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Full Length Research

ICT Proficiency for Library Services Delivery in Polytechnics Institutions in South West, Nigeria

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The article looked at how well polytechnic libraries in South-West Nigeria use ICTs to provide library services. The creation of communication networks has made it possible for information to spread quickly throughout the world. The study's participants were librarians from a Nigerian federal institution. Along with the Federal Polytechnic, Ile-Oluji (FEDPOLEL), the Ondo Rufus Giwa Polytechnic (RUGIPO), Owo, Ondo State, the Federal Polytechnic Ede, Osun State, the Federal Polytechnic Ado Ekiti, Ekiti State, the Federal Polytechnic Ilaro, Ogun State, the Federal Polytechnic Ilaro, Ogun. A questionnaire was created to achieve the aforementioned goals and collect data for research. The mean rating and standard deviation were employed in the analytical data. According to the findings, information science specialists in polytechnic libraries in Nigeria are lacking in basic ICT management skills. Additionally, the study reveals that the vast majority of respondents agree that possessing ICT skills has many benefits.

Keywords: Proficiency, Competency, ICTs, Polytechnic library, Profitability, ICT and Facilities.

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INTRODUCTION

The variety and volume of data have had a considerable impact on recent technical breakthroughs, as well as data management and retrieval techniques. Information and communication technology have drastically changed almost every aspect of our lives. Data, once regarded as an impossible dream, has now materialised, allowing computers to comprehend human language and communicate with us as they think. More than 70% of businesses are expected to utilise big data and big data analytics.

By 2020, the total amount of digital data is expected to exceed 46 trillion gigabytes(Chiranjeevi&ShenoyManjula, 2019). Today, we can say that the information system has completely been digitalized, and routine administrative procedures like asking a guy to show his ID and return in an hour would lead to the record being examined and stored on file. These kinds of technologies are used by many people nowadays in both their personal and professional lives. The introduction of web apps with built-in search engines has furthered the evolution of information retrieval systems, making them one of the most extensively utilised technologies for information access (Chiranjeevi, ManjulaShenoy, Prabhu, &Sundhar, 2016).

In order to offer consumers speedy, interactive, and dynamic information services, libraries are strongly involved in the digitization of practically all library resources. Information can now flow swiftly around the globe using the internet thanks to the development of communication networks.

The transfer of library resources from print to digital and web resources has considerably increased information dissemination and service supply in libraries. Information and communication technology (ICT) services are being used

more and more in library operations because they allow for speedier and more efficient service delivery to consumers.

The acquisition of the necessary skills is what drives the use of information and communications technology (ICT) in a library. Since computers act as the bridge between information resources and user demands, it is essential that librarians are familiar with ICTs and have a basic understanding of computers. In the digital era, it is critical to address the issue of skill acquisition and expertise in the use of ICTs. Ademodi and Adepoju (2009) pushed librarians to improve their skills in order to stay relevant in their industry.

Librarians are responsible for the provision of information and communication technology (ICT) services in polytechnic libraries. Their skill or competency in this area is directly tied to the level of expertise they possess in the application of IT in a particular area of their work. Skills are what the Council of European Professional Informatics Societies (CEPIS, 2005) identified as skills needed for successful service delivery. These include the knowledge and expertise needed to perform a certain task or job, or the capabilities that can be defined by content and acquired and activated through training.

According to CEPIS, a person's physical or psychological characteristics that can be used in technique-related activities are referred to as their capabilities. According to the New International Webster's Comprehensive Dictionary of the English Language, a skill is "familiar understanding of any science, art, or handicraft, as shown by dexterity in execution or performance, or in application to practical purposes". A skill is a proficiency, familiarity, or dexterity that has been acquired or developed via training or experience, according to freedictionary.com. In today's high-demand environment, librarians need to be highly skilled in ICT in order to perform their professional responsibilities successfully and effectively.

The study's objectives

The study will specifically be guided by the following:

1. Develop the basic ICT management abilities required for the provision of library services in Nigerian polytechnic libraries.
2. Determine the financial sustainability of information science experts that provide library services in Nigerian polytechnic libraries using their ICT knowledge.

Review of related Literature

ICT proficiency has been broken down into operational, formal, strategic, basic, advance, specialised, and other categories by various schools of thought as a way to apply ICT competency to users and practitioners. Competency is defined as the capacity to "plan and carry out an activity aimed at executing some obligations or achieving some goals" (Astunkar, 2016:52). Since the ultimate objective of the sector is to serve the information demands of library users by providing a variety of information resources and services, there is a high demand for qualified LIS experts.

Studies from a variety of perspectives have already emphasised the importance of librarians' ICT skills. Okiy (2010:8) concluded that inadequate ICT literacy and competency among librarians hindered the benefits of globalisation in a study titled "Globalization and ICT in Academic Libraries in Nigeria: the Way Forward." Okiy's research suggests that practising librarians should obtain new ICT training as the next phase. Safahieh and Asemi (2010) observed that, despite the fact that they saw the use of ICT as a tool to increase operational efficiency, the majority of the librarians at Ispahan University in Iran lacked computer skills.

According to a related survey by Hajar and Asefeh (2010:97), the majority of librarians at the University of Isfahan in Iran lacked adequate computer literacy. According to the study, librarians' inability to efficiently use computerised library resources was hindered by a lack of computer literacy.Farahi and Gandhi (2011:168) conducted a comparison research to compare the IT proficiency of medical library LIS specialists in India and Iran. They discovered that ICT was valued by LIS professionals in Iran and India. However, among professionals, ICT literacy was low to moderate.

In a study on the ICT skills and competency of LIS professionals in colleges in Karachi, Pakistan, Ansari (2013:83) found that not all LIS professionals were equally proficient in all ICT abilities. In Nigerian university libraries, library and information professionals lacked fundamental ICT abilities, according to a study by Ayoku and Okafor (2015:521). However, additional research has revealed that some ICT abilities are possessed by librarians and information specialists.

While all of the librarians under study lacked some proficiency in computer hardware, Batool and Ameen's (2010:4) findings in their study on the level of ICT competences of librarians at Punjab University indicated that they did have word processing proficiency. The study also discovered that albeit to a limited degree, librarians had some basic

knowledge of how to use online services. They were also somewhat knowledgeable about the online Dewey, OPAC, and MARC data. According to Adeleke and Olorunsola, many libraries are now aware of the necessity to include ICT into their services (2010:457).

To reduce the digital divide between them and people in wealthy nations, they do believe that libraries in developing countries should invest more resources in promoting ICT use. In a study on the ICT competency of LIS professionals in engineering institutions in Andhra Pradesh State, India, Kumar (2013:486) found that there were some adequate levels of ICT literacy among librarians. The majority of LIS professionals at Pakistani universities, according to Ansari's (2013:83) findings in a study on their ICT competency, were fairly proficient. The level of ICT expertise among librarians could be beginner to expert.

In other words, they should be able to recognise different combinations of electronic resources. The report recommends that they become familiar with the internet in its conclusion. In other words, students should be able to use some of the tools available for internet research. They should be aware of the variations between publications created in MS-Word and HTML. Social media platforms like Facebook, Twitter, and WhatsApp should be available to them. According to the study, given the prevalence of mobile technology, they ought to have a basic awareness of mobile device technologies and how they might be used in libraries.

In accordance with Narasappa and Kumar, LIS workers require fundamental ICT skills such website design, word processing, spreadsheets, video conferencing, computer security, e-mail management, scanner competency, electronic presentation, and database knowledge (2016:57). One approach to acquire ICT skills is through higher education, hence the LIS curriculum should include ICT course material.

METHODOLOGY

The research used a descriptive survey study. All of the staff members at the libraries of the seven (7) Federal Polytechnics in Ile-Oluji (FEDPOLEL), Ondo Rufus Giwa Polytechnic (RUGIPO), Owo, Ondo State, Federal Polytechnic Ede, Osun State, (FPA), Federal Polytechnic Ado Ekiti, Ekiti State, (FPADO), Federal Polytechnic Ilaro, Ogun State, (FPI), and Yaba College (YABATECH).

In order to gather data, 594 library staff members at the institutions under examination were invited to complete a survey. Over the course of numerous visits, the questionnaire was sent to these institutions, and retrieval was completed in three weeks. Only 421 of the 16 questions on the research questionnaire, which had been distributed to 594 respondents, were actually recovered. These items were rated using a Likert-style scale with four categories: Very High Extent (VHE), High Extent (HE), Low Extent (LE), and No Extent (NE). VHE, HE, LE, and NE, respectively, stand for 4, 3, 2, and 1.

A mean score of 2.5 was taken as the middle of the respondents' scores, whereas a mean score of less than 2.5 was ignored. Descriptive statistics were employed to assess the data using the arithmetic mean and standard deviation.

Discussion of the results

What level of fundamental ICT management skills are necessary for polytechnic libraries in Nigeria to provide services?

Table 1. ICT management expertise held by information science professionals

S/N	ITEMS	*YABA TECH* (N=39)		*FPADO* (N=38)		*FPADEDE).* (N=15)		*RUGIPO* (N=130)		*FEDPOLE* (N=61)		*FPILARO* (N=49)		*FEDPOLEL* (N=99)	
		X	**SD**	**X**	**SD**	**X**	**SD**	**X**	**SD**	**X**	**SD**	**X**	**SD**	**X**	**SD**
1.	Database management proficiency	2.26	0.68	2.28	0.86	2.20	0.86	2.25	0.92	2.46	0.89	2.00	0.96	2.16	0.92
		Dec = R		Dec = R		Dec = R		Dec = R		Dec = R		Dec = R		Dec = R	
		Cluster Mean = 2.23													
2.	Networking / social media proficiency	2.23	0.66	2.32	0.84	2.27	0.88	2.18	0.87	2.39	0.89	1.97	0.94	2.11	0.92
		Dec = R		Dec = R		Dec = R		Dec = R		Dec = R		Dec = R		Dec = R	
		Cluster Mean = 2.21													
3.	Cloud computing proficiency	2.13	0.80	2.32	0.84	2.20	0.94	2.14	0.88	2.34	0.91	1.98	0.99	2.17	0.94

Continuation of Table 1.

		Dec = R		Dec = R		Dec = R		Dec = R		Dec = R		Dec = R		Dec = R	
		Cluster Mean = 2.18													
4.	Social media/Virtual reference services proficiency	1.64	0.94	2.34	0.88	2.33	0.97	2.18	0.89	2.28	0.97	2.06	0.98	2.05	0.95
		Dec = R		Dec = R		Dec = R		Dec = R		Dec = R		Dec = R		Dec = R	
		Cluster Mean = 2.13													
5.	Open access resource management proficiency	2.00	0.92	2.16	0.95	2.20	1.21	1.95	0.90	2.16	0.89	2.04	0.98	2.07	0.95
		Dec = R		Dec = R		Dec = R		Dec = R		Dec = R		Dec = R		Dec = R	
		Cluster Mean = 2.08													
6.	Metadata proficiency	2.07	0.98	2.39	0.94	2.33	1.11	2.19	0.92	2.20	0.98	2.06	0.98	2.08	0.99
		Dec = R		Dec = R		Dec = R		Dec = R		Dec = R		Dec = R		Dec = R	
		Cluster Mean = 2.19													
7.	Computer appreciation proficiency	2.21	1.10	2.68	0.89	2.53	1.13	2.49	0.87	2.39	1.05	2.22	1.00	2.15	1.04
		Dec = R		Dec = A		Dec = A		Dec = R		Dec = R		Dec = R		Dec = R	
		Cluster Mean = 2.38													

In response to the aforementioned study question, respondents from the seven polytechnic libraries under inquiry were given the list of things in the table above and asked to indicate their level of acceptance or rejection.

With cluster values of 2.08 and 2.13, Open Access Resource Management and Social Media/Virtual Reference Services Skills in Table 1 reflect the amount of ICT management expertise held by information science professionals in Nigerian polytechnics. The cluster mean values are presented as 2.18, 2.19, 2.21, 2.23, and 2.38 for cloud computing, metadata, networking, databases, and computer appreciating competency. This demonstrates the lack of ICT management skills among some information science professionals who work in polytechnic libraries to offer information services.

Research Question 2 What financial advantages do information science specialists who are skilled in ICT have while providing library services in Nigerian polytechnics?

Table 2. Profitability of ICT expertise for information science providing library services in Nigerian polytechnics.

S/N	**ITEMS**	***YABA TECH* (N=39)**		***FPADO* (N=38)**		***FPADEDE).* (N=15)**		***RUGIPO* (N=130)**		***FEDPOLE* (N=61)**		***FPILARO* (N=49)**		***FEDPOLEL* (N=99)**	
		X	**SD**	**X**	**SD**	**X**	**SD**	**X**	**SD**	**X**	**SD**	**X**	**SD**	**X**	**SD**
1.	Librarians are opportune to communicate on real time	3.46	0.60	3.21	0.81	3.06	1.10	3.22	0.76	3.34	0.79	3.31	0.89	3.59	0.77
		Dec = A		Dec = A		Dec = A		Dec = A		Dec = A		Dec = A		Dec = A	
		Cluster Mean = 3.31													
2.	It provides speedy services delivery	3.59	0.59	3.24	0.79	3.27	0.88	3.36	0.79	3.51	0.80	3.39	0.88	3.70	0.57
		Dec = A		Dec = A		Dec = A		Dec = A		Dec = A		Dec = A		Dec = A	
		Cluster Mean = 3.44													

Continuation of Table 2

3.	Provide ample opportunities to librarians with modern digital environment	3.44	0.94	3.29	0.80	3.13	0.92	3.38	0.69	3.39	0.89	3.41	0.87	3.68	0.60
		Dec = A		Dec = A		Dec = A		Dec = A		Dec = A		Dec = A		Dec = A	
		Cluster Mean = 3.39													
4.	It provide quick access to information resource acquisition	3.18	1.02	3.18	0.83	3.13	0.99	3.42	0.73	3.31	0.91	3.29	0.74	3.54	0.75
		Dec = A		Dec = A		Dec = A		Dec = A		Dec = A		Dec = A		Dec = A	
		Cluster Mean = 3.29													

Information science experts from the seven institutions that were being considered were asked to rank the acceptability or rejection of a list of ICT profitabilities, as can be seen in Table 2 above. The results demonstrate that all of the items from 1 to 4 were accepted with mean scores of 2.50 or higher. According to the data, providing prompt services has the highest cluster mean, 3.44, and providing plenty of chances for librarians in a modern digital environment has the second-highest cluster mean, 3.39. The cluster mean for real-time communication was 3.31, whereas the cluster mean for quickly gathering information resources was 2.29. These high acceptance rates show that librarians at Nigerian polytechnic institutions agree that ICT revenue improves library service delivery.

Conclusion and Recommendations

According to the results of the survey, information science professionals in Nigerian polytechnic libraries lack the major ICT management skills required for efficient job performance in service delivery in their various divisions and units of libraries. The study also found that having ICT proficiency has a number of advantages, including faster service delivery, more opportunities for librarians to communicate in real while also working and performing their duties in a digital environment, and faster access to information resource acquisition.

The study's objective has been attained. The survey's findings indicate that information science professionals at Nigerian polytechnic libraries lack key ICT management skills necessary for effective job performance in the provision of library services in their various divisions and units. The survey also discovered that having ICT skills provides a lot of benefits, such as quicker service delivery, greater chances for librarians to communicate in real time while working and performing their tasks in a digital environment, and quicker access to acquiring information resources. ICT facilities may be utilised to develop, store, retrieve, and process information services, according to the study's overall findings. They also improve library service delivery. ICT facilities may be utilised to develop, store, retrieve, and process information services, according to the study's overall findings. They also improve library service delivery.

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