

INFLUENCE OF INFORMATION COMMUNICATION TECHNOLOGY ON JOB PERFORMANCE OF LIBRARIANS IN FEDERAL UNIVERSITIES IN NORTH-CENTRAL, NIGERIA

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Abstract

This study investigated the influence of Information Communication Technology (ICT) on job performance of librarians in federal university libraries in North-Central, Nigeria. Three research questions guided the study in line with the objectives. Descriptive survey research design was used and the target population of eighty-two (82) librarians in the three selected federal university libraries in North-Central, Nigeria were adopted for this study. A close ended structured questionnaire was used as data collection instrument. Total frequencies and median were statistical tools used for data analysis. Results showed that level of job performance of librarians is moderate, influence of ICT skills possession on job performance of librarians is high and influence of use of ICT facilities is moderate. ICT skills possession and use of ICT facilities jointly and significantly has an influence contribution of 57.8% on job performance of librarians in federal university libraries in North-Central, Nigeria. The study concluded that provision of good conducive working environment, sufficient possession of ICT skills, high quality of ICT facilities and training and re-training of librarians in the aspect of ICT to acquire more ICT skills especially the advanced ICT skills would no doubt enhance their job performance. The study recommended that federal university libraries in North-Central, Nigeria should make their libraries more conducive for both staff and users, organise training and re-training for librarians to acquire more ICT skills especially the advanced ICT skills and more opportunities should be given to librarians to attend conferences, workshops and seminars in the area of ICT.

Keywords: Federal Universities, Influence, Information Communication Technology, Job Performance, Librarians, North-Central, Nigeria.

Introduction

University library can only be successful in performing its expected roles if information resources, facilities and equipment are adequately available, functional and also the quality of its staff as manifested in their job performance. University libraries refer to those libraries established in universities to support and strengthen the academic programmes of such institutions of learning as they contribute to the total development of their users' community by broadening their intellectual horizons and inculcating in them a lasting desire to study and carry out research. Ode and Ode (2018) defined university libraries as those libraries that are established in universities as higher institution of learning to collect, organise, preserve and store information for the use of users such as students, lecturers, researchers and university community.

Librarians perform a wide range of services such as technical, readers', reference, serial and administrative related services in the university libraries. Librarians working in federal university libraries are expected to have adequate ICT knowledge and skills for them to carry out the services effectively. Saidu, Saka and Kur (2020) defined a librarian as one who undergo Library and Information Science (LIS) training in any approved institution of learning and has obtained first or

higher degree in librarianship and perform professional duties such as selection and acquisition, cataloguing and classification, conducting reference services and bibliographic services.

Job performance could be described as what an employee does in work situation and how effectively and efficiently it was done for accomplishment of organisational goals and objectives. Agba *et. al.* (2013) defined job performance as the task accomplished by individual employee; it is how well a staff accomplishes a given task in an organisation libraries inclusive.

Information and Communication Technology (ICT) is the coming together of computing, telecommunication and broadcasting technologies to produce information. Example of computing technologies are the computers and its accessories while telecommunication technologies include: telephone, facsimile, fax, e-mail. The broadcasting technologies include: radio, television, video. Odionye (2016) defined Information and Communication Technology (ICT) as a technology that brought tremendous transformation to academic libraries and information services. Such areas of transformation and development occasioned by ICTs in academic libraries include: computing technology, telecommunication technology and mass storage technology. ICT skills could be viewed as the overall competencies (skills, knowledge, attitude and technical know-how) needed to create, save, analyse, organise, retrieve and disseminate digital information such as images, text, sounds and graphics in digital libraries or any type of information. In recent times, work for the information profession has become characterised by fast-paced change and new skills requirements (Seena and Pillai, 2014).

The use of ICT facilities in the university libraries play a very crucial role by enabling library to easily provide the required information to the clientele. Oriogu *et.al.* (2014) stated that the use of Information and Communication Technology (ICT) is gaining momentum in university libraries especially now that most universities in Nigeria are adopting ICT in the development and improvement of their services. ICT has provided libraries with new opportunities to improve their resources and services.

Statement of the Problem

The working environment of the library personnel is fast changing which demands new knowledge and skills for them to perform their job effectively and efficiently. For university libraries to achieve maximum productivity in terms of supporting learning, teaching, research and service to host community where the universities are located. University library personnel (Librarians) are expected to perform the statutory functions so as to achieve the set objectives of their university library. Thus, the job performance of librarians in federal university libraries in North-Central, Nigeria was below expectation as Aboyade (2014) found that the job performance of professional librarians in Nigerian federal universities was on low level. Extant literature and researchers' observation have shown that, some librarians in federal university libraries in North-Central, Nigeria found it difficult to cope with the tools of ICTs in library operations which may invariably affects their job performance. Could the challenges be due to lack of conducive working environment, inadequate ICT facilities, insufficient ICT skills, knowledge, abilities and technical known-how by librarians? To proffer solutions to this problem, the researchers therefore, investigated the influence of Information Communication Technology on job performance of librarians in federal university libraries in North-Central, Nigeria.

Research Objectives

The objectives of the study are to:

1. determine the level of job performance of librarians in federal university libraries in North-Central, Nigeria;
2. ascertain the influence of ICT skills possession on job performance of librarians in federal university libraries in North-Central, Nigeria;
3. determine the influence of use of ICT facilities on job performance of librarians in federal university libraries in North-Central, Nigeria.

Research Questions

The following research questions guided the study:

1. What is the level of job performance of librarians in federal university libraries in North-Central, Nigeria?
2. What is the influence of ICT skills possession on job performance of librarians in federal university libraries in North-Central, Nigeria?
3. What is the influence of use of ICT facilities on job performance of librarians in federal university libraries in North-Central, Nigeria?

Research hypothesis

1. There is no composite effect of ICT skills possession and use of ICT facilities on job performance of librarians in federal university libraries in North-Central, Nigeria.

Literature Review

Ozioko *et. al.* (2018) conducted a similar study that was guided by three specific objectives. The study adopted a descriptive survey design. The population of the study comprised 94 library staff and 711 library users. The instruments of the study were questionnaire and observation checklist. Descriptive statistical tools such as frequency and mean were used to analyse the collected data. The findings of the study showed that various ICT facilities such as network facilities, photocopiers, printers, scanners, local area network among others were available in the libraries; that ICT application are used for different purposes in the libraries; that the extent of ICT application to library services in those libraries is extensively low except few services that are of great extent. The study concluded that provision of adequate technical support and provision of qualitative bandwidth were suggested to enhance maximum application of ICT in the libraries. The study recommended that more ICT facilities should be made available, power supply should be improved and that adequate fund should be provided by the government to the libraries. The present study is similar with this study because the studies are on ICT application in academic libraries.

Okpokwasili (2018) carried out a similar study that was guided by two specific objectives. The study adopted survey research design. The population of the study comprised 542 library staff. The instrument used for the study was a structured questionnaire. Descriptive statistical tools such as: frequency, mean and standard deviation were used to analyse the collected data. From the findings of the study, the study concluded that there is high level of type of library crimes committed in academic libraries and high level of curbing library crimes with ICT in academic libraries in Nigeria. It was recommended that government and concerned authorities should adopt and make available information and communication technologies as means of curbing library crimes in academic libraries in Nigeria and since the traditional methods seems not meeting the security expectations. The present study is similar with this study because the studies are on impact of ICT and both used university libraries in Nigeria as areas of coverage.

Idakwo *et. al.* (2018) conducted a similar study that was guided by five research questions in line with the objectives of the study. The study adopted survey research design. The population of the study comprised 30 circulation staff of University of Ilorin, Federal University Lokoja and University of Abuja Libraries. The instrument used for the study was a structure questionnaire. Data collected were analysed using simple percentage. Findings of the study revealed that ICTs are utilised in circulation operations in the Federal University Libraries; ICT devices are available for circulation operations in the libraries among others. The study recommended that government should endeavour to provide adequate funds for procurement of ICT facilities for university libraries to enhance automation of circulation operations and university management should engage the circulation staff on continuous ICT training through organised seminars and workshops and among others. The present study is similar with this study because the studies are on application of ICT in library operations and both used university libraries as areas of coverage.

Yisadoko *et. al.* (2017) carried out a similar study that was guided by six specific objectives. The researchers adopted descriptive survey design. The population of the study was the 200 postgraduate students of Federal University of Technology, Minna. The instrument used for the study was a structured questionnaire. Descriptive statistical tools such as: frequency table and simple percentage were used to analysed the collected data. Findings revealed that ICT facilities were available at a low level. It was recommended that efforts should be made to place a high premium of priority on application of ICTs in the services on university libraries and adequate training and orientation on ICT should be emphasised. The present study is similar with this study because the studies are on influence of ICT on library professionals and both used university libraries as areas of coverage.

Seena and Pillai (2014) conducted a similar study that was guided by three research questions. The study was based on a questionnaire survey of library professionals in the library of the University of Kerala, India. The population of the study consisted of 102 professionals, para-professionals and university administrators. The instrument used for the study was a structured questionnaire. Data collected were analysed using version 23 of MS-Excel for appropriate statistical analysis and description. Findings revealed that lack of training (40.20%) is one of the main constraint in acquiring ICT skills, ICT facilitates quick access to current data (52.94%) and ICT application improves quality of library services (53.92%). The study concluded that the university library needs proper ICT infrastructure and training for the professionals in using the digital resources effectively. It was recommended that libraries should promote ICT awareness to the professionals as well as users by providing short-term courses, in-house training programmes, organising workshops, seminars, conferences and public lectures etc. The present study is similar with this study because the studies are on ICT and both used university libraries as areas of coverage.

Ojiegbe (2010) conducted a similar study that was guided by three research questions. The study adopted descriptive survey design. The population of the study consisted of 136 professional and para-professional staff working in the university libraries. The instrument used for data collection was questionnaire. Mean score and percentages were used in analysing the data collected. Findings from the study revealed that the level of ICT competence among the library staff working in the university libraries were very low. Many of the library staff acquired the competencies they possess through private computer training, personal practice and on the job training. The study concluded that Nigerian Library Association (NLA) and Librarians' Registration Council of Nigeria (LRCN) should take up the mantle of leadership role to educate library heads and set standards of operations for libraries. The National Library's Centre for Advanced and Information Management (CALIM) in Enugu should be properly developed and put to use for competency training of librarians in Nigeria. It was concluded that the two Federal University libraries should dedicate a reasonable percentage of their annual library budget to training, the two Federal Universities libraries should create an internal committee on training that would be responsible for planning training programmes for the library staff and the two Federal Universities must make sure that every library staff have access to the use of the ICT facilities available in the library for practices. The present study is similar with this study because the studies are on ICT competencies of library staff and both used Federal University libraries as areas of coverage.

Methodology

This study adopted a descriptive survey research design. Descriptive survey research design was used for this study because data were collected in order to determine the influence of independent variables on dependent variable and the composite effect of the independent variables on dependent variable. The population of the study comprised of eighty-two (82) librarians working in Ibrahim Badamasi Babangida Library: Federal University of Technology, Minna, University of Ilorin

Library and University of Jos Library. The study used simple random sampling technique to select the three universities based on status: two conventional and one specialised for the purpose of generalisation. The entire population was adopted for the study. A close ended structured questionnaire was designed titled "influence of Information Communication Technology (ICT) on job performance of librarians' questionnaire (IICTJPLQ) to capture the level of job performance of librarians, influence of ICT skills possession and influence of use of ICT facilities on job performance of librarians in federal university libraries in North-Central, Nigeria. Research questions were descriptively analysed using total frequencies and median as a measure of central tendency or average with a decision criterion of $f_x \geq \text{median} = (\text{high or agreed})$ and $f_x < \text{median} = (\text{low or disagreed})$. The draft copies of questionnaire were validated by four lecturers in the Department of Library Information Technology and a Statiscian from Department of statistics all from Federal University of Technology, Minna and 30 copies of the modified version were pre-tested on 30 librarians of Kebbi State University of Science and Technology Library, Aliero, and Abubakar Gimba Library; Ibrahim Badamasi Babangida University Lapai respectively using test re-test method. The selection of these universities was due to the fact that they are State based conventional and specialised universities that are neither part of population, study area nor part of sample. The reliability coefficient of 0.92 was obtained. The figure is above half (1/2), which is an indication that the instrument is excellent and reliable. A total of 82 copies of questionnaire were administered to librarians in the federal university libraries in North-Central, Nigeria. A response rate showed the retuned of 82 copies of the questionnaire representing 100 percent. Research hypothesis was inferentially analysed using multiple regression analysis of variance tested at 0.05 level of significance.

Presentation of Results of Analysis of the Major Variables of the Study

Research Question One: What is the level of job performance of librarians in federal university libraries in North-Central, Nigeria?

Table 1: Response on the level of job performance of librarians in federal university libraries in North-Central, Nigeria

S/N	STATEMENTS	Total <i>F_x</i>	Median <i>M=2025</i>	DECISION
Motivation				
(Personal Desires and Preference)				
1	The prompt payment of staff salary encourages industrial harmony and enhance my job performance in the library.	2189	$f_x \geq M$	High
2	Regular promotion of staff motivates me to come up with new ideas and better ways of doing things in the library thus enhancing job performance.	2145	$f_x \geq M$	High
3	The reward system for dedicated staff motivates me to make meaningful contributions during meetings in the library and this enhance job performance.	2114	$f_x \geq M$	High
4	Career prospects motivate me to work harder and meets work deadlines in the library thus enhancing job performance.	2205	$f_x \geq M$	High
(Work Environment)				
5	The library working environment is quite conducive for both staff and users and this enhance job performance.	934	$f_x < M$	Low
6	The requirements needed for promotions in my university encourages me to publish more locally and internationally thus enhancing job performance.	2007	$f_x < M$	Low
7	There is constant provision for acquisition of required skills for library personnel and this enhance job performance.	1438	$f_x < M$	Low

8	There is constant electricity power supply for hitch free operations in the library working environment and this enhance job performance.	1749	$f_x < M$	Low
Skill				
(Mental Ability)				
9	Ability to comprehend complex ideas enables me acquire ICT skills to perform my job efficiently and this enhance job performance.	1835	$f_x < M$	Low
10	My ability to reason quickly facilitates speedy completion of routine duties thus enhancing job performance.	1882	$f_x < M$	Low
11	My ability to learn fast enables me to acquire ICT skills to perform my job better and this enhance job performance.	2004	$f_x < M$	Low
(Physical Ability)				
12	My ability to move around enables me to acquire ICT skills and this enhance job performance.	2247	$f_x \geq M$	High
13	My ability to see properly enables me to acquire ICT skills and work effectively thus enhancing job performance.	2173	$f_x \geq M$	High
14	My ability to hear properly enables me to acquire ICT skills and work better and this enhance job performance.	2135	$f_x \geq M$	High
(Experience)				
15	My years of experience on the job improves my skills and abilities to perform my work very well thus enhancing job performance.	1955	$f_x < M$	Low
16	My experience on daily tasks improves my skills and knowledge and this enhance job performance.	1951	$f_x < M$	Low
17	Experiences acquired through various in-service training attended improves my knowledge to perform any task assigned to me efficiently thus enhancing job performance.	2205	$f_x \geq M$	High
Facilities				
18	Use of ICT facilities helps me reduce redundant work and this enhance job performance.	1749	$f_x < M$	Low
19	Use of ICT facilities improves my competencies to work better thus enhancing job performance.	2119	$f_x \geq M$	High
20	Use of ICT facilities enables me to provide quality library services and this enhance job performance.	2042	$f_x \geq M$	High

Key 1: $f_x \geq \text{Median}$ = High Performance; $f_x < \text{Median}$ = Low Performance.

The data presented in Table 1 were analysed for level of job performance of librarians. The result on Table 1 showed that the respondents indicated High performance to ten statements out of the twenty items listed on the level of job performance of librarians as frequency scores were greater than or equal to the median score. On the other hand, respondents indicated Low performance to the other ten statements as frequency scores were lower than the median score.

Research Question Two: What is the influence of ICT skills possession on job performance of librarians in federal university libraries in North-Central, Nigeria.

Table 2: Response on the influence of ICT skills possession on job performance of librarians in federal university libraries in North-Central, Nigeria

S/N	STATEMENTS	Total f	Median M=2194	DECISION
Basic Operation of ICT Hardware Skills				
1	Ability to retrieve documents from storage devices enhance my job performance.	2238	$f_x \geq M$	High
2	My ability to save, edit and copy data into secondary storage devices such as: diskettes, flash drive and USB effectively thus enhancing job performance.	2287	$f_x \geq M$	High
3	My knowledge of ICT enables me to save, edit and copy data into primary storage device such as: hard disk effectively and this enhance job performance.	2213	$f_x \geq M$	High
4	Ability to scan and upload documents efficiently enhance my job performance.	2236	$f_x \geq M$	High
5	My knowledge of ICT enables me to type and print documents and this enhance job performance.	2195	$f_x \geq M$	High
Email Management and Setup Skills				
6	My knowledge of ICT enables me to create an online email account for my colleagues thus enhancing job performance.	2152	$f_x < M$	Low
7	Ability to use e-mail in sending and receiving messages enhance my job performance.	2282	$f_x \geq M$	High
8	My knowledge of ICT enables me to attach files, upload and download documents on e-mail environment and this enhance job performance.	2200	$f_x \geq M$	High
Safe Internet Usage Skills				
9	My ability to open web pages, navigates web links and save favourite web pages enhance job performance.	1925	$f_x < M$	Low
10	My knowledge of ICT enables me to perform online cataloguing and classification thus enhancing job performance.	2238	$f_x \geq M$	High
11	My knowledge of ICT enables me to use OPAC/Web OPAC to retrieve bibliographic information and this enhance job performance.	2235	$f_x \geq M$	High

Online Research Skills

- | | | | | |
|----|---|------|--------------|------|
| 12 | Ability to use search Engines such as: Mamma, AOL, Yahoo, Google in searching for information online enhances my job performance. | 2229 | $f_x \geq M$ | High |
| 13 | My knowledge of ICT enables me check for reference sources online and this enhance job performance. | 2246 | $f_x \geq M$ | High |
| 14 | My knowledge of ICT enables me collect research data using Google forms or Survey monkey thus enhancing job performance. | 2160 | $f_x < M$ | Low |

Online Communication and Collaboration Skills

- | | | | | |
|----|--|------|--------------|------|
| 15 | My knowledge of ICT enables me to use Electronic Bulletin Boards and this enhance job performance. | 2109 | $f_x < M$ | Low |
| 16 | My ability to communicate and hold meetings with others on ZOOM enhances job performance. | 1889 | $f_x < M$ | Low |
| 17 | Ability to share work related files on Dropbox or Google drive enhances my job performance. | 2037 | $f_x < M$ | Low |
| 18 | My knowledge of ICT enables me to perform Electronic Documentary Delivery Services and this enhance job performance. | 2194 | $f_x \geq M$ | High |

Social/Academic Networking Sites Management Skills

- | | | | | |
|----|---|------|--------------|------|
| 19 | My knowledge of ICT enables me to perform Networking activities thus enhancing job performance. | 2142 | $f_x < M$ | Low |
| 20 | Ability to search and retrieve research papers on ResearchGate and Academia.edu. and this enhance my job performance. | 2203 | $f_x \geq M$ | High |
| 21 | My knowledge of ICT enables me share my work findings on Twitter thus enhancing job performance. | 2162 | $f_x < M$ | Low |
| 22 | Ability to reach out and collaborate with other colleagues on LinkedIn, ResearchGate enhances my job performance. | 2229 | $F_x > M$ | High |

Document Creation and Retrieval Skills

- | | | | | |
|----|---|------|-----------|-----|
| 23 | My knowledge of ICT enables me to perform Statistical skills such as SPSS to analyse data and this enhance job performance. | 1974 | $f_x < M$ | Low |
| 24 | My knowledge of ICT enables me to use | 2048 | $f_x < M$ | Low |

Graphics such as: CorelDraw thus enhancing job performance.

25	Ability to use spreadsheets to enter numerical value and text into cells as well as performing calculations using formula enhances my job performance.	2181	$f_x < M$	Low
26	My knowledge of ICT enables me to perform Presentation skills such as: power point presentation thus enhancing job performance.	2191	$f_x < M$	Low
27	My knowledge of ICT enables me install Software on a System and this enhance job performance.	2192	$f_x < M$	Low

Key 1: $f_x = \sum (\text{VHI value} * \text{statement value} + \text{HI value} * \text{statement value} + \text{MI value} * \text{statement value} + \text{LI value} * \text{statement value} + \text{VLI value} * \text{statement value})$

Key 2: $f_x \geq M$ = High Influence; $f_x < M$ = Low Influence.

The data presented in Table 2 were analysed for the influence of ICT skills possession on job performance of librarians. The median (M) of the total score (f_x) for each item of the university libraries assessed was used. The criterion for each statement was high if $f_x \geq M$ of 2194 (greater than or equal to 2194) and low if $f_x < M$ of 2194 (less than 2194). The results on Table 2 showed that the respondents indicated high influence to fourteen statements out of the twenty-seven items listed on the influence of ICT skills possession on job performance of librarians as the $f_x \geq M$ of 2194 (greater than or equal to 2194). On the other hand, respondents indicated low influence to the other thirteen statements as the $f_x < M$ of 2194 (less than 2194).

Research Question Three: What is the influence of use of ICT facilities on job performance of librarians in federal university libraries in North-Central, Nigeria?

Table 3: Response on the influence of use of ICT facilities on job performance of librarians in federal university libraries in North-Central, Nigeria

S/ N	STATEMENTS	Total F_x	Median M=193 8	DECISIO N
1	Using ICT facilities in library operations improves my performance and satisfaction thus enhancing job performance.	2161	$f_x \geq M$	High
2	Use of ICT facilities improves my ability to perform digital reference and serial services and this enhance job performance.	2186	$f_x \geq M$	High
3	Using ICT facilities in library operations reduce my workload to perform tasks better thus enhancing job performance.	2211	$f_x \geq M$	High
4	Using ICTs enables me to provide quality library services to clientele and this enhance job performance.	2120	$f_x \geq M$	High
5	Use of ICT facilities make it easy for me to access current data quickly thus enhancing job	2022	$f_x \geq M$	High

performance.

6	It is easy for me to cope with all situations in my place of work using ICT facilities and this enhance job performance.	1927	$f\bar{x} < M$	Low
7	I find the technology of ICTs easy to use and update thus enhancing job performance.	1980	$f\bar{x} \geq M$	High
8	ICTs enables me to facilitate easy search and retrieval of information and this enhance job performance.	1949	$f\bar{x} \geq M$	High
9	Library users prefer I should use ICTs to perform online circulation services such as: registration of library users, charging and discharging of library materials and daily statistics records thus enhancing job performance.	1886	$f\bar{x} < M$	Low
10	University library helped in the use of ICTs for budgeting provision and this enhance job performance.	1917	$f\bar{x} < M$	Low
11	University library believe that I should use ICTs to perform technical services such as: acquisition, classification and cataloguing thus enhancing job performance.	1818	$f\bar{x} < M$	Low
12	My university support the use of ICTs to facilitate communication within the institution and this enhance job performance.	1857	$f\bar{x} < M$	Low
13	Use of ICTs aid division of labour among library staff for effective service delivery thus enhancing job performance.	1872	$f\bar{x} < M$	Low
14	My knowledge of ICTs enables me to effectively disseminate information and this enhance job performance.	1838	$f\bar{x} < M$	Low

Key 1: $f\bar{x} = \sum (\text{VHI value} * \text{statement value} + \text{HI value} * \text{statement value} + \text{MI value} * \text{statement value} + \text{LI value} * \text{statement value} + \text{VLI value} * \text{statement value})$

Key 2: $f\bar{x} \geq \text{Median} = \text{High Influence}; f\bar{x} < \text{Median} = \text{Low Influence}$

The data presented in Table 3 were analysed for the influence of use of ICT facilities on job performance of librarians. The median (M) of the total score ($f\bar{x}$) for each item of the university libraries assessed was used. The criterion for each statement was High if $f\bar{x} \geq \text{Median}$ of 1938 (greater than or equal to 1938) and Low if $f\bar{x} < \text{Median}$ of 1938 (less than 1938). The results on Table 3 showed that the respondents indicated high influence to seven statements out of the fourteen items listed on the influence of use of ICT facilities on job performance of librarians. On the other hand, respondents indicated low influence to the other seven statements as the $f\bar{x} < M$ of 1938 (less than 1938).

Null Hypothesis

The below null hypothesis was tested at 0.05 level of significance.

1. There is no composite effect of ICT skills possession and use of ICT facilities on job performance of librarians in federal university libraries in North-Central, Nigeria.

Table 4: Multiple regression testing analysis on composite effect of ICT skills possession and use of ICT facilities on job performance of librarians in federal university libraries in North-Central, Nigeria

R	R Square	Adjusted R Square	Std. Error of the Estimate
.760 ^a	.578	.576	.34058

ANOVA ^a						
Model	Sum of Squares	Df	Mean Square	F	Sig. P	Remark
Regression	79.188	3	26.396	227.567	.000 ^b	Sig.
Residual	57.764	79	.116			
Total	136.952	82				

a. Dependent Variable: Job Performance

b. Predictors: (Constant), ICT Skills possession and Use of ICT Facilities

Table 4 showed the significant influence of ICT skills possession and use of ICT facilities on job performance of librarians in federal university libraries in North-Central, Nigeria with value of $F = 227.567$; $R = 0.760$, $R \text{ square} = 0.578$, $\text{Adjusted } R \text{ square} = 0.576$, $P < 0.05$). With $R \text{ square}$ equal to 0.578 means that ICT skills possession and use of ICT facilities jointly and significantly has an influence contribution of 57.8% on job performance of librarians in federal university libraries in North-Central, Nigeria, while the remaining 42.2% is influence by other factors. Also, with $p < 0.05$, **the null hypothesis was rejected** while alternate hypothesis was accepted and restated as "there is composite effect of ICT skills possession and use of ICT facilities on job performance of librarians in federal university libraries in North-Central, Nigeria". This implies that ICT skills possession and use of ICT facilities influence job performance of librarians in federal university libraries in North-Central, Nigeria.

Summary of Findings

Based on the data presentation, analysis and discussions, the following were the summary of findings of the study:

1. The level of job performance of librarians in federal university libraries in North-Central, Nigeria is moderate.
2. The influence of ICT skills possession on job performance of librarians in federal university libraries in North-Central, Nigeria is high.
3. The influence of use of ICT facilities on job performance of librarians in federal university libraries in North-Central, Nigeria is moderate.

Discussion of Findings

Response to research question one sought to find out the level of job performance of librarians in federal university libraries in North-Central, Nigeria. The result showed that level of job

performance of librarians is moderate. The finding is supported by a similar study by Agade *et. al.* (2021) that, job performance is a measure of how effectively library staff carry out their duties or responsibilities in order to accomplish specific and desirable results. This finding does not corroborate the findings of Aboyade (2014) and Akor (2009) who both reported that job performance of professional librarians in Nigerian federal universities and government-owned universities in North-Central, Nigeria was on a low level. Consequently, this finding does not corroborate the finding of Adeeko *et. al.* (2017) who reported that the level of job performance of library personnel in universities of Southwest Nigerian is high.

Response to research question two sought to find out the influence of ICT skills possession on job performance of librarians in federal university libraries in North-Central, Nigeria. The result showed that influence of ICT skills on job performance of librarians is high. This is corroborated by the respondents' affirmative responses to the questionnaire items. The finding is supported by a similar study by Seena and Pillai (2014) that, ICT skills are the overall competencies (skills, knowledge, attitude and technical know-how) needed to create, save, analyse, organise, retrieve and disseminate digital information such as images, text, sounds and graphics in digital libraries or any type of information. Consequently, in line with the opinion of Abba (2017), to increase the ICT skills of the information professionals, there is need for continuous training and orientation program. Although computer is becoming popular, still we lack computer literate professionals, many senior and old information professionals do not know how to operate computer effectively. On the other hand, respondents indicated low influence to other thirteen statements as the $f_x <$ Median of 2194 (less than 2194). This is in line with the finding of Yisadoko *et. al.* (2017) who reported that possession of some listed ICT skills by postgraduate students in Nigerian universities is at low extent. Similarly, Ugwuoke (2012) opined that any worker, who is not adequately equipped with ICT skills for operating in the new environment, automatically becomes a misfit.

Response to research question three sought to find out the influence of use of ICT facilities on job performance of librarians in federal university libraries in North-Central, Nigeria. The result showed that the influence of use of ICT facilities on job performance of librarians is moderate. This is corroborated by the respondents' affirmative responses to the questionnaire items. The finding is supported by a similar study by Odionye (2016) that, library personnel now use ICT facilities available in the universities to source for reference materials, online journals as well as send and receive e-mail from within and outside the country. Furthermore, in line with the opinion of Ode and Ode (2018), use of ICT facilities has conceived a great influence on traditional university libraries in the 21st century globally. This is probably why Oladokun and Kolawole (2018) stated that the use of computers prescribe efficiency and saves considerable amount of time, resources and labour. It also speeds up technical processing and information services and has been a means of bringing quality services to library users. This finding corroborate the finding of Ozioko *et. al.* (2018) who reported that extent of use of ICT to library services in the polytechnic libraries could be said to be minimal.

Conclusion

This study examined the influence of Information Communication Technology (ICT) on job performance of librarians in federal university libraries in North-Central, Nigeria. The concept of university libraries, librarians, job performance and Information Communication Technology (ICT) were highlighted. However, the findings of this study indicates that level of job performance of librarians is moderate, influence of ICT skills possession on job performance of librarians is high and influence of use of ICT facilities on job performance of librarians is moderate. The study concluded that the possession of email management and setup skills, online research skills, online communication and collaboration skills, academic networking sites management skills and document creation and retrieval skills of librarians under this study is low and this could be

attributed to the moderate level of job performance and use of ICT facilities on job performance of librarians in federal university libraries in North-Central, Nigeria.

Recommendations

The following recommendations were made to proffer solutions to the findings of this study:

1. Federal university libraries in North-Central, Nigeria should make their working environment more conducive for both staff and users, provide constant avenue for acquisition of required skills and electricity power supply, acquire high quality of ICT facilities and henceforth employ librarians with high mental ability.
2. Federal university libraries in North-Central, Nigeria should train and re-train librarians in the weak aspect of ICT skills possession such as: email management and setup skills, online research skills, online communication and collaboration skills, academic networking sites management skills and document creation and retrieval skills as these would help librarians to improve their competencies for effective service delivery in the university libraries study.
3. Federal universities management in North-Central, Nigeria should support the use of ICT in the library operations, organise more training for librarians in the area of ICT to enable them acquire the knowledge, skills and abilities that would make them cope with the tools of ICT.

References

- Abba, H. (2017). Assessing the use of ICT facilities by staff and users of public libraries in Katsina State, Nigeria. *Samaru Journal of Information Studies*, 17 (2), 66-82.
- Aboyade, W. A. (2014). *Influence of job motivation, emotional intelligence and self-concept on job performance among library workers in federal universities in Nigeria* (unpublished Ph.D. thesis). University of Ibadan, Nigeria.
- Adeeko, K., Aboyade, W. A., & Oyewole, G. O. (2017). Job satisfaction and self-efficacy as determinants of job performance of library personnel in selected university libraries in South-West, Nigeria. *Library Philosophy and Practice* (e-journal). Available at: <http://digitalcommons.unl.edu/libphilprac/1557>.
- Agade, E. O., Tofi, S. T., & Theresa, O. O. (2021). Perceived influence of library automation on the job performance of library staff in academic librarians in Benue State, Nigeria. *Nigerian Libraries*, 54 (1), 16 – 28.
- Agba, A. M., Ogaboh, M. S., & Mboto, W. A. (2013). Wages or other conditions: Critical assessment of factors in worker's performance in Nigeria. *International Journal of Academic Research in Business and Social Science*, 3(7), 62-73.
- Akor, P. U. (2009). Influence of university library leadership styles on the job performance of professional librarians in North-Central, Nigeria. *Journal of Educational and Social Research*, 4 (7), 148-152.
- Chisenga, J. (2004). *The use of ICTs in Africa Public Libraries: A Survey of Ten Countries in Anglophone Africa*. Oxford: International network for the Availability of Scientific Publication (INASP).
- Idakwo, I. S., Shehu, A. B., & Dankwalba, I. A. (2018). Application of information and communication technology in circulation operation in selected Federal University Libraries in North Central Nigeria. *Information Impact: Journal of Information and Knowledge Management*, 9 (4), 26-35.

- Ode, I. M., & Ode, U. A. (2018). Application of information communication technologies on library services in university libraries in Nigeria: Contemporary issues and prospects. *Review of Information Science Technology Journal (RIST)*, 4, 73-82.
- Odionye, C. M. (2016) Uses and application ICTs in Nigerian university libraries: The case of UNN. *Research Journal of Mass Communication and Information Technology*, 2 (3), 37-51. Available at: <https://www.iiardpub.org>
- Ojiegbe, N. (2010). ICT competencies of library staff of the University of Abuja, FCT and University of Jos. Unpublished Master Thesis, University of Nigeria, Nsukka. Retrieved from <http://www.unn.edu.ng/publication/files/images>.
- Okoye, R. B. (2005). Strengthening information provision in Nigeria university libraries through Information Communication Technologies. *The electronic library*, 23 (3), 311-318.
- Okpokwasili, N. P. (2018). Impact of information communication technology on curbing library crimes in academic libraries in Nigeria. *Information Impact: Journal of Information and Knowledge Management*, 9 (4), 106-115.
- Oladokun, T. A., & Kolawole, L. F. (2018). Sustainability of library automation in Nigerian libraries: KOHA open source software. Retrieved from <http://digitalcommon.un.edu/libphilprac>.
- Oriogu, C. D., Ogbuiyi, S. U., & Ogbuiyi, D. C. (2014). Availability and accessibility of ICT in the provision of information resources to undergraduate students in Babcock University Library. *Research on Humanities and Social Sciences (e-journal)*, 4 (14), 29-33. Retrieved from <http://www.iiste.org/journal/index.php/RHSS/article/view/14317>.
- Ozioko, R. E., Asadu, B. U., & Ugwuanyi, R. N. (2018). Information communication technology (ICT) application in Polytechnic libraries in South-South, Nigeria. *Review of Information Science Technology Journal (RIST)*, 4, 91-97.
- Saidu, A. N., Saka, K. A., & Kur, J. T. (2020). Perception of librarians on staff development in enhancing job performance in State Public Library Board in North-Central, Nigeria. *African Journal of Education and Information Management*, 18(1), 39-49.
- Seenaa, S. T., & Pillai, K. G. S. (2014). A study of ICT skills among library professionals in the Kerala University Library System. *Annals of Library and Information Studies*, 61, 132 - 141.
- Ugwuoke, F. N. (2012). The need for IT skills acquisition and staff re-training in Nigerian universities. *International Journal of Resources and Advancement in Education Methods*, 9, (1), 6-9.
- Yisadoko, S., Udensi, J. N., & Akor, P. U. (2017). Influence of information and communication technology on research by postgraduate students in Federal University of Technology, Minna Library. In *Proceedings of 3rd Nigerian Library Association Niger State Chapter*, held at Federal Polytechnic, Bida, 3rd - 6th October, 2017, (pp. 252-261). Bida: Nigerian Library Association.

growth and development of your society.

Total freedom to choice and enjoy the wishes of your heart.

There is sense of security and happiness that you will be doing what you created and you do not have limits unless you limit yourself.

There is a personal sense of satisfaction, accomplishment and fulfillment.

It is an open-ended opportunities and challenges you get out of it what you put into it. If you put a lot in, you get a lot out.

Demonstration of proper skills in setting up a business and the skills of maintaining the longevity of the business.

Ways by which a person can become self-reliant through entrepreneurship

Jimoh (2010) in an article mentioned a few but general ways by which an individual can be self-reliant through entrepreneurship. They are as follows:

Develop the spirit of wealth creation and self-employment: Wealth and joy lies in self-employment, not on salaried jobs e.g. in India the talents have gravitated to the security of salaried jobs in the government where the present as well as the future is secured.

Risk-taking: people take note of a rising star when his coffers are receiving cascades of fortune. Common prudence sees that the continuous RISKS he takes make him a notable. A man risks has all-may be a small fortune-and success and comes by a few crores should he desire to rise, life at every step demands his risk all at the moment.

Translating of dream and vision into reality: An entrepreneur person is a dreamer who accomplishes his dream through creating, organization and production of idea

As inclusive in capacities and skills when you have to earn for yourself, you become part of the social existence that can support an income.

Proper utilization of every difficult situation: A trial or hard circumstances around man is always a period of exploring and discovering human hiding potentials

Developing and creating of school-to-work strategy: This is a strong strategy for allowing young people and students to have practical work experience before students graduate from school. Such strategy as the establishment of school plant, farm, shops and other vocational training or activities

Skills necessary for entrepreneurial venture

Entrepreneurial skills and attributes provide benefits to society, even beyond their application to business activity. Obviously, personal qualities that are relevant to entrepreneurship such as creativity and a spirit of initiative can be useful to everyone in their working responsibilities and in their day-to-day existence. Also the relevant technical and business skills need to be provided to those who choose to be self-employed and or to start their own venture or might do so in the future. – Ojeifo (2013).

The Encarta dictionary (2009), defines skill as ability to do something well or something requiring training to do well: something that requires training and experience to do well, e.g. an art or trade. “Skills are abilities or proficiencies required of a person in a position to plan and execute an action geared at accomplishing some tasks or achieving some goals. Skills are the learned capacity to carry out predetermined tasks with the minimum outlay of time and energy” – Ugwu and Ezeani (2012).

According to Ugwu and Ezeani (2012), information technology and management have become synonymous with librarians and information professionals. For them to key into the dynamism of change, they must strive to improve on their overall skills through the acquisition of various forms of ICT skills and develop entrepreneurial culture and mindset in order to render quality

science can be involved in the production audio visual equipment, catalogue cards, metal shelf, bookstands e.t.c use in library and information centres Information Brokerage and Consultancy Services: Graduates in library and information science can be involved in information brokerage and consultancy service whereby they will be re-packaging information for clients for a fee.

Book selling Business: Graduates in library and information science can be involved in book selling business. With the knowledge of librarianship they are better disposed to serve the various libraries by supplying books to them and as well liaise with management of tertiary institution to sell books to their students.

Operation of Business Centres and Cyber Café Business: Graduates of library science can take the option of running a business centre where computer related activities such as typesetting, computer training, graphic designs and photocopying services amongst others can be carried out. The option of running a cyber café business is also available to him.

Computer Maintenance: This is another option available to graduates in library science. Knowledge of computer maintenance puts the graduate in a position to be self-employed. Nnadozie, Akanwa, and Nnadozie (2013) stated that a lot of career opportunities abound for the qualified and versatile library and information science professional at all levels within the library profession. Some of these traditional library positions include acquisitions librarian, abstractor, circulation librarian, serials librarian, reference librarian, indexer, classifier, curator, archivist, and book selling/publishing (Edoka, 1991 and Anyanwu, Amadi and Oparaku, 2010)..

Other Career options include;

- Teaching/lecturing
- Printing and/or publishing
- Book selling/vending
- Freelance writing
- Librarianship

Challenges of Entrepreneurship and Job Creation in Nigeria

Some of the challenges have been pointed out by eminent scholars such as Gana (2000), Aiyeduso (2004), Osuala (2010) and they include:

Poor funding by government and non-governmental organizations.

Poor or ineffective planning, supervision information and evaluation of the programme across the board.

Inadequate teaching materials, equipment and infrastructure facilities.

The challenges posed on globalization, information and communication technology (ICT) have effect on curriculum, methodology, facilities, staff and equipment.

Inadequate qualified teachers and instructors as well as supporting staff at all level.

Inadequate motivation for available teaching and non-teaching staff which affects staff efficiency, retention, creativity and initiative.

Emphasis on theoretical Knowledge rather than practical knowledge due to lack of entrepreneurship education centre.

High level of corruption and very poor maintenance culture in the system.

Poor enabling business environment, access to credit/ loan, infrastructural decay, mass poverty, inflation, technological infraction, political instability and insecurity of lives and properties which hamper economic and business activities.

Strategies for Effective Entrepreneurship and Job Creation in Nigeria

The following strategies according to Ayodele (2006) will help to solve the problem of entrepreneurship education in the country.

There should be some form of genuine school- work based learning incorporated in some

- Ekere, F.C. and Ekere, N. (2012). Exploring the Potentials of Information Broking in Nigeria as an Alternative Career to Librarianship. In: L.O.Aina and I.Mabawonku (eds). Nigeria Library Association at 50: Promoting Library and Information Science Profession for National Development and Transformation: Compendium of Papers presented at the 2012 AGM/Conference of NLA, July.
- Emmanuel Uwazie ANYANWU, Emmanuel A. ODUAGWU, Oyemike Victor OSSAI-ONAH and Nkechi M. AMAECHI, Mrs. (2013) Repositioning Library and Information Science Graduates in Nigeria for Self-Employment through Entrepreneurship Education. *American International Journal of Contemporary Research Vol. 3 No. 8*;
- Fijio, K and Obi, B. c (2012), Entrepreneurship development, 1ed, Enugu: Hipuvs additional press co.
- Gana, J. S. S. (2000). Entrepreneurship. Jos: Jofegan Associate Pub.
- Hisrich, R. D. & Peters, M. P. (2002). Entrepreneurship. New Delhi: Tata McGraw-Hill. <http://digitalcommons.unl.edu/libphilprac/561>
- Igweh, A.U (2008). Vocational Technical Training: A strategy for self-reliance and national development. *Ebonyi Technology and Impact of Accounting Skills on Entrepreneurship Education for Self-Reliance and Sustainable Development: A Study of Selected Small Scale Business in Owerri Municipal Imo State*
- Inegbenebor, A. U. (2005) Education for entrepreneurship. Experience at the University of Benin, Benin City, Nigeria. Being a paper presented at the Inaugural Conference of the Academy of Management, Nigerian, held at Abuja on November 22nd-23rd *International Journal of Education and Information Technologies*, 2(3): 85 – 96.
- Marshall, M. I. & Samuel, A. (2006). The effect of human and financial capital on the entrepreneurial process: an urban- rural comparism of entrepreneurship in Indiana. Selected paper for presentation at the American Agricultural Economic Association Annual meeting, California, July 23 – 26 Massachusetts, USA: Spring Publisher.
- Medayese Felix Jimoh (2010) Entrepreneurship and Self-Reliance [.http://wwwjimoh4bunuland.blogspot.com/2010/04/entrepreneurship-and-self-reliance.html](http://wwwjimoh4bunuland.blogspot.com/2010/04/entrepreneurship-and-self-reliance.html)
- Meredith, O. (1983), the practice of entrepreneurship. Geneva: international labour office.
- Merriam-Webster. (2006). *New Explorer Encyclopedic Dictionary*. A division of Merriam Webster Incorporated Spring Field.
- Microsoft ® Encarta ® 2009. © 1993-2008 Microsoft Corporation. All rights reserved.
- Nwogu, prince opurum and nwanoruochristopher, c. (2011). *Vocational technical education and training for self-reliance: towards national development*, *Mediterranean Journal of Social Sciences ISSN 20392117 Vol. 2 (5)*
- Obisesan, M. (2010). Appointment and Management: Skills. The Punch Newspaper, Tuesday, 13th July, 30.
- Ojeifo, Sunday Aidelunuoghene. (2013) *Journal of Education and Practice ISSN 2222-288X (Online) Vol.4, No.6*,