Information Communication Technology and Staff Development as Predictors of Employees' Performance in Federal University Libraries in South-Eastern, NIGERIA

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Abstract
This study investigated information communication technology and staff development as predictors of employees' performance in federal university libraries in South-Eastern, Nigeria. Four research questions guided the study in line with the objectives. Descriptive survey research design was used for this study. The target population of the study were one hundred and eleven (111) librarians in the three selected federal university libraries in South-Eastern, Nigeria. A close ended structured questionnaire was used as data collection instrument. Total frequencies and median were statistical tools used for data analysis and multiple regression analysis was used for testing the hypothesis. Results showed that level of librarians' performance is moderate, impact of ICT skills possession is high and impact of staff development in enhancing librarians' performance is high. ICT and staff development were good predictors of librarians' performance in federal university libraries in South-Eastern, Nigeria. The study concluded that prompt payment of staff salaries, reward system for dedicated staff and provision of good working environment would no doubt enhance librarians' performance. The study recommended that management of federal university libraries in South-Eastern, Nigeria should reward the dedicated staff and make the libraries environment more conducive for both staff and users, organise more training for librarians and more opportunities should be given to librarians to attend conferences, workshops, short courses and seminars.

Keywords: *Federal University Libraries, Information Communication Technology, Employees' Performance, Predictors, Staff development, South-Eastern, Nigeria.*

Introduction

University libraries are 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, teachers and others for educational purposes to enhance education, assist both students and teachers achieve their educational objectives. A librarian is one who underwent 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, bibliographic services (Saidu *et. al.*, 2020). Employee performance refers to the production that a person has contributed to the organisation concerning his attitude to engage in and which the organisation may perceive as productive or counterproductive. Agba *et. al.* (2013) defined employee performance as the task accomplished by individual employee; it is how well a staff accomplishes a given task in an organisation. Employee performance is a result of activities of either an individual or organisation for a specific period.

Information 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. 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).

Staff development is concerned with activities that focus on improving the job knowledge, performance and productivity of the library staff. It entails education, training and re-training of staff to acquire job knowledge, skills, abilities, increase efficiency and improve competencies of librarians on the job in order to contribute to the achievement of the organisational goals. Ukwuoma and Akanwa (2018) asserted that staff development is of paramount importance, especially this era of information communication technology. It fills gaps that always exist between what employees know and what they should know.

Statement of the Problem
The employees of any organisation including libraries are responsible for its success or failure. 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, adequate staff development and ICTs are needed for librarians to perform their statutory functions so as to achieve the set objectives of their university library. Thus, the performance of librarians in federal university libraries in South-Eastern, Nigeria was below expectation as Aboyade (2014) found that the 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 South-Eastern, Nigeria found it difficult to cope with the tools of the ICTs in library operations which may invariably affects their performance. Could the challenges be due to insufficient ICT skills, knowledge, abilities and inadequate staff development. To address this research concern, the researchers investigated the information communication technology and staff development as predictors of employees' performance in federal university libraries in South-Eastern, Nigeria.

Research Objectives
The objectives of the study were to:
1. determine the level of librarians' performance in federal university libraries in South-Eastern, Nigeria;
2. ascertain the impact of ICT skills possession in enhancing librarians' performance in federal university libraries in South-Eastern, Nigeria;
3. determine the impact of staff development in enhancing librarians' performance in federal university libraries in South-Eastern, Nigeria;
4. find out the composite effect of information communication technology and staff development in enhancing librarians' performance in federal university libraries in South-Eastern, Nigeria.

Research Questions
The following research questions guided the study:
1. What is the level of librarians' performance in federal university libraries in South-Eastern, Nigeria?

2. What is the impact of ICT skills possession in enhancing librarians' performance in federal university libraries in South-Eastern, Nigeria?
3. What is the impact of staff development in enhancing librarians' performance in federal university libraries in South-Eastern, Nigeria?
4. What is the composite effect of information communication technology and staff development in enhancing librarians' performance in federal university libraries in South-Eastern, 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 analysed the collected data. The findings of the 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.

Obot *et. al.* (2018) conducted a similar study that was guided by two research questions. The study adopted survey design method. The population of the study comprised of 91 librarians working in the eight (8) tertiary institutions in Akwa Ibom and Cross River States. Data collection instrument was a researcher-developed questionnaire. Hypothesis was tested using Pearson Product Moment Correlation Coefficient (PPMC) at 0.05 level of significance. The result showed a high positive correlation (0.61) between education of information professionals and national integration and development. The study concluded that education of information professional was a strong determinant of national integration and development. The study recommended among other things that government and stakeholders must rise to the challenge of supporting the education and training of information professionals so as to foster national integration and development through the custody and dissemination of information materials by educated and trained information specialists.

Mohammed *et. al.* (2017) conducted a similar study that was guided by four research questions. The study adopted descriptive survey design. The population of the study comprised of 60 professional and 84 para-professional library staff from all the tertiary institutions. The instrument used for the study was a structured questionnaire. Descriptive statistical tools such as: frequency tables and mean scored were used to analysed the collected data. The findings of the study revealed that training policies were available in tertiary institution libraries in Niger State and conditions attached to training of library staff negatively affect their job performance. The study concluded that steady training will influence their job performance in tertiary institution libraries in Niger State. It was recommended that conditions for staff training programme should be made easy by the management of tertiary institutions as this will allow many library staff who are willing to go for training to do so.

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.

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. 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.

Methodology
This study adopted a descriptive survey research design. The survey research design is used because survey type of research is characterized by population and sample as well as the use of data collection instrument. The population of the study comprised of one hundred and eleven (111) librarians working in Nnamdi Azikiwe Library; University of Nigeria, Nsukka, Prof. Festus Aghagbo Nwako Library; Nnamdi Azikiwe University, Awka and Federal University of Technology Library, Owerri. 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 due to the small number of the population. A close ended structured questionnaire was designed titled "Information Communication Technology and staff development in enhancing librarians' performance questionnaire (ICTSDELPQ) to capture the level of librarians' performance, level of ICT skills possession in enhancing librarians' performance and level of staff development in enhancing librarians' performance in federal university libraries in South-Eastern, Nigeria. Research questions one to three were descriptively analysed using total frequencies and median as a measure of central tendency or average with a decision criterion of fx ≥ median = (high or agreed), and *fx*<median = (low or disagreed) while research question four was inferentially analysed using multiple regression analysis tested at 0.05 level of significance. A response rate showed the retuned of all the 111 copies of the questionnaire representing 100 percent.

Results of Analysis o\]f the Major Variables of the Study
 Research Question One: What is the level of librarians' performance in federal university libraries in South-Eastern, Nigeria?

Table 1: Responses on the level of librarians' performance

S/N	Statements	Total fx	Median M=2078	Decision
1.	The prompt payment of staff salary encourages industrial harmony thus enhancing librarians performance in the library.	1951	$fx<M$	Low
2.	There is constant provision for acquisition of required skills for library personnel and this enhance librarians performance.	1438	$fx<M$	Low
3.	Regular promotion of staff motivates me to come up with new ideas and better ways of doing things and this enhance librarians performance in the library.	2145	$fx\geq M$	High
4.	The reward system for dedicated staff motivate me to make meaningful contributions during meetings in the library thus enhancing performance.	1955	$fx<M$	Low
5.	My experience on daily tasks improves my skills which enhance my performance in the library.	2189	$fx \geq M$	High
6.	Career prospects motivate me to work harder and meets work deadlines in the library and this enhance my performance.	2205	$fx\geq M$	High
7.	The working environment in the library is quite conducive for both staff and users and this enhance my performance.	934	$fx\geq M$	Low
8.	My years of experience on the job improves my skills to perform my work very well thus enhancing performance.	2114	$fx\geq M$	High

Key: $fx\geq M$ = High, $fx<M$ = Low

The data presented in Table 1 were analysed for level of librarians' performance. The results showed that the respondents indicated high to four statements out of the eight items listed as the $fx \geq M$ of 2078. On the other hand, respondents indicated low to the other four statements as the $fx<M$ of 2078. This implies that the level of librarians' performance is moderate.

Research Question Two: What is the impact of ICT skills possession in enhancing librarians' performance in federal university libraries in South-Eastern, Nigeria?

Table 2: Responses on the impact of ICT skills possession in enhancing librarians' performance

S/N	Statements	Total fx	Median M=2194	Decision
1.	My knowledge of ICT enables me to save, edit and copy data into primary storage device such as: hard disk effectively and this enhance performance.	2213	$fx\geq M$	High
2	Ability to scan and upload documents enhance librarians work output.	2236	$fx\geq M$	High
3.	My knowledge of ICT enables me to type and print documents which enhances performance.	2195	$fx\geq M$	High
4.	My knowledge of ICT enables me to create an online email account for my colleagues thus enhance librarians' performance.	2152	$fx<M$	Low
5.	Ability to use e-mail in sending and receiving messages and this enhance performance.	2282	$fx\geq M$	High
6.	My ability to open web pages, navigates web links and save favourite web pages enhance performance.	1925	$fx<M$	Low
7.	My knowledge of ICT enables me to perform online cataloguing and classification and this enhance performance.	2238	$fx\geq M$	High
8.	My knowledge of ICT enables me to use OPAC/Web OPAC to retrieve bibliographic information and this enhance performance.	2235	$fx\geq M$	High

S/N	Statements	Total fx	Decision	Decision
9.	Ability to use search Engines such as: Mamma, AOL, Yahoo, Google in searching for information online enhances my performance.	2229	$fx \geq M$	High
10.	My knowledge of ICT enables me check for reference sources online which enhance performance.	2246	$fx \geq M$	High
11.	My knowledge of ICT enables me collect research data using Google forms or Survey monkey and this enhance performance.	2160	$fx < M$	Low
12.	My knowledge of ICT enables me to use Electronic Bulletin Boards which enhances work output.	2109	$fx < M$	Low
13.	My ability to communicate and hold meetings with others on ZOOM enhances performance.	2198	$fx \geq M$	High
14.	Ability to share work related files on Dropbox or Google drive enhance librarians performance.	2037	$fx < M$	Low
15.	My knowledge of ICT enables me to perform Electronic Documentary Delivery Services and this enhance work output.	2194	$fx \geq M$	High
16.	My knowledge of ICT enables me to perform Networking activities and this enhance work output.	2142	$fx < M$	Low
17.	Ability to search and retrieve research papers on ResearchGate and Academia.edu. enhance librarians work performance.	2203	$fx \geq M$	High
18.	My knowledge of ICT enables me share my work findings on Twitter and this enhance work output.	2162	$fx < M$	Low
19.	Ability to reach out and collaborate with other colleagues on LinkedIn, ResearchGate enhance my performance.	2229	$Fx > M$	High
20.	My knowledge of ICT enables me to perform Statistical skills such as SPSS to analyse data and this enhance performance.	1974	$fx < M$	Low
21.	My knowledge of ICT enables me to use Graphics such as: CorelDraw which enhance work output.	2048	$fx < M$	Low
22.	Ability to use spreadsheets to enter numerical value and text into cells as well as performing calculations using formula enhance my performance.	2181	$fx < M$	Low
23.	My knowledge of ICT enables me to perform Presentation skills such as: power point presentation which enhance work output.	2191	$fx < M$	Low

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

The data presented in Table 2 were analysed for the impact of ICT skills possession in enhancing librarians' performance. The results showed that the respondents indicated high to twelve statements out of the twenty-three items listed as the $fx \geq M$ of 2194. On the other hand, respondents indicated low to the other eleven statements as the $fx < M$ of 2194. This implies that the impact of ICT skills possession in enhancing librarians' performance is high.

Research Question Three: What is the impact of staff development in enhancing librarians' performance in federal university libraries in South-Eastern, Nigeria?

Table 3: Responses on the impact of staff development in enhancing librarians' performance

S/N	Statements	Total fx	Median M=2192	Decision
1.	Staff development improves my competency to perform my job or tasks better and this enhance my performance in the library.	1996	$fx < M$	Low
2.	Staff development enables me to contribute my quota to the overall development of the library thus enhancing my performance.	2005	$fx < M$	Low
3.	Staff development has help me to provide quality library services and this enhance my performance.	2229	$fx \geq M$	High
4.	Staff development improves my working relationship with my colleagues in the office thus enhancing my performance in the library.	2229	$fx > M$	High

5.	Staff development improves my ability to facilitate planning in the library and the institution at large and this enhance my performance.	2287	$fx{\geq}M$	High
6.	Staff development as increased my technical abilities, salary and greater opportunity for promotion and this enhance my performance.	2161	$fx{<}M$	Low

Key 2: $fx{\geq}M$ = High; $fx{<}M$ = Low.

The data presented in Table 3 were analysed for the impact of staff development in enhancing librarians' performance. The results showed that the respondents indicated high to three statements out of the six items listed as the $fx{\geq}M$ of 2192. On the other hand, respondents indicated low to other three statements as the $fx{<}M$ of 2192. This implies that the impact of staff development in enhancing librarians' performance in federal university libraries in South-Eastern, Nigeria is moderate.

Research Question Four: What is the composite effect of ICT skills possession and staff development in enhancing librarians' performance in federal university libraries in South-Eastern, Nigeria?

Table 4: Composite effect of ICT skills possession and staff development in enhancing librarians' performance.

R	R Square	Adjusted R Square	Std. Error of the Estimate
.740[a]	.568	.566	.24058

			ANOVA[a]			
Model	Sum of Squares	Df	Mean Square	F	Sig. P	Remark
Regression	75.188	3	25.296	217.547	.000[b]	Sig.
Residual	53.564	108	.113			
Total	128.752	111				

a. Dependent Variable: Librarians Performance
b. Predictors: (Constant), ICT Skills Possession and Staff Development

Table 4 showed the significant composite effect of ICT skills possession and staff development on librarian's performance in federal university libraries in South- Eastern, Nigeria with value of F = 217.547; R = 0.740, R square = 0.568, Adjusted R square = 0.566, P<0.05). With R square equal to 0.568 means that the possession of ICT skills and staff development jointly and significantly has a composite effect or influence of 56.8% on librarians' performance in federal university libraries in South-Eastern, Nigeria, while the remaining 43.2% is influence by other factors. Moreover, with p<0.05, the null hypothesis was rejected while the alternate hypothesis was restated as "there is composite effect of possession of ICT skills and staff development on librarians' performance in federal university libraries in South-Eastern, Nigeria".

Discussion of Findings
Response to research question one sought to find out the level of librarians' performance in federal university libraries in South-Eastern, Nigeria. The result showed that the level of librarians' performance is moderate. The finding is supported by Agada *et al.* (2021) that, performance is a measure of how effectively library staff carry out their duties or responsibilities in order to accomplish specific and desirable results. Furthermore, in line with the opinion of Curral (2013), individual performance is the unique contribution of an employee to the achievement of

organisational goals and can be enhanced by helping employees to acquire competencies through capacity building strategies such as training and re-training, workshops, conferences and seminars. This finding does not corroborate the findings of Adeeko *et al.* (2017) that the level of performance of library personnel in universities of Southwest Nigerian is high. On the other hand, this finding does not corroborate the findings of Aboyade (2014) and Akor (2009) as both reported that performance of professional librarians in Nigerian federal universities and government-owned universities in North-Central, Nigeria were on a low level.

Response to research question two sought to find out the impact of ICT skills possession in enhancing librarians' performance in federal university libraries in South-Eastern, Nigeria. The result showed that the impact of ICT skills possession in enhancing librarians performance is high. The finding is supported 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. On the other hand, this finding does not corroborate the findings of Yisadoko *et al.* (2017) that possession of some listed ICT skills by postgraduate students in Nigerian universities is at low extent.

Response to research question three sought to find out the impact of staff development in enhancing librarians' performance in federal university libraries in South-Eastern, Nigeria. The result showed that the impact of staff development in enhancing librarians performance is high. The finding is supported by Osadebe *et al*. (2018) that staff development benefits both the individual and the institution. With respect to the individual, the acquisition of new skills promotes job competences for performance upgrades and promotion, may reduce job- related stress and increase interest, thereby promoting job satisfaction. With regards to the institution, staff development offers institutions a corporate strategy for dealing with change. This finding corroborates the findings of Mohammed *et al*. (2017); Saka and Haruna (2013) and Nwachukwu (2010) that training has positively influence the job performance of library staff in tertiary institutions in Niger State; seminar, conferences, workshops, on-the-job training, stimulation and extension training enhanced job performance of library personnel in faculties' libraries of University of Maiduguri and training and development of professional and paraprofessional staff enhance their job performance in library of the Federal University of Technology Owerri, Nigeria. On the other hand, this finding does not corroborated the finding of Ogbonna (2018) that conditions and requirements for training has negatively influenced the performance of librarians and library officers in tertiary institutions in Nigeria as well as reporting inadequate or low extent of staff training respectively.

Conclusion
Based on the findings of the study, the level of librarians' performance is moderate and this could be attributed to lack of prompt payment of staff salary, lack of reward system for dedicated staff and poor working environment. Therefore, the study concluded that the prompt payment of staff salaries, reward system for dedicated staff and provision of good working environment would no doubt enhance librarians' performance in federal university libraries in South-Eastern, Nigeria.

Recommendations

Based on the findings, the following recommendations were made:

1. Management of Federal university libraries in South-Eastern, Nigeria should reward the dedicated staff and make the libraries environment more conducive for both staff and users.
2. Management of Federal university libraries in South-Eastern, Nigeria should organise more training for librarians to acquire more ICT skills especially the advanced ICT skills.
3. More opportunities should be given to librarians to attend conferences, workshops, short courses and seminars to acquire more knowledge, skills and abilities.

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