

# Librarians' Information and Communication Technology (ICT) Skills for Effective Information Service Delivery in University Libraries in Nasarawa State, Nigeria.

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### Abstract

This is a study on librarians' ICT skills for effective information service delivery in university libraries in Nasarawa State, Nigeria. The variables for the study were limited to user services ICT skills of librarians for effective information service delivery in Nasarawa State, Nigeria. Three research questions guided the study. The study adopted census survey research design with a population of 54 professional librarians working in the university libraries in Nasarawa State. Questionnaire was used as the instrument for data collection, 48 (88.89 %) out of 54 copies distributed were properly completed and returned. The data collected were analyzed using Percentages, Means and Standard Deviation. Findings revealed the ICT skills required by librarians, at least (68.8%) of the librarians possessed the ICT skills required and challenges militating against the librarians' acquisition of required ICT skills for effective information service delivery in university libraries in Nasarawa State, Nigeria. The study recommended that university library authorities should ensure that librarians possess the ICT skills required for effective service delivery through seminars, workshops and adequate funding. The study concluded that remote access to the libraries' ICT based services due the deployment of librarians' ICT skills is one of the reasons library users is deserting the library physical space in recent time.

**Key Words:** ICT Skills, Information, Information services. University Library

## Introduction

Various changes and development in the library space in recent time has led to university libraries developing into a global information service centers serving both local and international customers because of the application of ICTs in library operations and services. Okeaghalam, Ajibili and Achi (2020) captured the development when they described the modern library as “a place where unrestricted information is accessed in different format and sources with the help of librarians and other information professionals that interpret and advance the utilization of these information resources using bibliographic and other digital tools”. The modern library is no longer limited by space or location as users can always get access to varieties of information sources beyond their immediate environment. This is made possible by the application of ICTs in rendering library information services. The modern library is therefore automated to improve users’ experience by providing accessible, timely, authoritative and quality information and information services.

Information services are referred to all library activities and processes geared towards the provision of library services to users (Agoh & Omekwu, 2021). These activities and processes are divided into two parts which include technical and user services. Technical services has to do with acquisition, cataloguing and classification of library resources and all other input activities that prepares library information resources for effective control, easy access and utilization by library users. User services on the other hand have to do with the entirety of support provided by the library for its users. It

comprises all library activities aimed at encouraging the use of library resources, which includes Reference Services (RS) and Circulation Services (CS) among others (Okwu & Oporum, 2021). This study is geared towards reader service librarians' ICT skills that enable librarians to render effective library services to the users. Effective library information service delivery entails library users get access to the right information as fast as possible at all times. To achieve this, libraries deliver ICT based services in various forms such as printing services, reprographic services, online reference services, online customer care services, online inter-library loan services, digitized finding aids such as online indexes and bibliographies among others, to meet the various information needs of the library users. These services cannot be effectively carried out in the university libraries without librarians' ICT skills.

ICT skill requirement of librarians for reader services according to. Ocholla as cited in Oyedokun, Oyewumi, Akanbi, and Laaro (2018) include: word processing, spreadsheet, database management, document management skills among others. To ensure that these skills are available is essential for effective information services delivery in University libraries in Nasarawa State.

Nasarawa State is an agrarian state with majority of her population dwelling in rural areas and are majorly farmers farming yams, grains, rearing of animal due to their environmental terrains. Notwithstanding, the state has sound educational systems that cut across all level of education, as a result, the state has a number of universities with vibrant libraries. That is, some of these libraries are automated that require librarians manning them to possess relevant ICT skills for effective information service delivery, It is against

this backdrop that the researcher is set to study librarians' ICT skills for effective information service delivery in university libraries in Nasarawa State.

### **Statement of the Problem**

As the traditional manual library services are giving way to ICT base services, libraries become part of the global information network, hence a prominent contributor to the global information system where any library user with the right garget and internet access could access the right information at every given time. ICT skills therefore become one of the most important skills needed by librarians to cope with effective information service delivery. ICT skills are needed by librarians for basic computer operation, reprographic services, internet base services and the utilization of the library management software for effective service delivery. However without the study of librarians' ICT skills it may be difficult to ascertain if librarians are part of the myriads of problems affecting library ICT based information services delivery, for instance if librarians are lacking in ICT skills it is obvious they will not be able to contribute effectively to the global information system and their immediate users will be severely deprived of effective electronic library services in the university systems. The users may also be deprived of all time access to the library information resources and services and ICT skill guidance which the library offers to the users. This in turn may affect their academic performance and their ability to access electronic information to satisfy their information needs. It may also affect the image of librarians, the library profession and the libraries giving the enormous financial resources spent to maintain these libraries.

The researchers have observed in the study area that the number of library users that visit the library physical space in recent time has reduced; this may be as result of effective ICT based service delivery or total service dissatisfaction due inadequate librarians' ICT skills in these university libraries? It is based on these that the researcher intends to study librarians' ICT skills for effective information service delivery in university libraries in Nasarawa State, Nigeria.

### **Research Questions:**

The following research questions guided the study.

1. What are the ICT skills required by librarians for effective information service delivery in University libraries in Nasarawa State, Nigeria?
2. What are the ICT skills possessed by the librarians for effective information service delivery in University libraries in Nasarawa State, Nigeria?
3. What are the challenges militating against librarians acquisition of required ICT skills for effective information service delivery in University libraries in Nasarawa State, Nigeria?

### **Literature Review**

University libraries are libraries found in the university environment. Usman (2015) viewed "the university library as a subset of a collection of libraries (such as those in colleges, polytechnics and other higher institution of learning) which are collectively referred to as academic libraries". Advances in ICTs have significantly changed the way information is acquired, processed, stored, retrieved, and communicated. This has invariably affected the ways university libraries operate in information provision and delivery (Nkamnebe, Okeke, Udem & Nkamnebe, 2015). Previously, information resources

were mostly in print form, but in the current era, university libraries in developing nations are attempting to adapt their services by shifting into digital media and information service delivery new realities. The use of ICTs in university libraries increases patron satisfaction with the information resources available, saves time for both library personnel and users, prevent duplication of effort, and makes library services efficient (Nayana, 2019). As a result, there is need for ICT competent librarians to pilot the affair of university library in the 21st century.

Librarians are major stake holder in the library project because the library processes are the product of their professional training. They are the head of major departments and sections of the library where they exhibit their skills and competencies. Library activities and processes revolve around the librarians; the more competent they are the better the library output in terms of organization and information service delivery. In describing librarians Okoro (2015) wrote that a “librarian is not just a person who went to the university and obtained a degree rather such a person who stayed for four years and after internship in library and information science get a certification as a library professional, he supposed to be a store keeper of the world’s knowledge treasure, well brewed in such professional duties as cataloguing and classification of information materials”. Librarians manage library resources and provide leadership for the profession; they supervise other categories of staff of the library, perform technical duties and formulate policies for effective management of the library.

Librarians’ ICT skills have to do with possessing required ICT skills, Dube (2020) maintained that ICT skills for librarians entail the understanding and knowledge of

computer usage and applications of (ICTs) that will assist librarians to render quality library and information service. Anyoku cited in Nkamnebe, *et. al*, (2015) opined that ICT skills of librarians can be divided into two broad classes, first are skills required to use computer and information technological tools. These include skills for using software application programmes for example word processing tools, graphic design tools, presentation software, web development software, scanning techniques, database creation and maintenance, software installation skills and knowledge of hardware basics and troubleshooting. The second category includes skills for using the internet and computer communication networks such as skills to search and retrieve data effectively on the web environment. This signifies that librarians should possess the ability to efficiently use personal computers (PC), photocopiers, printers, barcode technology, email, audio-visual materials, intranet, Internet, library automation systems, web applications, electronic resources, OPAC and databases” (Tanloet & Tuamsuk, 2011). Librarians must be able to train and assist library clients with basic ICT skills such as searching and browsing the library catalogue, requesting information resources online, downloading online resources, and renewing overdue library items on the library portal. To achieve this, librarians must possess knowledge of library technologies as part of excellent customer service (Hossain & Sormunen, 2019). Ocholla cited in Oyedokun, *et. al*, (2018) pointed out the requirement for the job of a librarian includes competencies such as computer literacy in; word- processing, spreadsheet, database management, online search, document management, library automation, web design and development among others. ICT skills of librarians is therefore possessing the ability, capability, skills and knowledge to use digital technologies

in its various forms to evaluate, use, create, source, acquire, process, store, retrieve, preserve, and disseminate information to library users with the view of meeting their varying and changing information needs.

Challenges of acquiring ICT skills by librarians may be seen as obstacles hindering librarians from acquiring ICT skills. Ayoku and Okafor (2015) indicated that: fear of technology, nonchalant attitude, poor funding of libraries, insufficient skilled personnel to train librarians, limited training opportunities, and lack of motivation are constraint to ICT skill acquisition by librarians. Nkamnebe, *et. al*, (2015) findings revealed that Librarians have little or no interest for ICTs (3.12), Nigerian library schools have not effectively integrated ICTs in their curriculum (2.73) , Lack of ICT facilities in libraries (3.34) as major challenges affecting librarians' acquisition of ICT skill. Oyedokun, *et. al*, (2018) identified constraints to ICT skill acquisition as tight working schedule, lack of motivation, and lack of experience. This review shows that the challenges of acquiring ICT skills by librarians include fear of technology, nonchalant attitude, ignorance , poor funding, insufficient skilled personnel to train librarians, limited training opportunities, lack of motivation, inadequate information infrastructures, inadequate support from management, too much work overload, lack of coverage in library school curriculum, short library internship period among others.

### **Research Design:**

The study adopted census survey research design. The population of the study comprised the 54 professional librarians working in the university libraries in Nasarawa State. A questionnaire developed by the researcher was used as instrument for data

collection. The researcher distributed 54 copies of the instrument and 48 of them were properly completed and returned, resulting in a response rate of 88.89%. The data collected were analyzed using Percentages, Means and Standard Deviation.

### Research Question One:

What are the ICT skills required by librarians for effective information service delivery in university libraries in Nasarawa State, Nigeria?

To answer this research question, data on the ICT skills required by librarians for effective information service delivery in university libraries in Nasarawa State, Nigeria were collected and analyzed as presented on Table 1.

**Table 1: Percentage distribution of respondents on ICT skills required by librarians for effective information service delivery in university libraries in Nasarawa State, Nigeria.**

S/ N	ITEMS	R	NR	Decisio n	RANK
1	Word Processing skill.	45(93.80%) )	3(6.3%)	R	4th
2	Spread sheet management skill.	41(85.40%) )	7(14.60%) )	R	7th
3	Electronic presentation skill.	46(95.8%)	2(4.2%)	R	3rd
4	Printing skill.	44(91.7%)	4(8.3%)	R	5th
5	Photocopying skill.	46(95.8%)	2(4.2%)	R	3rd
6	Scanning skill.	45(93.8%)	3(6.3%)	R	4th
7	Search skill.	47(97.9%)	1(2.1%)	R	2nd
8	E-mailing skill.	47(97.9%)	1(2.1%)	R	2nd
9	Library software utilization skill.	48(100%)	0(0%)	R	1st

10	Social media skill.	47(97.9%)	1(2.1%)	R	2nd
11	Database management skill.	48(100%)	0(0%)	R	1st
12	Online current awareness service skill.	48(100%)	0(0%)	R	1st
13	Online selective dissemination of information service skill.	48(100%)	0(0%)	R	1st
14	Online reference service skill.	48(100%)	0(0%)	R	1st
15	Online readers' advisory service skill.	43(89.6%)	5(10.4%)	R	6th
16	Internet service skill.	47(97.9%)	1(2.1%)	R	2nd
17	Electronic document delivery service skill.	46(95.8%)	2(4.2%)	R	3rd
18	Online bibliographic service skill.	47(97.90%)	1(2.1%)	R	2nd
19	Online Public Access Catalogue (OPAC) utilization skill.	34(70.8%)	14(29.2%)	R	8th

**Key: R= Required, NR= Not Required**

Table 1 shows the percentage distribution of respondents on ICT skills required by librarians for effective information service delivery in university libraries in Nasarawa State, Nigeria. The overall rating shows that library software utilization skill, Database management skill, Online current awareness service skill, Online selective dissemination of information service skill, Online reference service skill has response of 100% and were ranked highest among the skills required for effective information service delivery while Online Public Access Catalogue (OPAC) utilization skill was ranked lowest among the skills required for effective information service with 70.8%, this means that all the items listed have values ranging from 70.8% -100% which are above the benchmark of 50% indicating

that all the skills listed were identified as ICT skills required for effective information service delivery in university libraries in Nasarawa State, Nigeria.

### Research Question Two

What are the ICT skills possessed by the librarians for effective information service delivery in university libraries in Nasarawa State?

To answer this research question, data on the ICT skills possessed by librarians for effective information service delivery in university libraries in Nasarawa State, Nigeria were collected and analyzed as presented on Table 2.

Table 2 shows the percentage distribution of respondents on ICT skills possessed by the librarians for effective information service delivery in university libraries in Nasarawa State, Nigeria. The overall rating shows that “Word Processing skill” has the response of 100% and was ranked highest among the ICT skills possessed by the librarians for effective information service delivery in university libraries in Nasarawa State, Nigeria while online readers’ advisory service skill was ranked lowest among the ICT skills possessed by the librarians with a response of 68.8%. This means that all the items listed have values ranging from 68.8% - 100% which are above the benchmark of 50% indicating that at least 68.8% of the librarians possessed the ICT skills required for effective information service delivery in university libraries in Nasarawa State, Nigeria.

**Table 2: Percentage distribution of respondents on ICT skills possessed by librarians for effective information service delivery in university libraries in Nasarawa State, Nigeria.**

S/N	ICT Skills	Possessed	Not Possessed	Decision	Rank
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20	Word Processing skill.	47(97.9%)	1(2.1%)	P	1st
21	Spread sheet management skill.	33(68.8%)	15(31.3%)	P	11th
22	Electronic presentation skill.	39(81.3%)	9(18.8%)	P	7th
23	Printing skill.	44(91.7%)	4(8.3%)	P	4th
24	Photocopying skill.	45(93.8)	3(6.3%)	P	3rd
25	Scanning skill.	45(93.8%)	3(6.3%)	P	3rd
26	Search skill.	46(95.8%)	2(4.2%)	P	2nd
27	E-mailing skill.	45(93.8%)	3(6.3%)	P	3rd
28	Library software utilization skill.	42(87.5%)	6(12.5%)	P	6th
29	Social media skill.	45(93.8%)	3(6.3%)	P	3rd
30	Database management skill.	38(79.2%)	10(20.8%)	P	8th
31	Online current awareness service skill.	36(75%)	12(25%)	P	10th
32	Online selective dissemination of information service skill.	38(79.2%)	10(20.8%)	P	8th
33	Online reference service skill.	36(75%)	12(25%)	P	10th
34	Online readers' advisory service skill.	33(68.8%)	15(31.2%)	P	11th
35	Internet service skill.	43(89.6%)	5(10.4%)	P	5th
36	Electronic document delivery service skill.	39(81.3%)	9(18.7%)	P	7th
37	Online bibliographic service skill.	37(77.1%)	11(22.9%)	P	9th
38	Online Public Access Catalogue (OPAC) utilization skill.	42(87.5%)	6(12.5%)	P	6th
	<b>Cluster Mean %</b>	<b>45.5(94.9%)</b>	<b>2.5(5.1%)</b>	<b>P</b>	

**key: P=possessed, NP=Not Possessed**

### Research Question Three

What are the challenges militating against librarians acquisition of required ICT skills for effective information service delivery in university libraries in Nasarawa State?

To answer this research question, data on the challenges militating against librarians'

S/N	Challenges of acquiring ICT skills	Mean	SD	Decision	Rank
58	Library school curriculum is not adequate and has limited my ability to acquire ICT skills.	2.96	0.41	Agree	3 <sup>rd</sup>
59	Inadequate provision of fund by management for staff training/development programme has limited my ability to acquire ICT skills.	3.31	0.38	Agree	1 <sup>st</sup>
60	Staff compensation (salary) is very poor and has limited my ability to acquire ICT skills.	3.15	0.22	Agree	2 <sup>nd</sup>
61	Tight working schedule has limited my ability to acquire ICT skills.	2.77	0.74	Agree	5 <sup>th</sup>
62	Inadequate provision of ICT facilities (eg. Internet, computers) in my institution has	2.81	0.61	Agree	4 <sup>th</sup>

acquisition of required ICT skills for effective information service delivery in university libraries in Nasarawa State, Nigeria were collected and analyzed as presented on table 3

**Table 3: Mean and Standard Deviation (SD) on the challenges militating against librarians' acquisition of required ICT skills for effective information service delivery in university libraries in Nasarawa State, Nigeria**

63	limited my ability to acquire ICT skills. Lack of interest in using ICT facilities has limited my ability to acquire ICT skill.	2.35	0.88	Disagree	6 <sup>th</sup>
<b>Cluster Mean</b>		<b>2.89</b>	<b>0.54</b>	<b>Agree</b>	

Table 3 shows the mean rating and SD on the challenges militating against the librarians' acquisition of required ICT skills for effective information service delivery in university libraries in Nasarawa State, Nigeria. From the table as presented, it can be seen that items 58 - 62 have mean values ranging from 2.77 – 3.31 which are above the benchmark of 2.50 while items 63, have mean value of 2.35 which is below 2.50. The table further revealed a cluster mean of 2.89 and SD = 0.54 which is above the benchmark of 2.50. These indicate that all the items are considered as challenges militating against the acquisition of required ICT skills for effective information service delivery in university libraries. However, item 63 revealed that lack of interest is not a challenge of acquiring ICT skills for effective service delivery among the librarians.

### Discussion of Findings

Based on the findings obtained from the study, the following were discussed: Firstly, the study identified crucial ICT skills required by librarians in university libraries in Nasarawa State for effective information service delivery, these skills include Word Processing skill, Spread sheet management skill, Electronic presentation skill, Printing skill, Photocopying skill, Scanning skill, Search skill, among others, The librarians under study unanimously agreed that these skills are required for effective information services delivery in university libraries in Nasarawa State, Nigeria. The outcome of this study shows

that these skills are relevant and should be acquired by librarians for effective information service delivery in university libraries in Nasarawa State, Nigeria.

The second significant finding of this study is that at least 68.8% of the librarians possessed the ICT skills required for effective information service delivery in university libraries in Nasarawa State, Nigeria. This means that at least 68.8% have overcome the challenge of adopting ICTs and have acquire ICT skills for effective information service delivery in university libraries in Nasarawa State, Nigeria. Embracing ICT in library service delivery is a significant milestone for the librarians, the library profession and the library users because of the immense benefits of ICTs which optimizes the very essence of librarianship and enables libraries to deliver fast, accurate and authoritative information to library users with great precision and efficiency.

Finally, the study's findings shed light on the challenges militating against librarians' acquisition of required ICT skills for effective information service delivery in university libraries in Nasarawa State. These challenges are library school curriculum is not adequate, inadequate provision of fund by management for staff training/development programme, poor staff compensation (salary), tight working schedule leading to lack of time, inadequate provision of ICT facilities (Internet, computers) even as the librarians have adequate interest to acquire ICT skill. This means lack of interest to acquire ICT skills in no more a challenge militating against librarians' acquisition of ICT skills.

### **Recommendation**

Based on the findings of the study, the following recommendations were made

1. University library authorities should through orientation courses ensure all librarians recognize the ICT skills required for effective information service delivery in university libraries in Nasarawa State, Nigeria which include: Word Processing skill, Spread sheet management skill, Electronic presentation skill, Printing skill, Photocopying skill, Scanning skill, Search skill, E-mailing skill, Library software utilization skill among others.
2. The university library authority should ensure that librarians possess the ICT skills for effective information service delivery by employing in-house training such as workshops, seminars and mentorship to upscale librarians' ICT skills.
3. Curriculum planners should ensure that the ICT skills required for effective information service delivery is covered in the curriculum for the training of librarians and the university library authorities of these schools should ensure that there is plan to provide time and funding for continuous training/development of the librarians through seminars and workshop in and outside the university environment.

### **Conclusion**

Based on the findings of the study, the researchers concluded that since the majority of the librarians (at least 68.8%) possessed the ICT skills required for effective information service delivery in the university libraries in spite of the challenges of acquiring these ICT skills. The library users must be enjoying ICT bases information services remotely which limit them visiting the library physical space. Librarians' ICT skills is therefore one of the reasons library users are deserting the library physical space in recent time.

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