Adoption of ICT for Library Operation in University of Calabar Library, Calabar Cross River State

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ABSTRACT

This paper investigates the Adoption of Information and Communication Technology (ICT) in University of Calabar Library, Calabar Cross River State. The study adopted quantitative research method and survey research design was used. The study population comprised of all library staff of University of Calabar Library, Calabar, out of which 50 were purposely drawn as sample size. Simple frequency tables were used to analyze the data.

The Findings revealed that, there is a substantial relationship between funding of the library budgetary problem, power failure, unqualified personnels, the adoption of ICT for library operation and poor planning. The major recommended for a more effective adoption and utilization of ICT in University of Calabar Library, Calabar, there is *the need to employ competent manpower who are ICT oriented, improve its budgetary allocation to enable the library subscribe to information resources to enhance its services, alternative source of power should be provided and libraries should also embark on periodic in- house training programmes by way of workshops, conferences and seminars. for the purpose of ICT skill acquisition.*

Keywords*: Adoption, ICT, library operation, University of Calabar*

Introduction

The function of a university library is to provide resources and services for its patrons. Libraries all over the world today are facing the challenge of the paradigm shift from traditional terrain to the electronic terrain (Ugwu and Onyegiri, 2013). According to Okafor (1992), the mission of university libraries is to teach, conduct research and provide services to humanity and these are the pivot on which academic activities revolve. Hence, Aguolu (2002) stated that academic health; intellectual vitality and effectiveness of any institution depend largely on the state of information resources to the patrons.

The world has continued to witness a rapid growth in information transformation and transmission or dissemination. This is a product of ICT and the realization that information has become an important ingredient for national transformation and development. To ensure effective information management, the acquisition, accessibility, cost, utilization and storage must be considered. Digitization involves a process whereby library print-based resources are converted into a form that can be easily accessed and used on the basis of the application of information technologies. It enables analog records to be converted into a form – digitized such that computer or computers can transmit these records in a digital format that is in bytes represented by binary digits O and I. Okocha and Akanwa, (2009) gave a detailed step by step approach or model to digitization for librarians and other information professionals.

HutChinson, Tracey and Sawyer (2000) State that Information technology is a term which encompasses the notion of the application of technologies to information handling (generation, storage, processing, retrieval, dissemination of information). In general terms information technology is the tool and technique use for utilization and gathering of information. It includes physical devices like papers, pencils, biros (ball pens), computer, etc. Fatoki (2004)

also put it into perspective the significance of, and the necessity for ICT availability in the university libraries and the necessity to ICT skills for librarians when he said that in addition to the challenges they offer, they will ensure qualitative research work for the library users, with the concomitant production of highly skilled manpower for the labour market. Emuakpor (2002) went further to describe IT as all forms of technology applied to the processing, storing and transmitting information in electronic form; stressing that the physical equipment used for this purpose include computers, communication equipment and networks; fax machines and electronic, pocket calculator. Ayo (2001) viewed it as the use of computer system and telecommunications equipment in information handling; consisting of essentially three basic components which are: Electronic processing using the computer; Transmission of information using telecommunication equipment; and Dissemination of information multimedia.

From the foregoing, it becomes explicit that IT in libraries comprises all the electronic infrastructure and facilities employed by libraries to improve and provide efficient services. Such facilities, in broad term, consist of hardware, software and communication links between the service outlets of different libraries to facilitate the sharing of common resources; especially the library networks. Osundina (1973), pointed out that the library of today should not merely store documents and preserve them; it must also devise means by which the contents of such documents can be rapidly and effectively transmitted for use. Ogunsola (2004) explained that the pace of change brought by new technologies has had a significant effect on the way people live, work and play worldwide.

Oketunji (2000) remarked that ICT is used in the libraries to automate technical services such as cataloguing information, classification process. This is to bring about efficient reference and information services. It is usually used to network operations, such as cataloguing,

circulation activities and authority list. It is also uses integrated library management applications if are properly annexed, it would helps the growths and development of libraries in different directions.

Information and communication technology (ICT) has transformed library services globally. Most current information are recorded in electronic format, ICT has also contributed immensely to the performance of libraries in the discharge of their duties such as cataloguing, reference services, circulation, management serial control etc. ICT has contributed to the library in the following specific ways. Nelson (2001) opines that Libraries utilize software designed to manage different library routines and process. Most of these software are integrated and have models for the different activities or tasks carried out in the library like cataloging statistics acquisition processes, serials control etc. some example of such software are CDS/ISIS, Glas, Alice for windows, x Lin and SLAM is used in the university library FUTA and stand for strategic library automation management library users can access information of various types such as online database, E-journals, e-book, government publications digitally through networked system. Access may be allowed online remotely through the internet or intranets. Library may not rely anymore on postal services to send document to users or carry out interlibrary lending as libraries can now send documents in various formats e.g. PDF straight to users' desktops.

Before the development and use of ICT facilities for capturing, acquisition, processing, dissemination and retrieval of information, library operations were predominantly manned.

However, with the development of ICT base Library services which brought with it self-service and simultaneously access to resources, the interest switched from print to electronic information (Wemboh & Abba 2008).Many countries and institution are at varying level of ICT

application in their library operation. Islam and Islam (2007) documented the use ICT in libraries in Bangladesh and informed that though the use started between 1964 and 1995, progress was not made until 1996. In Nigeria many universities are at the advance stage of ICT use in library operations. Anunobi and Benard (2007) was carried out to identify the ICT facilities available in Nigerian universities for improved libreary services among other recommendation.

LITERATURE REVIEW

Information Communication Technology (ICT) is concerned with the storage, retrieval, manipulation, transmission or receipt of digital data. The data is transferred or communicated to people over long distance by electronic means Ebijuwa and Anyakoha (2005) define ICT as "Tool and as well as means use for collection. Capture, process, storage, transmission and dissemination of information "The American Library Association (2000) defines IT as the application of computer and other technologies to the acquisition, organization, storage, retrieval and dissemination of information. The computers used to process and store data, while telecommunication technology provide information communication tools which make it possible for users to access database and link them to other computers network of different locations. "IT and ICT (Information Communication Technologies) are used somewhat interchangeably. The components of information and communication technology are computer, software, internet, intranet, extranet, modem, mask among others.

Information and communication technology plays a vital role in bringing about changes in our society. As technology becomes more sophisticated and more affordable, the range of services that are provided also increase our life style, our business, our educational system, our political and social value. In this age of ICT the role of University libraries has changed radically in

developed countries. The emergence of computer or ICT in the library today according to Aliyu (2004) raised the status of the collection and information generation. The writer further observed that, the growing importance of online available information is fast bringing about the continuous evolving of libraries and their charming functions, activities, roles and task during these years. Access to information is characterized as having fuzzy or indefinite boundaries in contrast of books or other physical media that normally have an identifiable beginning and end (Howart, 2000). Ahmed (2005) posited that the essential function of a University library like other academic libraries is to support the teaching and research programmes of the institution by acquiring print and non-print materials, processing them and making them available for use. If the Nigerian libraries would not want to be left behind, then they should yearn towards acquiring and processing their materials technologically. This is even more important because some information materials (book or journals) are no longer in printed format but in electronic data bases, while some have both nevertheless, the most facilitating technique of making available needed information is through ICTs. They are provide more sophisticated and user friendly services to its patrons through these medium (Shuva, 2005). The accelerated adoption and use of information and communication ICT has resulted in the globalization of information and knowledge resources Islam and Islam 2007).

Statement of the Problem

ICT facilitate the process of identification, collection, storage, processing and dissemination of information. The library and information science professionals are utilizing ICT to keep pace with the problem of information explosion. The benefit of instant access to digital information is the most distinguishing attribute of the information age. ICT is the convergence

between the computer and communication technologies, ICTs are technologies used to communicate and to create, manage and distribute information. Such technologies include computers, the internet, telephone, television, radio and audiovisual equipment. However, this definition has been expanded to include any device and application used to access, manage, integrate, evaluate, create and communicate information and knowledge. The use of ICT in libraries has raised a number of challenges, these include; funding of libraries, due to serve budget cost the high price of book and journals subscription, libraries are faced with no option but to reduce expenditure of books and journals subscription. The introduction and adoption of ICTs in libraries has not made the situation any better. Money is required and software, paid software license fees, pay for access to electronic journals and online database, pay for internet services. Akintunde (2007) equally observed that libraries which have claimed to be automated, do not use these automation facilities (ICT) because of lack of basic facilities, such as computer network,, important component such as internet and intranet, inadequate provision of funds, provision of obsolete ICT facilities and high cost of maintaining ICT facilities, while lack of electricity appear to be a general phenomenon among University libraries in Cross River State.

Objective of the Study

The following research objectives guided this study:

1. Determine the level of adoption of Information and Communication Technology (ICT) for library operation in University of Calabar Library, Calabar.

2. Determine the level of funding of library and the adoption of ICT for library operation in University of Calabar Library, Calabar.

RESEARCH METHODOLOGY

The survey research design was used for this study. According to Isangedighi, Joshua, Asim and Ekuri (2004) survey research design involves the collection of data to accurately and objectively describe existing phenomena. According to Mc Call (2001), "population is a collection of subjects or events that have common characteristics. The population of the study comprised all librarians serving in the University of Calabar Library, The total population of librarians in this institution at the time of the study was 50. All the 50 subjects were used because they are not much

According to Khazode (2004) sampling is a plan which specifies how element will be drawn from the population. Purposive sampling technique was used for this study. Purposive sampling technique is a type of sampling where the researcher consciously select particular element or subject in a study so as to make sure the element will have certain characteristics pertinent to the study.

A structured questionnaire titled Adoption of ICT for Library Operation (AICTLO) is used to collect information from the subjects of the study. The questionnaire is developed by the researcher with relevant inputs and corrections by the supervisor and other professionals in the area of the study, information gathered from literature and previously conducted studies is utilize to help in the generation of appropriate items to gather information that answer the research question.

The procedure for collecting data would be by visit to Library (University of Calabar) where questionnaires were issued to the Heads of ICT Units and other staff whom the researcher had already booked an appointment, and will also take down important points that will be raised.

The analysis of data is a process of inspecting, clearing, transforming and modeling data with the goal of highlighting useful information, suggestion, conclusion and supporting decision. The data collection from the questionnaire from the adoption of ICT and library operations in University of Calabar library will be presented in tables and brief explanation underneath the table. It was analyzed by using simple percentage.

Results

Table 1: Adoption of ICT for Library Operation

Item	Frequency	Percentage
Computer	44	100%
Internet	41	93.2%
WLAN	31	70.5%
Visual	28	63.6%
CD-ROM	34	77.3%
Electronic journal and books	38	86.4%
Flash drive	32	72.7%
Fix hard drive	13	29.5%
Magnetic tape	24	54.5%
Diskette	8	18.2%
	6	13.6%

Table 1.

Above shows that, the computer (100%), the internet (93.2%), and electronic journal and (CD-ROM) were the major elements/components of ICT that were presently adopted and used in the library. Other ICT components such as , WLAN, and flash drive were also adopted for library use with percentage rate of 77.3%, 70.5 and 72.7% respectively . Finally, fix hard drive and

diskettes were mildly recognized as ICT components by majority of the respondents. This conforms with Adeyoyin (2002) in a United Nation Economic Commission (ECA) who reported that ICT in libraries cover internet services, WAN, LAN, and Magnetic tapes

Table 2: Respondents' opinion on challenges faced in funding of library and Adoption of ICT for library operations

Item	Frequency	Percentage
Legal and legislation	28	63.3%
Budgetary problem	39	88.6%
Treat to information	41	93.2%
Poor of proper planning	43	97.7%
E-resources infrastructure and technological challenge	44	100%
Human resources challenge	32	72.7%
Technological obsolesce	18	40.9%
Human error and vandalism	40	90.9%

Furthermore, Table 2 presents funding of library as correlates to adoption of ICT for library operations. The findings reveals thus, legal and legislation 63.3%; budgetary problem 88.6%; treat to information 93.2%; poor of proper planning 97.7%; e-resources infrastructure and technological challenge 100%; human resources challenge 72.7%; technological obsolesce 40.9%; human error and vandalism 90.9% and 0% response was received for "others".

Based on the findings, it is clear that e-resources infrastructure and technological challenge 100% and poor of proper planning 97.7% are the major correlates of funding and adoption of ICT for library operations. The findings agrees with that of Nwalo (2000) who

observed that, improper planning, funding, technological factor and human resource factor were found to be prohibiting the smooth adoption of ICT in university libraries.

Discussion of Findings

The results revealed that, 77.3% of the respondents agreed that, electronic journals were highly adopted. This was closely followed by computers 72.7%, internet and CD-ROM both having 68.2%. On ICT facilities not been adopted; only fix hard drive 56.8%, and diskette 52.3% were identified. This implies that majority of the ICT facilities are highly adopted and used in library operations in University of Calabar library Calabar, Cross River State. These finding contradict that of Ifidon (2007) who reported that, despite the fact that library automation has been a topical issue in the early seventies, only limited application of technologies.

Finally, on the challenges of adoption of ICT for library operations, the findings show that library operation appeared to have taken place. However, the findings are in conformity with those of Ani, Esin and Eden (2005) The major obstacles that influence effective adoption of ICT in University libraries are inadequate funds and poor state of electricity in Nigeria.

4.11 above indicate that, budgetary problem 100%; e-resources infrastructure and technological challenge 90.9%;treat to information 88.6%; and human error and vandalism 88.6% are the major challenges faced in the adoption of ICT for library operations. Others include poor of proper planning 86.4%; human resources challenge 86.4%; technological obsolesce 79.5% and technological challenge 77.3%. This clearly indicates that, greater number of respondents agreed to the fact that, the above stated problems greatly affect the effective adoption of ICT in carrying out library operations. This is in corroboration with Ifidon (2007)

who also identified human challenge and poor funding to be the major constraints in the adoption of ICT for library operation

Conclusion

Considering the huge importance attached to the adoption and utilization of ICTs to facilitate the pace at which routine library operations are performed, the study was able to establish the status of ICT adoption and utilization in University of Calabar Library, The findings of the study also established that the level of ICT adoption by University of Calabar Library, Calabar. The study reveal some of the challenges that hampers the adoption of ICTs. These challenges as identified included: technological obsolesce, human resource challenge, absence of proper planning and human error and vandalism among others which by implication tend to negatively affect the efficiency and utility capabilities the adoption of these ICTs has to offer.

Recommendations

In view of the findings from the study, the following recommendations are made:

1. University libraries should look more outside than inside their immediate environment and seek for grants to supplement their meager financial votes. Alternatively, as a matter of policy, the financial standard for university libraries should be reviewed for the installation of ICT facilities in all University libraries so as to aid the libraries in providing quality informational services.

2. University libraries should embark on periodic in house training programmes by way of workshops, conferences, seminars etc for the purpose of ICT skill acquisition. User's education programmes should also be intensified.

3. There is also the need to employ competent manpower who are ICT oriented.

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