A Survey on Technical Skills Among Library Professionals

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Abstract: Libraries play a central role in guaranteeing the success of tertiary institutions and research. The essential undertakings of libraries comprise collection development, reference services, document delivery, user education, provision of access to resources held by a library, other libraries, or a group of libraries, and access to electronic information resources. With the growth of Information and Communication Technologies (ICT), libraries now make available cost-effective and dependable access to information using information and communication technology tools which have enabled libraries to overcome barriers of distance and time. The introduction of technical skills in libraries makes accessible information from anywhere, anytime, and at any source. Effective use of technical skills for library functions and services requires skills in the use of technical skills. This study examined the relationship between technical skills possessed by librarians in higher institution Libraries. A descriptive survey method was used and a questionnaire was employed to gather data from 94 librarians in the 10 selected federal and state-owned selected higher institution libraries. The study revealed a large percentage of the respondents 74 (70.5%) considered their technical skills above average. The respondents regarded technical skills as crucial to the promotion of patronage of higher institution libraries because technical skills can be used to promote libraries to several users (m=4.33). It was also revealed that technical skills can facilitate the quick delivery of information and knowledge about the library (m=4.21).

Keywords: Technical skills, Library promotion, Higher institution libraries, Users' patronage.

1. Introduction

Technical skills as the ability to fully understand and acquire a wholeness of technical skills and capacities in making effective use of given information. Technical skills focus on the ability to use technical skills applications for specific purposes [1]. It states that technical skills possessed by undergraduates determine their ability to use and deploy their knowledge to locate, access, evaluate and deploy information, be it text, number, or both to meet their information needs. Such skills are basic computer use skills, Internet communication skills, information retrieval and, analysis skills, and computer programming and database skills. These skills are more advanced than using a software package or using operating systems and beyond keyboarding skills and students' ability to copy-type or follow instructions

Technical skills have been categorized into elementary and proficient skills [2]. Elementary skills are considered technical skills and are proficiency needed for basic data processing and analysis. These include the ability to use basic tools such as Word Processing, PowerPoint, statistical tools, scanning and uploading of documents, spreadsheet analysis, graphical design, scanner, printer, digital cameras, and PowerPoint Presentation. Proficient skills include the ability to perform certain functional tasks and are acquired from formal training which requires extensive use of technical skills and tools for the accomplishment of core tasks and functions characterized by the development of software and hardware as well as its maintenance. Proficient skills also include content management, document/database management, online book selection/acquisition, online copy cataloging, use of the internet, information search strategy as well as the use of library software. Hence, basic and professional skills are required for librarians to efficiently and effectively perform in public university libraries.

Information resources in print and electronic formats abound in higher institution libraries to provide support for teaching, learning, and research. These information resources provide detailed, thorough, efficient dissemination of information to users and these have made higher institution libraries invest heavily in the collections of their libraries. The Print and electronic information resources are available in the higher institution for the use of lecturers, other members of staff, and students. Library resources are somewhat expensive to acquire and to be made available to users because they require a huge investment in terms of acquiring, technical processing, and making them available to users for exploitation. Much money is invested in the acquisition of electronic information resources and making them available to users through offline and online modes, in the case of electronic information resources. These resources are housed in main libraries, electronic libraries, and departmental libraries of the higher institutions and it is anticipated that the resources will be used substantially. The usage of libraries and their resources by users in the higher institution in South-west Nigeria goes beyond the provision of the resources. This is appropriate indicating poor use of the facilities as gotten from the library usage statistics of the higher institution. Therefore, there is a need for an understanding of empirical determinants of the use of the library or user patronage of the libraries. The interrelatedness of the variables

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in this study shows that the promotion of libraries to users is crucial to the activities and information services of higher institution libraries. This will assist the users in their academic and research activities. The desire for and ability to use information resources efficiently depends on knowledge of what is available, how to access them, and the ability to define information needs. Information and Communication Technology skills on the other hand will help to equip the library personnel with basic computer skills that will enable them to promote usage of and attract users to the libraries. Optimal use of information resources in higher institution libraries by staff and students could be affected by factors such as inadequate skills, inadequate facilities, access, environmental factors like uncomfortable chairs, tables, computers, power supply, lighting and ventilation, cooling systems, noise level, opening hours, building design/surroundings and staff attitude and personality. There have been no known studies that reflect the combined influence of technical skills and library promotion on the use of information resources in higher institution libraries by users. Consequently, this study will investigate the influence of library promotion and technical skills on users' patronage of higher institution libraries in South-west Nigeria.

Library information resources are made available to users in print and electronic formats for their information needs. Information resources in higher institution libraries provide specific, exhaustive, expeditious dissemination of information to users and these have made higher institution libraries integral parts of higher institution education. Information resources abound for use by staff and students in the libraries of higher institutions libraries in South-west, Nigeria. These resources are relatively expensive to acquire and technically processed for users because they require a huge investment in terms of their acquisition and provision of facilities necessary for their exploitation

Thus, it is quite vital that the management of higher institution libraries be interested in the usage of these valuable resources to justify the investment in them. However, from the usage statistics of library patronage observed in higher institutions, the usage of libraries and their resources are not substantial. Going by these provisional findings, it can be established that despite the huge expenditure of the higher institution on the acquisition and technical processing of print and electronic information resources, the usage of the resources is poor. Previous studies on the issue of poor patronage and usage of libraries have focused on strategies for improving the use of library resources with little contemplation of the extent to which a combination of technical skills and promotion could influence users' patronage of higher institution libraries. Accordingly, this study focused on investigating the impact of technical skills and promotion on the users' patronage of higher institution libraries in South-west, Nigeria.

The study focused on investigating the influence of the technical skills of librarians and the promotion of users' patronage of federal and state-owned higher institution libraries. In this study, the librarians constituted the respondents for the study. Technical skills in the study are basic and applied skills in computer operations possessed by library professionals. Library users' patronage promotions in this study include display/exhibition, library awareness campaign, library orientation, and library week and user education.

Hence, this study serves as a baseline for appropriate intervention in the usage of information resources in higher institution libraries. The findings of the study would provide an opportunity for librarians and other library professionals to understand the measures that could be adopted to promote the usage of information resources among users. This will facilitate higher institution libraries to serve the users better. Findings from this study would also help the librarians and information managers to know the suitable library information resources that should be acquired and the constraints to their use. The findings of this study will afford the management of higher institution libraries the know-how to promote the use of information resources. By extension, the management of the higher institution would be able to make an informed decision on funding, acquisitions, and management of library resources. Members of society would also benefit from the findings of the study because funds used to acquire library resources are public funds. This is judiciously used when information acquired through taxes is maximally used. Lastly, findings from this study will contribute to the existing body of knowledge in library and information science regarding the expected technical skills of librarians in taking adequate needs of users in higher institution libraries in this information and communication technology era.

2. Literature Review

Busari, Ayankola, and Ladipo [3] stated that promotion enables library personnel to be more proactive in their approach to meeting the needs, wants, and demands of their users (lecturers and students) which are dynamic. By so doing, promotion helps university libraries to provide information products and services that are specially tailored to meet such needs, wants, and demands of the lecturers. In the same vein, it helps the library to extend or reach out to their users with the information rather than wait for them to ask for the same. This would, therefore, help in boosting the public image of not only the library setting but also the profession. Library promotion is crucial to the use of electronic and other information resources in university libraries. Yi [4] relived that promotional activities have long been associated with the selling of a product to make a profit but were extended to the non-profit sector including libraries in the 1960s. University libraries being support systems to their affiliated universities play a pivotal role by providing them with the required library and information services to support academic activities, and their contributions to the development of their institutions are also undisputedly accepted worldwide. Bhatt [5] proposed that promotional techniques and strategies can be adopted for the promotion of library products and services and university libraries in particular.

Jharotia and Shukla [6] identified reference, abstracting, indexing, inter-library loan, document delivery, database search, Internet-related, Digital library, and Virtual reference

services as the products and services in libraries that could be promoted. Higher institution libraries are investing huge resources to acquire information resources in print and electronic formats to meet the needs of their students, faculty members, and research scholars. Considering such a huge investment, it is the responsibility of the library to ensure that the usage of these resources is optimized. Consequently, higher institution libraries need to think and work out the cost-benefit analysis of their investment in information resources to justify the huge investment being made by their management sign library resources and services. This can be done by educating users about the services of libraries and promoting the usage of such services. Promotion of library services in Higher institutions can be actualized through regular provision of information literacy platforms for different categories of users; workshops/ training programs on attentiveness to resources available in higher institution libraries; training programs for personnel of library on modern technologies and expertise; exhibitions of new books with the help of vendors or the material available in the library should be displayed at a prominent place.

Helinsky [7] established that libraries are no longer the only choice where researchers, faculty members, and other staff access information. To attract users, increase the level of usage and raise awareness of available services and resources, libraries need to find ways to promote services and resources as effectively as possible. As such, promotional approaches are needed to convey the availability and value of services and resources to lecturers and should be designed to cause library users and non-users to act. These approaches include the use of posters, notices, brochures, telephone calls, current awareness services (CAS), workshops and seminars, decentralization of services, and use of information technology among others. Higher institution libraries have intangible products to promote for them to compete with external competitors such as search engines and other free databases. Other challenges that higher institution libraries confront are copious such as regulated finance and growing user expectations. These challenges have factors that influence higher institution libraries' strategies that can provide them with a competitive advantage in usage promotion and user satisfaction. However, these challenges offer opportunities to provide better services for users by redefining customer relationships through the use of promotional strategies to build and strengthen ongoing relationships with customers [8]. Relationship marketing is relevant to service marketing promotion and creates much value because it builds a viable and long-term relationship with the users that seek to use electronic information resources and services so that the users are retained [9].

Advent and application of technical skills in libraries have changed the face of information acquisition, organization, dissemination, and storage. It has brought about an integration of both print and electronic resources and provided a medium for the conversion of the old collection to machine-readable format. It can be identified as being directly responsible for the development and use of remote e-databases and several other forms of services and information products [10]. Deployment of technical skills to functions and services of libraries has brought about a veritable advantage for electronic information resources and their dissemination that users may want. Such electronic information resources are electronic journals and electronic books are priceless tools in research and they complement printed information resources in university libraries [11].

Promotion is a way of communicating messages to the lecturers in universities and it is designed to attract lecturers' attention and draw interest. Promotion disseminates information concerning electronic information resources in the library. Librarians and other personnel in the university engage in promotional activities to inform lecturers and prospective users about electronic information and other services and enjoin them to patronize and use the resources. These libraries play a great role in the provision of information for lecturers and students. The electronic information resources and services provided by these libraries are numerous and diverse. Their collections are made of print and electronic resources but the apparent problem is that most of these electronic information resources are underutilized. Similarly, some lecturers do not know of some of the resources and services available in the library and this may affect their use of such resources and services. Hence, some lecturers are unaware of the resources and potential use of the library which can contribute to their research productivity and professional fulfillment. Promotion is a way of communicating messages to the lecturers in higher institutions and it is designed to attract lecturers' attention and draw interest. Promotion disseminates information concerning electronic information resources in the library. Librarians and other personnel in higher institutions engage in promotional activities to inform lecturers and prospective users about electronic information and other services and enjoin them to patronize and use the resources. There are several reasons for underutilization. One main reason may be that higher institution libraries engage in poor promotional activities. Library promotional activities such as user education, current awareness services, customer care, personal relationship, publicity and advertising increase the use of electronic information resources by lecturers and students.

Furthermore, Patil and Pradhan [12] averred that the promotion of products in industries is very much essential to increase sales and consequently profit, however, in an academic environment like universities and colleges, promotion of the library and information sector is required to create awareness for the library resources, especially electronic resources. In addition, Patil and Pradhan [12] identified ways and means of promoting information services and products to lecturers. These are to develop the products e.g., the creation of databases, Union Catalogue, etc.; to give wide publicity among the lecturers, students, and non-academic users. list of additions is to be published in local newspapers etc.; to establish good public relations with the user community; to conduct surveys of the users to know their needs, and requirements from the library and improve the services and research products as per the requirements and; to provide carrier guidance and counseling service by the library to users. Publicity is what is

communicated about higher institution libraries in the lecturers' news media. Attempts are made most of the time to generate positive publicity through stories in the news and public service announcements. The most common methods are using press releases, holding news conferences, and sponsoring an event. Traditional means through which libraries publicize their activities are user education; library displays and exhibitions; library newsletters; current awareness services; selective dissemination of information; orientation talk and tour; use of electronic media and social media platforms.

Researchers have identified technical skills expected to be possessed by technically skilled people, and technically skilled library personnel. These skills are very essential for managing and operating libraries in this 21st century. These skills according to Anyoku [13] can be classified into two classes. These are skills required to use computer and information technological tools. These include skills for using software application programs such as word processing tools, graphic design tools, presentation software, web development, 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 Internet search skills and retrieving data effectively on the web environment, networking skills, and web 2.0 skills. [13]. Quadri [14] stated that technical skills are important because they are pre-requisite for networking of electronic library services, use of electronic resources, and resource sharing. It also enables the promotion of electronic learning, the usage of electronic journals, and electronic books, and, the creation of electronic institutional repositories. The operations in a library require technical skills to achieve more efficient and effective - functioning and for providing excellent library and information services. Technical skills infrastructure would involve hardware, software, and other telecommunication facilities. Sufficient technical skills are very essential for the successful application of technical skills in libraries. The application of technical skills to store and process the vast amount of information coupled with the ability of information professionals to transmit this information from one location to another has a tremendous impact on the storage, retrieval, and dissemination of information in libraries. The value of electronic resources and services is that they can be easily shared, distributed, updated, manipulated, and rapidly searched. Lastly, the usage of all e-resources is becoming high and well-appreciated. The impact of technical skills has promoted the usage of electronic resources in terms of e-journals, electronic books, etc.

Negahban and Talawar [15] stated that electronic resources, in reality, have become the backbone of many academic organizations. The awareness and use of electronic information sources by faculty members depend mainly on the skills of each individual to locate discrete knowledge elements. Everyday usage of digital technology includes when you use a computer, tablet, or mobile phone, send an email, browse the internet, or make a video call - these are all examples of using basic technical skills and technology to communicate. Tyagi [16]

described appropriate strategies to raise awareness to increase the usage of electronic information resources among users. He postulated that posters, e-mail lists, leaflets, and brochures can be used to inform users about the available resources. He further stated that for users to be able to access and effectively use e-resources, they must also have adequate skills for retrieving information and evaluating the outputs of the search process. Tyagi [16] referred to those skills as the competencies needed to access resources. These competencies include information literacy skills, including skills to formulate a search, identify appropriate information sources, select the right search tools, employ suitable search strategies, and evaluate the results

Omekwu [17] articulated the e-competencies/technical skills required of librarians are as follows: Basic knowledge of computers and their capabilities; Competency with search engines; Competency with internet facilities; Competency with e-mail; Competency with internet navigator tools; Competency with web browsers and web file formats; competency with database software; Internet development and management know-how. University of Tennessee School of Information Sciences grouped technical skills into five categories. This involves understanding basic computer hardware components and terminology; understanding the concepts and basic functions of a common computer operating system; starting up, logging on, and shutting down a computer system properly; using a mouse pointing device and keyboard; using Help and know how to troubleshoot routine problems; identifying and use icons (folders, files, applications, and shortcuts/aliases); minimize, maximize and move windows; identifying common types of file extensions (e.g. doc, Docx, pdf, HTML, jpg, gif, Xls, ppt, pptx, RTF, txt, exe); checking how much space is left on a drive or other storage device; back up files; download and install software on a hard disk; understand and manage the file structure of a computer; checking for and install operating system updates.

Proficiency in using productivity software. This skill enables individuals to create documents of various types and save them in the desired location; retrieve an existing document from the saved location; select, copy, and paste text in a document or desired location; print a document; name, rename, copy and delete files; understand and know how to use the following types of software programs: word processing (example: MS Word, Google Doc, Writer), presentation (example: PowerPoint, Impress), spreadsheet (example: Excel, Calc), PDF reader (example: Acrobat Reader, Preview) and compression software (example: WinZip, Stuffit, 7-Zip). Internet skills require the ability to set up an Internet connection and connect to the Internet; have a working knowledge of the World Wide Web and its functions, including basic site navigation, searching, and installing and upgrading a Web browser; use a browser effectively, including bookmarks, history, toolbar, forward and back buttons; use search engines and directories to find information on the Web; download files and images from a Web page; understand and effectively navigate the hyperlink structure of the Web and; understand how to keep your information safe while using the Internet. Electronic communication skills; this requires the ability to use

Email, using a common email program (example: MS Outlook, Gmail, Apple Mail); compose, Send, reply, Forward messages; add attachments to a message; retrieve attachments from an email message; copy, paste and print message content; organize email folders; understand what an electronic discussion list is and how to sign up and leave one (example: Listserv, Listproc). Moving files involves the ability to understand the purpose of Secure File Transfer Protocol (SFTP) and Secure Copy Protocol (SCP); log in and connect to a distant server using Secure Shell client (SSH); transfer files by uploading or downloading; view and change folder/document security settings; copy files from hard disk to storage devices and vice versa. Veeranna [18] reported that libraries and information centers, especially those in tertiary academic institutions, are increasingly being called upon to provide more relevant, up-to-date, and timely information to a wide range of users. To satisfy the varied needs, they require availability and accessibility to a variety of information resources. The electronic resources that are available in libraries today are an outcome of the advances in both computer technologies, including information storage and delivery mechanisms (such as CDROMs), and software providing user-friendly interfaces.

Empirically, Odunola and Tella [19] investigated the influence of information technology skills on library patronage by undergraduate students in South-west Nigerian universities using a descriptive research design of the ex-post facto. The authors used a sample size of 1527 drawn from the total population of 239,048 undergraduate students in the universities. The results of the study revealed that the majority of undergraduate students patronized the library between two to three times a day. The finding of the study also revealed that information technology skills had an influence on library patronage by undergraduate students in the universities (r = 0.59, N = 1333, p < 0.05). It was concluded that information technology skills influenced the library patronage of undergraduate students in the universities. The study recommended that students should enhance their information technology skills to enhance their library patronage. Nkamnebe et al [20] hypothesized that innovations and advances in Information and Communication Technology have substantially modified the way information is acquired, processed, stored, retrieved, and communicated. This has consequently changed the ways the library, which is visibly and significantly placed in the profession of information management operates. These have brought the need for library

and information professionals to be sufficiently skilled in technical skills and operations necessary for effective information services delivery. The authors observed that users are starved of services that library professionals are expected to deliver through the use of technical skills. This implies that librarians are possibly not conversant with technical skills so they might be unable to respond to users' needs promptly and render excellent library service. Their study surveyed the extent of Information and Communication Technology skills possessed by librarians in the universities in Anambra State, Nigeria. The study finds out that librarians in the universities in Anambra State are feebly skilled in technical skills. Challenges militating against librarians' technical skills acquisition were identified and solutions were proffered. Okiy [21] points out poor and inadequate telecommunication facilities; poor level of computer literacy, even within the academic community; poor level of computer facilities; poor level of awareness of Internet facilities among policy-makers over officials and the ruling class in general; and minimum involvement of academic institutions in network building in Africa as challenges militating against the use of technical skills. Low level of technical skills; lack of functional technical skills policy; economic barriers (funds); technical skills infrastructure; resistance to change; low capacity of a communication facility; absence of digital or electronic libraries except in South Africa; lack of policy for manpower development etc. are common barriers mentioned as factors undermining the use of technical skills.

3. Methodology

The survey method was employed in this study due to its reputation in humanities and social sciences [22]. The only instrument used for data collection is the questionnaire as the survey method use questionnaire for data gathering. The population of the study is 94 librarians in the ten (10) Federal and State Higher institutions in the southwest geopolitical zone of Nigeria. All the Federal and State higher institutions in the zone established between 1970 and 1992 were used for the study.

A total number of 94 questionnaires were distributed among the 94 professional librarians across the higher institution in southwest, Nigeria. All administered questionnaires were retrieved and found useful for analysis; this gave a retrieval rate of 100%. The study was guided by three research questions. Two instruments captioned Information and Communication

Table 1
The population of the study

S. No.	Higher institution	Number of Librarians	Year of Establishment	Ownership Federal/State Government
1	Yaba College of Technology, Yaba, Lagos State	21	1974	Federal Government
2	The Higher institution in Ibadan	8	1970	Oyo State
3	Federal Higher institution, Ado-Ekiti, Ekiti State	10	1977	Federal Government
4	Lagos State Higher institution	12	1977	Lagos State
5	Federal Higher institution, Ilaro, Ogun State	8	1979	Federal Government
6	Mashood Abiola Higher institution, Abeokuta, Ogun state	3	1979	Ogun State
7	Rufus Giwa Higher institution, Owo, Ondo state	7	1979	Ondo State
8	Osun State Higher institution, Ire	3	1992	Osun State
9	Federal Higher institution, Ede,Osun State	19	1992	Federal Government
10	Federal Higher institution, Ile-Oluji, Ondo State	3	2016	Federal Government

Technology (ICT) Skills Test/Achievement Test (ICTSST), and Information and Communication Technology Skills Questionnaire were developed and deployed for the study. This two-in-one instrument has a total number of sixty (60) questions. The ICTSST was sectioned into two – A and B. Section A was meant to collect the bio-data of the subjects while Section B was made up of forty (40) achievement test questions (four-options multiple-choice questions, each with one correct answer) specially designed to measure the extent of technical skills possessed by the librarians. On the other hand, the SSQ was sectioned into two – A and B. Section A consists of ten (10) questions that helped to elicit data on constraints to Information and Communications Technology skills acquisition by librarians. Section B also consisted of ten (10) questions designed to extract data on ways of improving the technical skills of librarians. Items in Sections A and B respectively of SSQ were structured using a Four-point rating scale of SA (Strongly Agree), A (Agree), D (Disagree), and SD (Strongly Disagree). Respondents were well-guided on how to complete the questionnaire. Data obtained were analyzed using simple percentages, frequencies, and mean ratings. The decision rule for research question one includes: Highly Skilled: 70 -100, Moderately Skilled: 60– 69, Weakly Skilled: 50 – 59, Not skilled: 0 – 49. For research questions 2 and 3, items to the value 2.50 and above were given a positive interpretation (agreed), while items below 2.50 were given a negative interpretation (disagreed).

For the appropriateness of the instrument and to ensure its face and construct validity the instruments were scrutinized by senior colleagues of the researcher. The reliability of the instrument was determined by test-retest reliability which involves making use of the same research instrument to take two separate measurements of the same population at different times and the higher the correlation coefficient between the two measurements, the higher the reliability of the measuring instrument. The Cronbach alpha score for the two separate administered questionnaires is 0.87. Names of the higher institution and numbers of librarians used for the study are presented in Table 1.

4. Results

Items 1-4 cover questions on basic computing, items 5-8 cover questions on file management, items 9-12 cover questions on word processing, and items 13-16 cover questions on the use of electronic mail (e-mail), items 17-20 cover questions on automated cataloging and classification/use of OPAC, items 21-24 cover questions on the use of library automation software, items 25-28 cover questions on the use of the Internet and World Wide Web, items 29-32 cover questions on information search and retrieval, items 33-36 cover questions on a presentation using Microsoft PowerPoint, items 37-40 cover questions on database creation and management. The overall average percentage score is 88.3% as indicated in Table 2.

Table 2
Librarians' response to test (achievement test) on technical skills

Items	Frequency (No. of Librarians that passed the test)	Percentage (%) Score	Remark
	Basic Computing Skill		
1.	23	70	
2.	29	88	
3.	27	82	
4.	30	91	
	Average Percentage	83	HS
	File Management		
5.	21	64	
6.	16	48	
7.	24	73	
8.	32	97	
	Average Percentage	71	HS
	Word Processing		
9.	25	76	
10.	20	61	
11.	29	88	
12.	26	79	
	Average Percentage	76	HS
	Use of Electronic Mail		
13.	6	18	
14.	23	70	
15.	27	36	
16.	15	45	
	Average Percentage	42	WS
	Automated Cataloguing & Classification/OPAC		
17.	6	18	
18.	23	70	
19.	12	36	
20.	15	45	
	Average Percentage	42	NS
	Use of Library Automation Software		
21.	22	67	
22.	19	58	
23.	18	55	
24.	14	42	
	Average Percentage	56	WS
	Use of the Internet & World Wide Web		
25.	27	82	
26.	22	67	
27.	16	48	
28.	16	48	
	Average Percentage	61	MS
	Information Search and Retrieval Skill		
29.	23	70	
30.	15	45	
31.	19	58	
32.	25	76	
	Average Percentage	62	MS
	Percentage Using Microsoft PowerPoint		
33.	10	30	
34.	5	15	
35.	23	70	
36.	15	45	
	Average Percentage	40	NS
	Database Creation and Management		
37.	23	70	
38.	7	21	
39.	8	24	
40.	12	36	
	Average Percentage	38	NS
	Overall Average Percentage Score	58.3	WS

Table 3
Mean scores on constraints to technical skills acquisition

S.No.	Items	Mean (x)	Decision
1.	Librarians have little or no interest in technical skills	3.12	Disagreed*
2.	Lack of adequate technological infrastructures to support the integration of technical skills in the curriculum of Nigerian LIS schools	3.53	Agreed
3.	Poor planning and implementation of technical skills projects in Nigerian Higher institution libraries	3.33	Agreed
4.	Poor or negative attitudes of librarians toward technical skills	2.52	Disagreed*
5.	Nigerian library schools have not effectively integrated technical skills into their curriculum	2.73	Disagreed*
6.	Absence of a policy for continuous evaluation or assessment of librarians' technical skills	3.24	Agreed
7.	Non-sponsorship of library personnel to professional conferences, workshops, and seminars on technical skills acquisition	2.12	Disagreed
8.	Institutions do not organize training programs for their librarians and library officers on technical skills acquisition	2.73	Agreed
9.	Lack of support from higher institution authorities in providing necessary technical skills facilities in libraries	3.34	Agreed
10.	Failure by library professional associations to conduct special training programs for librarians on technical skills acquisition	2.41	Disagreed

Table 4
Mean scores on technical skills improvement

S. No.	Items	Mean (x)	Decision
1	Librarians have an interest in technical skills	3.84	Agreed
2	There should be adequate technological infrastructures to support the integration of technical skills in the curriculum of Nigerian LIS schools	3.83	Agreed
3	technical skills projects in Nigerian higher institution libraries should be well-planned and implemented	3.73	Agreed
4	Librarians should endeavor to develop more positive attitudes toward technical skills	3.82	Agreed
5	Continuous evaluation of librarians' technical skills should be put in place	3.71	Agreed
6	A policy for continuous evaluation or assessment of librarians' technical skills should be put in place	3.74	Agreed
7	Higher institutions and library management should from time to time sponsor their librarians at professional conferences, workshops, and seminars on technical skills acquisition.		Agreed
8	Higher institutions should regularly organize training programs for their librarians on technical skills acquisition	3.73	Agreed
9	Higher institution authorities should support their libraries by providing them with the necessary technical skills and facilities	3.74	Agreed
10	Library professional associations should strive to conduct special training programs for librarians on technical skills acquisition	3.72	Agreed

This suggested that library personnel are very -skilled in technical skills. This finding is in agreement with the findings of Reghagwa and Ijiekhuamhen [23] who reported an improved computer skill level for librarians in Nigeria than was reported in the past literature. Also, the findings agreed with the findings of Nwabueze and Ibeh [24] who testified that librarians in the Anambra State Library Board have more knowledge of technical skills than the skills at manipulating the technical skills tools. Knowledge is just a prerequisite to skill. Table 3 shows the Mean (x) scores of the Response on the Constraints in Acquiring technical skills by Librarians and library officers in southwest higher institution libraries.

Table 3 presents the mean responses for the possible challenges that hinder the librarians' technical skills acquisition as reflected in items 1 to 10. The mean responses ranged between 2.52 and 3.53. This is an indication that librarians agreed that just 5 items from all the listed challenges hinder librarians' technical skills acquisition drive, and disagreed with the rest items, where they disagreed. Haneefa and Shukkoor [25], [26], [27], [14], and [28] all agreed, but diversely that these factors encumber, or deter librarians' technical skills acquisition urge. Table 4 shows the Mean (x) Scores of the Response to the Constraints in acquiring technical skills by Librarians.

Regarding ways of improving librarians' technical skills acquisition, the mean responses ranged between 3.70 and 3.84. This is a signal that library personnel agreed that the listed suggestions for improving librarians' and library officers' technical skills as shown in items 11 to 20 are all feasible, or viable. This validates the reports of Haliso [29], [30] [31], [32],

and [13] who concurrently agreed, but in different ways that the above propositions would help to improve librarians' technical skills if explored.

Responses and analysis from users' patronage promotions showed that 74 respondents of 69.6% agreed that their technical skills have encouraged and increased their users' patronage because library users have increased from their hourly users' statistics and usage of technical skills related to information resources. It was also found that social media platforms like; e-mail, WhatsApp, Facebook, Instagram, Twitter, 2go, and linkedIn are the users' patronage promotion methods that the librarians have used to invite, register, and market the library products and services to the users. The librarians under study also affirmed that electronic referencing services, electronic current awareness services, and electronic selective dissemination of information were also used for their users (students and lecturers) patronage promotions.

5. Conclusion

Based on the analysis and interpretation of the results, it was established that librarians and library officers in the higher institutions in the southwest, of Nigeria, are skilled in technical skills. However, they are highly skilled in technical skills dimensions such as Basic computing, File management, and Word processing. They are moderately skilled in operations relating to the Internet/World Wide Web and Information search and retrieval. Their skills in electronic mail operations and the use of library automation software are averagely good. Moreover, they possess weak skills in automated cataloging and

classification/use of Online Public Access Catalogue (OPAC) and are averagely skilled in presentation using Microsoft PowerPoint, and database creation and management. However, they still need to improve on their weak or average technical skills level to make them compete favorably with their counterparts in academics and to assist in solving the technical skills challenges of their users to improve and increase their library usage patronage. Even though lots of advocacy have been made on capacity building or skill acquisition by librarians on technical skills, librarians are still a bit deficient in the use of technical skills. Also, they are still facing challenges in acquiring and updating their technical skills. Based on the findings, therefore, the following recommendations were made:

- The higher institution library management in collaboration with higher institution authorities should create avenues for annual training and retraining of their librarians to hone their skills, and as well, keep abreast of recent advances in technical skills.
- The southwest State Chapter of the Nigerian Library Association should on annual basis, organize forums different from the usual Annual General Meetings and conferences and should be centered on technical skills training.
- The Nigerian Library Association through its registration council should enact a law that provides that one of the conditions for conferring a Certified Librarian of Nigeria (CLN) should be proven competence in technical skills.
- To encourage self-development in technical skills acquisition, higher institutions and library management should make demonstrated competence in technical skills a principal criterion for the employment and promotion of librarians and library officers.
- Library management should embark on an annual assessment of their library personnel in technical skills to ascertain their strength and weakness to initiate ways to sustain if strong and strengthen them if weak.
- All operations in higher institution libraries should be automated to encourage librarians and library officers to perform their routine operations using technical skills.

This is essential for the fact that there is a direct correlation between the frequency and extent of ITCs use, and the technical skills skill level of librarians. Information and Communications Technology is multi-dimensional. Due to some limiting factors, not all the dimensions of technical skills were covered by the present study. This might affect the generalization of the findings. Moreover, this study was limited to a selected higher institution in the southwest, of Nigeria – one out of the six Geo-political Zone, Nigeria. Future studies should therefore accommodate other aspects of technical skills and new technologies such as Library 2.0/3.0, and social media. Also, the study should be extended to the entire six geo-political zones in Nigeria.

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