

## Information Communication Technology (ICT) Use On Librarians' Job Performance

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### ABSTRACT

Information Communication Technology (ICT) has gained access to every area of human endeavor and the educational sector is also following the trends of the technology advancement. The fundamental roles of ICT in the educational sector and library in particular are keys to the success of any academic sector. Library operations ranges from administration, acquisitions, cataloguing, classification, information retrievals and serials control but some librarians still prefer the manual operations because they believe there is no good thing that can be derived from the use of ICT applications This study adopts expo-facto research design because the variables were not manipulated but studied as they occurred. The target population comprises of some librarians in Federal tertiary institutions in Lagos State and data was collected from 60 Librarians. The reliability of the questionnaire was determined using Cronbach alpha and reliability coefficient of the instrument is 0.83. The study revealed that majority of the participants said they utilize ICT facilities like INTERNET, Online charging and Discharging, E-references services, institutional repository, online registration and E-materials like abstract, index and data base. The study conclude that ICT facilities influenced librarian's job performance positively with average weighted mean of 3.10 and also there are constraints at utilizing ICT on Librarians job performance with average weighted mean of 3.30

**Key words:** Technology, information, communication, Librarians, Job performance, ICT

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## INTRODUCTION

Technology has become one of the veritable tools for initiating and accelerating human progress and national development. The issue of economic growth and transformation, improved standard of living and eradication of poverty among others in a nation can be linked to the role of technology. Fafunwa cited in Delight, Idaka and Ukporkor (2012) asserts that we are living a world where science and technology have become part of the world culture and any country that overlooked the significant truism does so at its own peril. Dooley in Alexandra (2001) described that the rate at which technology is changing our vision and educational sector cannot be left behind. The need to introduce technology in our tertiary institutions ranging from the universities, Colleges, Polytechnics, middle and elementary school cannot be over emphasized

Ogunsola (2004) explained that the pace of change brought by new technologies has had a significant effect on the way people live, work and play worldwide. In the recent time, the growth in technology and applications even in the field of education is inevitable because the world of technology continued to grow and today the whole world has become a global village. By the beginning of the 21st millennium educational technology has stretched educational boundaries and created new ones on a daily basis. Several breakthroughs have been experienced in the field of information and communication technologies (ICT) to have tremendous opportunities for teaching and learning which the library is part of it. In light of this assertion, the need to employ ICT in facilitating the library activities cannot be overemphasized.

However, transfer of data over communication lines such as telephone lines since the mid-1960s. Internet use has, today, revolutionized access to information for the business world, libraries, education and individuals. A few of the most popular include E-mail, www (World Wide Web), FTP (File Transfer Protocol) Usenet, and Telnet. All these technological devices are regarded as central to the concept of globalization. The Internet and its technology continued to have profound effects on the promotion of information sharing; especially in the academic world, making possible rapid transactions among businesses and supporting global collaboration among individuals and organizations. These technologies have the potentials to develop “virtual campuses” and “virtual libraries” thus, increasing students’ access and participation (Ogunsola, 2004).

Communication is deeply rooted in human behaviors and societies and it equally applies to shared behaviors and properties of any collection of things, whether they are human or not. The transactional model shows that the element in communication act is both a speaker and a listener that can be simultaneously sending and receiving messages which includes three implications in the model. The transactional means that communication is an ongoing and continuously changing process . You are changing, the people with whom you are communicating are changing and your environment is also continually changing as well. Also, in any transactional process, each element exists in relation to all other elements. There is this interdependence where there can be no source without a receiver and no message without a source. Each person in the communication process reacts depending on factors such as their background, prior experience, attitudes, cultural beliefs and self-esteem (Aluko & Kazeem, 2016).

Emuakpor (2002) defines ICT as all forms of technology applied to the processing, storing and transmitting information in electronic form; stressing that the physical equipment used for this purpose include computers, communication equipment and networks; fax machines and electronic, pocket calculator. Ayo (2001) note that ICT is the use of computer system and telecommunications equipment in information handling; consisting of essentially three basic components viz:

Electronic processing using the computer; Transmission of information using telecommunication equipment; and dissemination of information multimedia.

Aina (2012) defines Library as a place where print and non-print materials are collected, organized and made available for access and use. He further stated that libraries public, academic research or school are important cornerstones of a healthy community which informed, giving opportunities to explore research in various fields of interest, educate and provide aesthetics enjoyment in the course of their study or work. It becomes explicit from the above that the use of ICT in libraries is fundamental and comprises all the electronic infrastructure and facilities employed by libraries for effective and efficient services. Such facilities, in broad term, consist of hardware, software and communication links between the service outlets of different libraries to facilitate the sharing of common resources; especially the library networks. The roles of academic Libraries cannot be neglected in any tertiary institution. They are referred to the library established in higher institution of learning such as Universities, Polytechnics, Monotechnics, Colleges of Education and school of preliminary studies. The major duties are to provide information and services from different format to aid teaching, learning and research. Osundina cited in Abdulwahab, Agun, Usman and Mulikat (2011) pointed out that the library of today should not merely store documents and preserve them; it must also device means by which the contents of such documents can be rapidly and effectively transmitted for use.

Capron (2000) revealed that mail, telephone, television, radio, books, newspapers and periodicals are the traditional ways users send and receive information. The organization of information and knowledge is an essential preliminary to its effective exploitation and dissemination. As the quantity of knowledge expands, the need to organize it becomes more pressing. A vast number of different means of organizing information have been devised and exploited since the earliest times. With the vast output of new information and ever-increasing degree of specialization in all areas of human knowledge, heavy demands are being placed on library information storage and retrieval systems, which can be scarcely met by the traditional methods except with the use of IT devices. The improvements and changes in computing and telecommunications and the integration of the two fields have had a huge role to play in the methods of information processing and dissemination in academic libraries; thus improving the quality of use to which such libraries are put. Among the various services provided through the ICT to meet users need are Users Education, Selective Dissemination of Information (SDI), Online Charging and Discharging, Current Awareness Services, Renewal Services, Online Registration, E-materials like Abstract, index, institutional repository and Online Database Searching.

On the other hand, Job performance is the ability of a worker to perform well on the job. Job performance revolves around the area of studies in industrial and organizational psychology which deals with sources management and aspect of human resources management. Besides, performance is key to organizational outcomes and success. Job performance is an individual level variable, or something a single person does at his or her duty post. Adeyemo (2000) explains that job performance is important that it cannot be ignored in the industrial setting. This differentiates it from more encompassing constructs such as organizational performance or national performance which are at higher level. Therefore, the need for a synergy between ICT and staff job performance could be a catalyst to success and productivity of an organization. Information Communication Technology (ICT) has gained access to every area of human endeavor and the educational sector is also following the trends of the technology advancement. The fundamental roles of ICT in the educational sector and library in particular are keys to the success of any academic sector.

Library operations range from administration, acquisitions, cataloguing, classification, information retrievals and serials control. Some librarians prefer the manual operations because they believe there is no good thing that can be derived from the use of ICT applications This study therefore seek to investigate ICT use on librarians job performance of tertiary institutions.

### Objectives

The research aim at addressing the following objectives:

- (i) To assess the availability of ICT services in the tertiary institutions library
- (ii) To what extent do librarians utilize the available ICT facilities
- (iii) To examining the influence of ICT facilities on librarians job performance
- (iv) To investigate the constraints to the use of ICT on Librarians job Performance.

### Research Questions

- (i) What is the level of availability of ICT facilities in the tertiary institutions library?
- (ii) To what extent do librarians utilize the available ICT facilities?
- (iii) What is the influence of ICT facilities on librarian’s job performance?
- (iv) What are the constraints of utilizing ICT on Librarians job performance?

### Methodology

This study adopted expo-facto research design because the variables were not manipulated but studied as they occurred. This design was utilized to examine the variables and enable the researcher to collect data which is not subjected to manipulations. The target population comprises of some librarians in Federal tertiary institutions in Lagos State. Multi stage sampling technique was employed in this study. The first stage involves purposive sampling of all the Librarians at University of Lagos, Yaba College of Technology and Federal College of Education (Technical), Akoka. The second stage involves random sampling of 60 librarians with twenty from each tertiary institution. The reliability of the test was determined using Cronbach alpha after pilot testing the instrument with twenty librarians from the National Library of Nigeria (Public) Yaba, Alagomeji in Lagos State. This was done to ensure the reliability of the instrument and reliability co-efficient of the instrument is 0.83

## RESULT AND DISCUSSION

**Table 1** Distribution of Librarians by Gender

Sex	Frequency	Percentage %
Male	25	41.7%
Female	35	58.3%

From Table 1 above, largest proportion of the participants 58.3% were female while the smallest proportion of the participants 41.7% were male which means more female were sampled in this study.

**Table 2: Distribution of Librarians by Years of Experience**

Age	Frequency	Percentage %
0-5	7	11.7%
6-10	15	25.0%
11- 15	13	21.7%
16 above	25	41.7%

Also from table 2 above, 41.7% of the participants have 16 and above years of experience, 25.0% have (6-10) years of experience and 21.7% have (11-15) and 11.7% have (0-5) years of experience.

**Table 3: Distribution of Librarians by Qualification**

Qualification	Frequency	Percentage %
Diploma	11	18.3%
Bsc/HND/BLIS	27	45.0%
Msc/MLIS	20	33.3%
Ph.D	1	1.7%
Others	1	1.7%

Also from table 3 above, 45.0% of the participants have Bachelor of Science or Higher National Diploma, 33.3% of the participants are Masters holder, 18.3% of the participants are Diploma holder while 1.7% of the participants are Doctor of philosophy or others

**Table 4: Distribution of Librarians by Designations**

Designation	Frequency	Percentage %
Assistant Librarian	4	6.7
Higher Lib officer	16	26.7
Senior Lib officer	12	20.0
Principal lib Officer	5	8.33
Librarian I	12	20.0
Librarian II	6	10.0
Library attendant	2	3.33
Hall supervisor	1	1.67
Higher Executive officer	1	1.67
Chief Library officer	1	1.67

Also from table 4 above, 26.7 % of the participants are Higher Library Officer, 20.0% Senior Library Officer and Librarian I, 10.0% Librarian II , 6.7% Assistant Library Officer, , 3.33% Library Attendant and 1.67 % were Hall Supervisor, Higher Executive Officer and Chief Library Officer

**Research Question 1:** To what extent do librarians utilize the available ICT Facilities?

**Table 5: Ranking of utilization of ICT facilities**

	ICT Facilities	Frequency	%	Rank	Remark
1	Internet	60	100.0	1.0	1 <sup>st</sup>
2	Online charging and discharging	40	98.3	2.0	2 <sup>nd</sup>
3	E- References services	42	65.0	5.0	5 <sup>th</sup>
4	Institutional repository	42	85.0	3.0	3 <sup>rd</sup>
5	Online registration	43	71.7	4.0	4 <sup>th</sup>
6	E-materials like Abstract, index and data base	50	56.7	6.0	6 <sup>th</sup>

From the table 5 above, it shows the ranking of utilization on ICT facilities. It was observed that most of the participants 100.0% said they utilize INTERNET, followed by 98.3 % said they utilize online charging and discharging and 85.0% said they utilize institutional repository. The table 1.5 also revealed that 71.7% of the participants use online registration , 65.0% utilize E-references services and 56.7% said E-materials like Abstract, index and data base. This means majority of the participants said they utilize ICT facilities like INTERNET, Online charging and Discharging, E-references services, institutional repository, online registration and E-materials like abstract, index and data base.

**Research Question 2:** What is the level of availability of ICT facilities in the tertiary institutions library?

**Table 6: Ranking of availability of ICT facilities**

ICT Facilities	Frequency	%	Rank	Remark
Internet	60	100.0	1.0	1 <sup>st</sup>
Computer or laptops	59	10.0	8.0	8 <sup>th</sup>
E-users Education	39	65.0	4.0	5 <sup>th</sup>
E-mails	79	85.0	3.0	3 <sup>rd</sup>
Online registration	17	71.7	5.0	5 <sup>th</sup>
Index	26	56.7	7.0	7 <sup>th</sup>
Abstract	9	61.7	6.0	6 <sup>th</sup>
Online data base searching	22	81.7	4.0	4 <sup>th</sup>
Printers	7	93.3	2.0	2 <sup>nd</sup>

From the table 6 above, it shows the ranking of availability of ICT services in our tertiary institution libraries. It was observed that most of the participants 100% said INTERNET as ICT service is available, 93.3% said printers is available , 85.0% said e-mails are available while 81.7% said online database is available. The table 1.6, also revealed that 81.7% of the participants said online database searching are available, followed by 71.7% said online registration is available followed by 61.7% who said abstract is available, 56.7 % said Index is available while 10.0% said Computer or laptops and mobile phones were available. This means majority of the librarians said INTERNET, Printers, E-mails, Online database searching, Online registration and Abstract were available while Index and computer or laptops were not readily available

### Research Question 3

What is the influence of ICT facilities on librarians' Job Performance?

**Table 7: Distribution of responses on ICT facilities on librarians' job performance**

S/N	Statement	SA	A	D	SD	$\bar{X}$	Remark
1	Use of internet facilities enhance compilation of reading list	32 (53.3)	24 (40.0)	2 (3.3)	2 (3.3)	3.43	Positive
2	The issuance of clearance facilitated with internet	21 (35.0)	27 (45.0)	8 (13.3)	4 (6.7)	3.05	Positive
3	Online signing of library cards enhance my job performance	19 (31.7)	30 (50.0)	8 (13.3)	3 (5.0)	3.08	Positive
4	Online registration of library users affected my job performance negatively	12 (20.0)	20 (33.3)	12 (20.0)	16 (26.7)	2.46	Negative
5	The use of e-mail at discharging and charging of information materials will enhance my job performance	25 (41.7)	26 (43.3)	7 (11.7)	2 (3.3)	3.23	Positive
6	The use of software will assist in compilation of data of library users	23 (38.3)	28 (46.7)	8 13.3	2 (3.3)	3.23	Positive
7	Electronic indexing and abstracting will promote my job performance	22 (36.7)	27 (45.0)	7 (11.7)	4 (6.7)	3.16	Positive
8	Cataloguing and classification of information resources will be facilitated with computer operating system	20 (33.3)	29 (48.3)	9 (15.0)	2 (3.3)	3.12	Positive
9	Internet facilitate the processing of spine label	17 (28.3)	30 (50.0)	8 (13.3)	5 (8.3)	2.98	Positive
10	The use of internet facilitate the processing of charging and discharging of information	24 (40.0)	27 (45.0)	7 (11.7)	2 (3.3)	3.22	Positive
11	Internet would facilitate the processing of book card	30 (50.0)	28 (46.7)	1 (1.7)	1 (1.7)	2.95	Positive
12	Use of laptops enhanced generating of reports	30 (50.0)	22 (36.7)	6 (10.0)	2 (3.3)	3.33	Positive
<b>Weighted Mean = 3.10</b>							

\*Figures in parentheses is percentages

From table 7 above, 53.3% of the participants strongly agree with the statement that the use of internet facilities would enhance compilation of reading list while 40.0% agree with the statement. 45.0% of the participants agree with the statement that the issuance of clearance would be facilitated with internet while 35.0% strongly agree. 50.0% of the participants agree with the statement that online signing of library cards will enhance their job performance while 31.7% strongly agree with the statement. 33.3% of the participants agree with the statement that online registration of library users will affect their job performance negatively while 20.0% strongly agree and disagree with the statement respectively.

Also, 43.3% agree and 41.7% strongly agree with the statement that the use of e-mail at discharging and charging of information materials will enhance their job performance while 11.7% disagree. 46.7% agree and 38.3% strongly agree of the participants with the statement that the use of software will assist in compilation of data of library users while 8% disagree. 45.0% agree and 36.7% strongly agree with the statement that the electronic indexing and abstracting will promote their job performance while 11.7% disagree with the statement.

48.3% and 33.3% of the participants agree and strongly agree respectively with the statement that cataloguing and classification of information resources will be facilitated with computer operating while 15.0% disagree with the statement.

Almost half of the participants 50.0% agree and 28.3% strongly agree with the statement that Internet would facilitate the processing of spine label while 13.3% disagree with the statement. Also, 45.0% of the participants agree and 40.0% of the participants strongly agree with the statement that the use of internet would facilitate the processing of charging and discharging of information while 11.7% disagree with the statement. The average weighted mean is 3.10 which implies that ICT facilities influenced librarian's job performance positively

**Research Question 4:** What are the constraints of utilizing ICT on Librarians job performance?

**Table 8 : Constraints to use ICT on Librarians job performance**

Variables	SA	A	D	SD	$\bar{X}$	REMARK
The incessant power outage hinder the use of ICT services	30 (50.0)	28 (46.7)	1 (1.7)	1 (1.7)	3.45	Agreed
The lack of computer facilities affect the use of ICT facilities	30 (50.0)	22 (36.7)	6 (10.0)	2 (3.3)	3.33	Agreed
INTERNET disruption hinder the use of ICT services	27 (45.0)	26 (43.3)	5 (8.3)	2 (3.3)	3.30	Agreed
The competency level of librarians on IT affect the use of ICT services	22 (36.7)	32 (53.3)	4 (6.7)	2 (3.3)	3.23	Agreed
IT technical manpower affect use of ICT	21 (35.0)	31 (51.7)	6 (10.0)	2 (3.3)	3.18	Agreed
<b>Weighted Mean = 3.30</b>						

\*Figures in parentheses is percentages

From table 8, almost half of the participants 50.0% strongly agreed and 46.7% agreed with the statement that the incessant power outage hinder the use of ICT services while 1.7% strongly disagree with the statement. Also, almost half of the participants 50.0% strongly agree and 36.7% agree with the statement that lack of computer facilities affect the use of ICT facilities while 10.0% disagree respectively. 45.0% of the participants strongly agree and 43.3% of the participants agree with the statement that INTERNET disruption hinder the use of ICT services while 8.3% disagree with the statement. 53.3% agree and 36.7% strongly agree with the statement that the competency level of librarians on IT affect the use of ICT services while 6.7% disagree. Above average of the participants 51.7% agree and 35.0% strongly agree with the statement that lack of information technology manpower affect use of ICT. Also, the weighted mean is 3.30 which mean there are constraints at utilizing ICT on Librarians job performance.

## CONCLUSION

Information Communication Technology (ICT) in tertiary institution especially at the libraries like University of Lagos, Yaba College of Technology and Federal College of Education (Technical) all in Yaba area of Lagos State utilize ICT facilities like INTERNET, Online charging and Discharging, E-references services, institutional repository, online registration and E-materials like abstract, index and database.

In addition, for effective and efficient service delivery to fulfill the objectives of establishing the library, then the availability of some ICT facilities like E-mails, Online database searching, Online registration and abstract will ease the flow of information and services between the library and the researchers and also increase the speed at which services like acquisition, processing, storage and dissemination are carried out in this information explosion dispensation. The ICT facilities will promote librarian's job performance positively. Although, there is still some hindrance towards utilizing ICT in our libraries

## RECOMMENDATIONS

Information Communication Technology has come to stay. For librarians in academic libraries to deliver effective and efficient services to achieve the aims and objectives of establishing academic libraries, ICT use must be embraced to enhance high productivity in service delivery. The following solutions are proffered to increase ICT usage in academic libraries in Lagos State:

- Library Management should have independence stand-by generator incase if there is power outage
- Library should employed technical know-how personnel who will be responsible for repairing system anytime there is fault.
- Training and retraining should be carry out frequently to remove the phobia in some Librarians.
- Both Local Area Network (LAN) and Wider Area Network (WAN) of library bandwidth must be increase to ensure smooth flow of data.
- The library should provide personal laptops to each librarian in order to acquaint and perfect the skills gained.
- There is need for regular training of libraries officers on the trend of use of ICT facilities in modern times.

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