ANALYTICAL STUDY ON AVAILABILITY OF INFORMATION AND COMMUNICATION TECHNOLOGY FACILITIES IN SELECTED NIGERIAN UNIVERSITY LIBRARIES

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Abstract

This study was set to determine the types of ICT facilities available in Nigerian University Libraries. It was also set to find out if there are many significant differences among Nigerian University libraries in availability of ICT facilities with respect to their generations and dates of establishment. Questionnaire was the main instrument used to collect data from 590 respondents from 13 Federal Universities that constitute the study. The study revealed that there is significant difference among Universities libraries in Nigeria in ICT facilities availability with reference to computers, microfiche and audio-tapes irrespective of their generations and dates of establishment. And also, there is no significant difference among Nigerian University libraries in ICT facilities availability with reference to microfilms, photo-copies, CD-ROM databases and video-tapes irrespective of their generations and dates of establishment. Recommendations are also proffered.

Keywords: ICT facilities utilization, university libraries, generation of establishment, information service

Introduction

It is widely believed in library history that in the great ancient libraries of Egypt and Mesopotamia which date back to about 3000.B.C., information resources of that period underwent series of developments in their storage methods. Thus, library records at this time became popularly stored in papyrus and clay tablets in Egypt and Mesopotamia respectively. From that time to this present decade in library history, technology has impacted greatly on the operations of libraries in the provision of information services. This is evident according to Ochogwu (1984)

in the continued transition of these information storage devices from papyrus and clay tables to the present day books along with other forms of electronic storage media such as: magnetic disks, magnetic tapes, CD-ROM, and so on.

Daniel, Oketunji, Okojie and Abdul Salam (2003) observed that the information technologies found in libraries today is a combination of computers, storage media and telecommunications. In other words, computers provide the processing, storage and retrieval capabilities of information in the library, while telecommunication provides the capabilities for the transfer and communication of data (information) from one workstation to another in the library. Ajibero (2002) reported that libraries have existed for centuries without automation. However, as computer emerged in the world at large, librarians embraced them as a means of managing house-keeping operation and services, and that the new tools are broadening the horizons of information and thus providing opportunities for information professionals to serve as information providers rather than information custodians.

Today, circumstances have changed due to information and communication technologies (ICT) as information delivery processes have been enhanced through availability and utilization of improved ICT system. Mwamba (2002) reported that, libraries have now been found to shift their focus of operation in order to include the following directions in addition to the basic functions-from library-centred to information-centred and from the library as an institution, to the library as an information provider, and to the librarian as skilled information specialist functioning in all-related information environment.

From using new technology for the automation of library functions to utilizing technology for the enhancement of information access and delivery not physically contained within the four walls of the library, and from library networking for information provision to area networking for all types of information resources providers. The role of the university library as the mainstay of the academic community and the ever growing reliance on it as the institution for preserving all information and making them available on demand, led to the continued development of the application of information and communication technology (ICT) in the university libraries.

Literature review

Nigerian university libraries have come of age and the relevance and importance of these libraries are becoming increasingly clear to perspective elites. Undoubtedly, ICT is impacting positively on all facets of library and information services in universities libraries, and the Nigeria university community is now aware of the role which the library can play in the information super-highway. Arising from the changing role of librarians in emerging digital libraries, efforts are now in top gear by librarians and information scientists to play this role more effectively as the internet, email, CD-ROM and other peripherals are used as ICT tools and facilities for generating, obtaining, processing, storing, retrieving as well as disseminating information services in university libraries (Olanlokun, 2003). According to Oduwole, Oyewumi and Oyesiku (2002) one of the major characteristic of the information age today is the growth of information service of various kinds in archives, libraries, museums and formal educational institutions which accounted for the bulk of what could be classified as information. The growth in technological development in the field of computer network is boosting the function of libraries in general and university libraries in particular. In line with this, Rahman (2002) observed that, the retrieval and dissemination of information services in libraries has got a rapid growth because of the computer networks.

Today, the advent of computer networks and associated ICT facilities have ushered a new path to the library and has given a new dimension to the traditional and jobs of the library. The pace of technology innovations, explosion of information and different forms of information presentation in recent times have been one of the major factors that have pressurized Nigerian university libraries into acquiring and use of the computers, computer networks and other associated technologies in the provision of information services. It is on the basis of this that Singh and Sharma (2002) agree that today the electronic revolution is affecting the traditional role of the university library as an institution that collects and stores information and makes it available to its users. They have observed that in the age of internet, the electronic information sources are very accessible, reliable and highly cost-effective, and this is having an edge over print sources.

It is interesting to note that Nigerian university libraries have now given positive attention to ICT facilities acquisition to the point that the utilization of these

facilities serves as the engine room of development and single most important technology that would drive the 21st century libraries in Nigerian. One of the noticeable trends in the ICT industry today is the ever-increasing demand in Nigerian university libraries for its application in the provision of information services in libraries. This is because; the pervasive use of technology has provided the capability of turning the new automated Nigerian university libraries into creditable and functional information research centres.

In agreement with this assertion, Ajayi (2002) observed that the emergence of the digital economy and information revolution is now re-defining information search models in university libraries. Also, the growth in internet use has created information search convenientfor information seekers in university libraries and therefore, Librarians and Information Scientists are now more interested in providing information services to library users with multiple integrated technologies due to easy accessibility and retrieval of the information needed. Obviously, acquisition and application of ICT facilities in the provision of library and information services in university libraries will enable university libraries to become more effective and efficient in the performance of the various tasks in relation to acquisitions, cataloguing and classification, indexing, serial control, processing, circulation and so on. Application of ICT facilities now makes it easy to retrieve information in university libraries when needed.

It is also the view of Ajayi (2002) that the library as the life-blood of the university environment can benefit tremendously from the facilities provided by ICT. That university libraries can be transformed into new information services centres, providing electronic cataloguing, electronic inter-library loan, and electronic circulation functions and so on. Though, many university libraries are yet to take full advantage of the facilities of modern ICT, arising from poor funding for university libraries. The availability of ICT facilities and other peripherals will be encouraging efforts made for university libraries to provide academic information. Nigerian university libraries could also use modern ICT facilities and other peripherals when available to provide contents and information dissemination.

However, Nigeria universities libraries are currently facing hard times due to the down turn of the Nigeria economy. Onyinloye (2001) observed that one of the major impediments of the so called educational inadequacies in Nigeria is the unavailability of reading materials to students, teachers and researchers in print

and electronic formats. Despite these, university libraries in Nigeria are conversely attempting to adopt the use computers and other available information technologies for information handling. According to Idowu and Mabawonku (1999), a number of university libraries in Nigeria had attempted to automate their operations in the early 70s and 80s with a few stories of success recorded. On account of the numerous problems associated with ICT facilities provision and utilization, what is now important is the provision of ICT facilities and other peripherals that would support full computerization of Nigerian university libraries for effective and efficient provision of library and information services.

Usually, university libraries are established on the same date their parent institutions are established. However, the library as posited by Okebukola (2006) occupy prominent position in the management of university education the world over. The class and quality of the library determines to a great extent the quality of scholarship in any institution.Thestatus and role of the library have transcended the collection of valuable scrolls of notable philosophers to the aggregation of millions of volumes of books and journal in both print and electronic forms. According to Nkanu, Eyo and Iyishu (2006), libraries particularly academic libraries are now becoming more aware that in order to play their traditional roles, the need to utilize emerging information technologies to improve the wide range of services to library patrons is important

It is largely true that libraries in Africa are adapting to changes particularly on innovations brought about by the application of Information and Communication Technology (ICT) (Lawal, 2009). Historians of Nigerian Libraries and Information services generally take the year 1948 as the beginning of modern libraries, because it was the establishment of the university library at Ibadan that Nigeria acquired a library in the fullest sense, equipped for reference and research, permanently established and professionally directed, staffed and provided with an assured budget and an appreciate building (Igwe, 2009; Etim, 2010).

Objectives of the Study
This study seek to:
- Determine the types of ICT facilities available in Nigerian university libraries.

- Find out if there is any significant difference among Nigerian university libraries in availability of ICT facilities with respect to their generations and dates of establishment.
- Make recommendations on ICT availability and use.

Research Methods

A survey design was used. Questionnaire was the instrument used to collect data from 600 respondents from 13 university libraries. Stratified method of sampling was used in selecting the 13 university libraries that constitute the sample for the study. A total of 590 respondents duly completed the questionnaire. Simple percentage was used to analyze the magnitude of response with respect to available ICT facilities, while analysis of variance (ANOVA) was used to test the null hypothesis at 0.5 level of significance in order to find out whether there is any significant difference among Nigerian university libraries with respect to their generations and dates of establishment.

Findings and Discussions
Data analyzed and discussed in tables 2 and 3 in this study was collected from the university libraries of the first, second and third generation as shown in table 1 below.

Table 1:   Generation and Duties of establishment of university libraries used for the study.

S/N	Name of University library	Generation of Establishment	Dates of Establishment
1	University of Ibadan (Kenneth Dike Library)	1st Generation (1948-1969	1948(1962)
2	University of Nigeria, Nsukka (NnamdiAzikiwe Library		1960
3	Ahmedu Bello University, Zaria (Kashim Ibrahim Library)		1962
4	ObafemiAwolowo University, Ile Ife (Hezekiah Oluwasanmi Library)		1962
5	University of Lagos Library		1962
6	University of Port Harcourt Library	2nd Generaton (1970-1979	1975
7	University of Jos Library		1975
8	AbdullahiUsman Dan Fodio University Library, Sokoto		1975
9	University of Maiduguri (Ramat Library)		1975
10	AbubarkarTafawaBalewa University Library, Bauchi	3rd Generation (1980-1989)	1981
11	Federal University of Technology Library, Yola		1981
12	Federal University of Technology Library, Minna		1981
13	University of Agriculture Abeokuta (NimbeAdeipe Library)		1988

The university library in each university was established on the date as the university. University with two dates of establishment started as college or temporary campus of main university until the date in parenthesis.

Table 2: Percentage Analysis of the Scores of ICT Facilities Available in University Libraries.

ICT Facilities Available in university Library	Agree		Disagree	
Computers	432	73.22	158	26.88
Microfilms	387	65.59	123	20.84
Microfiche	399	67.64	189	32.36
Photocopiers	408	69.15	182	30.85
CD-ROM Databases	410	69.49	180	30.51
Printers	405	68.64	185	31.36
Audio Tapes	391	66.27	199	33.73

In Table 2 above, computers emerged highest as the available ICT facilities in universities libraries in Nigeria. It accounted for a frequency count of 432 (or 73.22%). CD-ROM databases was second with a frequency count of 410 (or 69.49%). Photocopiers was third with a frequency count of 408 (or 69.15%). Microfiche was fifth with a frequency count of 399 (or 67.64%). Audio tapes was sixth with a frequency count of 391 (or 66.27%) and Microfilms was the least available of these facilities with a frequency count of 387 (or 65.9%) in Nigerian university libraries.

Hypothesis

Ho: there is no significant difference among Nigerian university libraries in availability of ICT facilities with respect to their generations and dates of establishment.

In order to find out if there is any significant difference among Nigerian university libraries in availability of ICT facilities with respect to their generations and dates of establishment, the above hypothesis was formulated and tested using analysis of variance (ANOVA). As presented in table 3 below, the calculated F-value was tested for significance by comparing the values with the critical F-value at 0.5 level of significance for decision.

Table 3: Analysis of Variance showing the Differences Among Nigerian University Libraries in Availability of ICT facilities with respect to their generations and dates of establishment

Sources of variation	Available ICT Facilities	Df	SS	MS	F	Decision at 0.5 level
Between Group within Groups	Computer	2 10	1589.681 1325.550	794.840 132.55	5.10	S
		12	**2915.231**			
Between Group within Groups	Microfilms	2 10	497.300 1338.700	133.870 133.870	1.86	NS
		12	**1836.000**			
Between Group within Groups	Microfiche	2 10	2378.281 1362.950	1189.41 36.295	8.73	S
Total		12	**3741.231**			
Between Group within Groups	Photocopiers	2 10	880.492 2081.200	440.246 208.120	2.16	NS
Total		12	**2961.692**			
Between Group within Groups	CD-ROM Databases	2 10	749.127 3863.950	374.563 386.395	0.97	NS
Total		12	**4613.077**			
Between Group within Groups	Printers	2 10	275.142 2298.550	137.571 229.855	0.60	NS
Total		12	**2573.692**			
Between Group within Groups	Video Tapes	2 10	1547.723 3925.200	773.862 392.520	1.98	S
Total		12	**5472.923**			
Between Group within Groups	Audio Tapes	2 10	3322.973 2149.950	1661.487 241.995	6.87	NS
Total		12	**5742.923**			

** Significant: NS = significant (at 05 alpha level). F critical =4.10

The above analysis show that computers, microfiche and Audio tapes calculated F-values of 5.10, 8.73 respectively. Since their calculated F-values are greater than F-critical (4.10) at .05 level of significance, the null hypothesis is rejected. This implies that there is significant difference among university libraries in Nigeria in availability of ICT facilities with reference to computers, microfiche and audio tapes irrespective of their generations and dates of establishment

The analysis also show that microfilm, photocopiers, CD-ROM Databases, Printer and video tapes have calculated F-value of 1.86, 2.16, 0.97, 0.60 and 1.98 respectively. Since the calculated F-value are less than F-critical (4.10) at 0.5 level of significance, the null hypothesis is upheld. This implies that there is no significant difference among Nigeria universities libraries in availability of ICT facilities with reference to Microfilms, photocopiers, CD-ROM databases, printer and video-tapes respectively, irrespective of their generation and dates of establishment.

University library development is relatively young, dating back to 1948 when the first university was established. As earlier noted, university libraries emerged simultaneously with their parent institution. Hence, there are many university libraries as there are universities established at different times and dates that placed them into different categories of generations of their birth.

From the data presented in table 3 in response to the hypothesis, seeking to find out if there is any significant difference among university libraries in Nigeria in availability of ICT facilities with respect to their generations and dates of establishment, the study revealed that there is significant difference among university libraries in Nigerian in availability of ICT facilities with reference to computer, microfiche, and video tapes irrespective of their generations and dates of establishment. It there means that the generations and dates of these university libraries have nothing to do with how much or how less they acquire ICT facilities. Except that among all the facilities, computers are facilities whose need cannot be exhausted. This is in line with Aguolu et al (2000) assertion that computers are well established feature in many modern libraries even though, the age of total electronic libraries is yet to materialize. That, since 1960s computers have been used to good effect, to perform many library functions from clerical house-keeping activities such as ordering cataloguing, control and circulation of books and journals to reference and information service. And, Daniel (1997) also agrees that the new age use information intensively in a manner that is not constrained by time and space, and the vehicle for this is the computer.

Conclusion and Recommendations

Over the years, university libraries in Nigeria have met their information support services by centralized library services. In about the last ten years, most of this university libraries investigated has tried to automate some of their technical operations through the application of ICT facilities but most of these attempts are for in-house trials. It is hereby recommended in this study that:

- In order to maintain their traditional roles as information providers, Nigerian university libraries should adopt new strategies for getting hooked to the new systems associated with ICT irrespective of their generations and dates of establishment.

- ICT facilities should be procured, installed and effectively put to use by Nigerian university libraries enhances effective service delivery to information seekers in Nigeria university libraries.

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