores 2.41 and 2.43 respectively.

Table 2 Mean responses of respondents of the challenges militating against the application of Information and Communication Technologies (ICTs) in Federal University Library, Lokoja.

S/N	ITEMS	SA	A	D	SD	MEAN	DECISSION
1	Lack of funds	38	36	11	5	3.19	A
2	Epileptic power supply	30	25	15	20	2.72	A
3	Lack of ICT facilities	23	41	24	2	2.94	A
4	Inadequate human resources	41	23	24	2	3.14	A
5	Technophobia	7	15	34	34	1.94	D
6	Low bandwidth	46	29	10	5	3.29	A
7	Poor ventilation	7	10	31	42	1.80	D
8	Other, please specify	-	-	-	-	-	

Key: SA- Strongly Agree, A- Agree, D- Disagree, SD- Strongly Disagree

Table 2 reveals the respondents' view on problems militating against the application of ICTs in Federal University Library, Lokoja. Responses shows the mean values ranging from 1.80 to 3.29. The respondents agreed with items 1, 2, 3, 4 and 6 (Lack of funds, epileptic power supply, lack of ICT facilities, inadequate human resources and low bandwidth) as the greatest problems militating against the application of ICT in the library. They disagreed with the rest of the problems ranging from items 5 and 7 (technophobia and poor ventilation) with mean scores of 1.94 and 1.80.

Table 3 Mean responses of respondents of the possible solution militating against the application of Information and Communication Technologies (ICTs) in Federal University Library, Lokokja

S/N	ITEMS	SA	A	D	SD	MEAN	DECISSION
1	Proper ICT Seminar/workshops	60	20	6	4	3.51	SA
2	Provision of sufficient ICT facilities	18	64	5	3	3.08	A
3	Staff training/orientation	62	21	4	3	3.58	SA

4	Government support on provision of stable power supply	68	14	5	3	3.63	SA
5	Effective teaching on the use of technological devices	60	20	7	3	3.52	SA
6	Adopting maintenance practice for ICT devices	64	20	4	2	3.62	SA
7	Other, please specify	-	-	-	-	-	

Key: SA- Strongly Agree, A- Agree, D- Disagree, SD- Strongly Disagree

The table above which is table 3 shows the various possible solution to the problems militating against the application of Information and Communication Technologies (ICTs) in the libraries. The respondents strongly agreed that all the strategies listed above should be adopted for effective solutions to the enumerated problems. The possible solutions listed includes proper ICT seminar/workshops in the libraries (3.51), provision of sufficient ICT facilities (3.08), staff training/orientation (3.58), government support on provision of stable power supply (3.63), effective teaching on the use of technological devices (3.52), adopting maintenance practice for ICT devices (3.62) could be possible solutions.

Summary of Findings

The study revealed that Federal University Lokoja have ICT in the library. Some of these ICT which are readily available are computers, printers, internet, photocopier, library software etc. These ICT gadgets are used in carrying out different aspects of services in the library.

The challenges identified by respondent in the application of ICT were mostly inadequate ICT facilities 2.94, epileptic power supply 2.72, and inadequate human resources 3.14. This shows the level of the effectiveness in the application of ICT. This also supports the findings of Egberongbe (2011) which further revealed that inadequate ICT facilities was as a result of inadequate funding which could give birth to some other problems such as lack of training facilities and lack of competent search skills on librarians.

Conclusion

The study attempts to investigate the application of ICT in newly established federal university libraries in Nigeria: case study of Federal University Lokoja. Questionnaire was the choice of data collection designed by the researcher. The choice of this instrument was prompted by its reliability and validity of the answers. From the investigation, the following ICT are available in the library, laptop computers, desktop, printers, photocopying machines, electronic master board, etc. The challenges identified by respondent in the application of ICT were mostly inadequate ICT facilities, epileptic power supply and inadequate human resources. The possible solutions listed includes provision of sufficient ICT facilities, government support on provision of stable power supply and staff training/orientation.

Recommendations

Arising from the findings and conclusion are the following recommendations.

✓ There should be financial assistance from both government and non-governmental bodies such as international donor agencies for the provision of adequate ICT infrastructural facilities for effective library services.

✓ The government should develop a more pro-active and progressive attitude to the implementation of the national policy for information infrastructure and facilities.

✓ For effective and efficient power supply, there should be a supplementary standby generator to ensure the continuity of work in the case of power outage.

✓ Every division of Federal University Lokoja library should be completely automated in order to facilitate and create an avenue for effective service delivery.

✓ For effective involvement inter-connectivity to facilitate resource sharing, Federal University Lokoja library should work at forming consortium which will eventually   progress towards their active involvement delivering their library services.

✓ Federal University Lokoja librarians should be fully articulated with required ICT

competencies in search engines, internet facilities, email, internet navigator tools, web browsers, web file formats, database software's, internet development and also in management know-how.

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