

University of Nebraska - Lincoln

DigitalCommons@University of Nebraska - Lincoln

---

Library Philosophy and Practice (e-journal)

Libraries at University of Nebraska-Lincoln

---

2022

## Academic Librarians ICT Competency and Skills Towards Effective Library Service in Ekiti State, Nigeria.

Adedara Judah T

0000-0001-7219-5917, adedarajt@abuad.edu.ng

kolawole oluwatola I

koluwatola@gmail.com

Omonagbe Caroline O

omonagbeco@abuad.edu.ng

Follow this and additional works at: <https://digitalcommons.unl.edu/libphilprac>



Part of the [Information Literacy Commons](#), and the [Scholarly Communication Commons](#)

---

Judah T, Adedara; I, kolawole oluwatola; and O, Omonagbe Caroline, "Academic Librarians ICT Competency and Skills Towards Effective Library Service in Ekiti State, Nigeria." (2022). *Library Philosophy and Practice (e-journal)*. 7462.

<https://digitalcommons.unl.edu/libphilprac/7462>

**ACADEMIC LIBRARIANS ICT COMPETENCY AND SKILLS TOWARDS  
EFFECTIVE LIBRARY SERVICES IN EKITI STATE, NIGERIA.**

**By**

**Adedara Judah T,**

**(principal author)**

**adedarajt@abuad.edu.ng**

**Kolawole Oluwatola I**

**koluwatola@gmail.com**

**&**

**Omonagbe Caroline O**

**omonagbeco@abuad.edu.ng**

Department of Library, Afe Babalola University, Ado Ekiti, Ekiti State, Nigeria.

**ABSTRACT**

The study investigated the academic librarians ICT competency and skills towards effective library services in Ekiti State, Nigeria. Sample for the study comprised about 100 librarians who were randomly selected through simple random sampling. The type of ICT skills possessed by the librarian, level of their ICT competency, sources of ICT skills acquisition and the Challenges Librarians face when using ICT in delivering Library services in their respective libraries were the instruments used to collect relevant data for the study. Findings from the study indicated that librarians have both basic and intermediate ICT skill in the area of their specialization. Results showed that respondents acquire skills from rightful sources which can help them to perform their duties as librarians effectively. Study recommended more availability of ICT equipment in the library, stable electricity is needed, staff motivation, employ ICT expert to train others staff regularly and increment in library budget.

**KEYWORDS**

Academic Library, Librarian, ICT Skill and competencies, Library Services

## INTRODUCTION

Library ever since played a special and the most important role in the development of civilization from time immemorial and regarded as a service-oriented organization wherein the information needs of the user/patron are satisfied. Academic library is one part of the arm of library which render academic related services to his user/patron, academic library is regarded as the heart of a university or the heart and center of information that plays the important role of providing parallel support to its various academic needs such as teaching, learning, and research. While, Information and Communication Technology (ICT) is one of the greatest inventions of mankind which played unprecedented roles in changing the landscape of human and organizational activities around the globe from which libraries are not exempted. With the introduction and implementation of Information & Communication Technology (ICT) in various library activities, the majority of the transactional and other important services are done digitally or electronically by the librarians. With the advent and implementation of different ICT techniques in various walks of life, library of different types also found it useful as driving force to serve users' need, bringing efficiency in transactions (acquiring, organization, storing, retrieving, and dissemination of information), and security of its environment.

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. Mayer (2006) added that ICT in libraries is a term that covers the acquisition, processing, storage and dissemination of information in textual, numerical, pictorial and audio-visual formats. The development and availability of Information and Communication Technologies (ICTs) in libraries have today not only increased and broadened the impact of information resources and brought them to their doorsteps, but also placed more emphasis on effective and efficient services. Their applications in libraries have indeed continued to ease and promote quick and timely access to and transfer of information resources that are found dispensed round the globe.

Nowadays, the users can access the information without wasting any time with the change in trends of delivery or access of information from traditional methods to digital methods. The beginning of 21st Century ushered in evolutionary change to the ways users' access information, such that they now demand for anytime anywhere communication and access to electronic resources (Okuy, 2010). This development brought revolutionary changes to modes and methods of information storage, retrieval, and transmission. During the ancient and medieval era, the functions of the libraries were majorly collection and preservation of information carriers, but advent of twenty-first century, extends the roles of libraries from mere preservation to provision of access and dissemination of information (Kehinde and Tella 2012). In reflection to that, Itsekor and Ugwunna (2014) emphasized that ICT has transformed the face of librarianship as the role of library and information science professionals shift from custodian of books to information professionals, with the responsibility of creating, processing, storing, manipulation and disseminating information electronically.

Due to digital transformation, academic librarians must acquire the right skills to discharge their duties efficiently and must be trained in the application of various ICT tools like automation, Bibliographic standards, ICT based library services, web 2.0 skills, mobile information services, Citation, IR, etc. The librarians must learn and adjust themselves to a rapidly changing the environment by acquiring various ICT skills so that they can become valuable assets for the organization. Additionally, librarians need to update their ICT skill on a regular basis to work effectively in the digital environment. Hence, librarians have a role to play by acquiring ICT skills to discharge their duties. The present study aims at the identification of librarians ICT competency and skills towards effective library services in Ekiti State, Nigeria.

## **PROBLEM OF THE STUDY**

Library services in the 21st century is more advance in rendering to the user/patron than ever before now, it also demanding to maintain that is why the librarian needs to keep up to the task where the ICT is everywhere. The academic libraries which provides the most important services in the communities it serves, must be up to date not only through the means of printed materials and render services manually only, but the librarian needs to move from manual to ICT which will help them to render their service to everyone either physically or by the means of the internet [ICT]. In this area the librarian needs to show their competency and skills to prove to the entire world that they are capable of rendering service to all communities needed, also as we all know that academic library as to do with research for both professional and non-professional users e.g. teacher or lecturer and students, the academic librarian will not like to waste the time of the users but rather be faster than ever in rendering the services the user needed, the academic librarian will not be adamant in insisting that user must visit library before rendering service to them rather his/her ICT competency and skills will be displayed effectively in rendering services to the users

Despite the fact that with the tip of a finger any information can be accessed anywhere anyplace at any rate of time and help academic librarian to deliver their services effectively, it is observed that academic librarians in Ekiti State are not competent in making use of ICT to deliver and render services to their users. It may be as a result of unavailability of the resources in their academic libraries or they are having challenges in using the resources. Therefore, this study will investigate the academic librarians' ICT competency and skills towards effective library services in Ekiti State, Nigeria.

## **OBJECTIVES OF THE STUDY**

The general objective of this research work is to find out the Academic Librarians' ICT competency and skills towards effective library services in Ekiti State, Nigeria. Specifically, the objectives tend to:

- i. Investigate the type of ICT possessed by the librarian in order to assess their competency and skills toward effective Library services in their respective Academic Libraries
- ii. Find out the level of ICT competency of the librarian toward effective Library services in their respective Academic Libraries
- iii. Discover the sources of ICT skills acquisition of Librarian competency and skills towards effective Library services in their respective Academic Libraries
- iv. Determine the Challenges Librarians face when using of ICT in delivering Library services in their respective Academic Libraries

## **RESEARCH QUESTIONS**

The following research questions were raised to guide the study:

- i. What are the type of ICT possessed by the librarian in order to assess their competency and skills toward effective Library services in their respective Academic Libraries in Ekiti State?
- ii. What are the levels of ICT competency of the librarian toward effective Library services in their respective Academic Libraries in Ekiti State?
- iii. What are the sources of ICT skills acquisition of Librarian competency and skills towards effective Library services in their respective Academic Libraries in Ekiti State?

- iv. What are the Challenges Librarians faces when using of ICT in delivering Library services in their respective Academic Libraries in Ekiti State?

## **LITERATURE REVIEW**

This paper review literature on the competency of the librarian when it come to the use of ICT facilities in delivery of their services to library patrons, the effect of ICT on library information resources in the Ekiti State academic libraries and how librarians ICT competences affect the information resources in the selected academic libraries. The development and availability of Information and Communication Technologies (ICTs) in libraries have today not only increased and broadened the impact of information resources and brought them to their doorsteps, but also placed more emphasis on effective and efficient services.

With the changes - they happen so fast. A good way to think about ICT is to consider all the uses of digital technology that already exist that is been used in helping individuals, businesses and organizations to manage information. ICT covers any product that is capable of storing, retrieving, manipulating, transmitting or receiving information electronically in a digital form. The term ICT is also used to refer to the convergence of audio-visual and telephone networks with computer networks through a single cabling or link system. Gurari (2009) defines ICT as a combination of computer hardware, software and telecommunication devices such as telephone system, modem, router, optic cables, satellite communication system etc. Murray (2011) pointed out that ICT is an extended term for information technology (IT) that include the integration of telecommunication devices such as telephone line, wireless signals, computer hardware and software which encompasses storage device and audiovisual systems that ensure access, storage and dissemination of information. In a similar vein, Zuppo (2012) stressed that ICT is associated with technologies that provide access to information through telecommunication gadgets and appliances. He further stressed that ICT covers any product that store, retrieve, manipulate, transmit and receive information electronically in digital format. Rouse (2017) on the other hand opines that ICT is the information infrastructure and component that enable modern computing. She further stressed that is a term that encompasses all information technology, networking components and application software that allow interaction in a digital world.

Competency on the other hand is the ability to do something successfully and efficiently. It is the skills, quality, the ability needed to perform a task. It also tends to describe the level of proficiency of an individual in executing a particular task or job. Competency is the ability, skills, attributes, proficiency of an individual to perform or do something efficiently. Ojiegbe (2010) view competency as a way of demonstrating the knowledge, skills, experience, and attribute of an individual to carry out a defined function successfully. Competency is a set of predefined skills that provide a structured guide against which proficiency of an individual performance in executing a task is been measured and evaluated. Competency could be seen as a combination of practical and theoretical knowledge, skills, behavior, and value needed to improve on a performance. It could also be seen as a state or quality of being adequately equipped and qualified to perform a given task. In corroboration to the above, Larzen (2006) stressed that competency is a combination of theoretical knowledge and practical experience that form the hallmark of individual skills in taking the right action in executing a task. Ferreira et al. (2007) emphasized that competencies include knowledge, skills, abilities, and attitudes that should be acquired through education and training. Competency strives to measure the level of professionalism of an individual.

ICT Competency of library staff is a measure of their capacity to make appropriate use of ICT tools for information selection, acquisition, organization, storage, retrieval and dissemination. In reflection to that, Marshall, Taylor and Yu (2003) contend with two type of competencies for

librarians: first are professional proficiencies which as to do with knowledge of information resources, information technology, leadership and managerial skills and research; and secondly competencies representing a set of skills, attitude and value that emphasize continuous learning throughout librarians' career as well as ability to cope with change. In reflection to the above, Gulati and Raina (2000) expressed that competency requires of librarians include knowledge of print and electronic information resources. There is hardly any human endeavor that advent of ICT has not transformed, one of which academic library is not an exception. The use of ICT is skyrocketing almost every day and libraries are expected to provide services that support wide users' learning and research activities (Head, 2016). It is in connection to this that Ojiegbe (2010) opined that ICT is a force to reckon with for upgrade of academic libraries' services as well as improvement on library staff competencies that provide faculty members and students with dynamic information system and services. Over the past three decades, academic libraries have been affected by information and communication technology. The introduction of various information technologies (ICTs) led to the reorganization, change in work patterns, and demand for new skills, job retraining and reclassification of positions. The technological advancement of the past twenty-five years, such as the electronic database, online services, CD- ROMs and introduction of internet has radically transformed access to information.

Introduction of ICT to library operation change many activities of the library from ways information are been gathered, processed and disseminated which is been done manually but now automated. The new era librarians and practitioners are expected to acquire ICT skill that will enable them to assume a new role as required by the new environment in which they now operate. In connection to the above, Achebe (2010) rightly observed that ICT has strengthened operations in the academic library by providing the necessary support for learning, teaching and research of their parent institutions. Adebisi (2009) recognized some of the benefit of ICT to library operation to include speed and ease of access to information, remote access, that is, unlimited access which combats the constraint of closing hours that restricted access to a particular time and hours. It is in regard to this recognition that National Universities Commission (NUC), which is responsible for the supervision of universities in Nigeria initiated a Nigerian Virtual Library project that gives every university in Nigeria access to e-resources and e-journals.

### **Difficulties related to the use of ICT in Delivering Library Services**

Krubu and Osawaru (2011) revealed some factors hindering the impact of ICT in Nigerian university libraries as lack of search skills, epileptic power supply, expensive software and hardware, and the huge amount of money spent to fuel generators. Oketunji (2002) affirms that the Internet and other ICTs provide a golden opportunity for the provision of value-added services by libraries. Indexing, abstracting and publication of local research and their digitization are means of facilitating learning. Aina (2004) identified the negative laissez-faire attitude of lecturers, students, and libraries as other factors militating against the development and use of ICT in university libraries in Nigeria. Furthermore, Aina (2004) admits the high cost of ICT training but opined that library staff and users should do something on their own to improve their IT skills.

Findings by Makara (2002), and Ugboma (2006) identified lack of fund as one of the constraining factors for the acquisition of skills and competency development in ICT for library staff in the universities. The yearly budget allocation of university libraries is small and this is compounded largely by poor financial provision for staff training and development as well as the fact that some of the employers and superior officers in the profession are morally less supportive to their subordinates for active participation in long programs. (Balarabe, 2005). Some studies attribute reasons for low utilization of ICT among LIS professionals in Nigeria to

lack of technical manpower, cost of information infrastructures, epileptic power supply, lack of full installation of ICT tools, lack of willingness on the part of librarians, lack of implementation policy on the part of management, lack of proper training for librarian in library schools (Mohammad, 2009; Nwalo, 2000).

### **Limitations to ICT Skills Acquisition**

Ayoku and Okafor (2015) study of ICT skills acquisition and competencies among librarians in Nigeria universities, indicated some limitations to ICT skills acquisition by librarians to include: lack of interest in ICT skills acquisition (conservative), technophobia (fear of technology), nonchalant attitude, ignorance and apathy, poor funding of library, insufficient skilled personnel to trained librarian in the country, limited training opportunities, and lack of motivation.

Mathew and Baby (2012) study of developing technological skills for academic librarians in universities in Kerala, India underscored that limitations librarian encounter in utilization of ICT tools in delivering information services include: inadequate training in ICT applications, lack of information infrastructures, lack of support from management, lack of coordination among library staff and lack of initiative from professional associations to conduct specialized training programs.

The forgoing limitations to ICT skills acquisition of librarians have a repercussion on the level at which libraries utilized ICT tools for better and dynamic information service to users. This expression was buttressed by Watts and Ibegbulen (2006), who asserted that lack of adequate ICT infrastructure and in-depth digital skills among library staff constituted barriers to use of ICT tools and resources in the library. Oduwole and Sowole (2006) also identify lack of adequate digital skills among library staff as one of the barriers to use of ICTs in the library

### **Source of ICT Skills Acquisition**

Information and communication technology competencies are set of skills needed for handling of information in various format and media. Bell and Shank (2008) also attributed ICT competency as ability to use digital technology, communication tools and networking technology to locate, evaluate, use and create information. Babu (2007) outline methods of ICT skills acquisition for librarian to include formal education (such as master program), informal education (such as distance learning, self-study and training, attending IT training, workshop, seminar and conference). ICT skills acquisition could be in form of on the job training or outside the work place. Safahieh and Asemi (2008) assessed the computer literacy skill of librarians in Isfahan University in Iran, and they observed that most librarian acquire ICT skills through formal education. Just in consonance to the forgoing, Beebe (2004) identified different method of acquiring ICT skills, which include formal training, informal training from friends and relative as well as self-studying of user manual. Kumar and Kaur (2006) was of the opinion that ICT skills could be acquire through trial and error, guidance from colleagues and friends, training from college, self-study and training as well as external courses.

Library services delivery contain ICT tools in everyday communication, work and activities in the library. The ability to use and operate word processors, data management, spreadsheet, data analysis applications constituted the hallmark of ICT competencies which is now essential job requirement for position of a librarian today. The degree of ICT proficiency requires varies from one position to another based on the tasks and duties involved.

Acquiring ICT skills is a matter of prerequisite to meet the demand of today knowledge driven economy (Maneschijn, Botha & Biljon, 2013). The forgoing expression reflected in the job requirement for the post of a librarian in the labour market. Claro et al. (2012) expatiated that ICT skills encompasses the capacity to solve problems of information, communication and knowledge in digital environment. More of the above was Oliver and Tower (2000) who

ascribed that ICT skills are set of skills required for deployment of ICT tools in solving a particular problem. This is true as it regards to the level, kind and type of ICT required by various profession and organization, which are varies and library profession is not an exemption. It is also true that the kind of ICT skills required in developing countries varies to that of third world countries. What is assumed an advance ICT skills in developing country could be considered a basic ICT skills in a developed world.

Reflecting to the above, make it necessary to categorized ICT skills into various group or type and levels as demanded by different profession and required by first and third world countries. Literature presented some categorization of ICT skills into various types and levels. Lotriet, Mathee and Alexander (2010) emphasized that ICT skills range from basic skills to more advance skills. Elaboration to that, Atasoy, Banker and Pavlou (2012) grouped ICT skills into basic skills, medium level ICT skills and advanced ICT skills.

Buttressing the above is Akoojee, Arends and Roodt (2008), who suggested level of ICT skills for developing countries as follows:

- Lower or basic ICT skills: this include considerable ICT know-how needed for basic data processing and analysis which include competency in the use of generic tools such as word processing, spreadsheet, outlook and PowerPoint Presentation.
- Intermediate ICT skills: this require extensive use of ICT tools for accomplishment of core tasks and functions.
- Higher level of advance ICT skills: this is characterized by specialist nature of been part of development of software and hardware as well as it maintenance.

## **RESEARCH DESIGN**

The research design adopted for this research work is the descriptive design which is ex – post facto. The reason is to describe the responses of the respondents on the Academic Librarians ICT competency and skills towards effective library services in Ekiti State, Nigeria.

## **RESEARCH INSTRUMENT**

The instrument used for this study was questionnaire. The questionnaire covers the ICT competency and skills of academic Librarians towards effective library services in Ekiti State, Nigeria. Four research instruments were used for the study. The instruments were tagged: The type of ICT possessed by the librarian in order to assess their competency and skills toward effective Library services, level of ICT competency of the librarian toward effective Library services, the sources of ICT skills acquisition of Librarian competency and skills towards effective Library services and the Challenges Librarians face when using of ICT in delivering Library services in their respective Libraries. The questionnaire is structures into two sections, label section A and B which section A deal with the demographical information of the respondents while the section B deals with the research questions using five (5) scale likert format.

## **ADMINISTRATION OF THE INSTRUMENTS**

The researcher personally went to the sampled Tertiary Institutions in Ekiti State to administer the instruments to the Librarians. The researcher supervised the completion after that the instruments were retrieved from the Librarians on the spot after completion. Duration of forty-five minutes was allowed for the completion of the instruments. The researcher ensured that the Librarians took no script away.



## DATA ANALYSIS

Survey research design was adopted for the study and structured questionnaire was used to collect data. The questionnaire was divided into five sections, A – D. section A was used to collect respondents information, section B was used to gather information from the respondents on basic ICT skills, section C was used to elicit information from the respondents on intermediate ICT skills, and section D was used to collect information on source of ICT skills, while section E was used to collect information on challenges.

The responses for the sections in the questionnaire are a five likert scale with response choice for each items ranging from strongly agreed, agreed, undecided, disagreed and strongly disagreed. The descriptive statistics involving frequency counts, percentages, mean and standard deviation charts were used for the data analysis. For effective understanding of the analysis, the data of ‘strongly agree’ and ‘agree’ were added together under the name ‘agree’ and that of ‘disagreed’ and ‘strongly disagreed’ were also added together under the name ‘disagreed, while undecided remain the same name.

One hundred (100) copies of questionnaires were distributed and collected, also found usable for analysis. The data collected will be analysed using Statistical Package for the Social Sciences (SPSS) latest version.

Decision rule: If the result is above the acceptable mean of 3.00 it is accepted and if it is below the acceptable mean of 3.00 it is rejected.

### Data Analysis and Interpretation

**Table 1.** Socio – Demographic of the respondents

S/N	SPECIFIC CHARACTERISTICS	NO OF RESPONDENTS	PERCENTAGE (%)
2	Gender of Respondents		
	• Male	52	52.0
	• Female	48	48.0
	Total	100	100
5	AGE		
	• 20 – 25	1	1.0
	• 26 – 30	4	4.0
	• 31 – 35	18	18.0
	• 36 – 40	36	36.0
	• 41 and above	41	41.0
	Total	100	100
5	QUALIFICATION		
	• Diploma	10	10.0
	• Bsc	15	15.0
	• PGDE	3	3.0

	<ul style="list-style-type: none"> <li>• MLIS</li> <li>• PhD</li> </ul>	64	64.0
		8	8.0
	Total	100	100
7	EXPERIENCE		
	<ul style="list-style-type: none"> <li>• 1 – 5</li> <li>• 6 – 10</li> <li>• 11 – 15</li> <li>• 16 – 20</li> <li>• 21 – 25</li> <li>• 26 – 30</li> <li>• 31 and above</li> </ul>	10	10.0
		9	9.0
		35	35.0
		24	24.0
		12	12.0
		6	6.0
		4	4.0
	Total	100	100

The table 1 above reveals that there were more male respondents 52.0% than female 48.0%. The range year indicate that between 20 -25 years we only have 1.0%, 26 -30 we have 4.0%, between 31 – 35 we have 18.0%, between 36 – 40 we have 36.0% and 41 and above we have 41.0%. Majority of the respondent qualification were 10.0% with Diploma, 15.0% with Bsc, 3.0% with PGDE, 64.0% with MLIS and 8.0% with PhD. Also, the experience were varies which falls in between the year in range of 10.0% are between 1 – 5, 9.0% are between 6 –10, 35.0% are between 11 – 15, 24.0% are between 16 – 20, 12.0% are between 21 – 25, 6.0% are between 26 – 30 and 4.0% are between 31 and above.

### **Types of Information and Communication Technology Skills Possessed by Library Staff**

Table 2. the basic ICT skills

S/N	BASIC ICT SKILLS	A	%	U D	%	D	%	MEAN	STANDARD DEVIATION	DECISION
1	Word Processing (Ms Word)	80	80.0	10	10.0	13	13.0	4.15	1.058	Accepted
2	Statistics Analysis	44	44.0	18	18.0	38	38.0	3.08	1.489	Accepted
3	Scanning and uploading	73	73.0	5	5.0	22	22.0	3.78	1.211	Accepted
4	Electronic Presentation (PowerPoint)	65	65.0	15	15.0	20	20.0	3.77	1.309	Accepted
5	Use of Internet	93	93.0	7	7.0	-	-	4.65	.609	Accepted

The result in table 2 reveals that the librarians have the knowledge of word processing (Ms Word) and observed that the mean score is 4.15 which the respondents agreed with 80%. Librarians have the knowledge of statistics analysis and observed that the mean score is 3.08 with 44.0% respondents agreed with 80% and 18.0% undecided. We have 73.0% respondent agreed with mean of 3.78 in librarian knowledge about scanning and uploading. Electronic presentation (PowerPoint) respondent proved with 65.0% agreed in resulting to the mean of 3.77 the librarians knowledgeable to the skill. The greatest skills so ever are 93.0% respondent tells how skillful librarians are in use of internet. With the above analysis and interpretation, the librarian possess all above basic ICT skills when compare each items mean with the acceptable mean of 3.0 we will see that they all above the acceptable mean.

**Table 3 the intermediate skills**

S/N	INTERMEDIATE ICT SKILLS	A	%	UD	%	D	%	MEAN	STANDARD DEVIATION	DECISION
1	Content Management	83	83.0	10	10.0	7	7.0	4.26	.970	Accepted
2	Document/Database	71	71.0	19	19.0	10	10.0	3.96	1.197	Accepted
3	Online Book selection/Acquisition	76	76.0	14	14.0	10	10.0	3.98	.932	Accepted
4	Online Copy Cataloging	85	85.0	5	5.0	10	10.0	4.27	.952	Accepted
5	Online Registration of Patron	82	82.0	11	11.0	7	7.0	3.99	.870	Accepted
6	Use of Library Software	66	66.0	20	20.0	14	14.0	3.69	1.178	Accepted
7	Virtual Help Desk	81	81.0	8	8.0	11	11.0	3.96	1.014	Accepted
8	E-Referencing	65	65.0	15	15.0	20	20.0	3.59	1.190	Accepted
9	Online Public Access Catalogue (OPAC)	90	90.0	8	8.0	2	2.0	4.46	.731	Accepted
10	Networking	80	80.0	10	10.0	10	10.0	4.08	.939	Accepted
11	Programming	62	62.0	22	22.0	16	16.0	3.67	.985	Accepted
12	Knowledge taxonomy	62	62.0	18	18.0	20	20.0	3.65	1.048	Accepted

The result in table 3 reveals that the librarian's capable use of the content management has respondent agreed with 83.0% along mean of 4.26. Document/Database skills are well understood by librarian, 71.0% respondents agreed with the mean of 3.96. Librarian are knowledgeable in Online book selection/acquisition has 76.0% respondents agreed which result to mean of 3.98. Online copy cataloging contain 85.0% agreed respondents with 4.27 mean. Librarians have the knowledge of online registration of patron and observed that the mean score is 3.99 with 82.0% respondents agreed. We have 66.0% respondent agreed with mean of 3.69 in librarian knowledge about use of library software. Virtual help desk respondent proved with 81.0% agreed in resulting to the mean of 3.96 the librarians knowledgeable to the skill. The E-Referencing skills according to the respondents of 65.0% agreed and mean of 3.59 prove that librarian had this skill. The greatest skill so far on this table is online public access catalogue

(OPAC) 90.0% respondent agreed with mean of 4.46 tells how skillful librarians are in use of the skill. Networking we have 80.0% respondent agreed with mean of 4.08 in librarian knowledge about the skill. Librarian are knowledgeable in programming has 62.0% respondents agreed which result to mean of 3.67. Knowledge taxonomy contain 62.0% respondent agreed with 3.65of mean. Analysis above shows that librarian possess all above basic ICT skills when compare each items mean with the acceptable mean of 3.0 we will see that they all above the acceptable mean.

**Table 4. source of ICT skills**

S/N	SOURCE OF ICT SKILLS	A	%	U D	%	D	%	MEAN	STANDARD DEVIATION	DECISION
1	Library School	86	86	4	4	10	10	4.28	1.120	Accepted
2	Computer Center	67	67	10	10	23	23	3.72	1.190	Accepted
3	Workshops and Seminars	63	63	17	17	20	20	3.76	1.364	Accepted
4	Qualification Computer Science	59	59	21	21	20	20	3.75	1.298	Accepted
5	Training in the Job	79	79	5	5	16	16	4.04	1.310	Accepted
6	Personal Training	55	55	-	-	45	45	3.21	1.604	Accepted
7	Web Tutorial e.g. YouTube	72	72	12	12	16	16	3.65	1.158	Accepted
8	Friends and Colleagues	58	58	12	12	30	30	3.44	1.380	Accepted

The result in table 4 indicates that librarians got their ICT skills form one source or the other, 86.0% received ICT skills from library school, 67.0% from computer center, 63.0% from workshops and seminars, 59.0% from qualification computer science, 79.0% from training in the job, while 55.0% from personal training, 72.0% from web tutorial like YouTube, and 58.0% from friend and colleagues. Based on the question asked, the researcher observed that there are many sources that the librarian received their ICT skills from and each source above the acceptable mean of 3.0.

**Table 5. the challenges**

S/N	CHALLENGES	A	%	U D	%	D	%	MEAN	STANDARD DEVIATION	DECISION
1	Inadequate ICT infrastructure	69	69	16	16	15	15	3.85	1.290	Accepted
2	Power Shortage	74	74	-	-	26	26	3.85	1.617	Accepted
3	Technophobia	46	46	6	6	48	48	3.09	1.596	Accepted

4	Lack of Innovation/Motivation	72	72	10	10	18	18	3.92	1.277	Accepted
5	Lack of Expert	40	40	20	20	40	40	3.19	1.461	Accepted
6	Lack of Training	79	79	10	10	11	11	4.27	1.145	Accepted
7	Library Low Budget	49	49	31	31	20	20	3.36	1.275	Accepted

The analysis presented on table 5 showed that the mean rating from item 1 – 7 were rated above the accepted mean of 3.0 and thus accepted. This implies that there are many challenges facing academic librarians ICT competency and skills towards effective library services such as inadequate ICT infrastructure, power shortage, technophobia, lack of innovation/motivation, lack of expert, lack of training and library low budget

## CONCLUSIONS AND RECOMMENDATION

The study was carried out to investigate the academic librarians ICT competency and skills towards effective library services in Ekiti State, Nigeria. The key finding reveals that librarians have both basic and intermediate ICT skill in the area of their specialization. Moreover, results showed that respondents (librarians) acquire skills from rightful sources which can help them to perform their duties as librarian effectively.

However, the study recommended the following:

- More availability of ICT equipment in the library.
- Stable electricity is needed.
- Staff motivation.
- Employ ICT expert who can train others staff regularly.
- Increment in library budget.

## REFERENCE

- Adebisi, O. L. (2009). ICT availability, accessibility and resource sharing in Federal Polytechnic Libraries in South-West Nigeria. *International Journal of Information and Communication Technology*, 6 (2), 169-172. Retrieved on 15th February, 2017 from: <https://www.ajol.info/index.php/ict/article/view/52726>
- Aina, L.O. (2004). *Library and information science text for Africa*. Ibadan: Third World Information Services Ltd
- Akoojee, S., Arends, F. & Roodt, J. (2008). ICT skills at the intermediate level in South Africa: Insights into private provision and labour market demand. *Human Sciences Research Council*. Retrieved on 20th August, 2017 from: [www.hsrepress.ac.za/product.php?productid=2208](http://www.hsrepress.ac.za/product.php?productid=2208)
- Ayoku, O. A. & Okafor, V. N. (2015). ICT skills acquisition and competencies of librarians. *The Electronic Library*, 33(3), 502-523. Retrieved on May 31, 2017 from: <http://dx.doi.org/10.1108/EL-08-2013-0155>

- Babu, B. R., Vinayagamoorthy, P. & Gopalakrishnan, S. (2007). ICT skills among librarians in engineering educational institutions in Tamil Nadu.” *DESIDOC Bulletin of Information Technology*, 27 (6), 55-64. . Retrieved on 10th January, 2017 from: [www.indianjournals.com/ijor.aspx?target=dbitvolume=27](http://www.indianjournals.com/ijor.aspx?target=dbitvolume=27)
- Balarabe, A. A. (2005). The curriculum for library education and training in Nigeria and the challenges of information and communication technology (ICT). *Nigerian Library Link*, 3 (1/2), 1-9.
- Bell, T. and Shank, J. (2008). Digital literacy, definition and resources: What is digital literacy? Retrieved on 20th August, 2017 from: <http://cleach.wordpress.com/what-is-digital-literacy>
- Claro, M., Preiss, D. D., San Martín, E. I, Jara, I., Hinostroza, J. E., Valenzuela, S., Cortes, F. & Nussbaum, M. (2012). Assessment of 21st century ICT skills in Chile: Test design and results from high school level students. *Computers & Education*, 59, 1042-1053. Retrieved on 15th January, 2017 from: <https://www.learntechlib.org/p/66450/>
- DeWatteville, A., & Gilbert, L. (2000). *Advanced Information and Communication Technology*. Oxford: Heinemann Educational Publishers.
- Ferreira, F., Santos, J. N., Nascimento, L., Andrade, R. S., Barros, S., Borge, J., Jambeiro, O. (2007). Information professionals in Brazil: Core competencies and professional development. *Information Research*, 12(2), 229-235. Retrieved on 15th January, 2017 from: <http://informationR.net/ir/12-2/paper299.html>
- Gulati, A., & Raina, R. L. (2000). Professional competencies among librarians and information professionals in the knowledge era. *World Libraries*, 10(1&2). Retrieved on 15th January, 2017 from: [http://www.worlib.org/vol10no1-2/print/gulati\\_print.html](http://www.worlib.org/vol10no1-2/print/gulati_print.html)
- Istekor, V. O. & Ugwunna, K. S. (2014). ICT competencies in the 21st century library profession: A departure from the past. *International Journal of Academic Library and Information Science*, 2(5), 51-57. Retrieved on 5th may 2017 from: <http://eprints.covenantuniversity.edu.ng/4556/1/ITSEKOR%20and%20UGWUNNA.pdf>
- Kehinde, A. A. & Tella, A. (2012). Assessment of Nigerian university library websites/webpages. *New Review of Information Networking*, 17(2), 69-92. Retrieved on 20th August, 2017 from: <https://www.tandfonline.com/doi/abs/10.1080/13614576.2012.724282>
- Krubu, D. E. & Osawaru, K. E. (2011). The impact of information and communication technology (ICT) in Nigeria university libraries. *Library Philosophy and Practice (e-journal)*. Retrieved on 20th of August from <http://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1355&context=libphilprac>
- Kumar, M. (2009). *Academic libraries in electronic environment: Paradigm shift*. A paper presented at the International Conference on Academic Libraries (ICAL) held at the University of Delhi, India.

- Larsen, G. (2006). Preparing for new and changing roles: The need for continuing professional development. *Research Libraries*, 16(3/4). Retrieved on 20th August, 2017 from: <http://liber.library.uu.nl/>
- Lotriet, H. H., Mathee, M. C. & Alexander, P. M. (2010). Challenges in ascertaining ICT skills requirements in South Africa. *South African Computer Journal*, 46, 38-48. Retrieved on 5th may 2017 from: <http://sacj.cs.uct.ac.za/index.php/sacj/article/view/64/23>
- Makara, M. (2002). *Skills and competencies for the 21st century information Professionals: A case of Lesotho*. Paper presented at the 5th National Conference of the Library and Information Association of South Africa, Sept 30–Oct. 4, 2002. Retrieved on 5th may 2017 from: <https://www.emeraldinsight.com/doi/abs/10.1108/00330330710831611>
- Maneschijn, M. M., Botha, A. & Van-Biljon, J. A. (2013). *A critical review of ICT skills for higher education learners*. Paper presented in Adaptive Science and Technology 2013 conference. DOI:10.1109/ICASTech.2013.6707503
- Marshall, S., Taylor, W., & Yu, X. (2003). *Closing the digital divide: Transforming regional economies and communities with information technology* (Ed.). Westport CT, USA: Greenwood Publishing.
- Mathew, S. K. & Baby, M. D. (2012). Developing technology skills for academic librarians: A study based on the universities in Kerela, India. *Library Philosophy and Practice (ejournal)*. Retrieved on 20th August, 2017 from: <http://digitalcommons.unl.edu/libphilprac/702/>
- Mayer, S. (2006). *Information and Communication Technology*. Washington, D.C. National Academic Press. p.4.
- Nwalo, K. N. (2000). *Collaboration in the provision and utilization of IT facilities for libraries and information science education in Nigeria*. Paper presented at the National Association of Library and Information Education (NALISE) Ibadan, March 20- 23.
- Ojiegbe, N. (2010). *ICT competencies of library staff at the University of Abuja, FCT and University of Jos, Plateau state*. Unpublished dissertation presented to the department of library and information science, University of Nigeria, Nsukka. Retrieved on 20th August, 2017 from: [www.unn.edu.ng/publications/files/images/NGOZI%20PROJECT%20MLS.pdf](http://www.unn.edu.ng/publications/files/images/NGOZI%20PROJECT%20MLS.pdf)
- Oketunji, I. (2002). *40 years information and communication technologies (ICT) library services to the nation*. Paper delivered at the Nigerian Library Association 40th Anniversary Meeting held at ASCON, Topo, Badagry, Lagos State, 16th – 21st June.
- Okiy, R. B. (2010). Globalization and ICT in academic libraries in Nigeria: The way forward. *Library Philosophy and Practice (e-journal)*. Retrieved on 20th January, 2017 from: <http://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1519&context=libphilprac>

- Oliver, R. & Towers, S. (2000). *Benchmarking ICT literacy in tertiary learning settings*. Paper presented at the Learning to choose: Choosing to learn. Proceedings of the 17th Annual ASCILITE Conference
- Safahieh, H, and Asemi, A. "Computer literacy skills of librarians: A case study of Isfahan University libraries, Iran." *The Electronic Library*, vol. 28, no. 1, 2010, pp. 89-99.
- Ugboma, M. U. (2006). Information and communication literacy among practicing librarians in Delta State. *The Information Manager*, 6 (1/2), 1-7.
- Watts, C. & Ibegbulem, I. (2006). Access to electronic healthcare information resources in developing countries: Experience from the medical library, College of Medicine, University of Nigeria. *IFLA Journal*, 32(54). Retrieved on 20th August, 2017 from: <http://www.ifla.sagepub.com/content/32/1/54.full.pdf>