ICT Skills Acquisition and Competencies of Academic Librarians in Katsina State Tertiary Institutions of Learning

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Abstract - *Digital and electronic information resources provide relevant and timely information access. the deployment of ICT in academic libraries has transformed information services to users with libraries providing access to wide varieties of information resources in digital and electronic format. the provision of digital resources and services means that the academic librarians have to acquire the needed skills and demonstrate certain competencies in order to serve the users better.The study adopted descriptive survey research with a questionnaire as an instrument of data collection. The target population consists of eighty-two academic librarians fromseven tertiary institutions of learning in Katsina state, Nigeria. The data was analyzed in excel sheet application using frequency count and percentage. The study reveals that academic librariansare skillful in using basic computer applications, electronic communication, and Internet search skills. The major sources of ICT skills acquisition are through self-study, on the job training, and attending computer training. However, the major constraints to ICT skills acquisition are lack of training and development and lack of interest. The study recommends among others that the academic librarians should demonstrate the ability to outsmart the technology and use the technology to identify quality information content. It is hoped that the findings of the study will increase researchers understanding of academic librarians ICT skills in developing economies and contribute to the existing literature in the field of library and information science.*

Keywords: ICT skills acquisition, competencies, academic librarians, digital information resources, Katsina, Nigeria.

Introduction

Libraries are experiencing changes from the conventional system of providing access to prints resources to an automated system of providing access to digital and electronic information resources. The use of Information Communication Technology (ICT) in libraries has brought about many changes in the provision of library services. This result in a paradigm shift from conventional library services to more sophisticated information provision via different ICTfacilities integrated into the libraries. Academic libraries acquire and provide access to digital and electronic resources for use by students, research scholars and their faculty members. The integration of digital resources in academic libraries has no doubt transform them into information access center[1].

In the present information environment, majority of academic and research libraries place more emphasis in automating library operations by deploying a network of computers with Internet services and acquiring digital resources such as offline and online databases, CD-

ROMS, e-books, e-journals, etc. With this development, the digital information resources services are diminishing the traditional mode of services with users now requesting for e-information either physically in the library or from remote areas. This necessitatesthe library staff to embrace, learn skills and develop certain competencies to manage and provide services to their customers. The academic librarians are expected to acquire knowledge of different technologies used in libraries through proper training and demonstrate personal and professional competencies to handle information services in libraries.

ICT skills acquisition is the process whereby the library staff received formal or informal training of modern technologies used in libraries by obtaining higher qualifications, attending to conferences, seminars, workshops, trial and error/self-study or on the job training[2,3].Competency is the ability to conduct a given task or the level of skills or expertise poses by an individual in executing a particular assignment or job[2]. Hence it is necessary that the library staff must possess knowledge of global information resources, information services, systems of generating and managing the information skills[4].

To work successfully in the digital library environment, the new generation of library and information science professionals (LIS) should have knowledge of different of ICT applications in libraries such as computer applications, electronic communication, and Internet search skills. Today library and information scientist are encouraged to demonstrate the ability to provide access to a range of information. However, all over the world information professionals are experiencing a dramatic change that needs new skills in the acquisition, management and use of ICT[5]. This study aims to examine ICT skills acquisition and competencies of library staff in some select tertiary institutions of learning in Katsina state, Nigeria.

Problem Statement

Academic librarians in developing countries are confronted with numerous challenges posed by modern technologies which require them to possess relevant skills to handle the emerging complex technologies in order to provide better library services to the user. It is observed that still, some of this category of staff has little skills and competencies to effectively manage and provide digital information services.It is essentials that academic librarians of today need the knowledge and understanding of ICTs to effectively and efficiently handle library services as more digital and electronic resources now prevails especially in academic libraries. This study attempt to find out the ICT skills acquisition and competencies which are most essential for the academic librarians with regard to electronic information services provision.

Review of Related Literature

The literature on ICT skills of academic/professional librarians continues to grow. Most of the discussion revolves aroundthe ICT skills and competencies. Several authors have conducted research in this regard.Lola & Omolola[6]noted that library staff acquires competencies for better service delivery through a number of options such as professional workshops, seminars, as well as formal education.Akande[7] examined ICT skills of library personnel working in academic libraries in Oyo State, Nigeria, and noted that library staff in the study libraries has little relevant ICT skills for using the Internet, email, and computer. In a similar study by Ayoku & Okafor[8] revealed that the library staff were not skillful in advanced web-based ICT packages for web design and they also lack knowledge on how to

catalog and classify electronic information resources, project management, troubleshooting, knowledge of subject gateways, and knowledge of open access library databases.

Khan & Bhatti[9]reports three digital competencies to be exhibited by librarians in the provision of digital and electronic information. They include digital competencies for developing, managing and protecting digital contents. Khan & Bhatti further reveals that attending training programs will boost and enhanced the librarian's digital skills to effectively provide information services in libraries.Oyedokun, Oyewumi, and Akanbi[2] Conducted a study on ICT competencies of library staff in selected universities in Kwara state, Nigeria. Findings of the study reveal that library staff in the affected Universities has ICT skills for managing library operations. They equally identified computer training, attending workshops and watching relevant courses on YouTube as an additional qualification that will boost library staff ICT skills. Furthermore, lack of motivation and encouragement to attend training, and work overload were also identified as part of the challenges affecting library staff ICT skills acquisition. Bansode & Viswe[3] examine ICT literacy skills of professional librarians in the Universities of Maharashtra State India. Findings of the study reveal that the level of ICT literacy of the professionals is satisfactory having acquired the needed skills required to provide digital and electronic information services, though few of them need to enhance their skills in library management software and institutional repository.

Objectives of the Study
This study is guided by the following objectives
1. To examine ICTskills and sources of ICT skills acquisition of academic librarians
2. To find out the constraint to ICTs skills acquisition of the academic librarians.
3. To suggest solutions for improving ICT skills acquisition of library staff

Scope of the Study

The study covers fifteen (15) tertiary institutions of learning in Katsina state Nigeria out of eighteen (18) available institutions. The study also covers library staff withfirst degree and master's degrees only.

Methodology

A survey was carried out across the libraries under study using a questionnaire as a data collection instrument. The questionnaire consists of two sections. Section one asked respondent's demographics and section twocontains dichotomous and multiple-choicequestions to find out the academic librarians' ICT skills in using computer applications, electronic communication, Internet search skills, method of ICT skills acquisition and constraint to ICT skills acquisition. There are 18 tertiary institutions of learning in Katsina state Nigeria. The population of the study consist the subject of the studyfrom three universities, one Polytechnic, eight colleges, and three innovative institutes. There is a total number of one hundred and sixty four (164) academic librarians in the fifteen institutions serving as the population of the study. All the staffwe reconsidered for the study considering their number. Descriptive statistics using frequency count and percentage was used in analyzing the data.

Data Analysis

One hundred and sixty four (164) copies of questionnaires were distributed and one hundred and thirty-five (135) copies were duly signed and returned representing eighty two (82) percent response rate. The analysis of the questionnaire is presented below.

Table-1: Information about Respondents (N=135)

Variables	Responses	Percentage
Gender		
Male	114	84.4
Female	21	15.6
Age Range		
< 25	8	5.9
26-30	29	21.5
31-35	47	34.8
> 36	51	37.8
Academic Qualification		
Degree	120	88.9
Masters	15	11.1
Experience with Computer		
< 5 Years	35	25.9
6-10 years	55	40.7
11-15 Years	20	14.8
> 16 Years	25	18.6

Data in table 1 shows the percentage distribution of the respondent. The male respondents 114 (84.4%) outnumbered the female 21(15.6%). Data in the table also shows the age range of the respondents with 5.9% below 25 years, 21.5% are between the age of 26-30 and 34.7% having 31-35 years while the majority 37.8% are above 36 years of age. The table further shows the academic qualifications of the respondents with 120 (88.9%) having a first degree or Higher National Diploma and 15 (11.1%) with master degree. In terms of computer experience, it is revealed that the majority (40.7%) has 6-10 years' experience in using computer systems, 25.9 % indicated less than five years, 14.8% uses the computer for 11-15 years and 18.6% are using computers for over 16 years.

Table 2 ICT Skills of Academic Librarians

S/N	Computer application	Yes		No	
		Freq.	%	Freq.	%
1	I have the skills of using word processors e.g. MS word	115	85.2	20	14.8
2	I have the skills of spreadsheet e.g. Excel	98	72.6	37	27.4
3	I can use PowerPoint software to present information	88	65.2	47	34.8

		Electronic Communication Skills				
4		I can handle e-mail programs	129	95.6	6	4.4
5		I can create a discussion group using search engines like yahoo	80	59.3	55	40.7
6		I have the skills of Digital image processing	84	62.2	51	37.8
7		I have the skills of library management software's	82	60.7	53	39.3
		Internet Skills				
8		I have the skills of locating e-resources on the web	117	86.7	18	13.3
9		I can set up and participate in Internet conferencing	80	59.3	55	40.7
10		I can search documents on the Internet using advanced search options	99	73.3	36	26.7

Respondents were asked to indicate their knowledgeor otherwise of computer application skills, electronic communication skills, and Internet search skills. Their responses are presented in table 2.

Table 2 reveals the ICT skills of the respondents. On computer application skills, the data reveals that the majority (96%) indicated having knowledge of word processing,72.6% on the spreadsheet and 65.2% are having knowledge on the use of powerpoint for presentation. Electronic communication skills are also essential for academic librarians. It is observed that the majority of the respondents (95.6%) can handle email programs, 59.3% can create a discussion group using any available search engine and 62.2% have skills in digital image processing while 60.7% are knowledgeable in the use of library management software. on Internet search skills, the data reveal that 86.7% has the skills of locating information on the web, 59.3% can set up and participate in Internet conferencing and 73.3% can search documents on the Internet using advanced search options. It could be seen from the table that those that answer no on all the questions are between 38% and below. This means that the academic librarians investigated, are skillful on the questions asked on ICT skills. The respondents were further asked to indicate where they learned ICT skills and their responses are presented in Table 3.

Table 3: Sources of ICT Skills Acquisition

S/N	Sources	Freq.	%
1	Higher Qualification	90	66.7
2	Computer Training School	95	70.4
3	Attending Workshops	97	71.9
4	On the job training	115	85.2
5	Self-study	112	83
6	Web-based tutorial-like YouTube	55	40.7
7	Friends and colleagues	105	77.8

Table 3 reveals the sources of ICT skills acquisition of the academic librarians. It is observed that all the sources mentioned are playinga significant role in the ICT acquisition of the respondents. It can be inferred from the data that the majority(85.2%) acquired their skills while on the job, follow by self-study with 83% responses, attending computer training

school (70.4%), learning from friends/colleagues (73.8%) responses, attending workshops recorded 70.8% responses and 66.7% acquired the skills by obtaining higher qualifications while 40.7% acquired the skills by watching tutorials online.

Table 4 Constraint to ICT Skills Acquisition

S/N	Constraints	Freq.	%
1	Lack of motivation to acquire higher qualifications	85	63
2	Lack of staff training and development	98	72.6
3	Lack of ICT adequate infrastructure to practice	85	63
4	Lack of interest	100	74.1
5	Lack of experience	55	40,7

Table 4 list five constraints to ICT skills acquisition. It is evident from the data analysis that four of the constraint listedhave a negative effect on the respondents' skills acquisition. It is revealed that 63% indicated lack of motivation to obtain a higher qualification, 72.6% indicated inadequate staff training and development, 63% claimed lack of adequate infrastructure to practice, 74.1% admitted lack of interest while 40.7% indicates lack of experience to ICT skills acquisition.

Findings of the Study

- Findings of the study reveal that the majority of the respondents has basic computer applications skills that include word processing, spreadsheet, and powerpoint. They also have knowledge of electronic communication as the majority are skillful in handling email programs,digital image processing, and library management software. On Internet search skills, it is revealed that the majority have the skills of locating digital and electronic resources on the web and advanced search strategy.
- The major sources of ICT skills acquisition are through self-study, on the job training, friends and colleagues and attending workshops.
- The major constraint to ICT skills acquisition as reveal by the respondents are lack of training and development and lack of interest.

Conclusion

The study investigatesICT skills acquisition and competencies of academic librarians in tertiary institutions of learning in Katsina state, Nigeria. It was found that the professional library staff investigated has the minimum ICT skills used to provide digital and electronic information resources services. Though they still need to be updated on emerging information literacy skills. The proliferation of new technology and the resultant effect of changing technology, necessitate academic librarians to be constantly updated on those technologies. The study has revealed that the academic librarians have different sources of ICT acquisition such as self-study and attending a course from a computer training center. Although certain issues like lack of motivation, lack of interest and inadequate training affect their ICT skills acquisition, still they demonstrate the ability to have knowledge of computer skills, electronic and Internet search skills.

Suggestions

In line with the findings of the study and previous discussion, the following recommendations were offered

- The management of the institutions should constantly motivate the academic librarians to acquire higher qualifications and to attend conferences and workshops.
- Those without the necessary skills especially for electronic communication and Internet search should be given the chance to update their knowledge and skills by regular training.
- Academic librarians should be equipped with the knowledge of modern technologies used in libraries and be expert in information governance and information architecture and design.
- They should demonstrate the ability to outsmart the technology and use the technology to identify quality information content.
- They should be organizing conferences'/seminars and workshops at the state level. This will give them the opportunity to be in constant training and development of various ICT applications in library operations.
- They should demonstrate the desire to learn new skills and update their knowledge.
- They should demonstrate transformative leadership and be expert in dealing with people so as to understand users' personal information requirements.

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