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AWARENESS AND USAGE OF ICT TOOLS BY THE LIBRARY PERSONNEL AT THE NIMBE ADEDIPE LIBRARY, FEDERAL UNIVERSITY OF AGRICULTURE, ABEOKUTA, OGUN STATE, NIGERIA.

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Abstract

This paper assesses the level of awareness and extent of utilisation of information and communication tools by library personnel in the Nimbe Adedipe Library, Federal University of Agriculture, Abeokuta, Ogun State. It investigates the pattern of usage, the perceived benefit and constrains of ICT tools utilization in the library. A researcher- designed structured questionnaire and interview was used to gather data. The sample population consisted of 42 library personnel drawn from the main campus library, college libraries and mini campus library of FUNAAB. Five research questions were raised and the findings revealed that librarians in the study have a sound awareness about the importance of ICT in their libraries. The reasons may include an understanding of the benefits of ICT. The results revealed further that librarian training and knowledge of ICT influenced their attitudes toward it. Low bandwidth and poor connectivity constituted problems to effective utilisation of ICT. The study concludes that the use of ICT has come to stay in Nigerian University libraries and strongly recommends automation and Internet connectivity in libraries with corresponding training programmes to enable librarians acquire adequate skills and knowledge of computer potentials for the provision of high quality library services, especially in the areas of research and teaching. It was further recommended that Adequate and functional ICT tools should be made available at the library so as to facilitate effective service delivery at the library.

Key words: Information and communication technology (ICT), Utilization, Awareness.

Introduction

Implementing information communication technology (ICT) in the library depends largely on the library personnel, who constitute the necessary workforce. The application of ICT has caused significant changes in libraries automated cataloguing, circulation, information retrieval, electronic document delivery, and CD-ROM databases, for example. According to Ostrow (1998), the advent of the Internet, digitization, and the ability to access library and research materials from remote locations created dramatic changes by the end of the twentieth century. Ramzan (2004) observes that expert systems, wireless networks, virtual collections, interactive Web interfaces, virtual reference services, and personal Web portals have brought changes since the start of the new millennium. There have been fast and significant changes in librarianship, where digital and electronic libraries complement, and in some cases replace, traditional libraries.

Libraries in Nigeria have traditionally offered only printed books and print holdings still make up majority of the resources of Nigerian libraries. The introduction of ICT and digital libraries in recent times is a very new development in Nigerian libraries and the

desire to use these emerging technologies is spreading fast despite the constraints in implementing them. The first attempts at computerizing was focused on enabling easier searching of indexed terms and library automation often began with the production of computer-generated bibliographic and serial lists. When Aguolu (2000) stated that "In fact by 2000 most university and research libraries in Nigeria had not computerized any of their functions" he is referring to more complex computerization than just lists of serials or the use of spreadsheets for accounting type purposes . There seems to be a general consensus that automating library services is useful because of the following reasons vis: for facilitation of easy identification and retrieval of library materials; for easy creation and updating of inventory of library records; for provision of easy and faster library services to its clientele; to allow remote access of library resources through library web pages and online public access catalogs (OPACs); to provide better communication between library staff and its users; and to enable automatic updating of order, financial and other records. (Mohammed 1991)

Nigerian libraries have embraced a certain level of computerization but everyday usage is still quit basic and consists mainly of word processing and spreadsheet applications. The jump from these basic uses information technology (IT) to ICT came with the availability of the Internet which allowed for the sharing of resources electronically throughout the world. ICT as a tool is beginning to be implemented in some libraries but it requires the accessibility of the Internet and attendant infrastructure to support it so as there are many constraints to the adoption of full-fledged ICTs in libraries and its implementation will be a slow process in the current Nigerian environment.

University libraries are generally, the most developed libraries in Nigeria as they are the core of any university and therefore are at least minimally sustained with university funding. The first Nigerian university library, the Yaba Higher College Library, opened in 1934 and was later transferred to University of Ibadan (UI) in 1947, where it formed the nucleus of the University of Ibadan Library. (Mohammed,1991). Other Universities such as the University of Nigeria, Nsukka (UNN), Ahmadu Bello University (ABU) in Zaria, and Universities in Lagos and Ile-Ife developed fledgling libraries in the 1960s. Early technological developments included the computerization of the serial holdings at Ibadan University where they were then printed and used in a book format by 1975. By 1979, a computer- generated list of serials held by the ABU Library complex was produced.(Mohammed, 1991). Libraries at UNN, UI and ABU all produced computerized lists of serials in the 1970s and the Nigeria Library Association initiated a project to coordinate these automated lists, however, this was discontinued in 1984. Adekunle, Omoba and Tella (2007), found out that the university libraries surveyed in Rivers State had an average of only 8 computers each and that most of the library staff were inadequate in ICT skills. Many initial projects have been started with high hopes in Nigeria but have not been sustainable. This may be due to the fact that most of the library personnel were uncertain about ICT applications in their libraries and benefits for their organizations, because they had little knowledge of ICT. The problems associated with this lack of knowledge are also discussed by Mohammad, Rehman, Ali & Salim, (1992), Khan (1995), Haider (1998), Mahmood (1999), and Saeed, Asghar, Anwar, & Ramzan,(2000). Academic libraries in recent times have shifted from print to electronic resources due to the development of ICT. This development has offered library and information centre efficient ways of acquiring, organizing, storing, disseminating and sharing information. The concern about underutilization of new technologies especially in developing countries like ours beg for research towards understanding the factors that affect library personnel in the use of ICT

tools. This will go a long way in sustaining the knowledge and research base of our educational sector. This study will explore the level of awareness and utilization of ICT tools in Nimbe Adedipe Library, Federal University of Agriculture Abeokuta, Ogun State, Nigeria. It is useful to have empirical evidence from a population of Nigerian library personnel on this topical issue, which is important to the development of libraries in this digital era.

Background information of Federal University of Agriculture Abeokuta

Federal University of Agriculture, Abeokuta (FUNAAB),formerly known as University of Agriculture, Abeokuta (UNAAB) was established in 1988 by the Federal Government of Nigeria; to promote agricultural education and services towards agricultural development and food sufficiency. In support of this mission, FUNAAB Library popularly called Nimbe Adedipe Library by tradition selects, acquires, processes and provides information needs and services to students and researchers in order to enhance academic activities and performance. The library started automation of its operation in 1995 with TINLIB Library software and migrated to GLAS Management software in 2003. At Present the library has 50 personal computers (PCs) distributed among divisions/units/sections; Open public access catalogue (OPAC) is used as retrieval tool for circulation but is presently non functional due to the crash of the GLAS software. The librarians and Network administrator are involved in the automation and management of the ICT facilities available especially the electronic library.

The Electronic library which is a donor funded online resources by the international community, has a total of 50 personal computers and a server together with various electronic database and online resources such as: The Essential Electronic Agricultural Library (TEEAL) (referred to as a "Library in a Box"). It started out as a Compact Disc Read Only on Memory (CD-ROM) packaging of essential agricultural and bioscience journals and scholarly works, and is available on a 500 Giga Bite (GB) hard disk and accessible on local area networks (LAN). The LAN TEEAL is made available to universities in low-income countries at very inexpensive rates while a number of funding bodies provide sets to some institutions for free. The TEEAL package contains companies as well as a powerful search engine designed to search the database. These journals were selected as the "most essential" agricultural and bioscience journals by 600 international scientist (Miller & Khera, 2010).Access to Global Online Research in Agriculture, (AGORA), a digital resources led by the Food and Agriculture Organization (FAO) was born digital and is completely web-based. AGORA enables developing countries to gain access to an outstanding digital library collection in the fields of food, agriculture, environmental science and related social sciences. It provides a collection of 1900 journals to institutions in 107 countries. AGORA is designed to enhance the scholarship of the many thousands of students, faculty and researchers in agriculture and the sciences in the developing world (AGORA, 2010). Other electronic resources available include HINARI, CABS.

Objectives of the Study
The specific objectives of this study are to:
1. assess the level of awareness of ICT tools by library personnel in Nimbe Adedipe Library.
2. find out the extent of utilisation of ICT tools by library personnel.
3. examine the perceived benefits of ICT by library personnel.
4. identify the constraints to ICT tools utilisation by library personnel.

Research Questions

The following questions were answered in this study:

1. What is the level of awareness of ICT tools by library personnel at Nimbe Adedipe Library?
2. What is the level of utilisation of ICT tools by library personnel at Nimbe Adedipe Library?
3. Do library personnel at Nimbe Adedipe Library have adequate knowledge about ICT?
4. Which of the ICT tools are the available at Nimbe Adedipe Library?
5. What are the perceived benefits of ICT tools by library personnel at Nimbe Adedipe Library?
6. What are the barriers to effective utilisation of ICT tools by library personnel at Nimbe Adedipe Library?

Scope of the Study

The study investigated the level of awareness and usage of ICT tools by library personnel at Nimbe Adedipe Library, University of Agriculture Abeokuta, Ogun State.

Review of Literature

The use of ICT is growing in Nigerian libraries. Popoola (2002), asserts that microcomputers will create remarkable changes in the nature of personnel work. Krbec and Pakia (1994) described the advantages of ICT for library processes and user services. Popoola (2002), submitted further that there is widespread fear and negative attitudes that have slowed the progress of ICT implementation. Attwell and Rule (1984) asserted that many people resist using computers and other ICT technologies.

The findings of a survey of more than 3,000 teachers by Williams, (1998) revealed a correlation among levels of use, skills, familiarity, and knowledge of ICT and teachers' attitude. Johnson (1991) observed that a major reason for failure of library automation projects in developing countries is that public servants plan without sufficient knowledge of the purchase of hardware, software, and power supply requirements. Finlay & Finlay (1996) sought to establish a connection between current knowledge and personality types in measuring public servants' attitude toward the Internet. The researchers state that those with more knowledge and more innovative personalities were likely to have a more positive attitude toward innovation. The theory about knowledge was supported, but the theory regarding innovativeness was not supported. Jane (2002) found that reference public servants with digital reference experience had more positive attitudes than those who had no experience.

Yaacob (1990) investigated the attitudes of public servants in government-supported special libraries in Malaysia, and examined the relationship between the public servants' attitude toward IT and other variables. A significant relationship was found among attitude and awareness of the potential of IT, recently attained personnel qualifications, and knowledge of IT. Public servants' level of knowledge of technology was good predictor of attitude toward IT.

Al-Bahrain (2000) investigated the perceptions of 147 library professional and Para-professional staff concerning information technology innovations and training in university libraries in Saudi Arabia. He found a significant relationship among respondents' educational background, experience in using information technology, and their perceptions about IT.

ICT and Library Personnel

Technological change is posing a particular challenge to librarians in developing countries. Librarians in developed countries moved quickly to learn and adopt new information technologies (Ramzan, 2004). ICT was introduced to perform library functions and provide innovative user services. Librarians gained knowledge of new technologies through continuing education programmes, personnel training, and revisions to library school curricula, which helped them benefit from the new technologies. Their libraries became equipped with appropriate hardware and software (Ramzan, 2004). Ramzan (2004) also described the situation in Pakistan and other developing countries. He observed that librarians in Pakistan were not prepared to embrace the changes forced on them by new technologies.

Methodology

The sample population of this study is the library personnel consisting of librarians and library officers of Nimbe Adedipe Library, Federal University of Agriculture Abeokuta, Ogun State, Nigeria. The library personnel were drawn from the main campus library, college libraries and mini campus library.

A researcher-designed, structured questionnaire was used to collect data needed on different variables of the study. The questionnaire consisted three sections. Section A deals with the demographic information of the respondent. Section B deals with measurement of library personnel' awareness and familiarity with ICT tools on a 4 point scale of strongly agree, agree, disagree and strongly disagree. Section C deals with frequency of use and knowledge of ICT tools

The copies of the questionnaire were administered to 42 library personnel. The questionnaire was administered directly by the researcher. Descriptive statistics, such as frequency counts, percentage and mean was used to analyze the data collected.

Result and Discussion

Table 1:   Demographic Characteristics of Respondents.

Gender	FREQ	%
Male	23	55
Female	19	45
Years of Experience		
1-5	12	28
6-10	10	22
11-15	5	12
16-20	7	15
21-25	3	7
31-35	4	9
36 and above	-	-

As shown in Table 1, the study population comprised of male and female library personnel. Among the study population (42) 55% of the respondents were male while 45% were female. Also from the table above 2% of the library personnel sampled had PhD in library science, 38% had master degree in library science, 12% had bachelor degree while 12% had diploma. Twenty eight percent (28%) of the study population had between 1-5 years

of experience in the profession, 22% had between 6-11 years, and 15% had between 16-20 years while 9% had above 30 years of experience as library personnel.

Research question one.

Table 2: Awareness of ICT tools

ICT tools	Aware	Not aware
Laptops/pc	100	0
E-mail	100	0
Internet	100	0
PSP	45	55
CD Rom	92	08
E-journal	100	0
Books	100	0
OPAC	100	0
Video conf.	33	67
Flash drive	100	0
Floppy drive	100	0
Scanner	100	0

As revealed in Table 2, all respondents had good awareness about laptops, e-mail, internet, e-journal, books, OPAC, flash-drives and scanners. However, only 45% were aware of PSP while 33% were aware of video conferencing.

Research question 2

Table 3: Questions relating to utilization of ICT tools

S/N	ITEMS	A	A%	D	D%
1	I am experienced at using ICT tools	40	95	2	5
2	I can confidently use ICT for library duties	35	85	7	15
3	I can confidently use the internet to find needed information	31	73	11	27
4	ICT tools makes book search possible	39	91	3	9
5	I use the internet for research purposes	33	77	9	23
6	I use ICT tools to find needed information	35	80	7	20
7	I can confidently use the E-mail to communicate with people	31	73	11	27
8	I find ICT tools flexible to interact with	29	67	13	33

Table 3 presents a description of utilization of ICT tools by library personnel. Responses to item 1 of the table showed that 95% of the librarians agreed to have adequate experience on ICT tools All (100%) of the librarians sampled agreed that ICT tools are very useful in the library. 83% claimed that they can confidently utilize ICT tools in the library, 73% agreed that

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they can effectively utilize internet to find needed information, 94% agreed that ICT tools makes book search possible. Sixty seven percent 67% of the librarians sampled agreed that they find ICT tools flexible to interact with while 33% disagreed to this.

Research question 3

Table 4: Questions relating to adequate knowledge about ICT

	ITEMS	A	A%	D	D%
1	I have technical knowledge of ICT	35	83	7	17
2	I am internet complaint	39	93	3	7
3	I am well acquainted with ICT tools	37	87	5	13
4	The ICT tools are easy to maintain	17	40	25	60
5	The ICT tools are expensive to purchase	34	81	8	19
6	I am aware of the opportunity that ICT tools could offer the library	23	55	19	45

On the issue of ICT knowledge and awareness, responses to item 1 of Table 4 shows that 83% of the library personnel agreed that they have adequate technical knowledge of ICT. Also 93% claimed to be internet compliant. But generally 87% of the library personnel sampled agreed that they are well acquainted with ICT tools. In addition, 40% agreed that ICT tools are easy maintain, 81% agreed that ICT tools are expensive. However, 55% claimed to be aware of opportunities that ICT tools could offer the library.

Research question 4

Table 5: Questions relating to availability of ICT tools for library personnels' use.

S/N	ITEMS	A	A%	D	D%
1	Online Public Access Catalogue (OPAC) is available in the library.	37	88	5	12
2	The library has internet facilities	40	95	2	5
3	The library has E-mail facilities	40	95	2	5
4	The library has video conference facilities	17	45	27	55
5	The library has reprographic facilities	38	91	4	9
6	The library has personal computers	42	100	0	0
7	The library has personnel software package	20	48	22	52
8	The library has enough ICT tools at their disposal	22	53	20	47

As revealed in Table 5, responses to questions relating to availability of ICT tools shows that 88% of the library personnel sampled agreed that OPAC is available in their libraries while 12% disagreed. Responses to item 2 of the table also revealed that 95% of the library personnel sampled agreed that they have internet facilities in their libraries while 5% disagreed to this. Furthermore, responses to item 3 shows that 95% of the library personnel have e-mail facilities at their libraries while 45% of the library personnel sampled claimed to have video conference facilities in their libraries

Research question 5

Table 6: Questions relating to perceived benefits of ICT by Library personnel.

S/N	ITEMS	A	A%	D	D%
1	ICT tools are very useful in library services	42	100	0	0
2	Work is made easier and quicker with the use of ICT tools	42	100	0	0
3	I can confidently carry out my daily duties using ICT tools without any assistance or help.	34	78	8	22
4	I can handle various needs of users using ICT tools alone	30	71	12	29
5	The library personnel can impact ICT knowledge concerning library use to the students.	31	73	11	27
6	It is difficult to locate books without the use of ICT tools	25	54	17	46
7	Classification and cataloguing are efficiently done using ICT tools	42	100	0	0

As shown in Table 6, all the library personnel sampled agreed that ICT tools make their job easier and quicker to execute. 71% agreed that ICT tools have assisted them to be able to attend to various needs of library users while 29% disagreed to this. Responses to item 7 revealed that ICT tools allow classification and cataloguing to be done efficiently.

Research question 6

Table 7: Constraints to utilisation of ICT tools

	ITEMS	A	A%	D	D%
1	The university administration supports the use of ICT tools in the library	37	88	5	12
2	The E-library serves as the best form of library in recent times	23	56	19	44
3	Constant power supply is made available to t he library	21	52	21	48
4	Low Bandwidth and internet Connectivity constitute Problems	26	61	16	39
5	Limited Financial Resources and personnel	27	65	15	35

As shown in Table 7, responses to questions relating to constraints to ICT tools utilization revealed that 88% of the library personnel sampled agreed that the university administration supports the use of ICT in the libraries. 52% library personnel sampled agreed that constant power supply is made available in the library while 48% disagreed to this. Furthermore, 61% of the library personnel sampled agreed that low bandwidth and poor connectivity constitute problems to effective utilization of ICT in the libraries. Finally, 35% of the library personnel sampled agreed that there are limited financial resources and personnel in the library

Conclusion

It can be concluded that library personnel in the study have a sound awareness about the importance of ICT in their libraries. The reasons may include an understanding of the benefits of ICT. The results reveal further that library personnel training and knowledge of ICT influence their attitudes toward it. This is in consonance with the findings of earlier studies (for example Williams, 1998), which revealed a significant correlation among levels of use, skills, familiarity, and knowledge of ICT tools by teachers. Similarly, Finlay & Finlay (1996) established a connection between current knowledge and personality types in measuring librarians' familiarity with the Internet. These findings lend credence to the results of this study. Moreover, Jane (2002) revealed that reference librarians with digital reference experience tended to have more positive urge to utilise ICT tools than those who had no experience. Training and experience with particular events, behaviour, or action affects the attitude of an individual toward them. Adequate training and knowledge of ICT are crucial in encouraging librarians to utilise ICT. Johnson (1991) observed that the major reason for the failure of library automation projects in developing countries is that librarians and funding agencies plan without sufficient knowledge of hardware, software, and power supply requirements. This reaffirms that sufficient knowledge of ICT and its resources are important to the development of ICT in libraries.

Recommendations

From the findings of this research, the following recommendations were made:

Adequate and functional ICT tools should be made available at the library so as to facilitate effective service delivery at the library.

There is an obvious need for development of the electrical and broadband infrastructure in the library.

Regular training of library personnel on ICT should be done to improve their efficiency in the use of ICT

Library personnel should acquaint themselves with ICT tools and use.

Regular maintenance of ICT tools should be done promptly.

Provision of a higher band-with is necessary to enhance internet connectivity.

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