



## ICT Skills and Job Performance of Librarians in Public Universities in North-Central, Nigeria

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### ABSTRACT

*This study investigated the influence of ICT skills and job performance of librarians in public universities in North-Central, Nigeria. Survey research design was adopted for this study. The population for the study consisted of 282 librarians in North-Central, Nigeria. Total enumeration was used to include the entire population. A validated structured questionnaire was used for data collection. Cronbach's alpha reliability coefficients for the construct ranged from 0.914 to 0.95. The response rate was 97.5%. Data was analyzed using descriptive and inferential statistics (multiple regression, frequency distribution, simple percentage, mean and standard deviation). Findings revealed that there was significant influence of ICT skills ( $R^2 = .342$ ,  $F_{(2, 268)} = 69.741$ ,  $p < .05$ ) on the job performance of librarians. The result further showed that basic ICT skills had no significant influence on job performance of librarians ( $R^2 = .342$ ,  $(\beta = -.220, t(268) = -1.743, p > .05)$ ). Professional ICT skills ( $R^2 = .342$ ,  $(\beta = .949, t(268) = 8.016, p < .05)$ ) had a strong significant influence on job performance of librarians. On a 4 point scale, timely job delivery ( $M=3.57$ ) and good interpersonal relationship ( $M=3.52$ ) were high. Professional ICT skills ( $M=3.27$ ) was high. The study concluded that ICT skills influenced job performance of librarians. The study recommended that stakeholders and professional organizations such as the Librarian Registration Council of Nigeria (LRCN) and the Nigerian Library Association (NLA) should strengthen plans on how to further develop librarians' ICT skills through training and retraining.*

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### INTRODUCTION

Libraries act as regular and up-to-date information provider such as seen in public university libraries. Public university libraries aid in fulfilling the mandate of the parent institutions by selecting, acquiring, organizing, storing and providing relevant information resources that can support teaching and research. This is the basic objective of every library and all the efforts of the library should be directed to realize these affirmed objectives. Services rendered in libraries can only be adjudged by the

quality of the services. Services such as readers' services, circulation desk services, selective dissemination of information (also known as user education services), current awareness services, database management services, serials services, and special collection services are among the many services expected to be rendered to meet the information needs of patrons. Effective and efficient delivery of these services can influence the growth of university libraries in which the public university libraries are not exempted. In the bid to



achieve this mandate, public university libraries' management must become conscious of the manpower (librarians) responsible for accomplishing and delivering these services to the end-users. In support, Odunewu and Haliso (2019) asserts that the performance of librarians should be a source of concern to library managements. This is of utmost importance as many organizations are now conscious of the vital position employee performance occupies in their quest for competitive advantage in the dynamic business environment. It has therefore raised the challenge of ensuring high-level employee job performance of which librarians in public university libraries are not exempted.

The growth and success of public university libraries can be determined by the performance of the librarians. Job performance, a popular concept in managerial psychology has thus become an important index in predicting probable success or otherwise of any organization which public university libraries are inclusive. Job performance has been described as a set of workers' behaviors that can be monitored, measured and assessed, and the behaviors should be in agreement with the organizational goals (Igbinovia & Popoola, 2016). This simply means that individual performance in the work place is targeted at the overall performance of the organization and that individual job performance can be rated against some predictable standards. Odunewu and Haliso (2019) opined that successful completion of tasks within designated period and effective delivery of services by librarians are among the indicators of good job performance which in turn predicts the overall success of the library. In addition to the indicators of job performance is ability to render good quality work, high quantity of task performed, interpersonal relationship, as well as the ability to work with minimal

supervision. Job performance is also a function of the combination of quality attributes which includes abilities, competencies, motivation, and commitment of individuals. Other abilities include personal discipline, communication skills organizational training and self-development of individuals in the organization. Success driven organization like public university libraries management should regularly probe into the job performance of its employees including librarians.

Over the past few decades, notable changes have been observed in libraries across the globe with regards to acquisition, organization and delivery of quality services. As a result of these changes, electronic resources have occupied a considerable space in library collection, while the transaction of library materials are fully automated, new web based services are offered by libraries and librarians to attract users participation in redesigning the library system, services and so on. These changes are mainly due to the development and impact of Information Communication Technology (ICT) in libraries which have also made sea changes in all walks of life. The ICT tools and services are being used in libraries to manage libraries more efficiently and to cater for the demands of library users in a timely, relevant and accurate manner. In this changing library environment, the librarians must possess adequate ICT skills to manage the modern libraries, and more specifically the public university libraries. They need to acquire continuous knowledge and skills on the fast changing Information Communication Technology (ICT) to render and deliver effective and efficient library services to users.

Previous studies ((Ubogu, 2019; Ayoku & Okafor, 2015; Olaore (2014; Haliso, 2011) shows that Librarians in public universities libraries in Nigeria lack the requisite ICT skills that can enable them provide efficient library service that is driven by information technology. As a result, librarians and other library workers



in public universities in Nigeria need to have the obligatory ICT skills in order to be able to render good quality services to contemporary library users. Information Communication Technology (ICT) skills has become a critical issue for achieving high performance among librarians. The importance of the use of ICT tools in accomplishing daily routine in the libraries has impacted librarians' performance greatly. Hence, ICT skills acquisition is fundamental to relevance and competence of the modern day librarians. Therefore, for librarians in public university libraries to remain relevant and competent in the delivery of quality services to their patrons, they must acquire relevant ICT skills. Technology today is the driving forces globally especially in the libraries. Hence, librarians of the twenty first century are changing with the changing environment which is as a result of the advent of ICT. Thus, this study investigated the influence of ICT skills and job performance of librarians in public universities in North-Central, Nigeria.

#### LITERATURE REVIEWED

Igbinovia and Popoola (2016) posit that academic libraries in Nigeria have experienced a decline in user patronage as a result of poor services rendered by librarians which they ascribed to direct outcome of poor job performance. Amusa, Iyoro and Ajani (2013) in their study established that job performance of librarians was just fair. Amusa, Abdusalam and Ajani (2014) also observed that the decline in librarians' job performance has manifested in the form of decline in productivity, absenteeism, and emotional instability among others. These submissions point to the fact that there are issues with library services delivery and this could be a pointer to the noticeable decline in job performance of librarians. Thus, job performance has become of paramount importance in ensuring that public university libraries keep up with the goals and mandate of

the parent institution. It is the matrix with which library growth and viability can be measured. Job performance refers to how people perform their tasks as set against particular standards. Librarians' job performance can in this context be described as an act of carrying out functions, tasks or schedules relating to librarianship in a particular time and manner expected of a trained librarian. Librarians in public university libraries are expected to render quality services to library users, which in turn predict the quality of its workforce (Igbinovia & Popoola, 2016). Thus, librarians can be said to be performing well when there is the cooperative ability to uniquely carry out traditional and modern function based on their work specialization, as their ability to deliver quality services timely is germane to the success of the parent body. The degree to which they can cooperatively carry out statutory tasks such as prompt delivery of quality services to users, paying attention to users queries that may demand one-to-one interaction between them and the user, creating and organizing new information resources, collection development procedures, acquisition of information materials, provision of conducive reading atmosphere, rendering research assistance to users, assisting users in using different search engines and adequate maintenance of information communication technology tools surely makes the difference.

Librarians' performance is important because it enhances the achievement of goals and objectives of the library and the university. Due to the influence of the use of information and communication technologies, there has been a specific role change that may be defined as librarians' performance index and measures. Possessing the gadgets that facilitate information and communication technologies such as computers, internet connectivity, printers, electronic resources and integrated library systems is not sufficient



for academic libraries to acclaim they are modern, the onus is on public universities' librarians to effectively and efficiently use those tools to perform library tasks as well as provide corresponding services. These new thrusts also changed the measure of librarians' performance in recent times; they are now expected to be a group of personnel who are skilled and capable of using information and communication technological skills in performing library tasks. This means that library managers in public universities are saddled with a new responsibility to ensure that librarians not only carry out their functions but that they do so using modern approaches that meet the high expectations of the contemporary library user. Only when users are satisfied with the performance of librarians can they be adjudged to have met a key objective of university libraries.

Armstrong (2014) and Ifidon (2007) emphasize that training programs could help librarians in public university libraries to be abreast with new trends and knowledge in their profession. There is no doubt that constant training, workshops, conferences and other development-focused programs would motivate and improve libraries' performance in public universities. Introduction of ICT to library operation change many activities of the library from ways information are been gathered, processed and disseminated which are been done manually but now automated which require new era librarian and practitioners to acquire ICT competencies as this will enable them to assume a new role as required by the new environment in which they now operate. Kadli & Kumbar (2013) observed that Information and Communication Technology has made its presence in every walk of life visible which has transformed the knowledge and information seeking behaviours of many library users across the globe and has also enhanced the ways by which information and knowledge are generated, processed, packaged,

disseminated, and preserved by librarians.

In corroboration, Anyaoku (2012) emphasized that incorporation of ICT tools into library operations have gone beyond partial integration that there is hardly any operations in the This means librarians who use library resources must endeavor to keep pace with ICT trends or lose out on vital information stored using modern information storage approaches. However, there is still a gap between the ICT skills of most public university libraries users and that of those who render services within these establishments in many developing countries. As a result of this lacuna, librarians in public university libraries in developing countries struggle to meet the information needs of users who seek to utilize library facilities, causing users to rate their performance lowly. Hence, low performance is said to be anemic to the growth and development of any system as observed in developing countries. For librarians in public university libraries in developing countries such as Nigeria to perform highly, there is the need for them to acquire requisite skills such as ICT skills needed to perform tasks at an optimal level in contemporary times. Supporting Ferdinand (2011) stressed that the situation requires that librarians must become up and doing because potentials of information age can't be realized without proper acquisition of ICT skills.

ICT is defined as a diverse set of technological tools and resources used to communicate, create, disseminate, store and manage information (Rouse, 2014). ICT incorporates a range of technologies used to support information which includes Internet, networks, satellite telecommunications and broadcasting networks. ICT encompass a range of rapidly evolving technologies and they include telecommunication technologies like telephony, cable satellite, TV, radio, computer-mediated conferencing, video conferencing as well as digital technologies like computers, information



networks, Internet, world wide web, Intranet, extranet and software applications (Ullah, 2010). Olaore (2014) described ICT as tools and techniques for gathering and using information. It includes electronic processing networks and cell phones. The advent of ICT and its infusion into library and information service delivery has engendered another parameter for measuring librarians' performance in public universities. However, the adoption of ICT facilities in library services have also negatively affected library services in some developing countries, due to librarian' inability to imbibe requisite ICT skills necessary for optimal performance in modern libraries.

ICT skills are generally categorized in basic and professional skills (Oyedokun, Oyewumi, Akanbi, & Laaro, 2018; Atasoy, Banker & Pavlou, 2012). Basic skills are considerable to be ICT know-how needed for basic data processing and analysis which include competency in the use of generic tools such as Word Processing, statistical analysis packages, scanning and uploading of documents and pictures, spreadsheet analysis, graphical design, scanner, printer, digital cameras, and PowerPoint Presentation. Professional skills comprise a person's technical skill set and ability to perform certain functional tasks and are acquired from formal training which requires an extensive use of ICT tools for the accomplishment of core tasks and functions characterized by the development of software and hardware as well as its maintenance. Professional skills also include content management, document/database management, online book selection/acquisition, online copy cataloging, use of internet, information search strategy as well as use of library software. Hence, basic and professional skills are required for librarians to efficiently and effectively perform in public universities libraries.

Owoeye (2011) citing Omekwu (2003) posited that computers are useful for the performance of some functions such as checking and imputing information and ensure correctness and completeness, sorting information into designed sequence, storing data for future reference to mention a few. Other functions that can be performed using computers are search engines, Internet facilities, e-mail, Internet navigator tools, web browser and web file formats, database software, Internet development and while management know-how are required of librarians in the 21st century. Application of ICT skills into the daily routines of librarians will impact greatly on their performance in terms of selection, acquisition, organization and dissemination of information which are the crux of librarianship. The use of ICT is not only beneficial to librarians, by making his/her job performance more effective; it has the capacity to increase the efficiency of service delivery to information users (Mahmood, 2012; Ullah, 2010).

Ayoku and Okafor (2015) study of ICT skills acquisition and competencies among librarians in Nigerian universities indicated lack of interest as one of constraint to ICT skills acquisition. In contrast to this, Kayal, Bandapadnyry and Banerjee (2015) discovered in a study on ICT skills among librarians in engineering educational institution that the librarians of those institutions have acquired basic skills in ICT but lacked adequate knowledge on network based services and digital services. Kathman and Naik (2013) attempted to outline priority areas of training and critical ICT skills required by professional librarians in relation to current job market and performance requirements, they emphasized the need for additional training to increase the past skills of the professional librarian so as to develop competency and attain higher performance.

According to Kamba (2011), ICT skills are those skills related to the use of



computers, the ability to transmit and store information through fixed line networks. ICT skills have to do with the overall competencies (knowledge, know-how, skills and attitudes) which are necessary to create, analyze, organize, retrieve and disseminate digital information (text, images, sounds) in digital libraries or any type of information centre. Ansari (2013) defines ICT skills as using digital technology, communication tools, and or networks to access, manage, integrate, evaluate and create information in order to function in a knowledge society. Therefore, there is the need for librarians in public universities to acquire continuous knowledge and ICT skills on the fast changing information communication technology environment so as to improve their performance.

Librarians in public universities have traditionally been information providers for centuries and are more opportune now to use modern tools to provide quicker, complete and more sophisticated services to their users. Notable achievements to be derived through the application of ICT include increased performance, efficiency, accuracy and economy of space (Satpathy & Mahanan, 2011; Bilal, 2011). Haliso (2011) argued that some of the skilled opportunities provided by ICTs to libraries and librarians are organization of information for use, capacity building, management of information system, digitization of library resources and sharing/document delivery. ICTs is now further extended to cataloging and classification, serials management, collection management, budgeting, indexing, and abstracting in order to improve information services to users which in turn would increase librarians performance. Cataloging and classification according to Odunewu and Haliso (2019) are central to effective library service delivery. Modern libraries like public university libraries are fast moving away from the traditional methods of cataloging and classifying

information resources manually since new information communication technologies (ICTs) have been embraced (Odunewu & Haliso, 2019; Arinola, Adigun, Oladeji & Adekunjo, 2012). Cataloging and classification are now accomplished electronically using online cataloging packages like library of Congress online, RDA Toolkit as supported by Odunewu and Haliso (2019) citing Atinmo (2011) who opined that Resource Description and Access (RDA) have been introduced as alternative to past cataloguing practices in the electronic environment.

From previously argument, it is important to understand that librarians' job performance demands that they are skillful in ICT and its devices. This can be ensured when librarians become more competent in switching on and off of the computer, use of word processing, spreadsheet excel, statistical packages, scanning and printing, graphic design, Thus, if librarians are to continue to make substantial contributions to information dissemination, they would have to understand and exploit ICT infrastructure and emerging technology skills in delivering services to their users to enable them meet their information needs. By meeting the needs of their users, librarians are achieving the goals and objectives of their parent organization and aiding their own performance.

According to Ansari (2013), ICT skills of librarians from the global point of view appear to have a relationship with their performance in the workplace. A combination of ICT skills and appropriate motivation may help strengthen the performance of librarians in reference services, cataloguing and classification, serials management, collection management, circulation management, digitization and management of electronic databases which are all important aspects of librarianship rendered by the librarian are no longer centered on one-to-one or face-to-face service delivery in the library. Library





services are now ICT driven and librarians who lack ICT skills and are not motivated enough to acquire such skills cannot perform optimally on the job. The job performance of Librarians in public university libraries may be hampered by lack of requisite skills in using ICT. It is therefore imperative in this study to examine the influence of motivation, ICT skills and job performance of librarians in public university libraries in North-Central, Nigeria.

Job performance is an important determinant for predicting the success or failure of any library. It is propelled by factors which include motivation and ICT skills. It is believed that when employees (librarians) get motivated, higher job performance is achieved and when ICT skills are applied delivery of quality services to library users is equally achieved. However, previous investigation and close observation revealed a decline in librarians' job performance leading to persistent complaints by users and in many cases resulted in users seeking other alternatives. It is on this premise, that this study investigated the influence of ICT skills and job performance of librarians in public universities in North-Central, Nigeria.

#### **Objective of the Study**

The general objective of this research work examined the influence of ICT skills on job performance of librarians in public university libraries in North-Central Nigeria. The Specific objectives were to:

1. determine the level of librarians' job performance in public university libraries in North-Central, Nigeria;
2. ascertain the level of ICT skill of librarians in public university libraries in North-Central, Nigeria;
3. determine the influence of ICT skills on job performance of librarians in public university

libraries in North-Central, Nigeria;

#### **Research Question**

The study answered two research questions which were:

1. What is the level of job performance of librarians in public university libraries in North-Central, Nigeria?
2. What is the level of ICT skills of librarians in public university libraries in North-Central, Nigeria?

#### **Hypothesis**

The study addressed one null hypothesis tested at 0.05 level of significance:

**H<sub>01</sub>:** ICT skills have no significant influence on job performance of librarians in public university libraries in North-Central, Nigeria.

#### **METHODOLOGY**

Survey research design was adopted for this study. The population for this study therefore is the two hundred and forty-four (244) librarians from North-Central geopolitical Zone of Nigeria with Federal Capital Territory inclusive. The selected population for this study consists of all 244 librarians in the thirteen (13) public university libraries (Federal and State) in North-central geopolitical zone of Nigeria (NUC, 2015). North-Central zone has six (6) Federal universities and six (6) State universities respectively as well as and one (1) located in Federal Capital Territory. Total enumeration was used to include the entire population. A validated structured questionnaire was used for data collection. Cronbach's alpha reliability coefficients for the construct ranged from 0.914 to 0.95. The response rate was 97.5%. Data was analyzed using descriptive and inferential statistics (multiple regression, frequency distribution, simple percentage, mean and standard deviation).



## RESULTS AND FINDINGS

The result is hereby presented and the chapter organized under the following headings: Demographic information of respondents; analysis and presentation of research questions; analysis and presentation of research hypotheses and finally discussion of findings. For the analysis of the two research questions, frequency, percentage, mean and standard deviation was used. To facilitate the analysis of the responses, values were assigned to the responses, in a 4-point scale. A cut-off point of 2.5 was used to determine which of the items was regarded as accepted or in agreement with the statement. Items on the questionnaire with a score less than 2.5 was regarded as not being accepted or not in agreement with the statement in the questionnaire, whereas any item with a mean of greater than 2.5 was regarded as being accepted or in agreement with the statement in the questionnaire. Furthermore, in order to ascertain the assumption for the study was met, the three null hypotheses formulated for this study was analyzed using simple linear and multiple regression analysis. The decision rule for testing these relationship and effects is thus: if the p-value is less than or equal to the alpha ( $p < .05$ ), reject  $H^0$  and accept  $H^1$ . If the p-value is greater than alpha ( $p > .05$ ), accept  $H^0$  and reject  $H^1$ .

The result from research question ones shows the responses on the level of job performance of librarians. Adjudging from the grand mean (3.39,  $SD=.630$ ), the level of job performance of librarians in public universities in North-Central, Nigeria is high on a scale 4-points. The result further reveals that librarians in public university libraries in North-Central, Nigeria performed better in timely job delivery (mean=3.57) on a scale of 4-points as the respondents indicated that they help users locate needed information with ease (mean=3.69) as well as perform tasks in a manner that enables timely delivery of

results (mean=3.68). The quality of work is also high (mean=3.38) as the respondents agreed that they have exceptional ability to organize and arrange library resources innovatively (mean=3.46) and have outstanding contributions to library service delivery (mean=3.45). The result also reveals that quantity of task performance is high (mean=3.24) in which the respondents agreed that they are proficient in providing liaison services between the library and faculty members in generating collection list (mean=3.39) as well as have the capability to perform well in selecting accurate resources/books, e.g magazine, e-resources, journals, newspaper, special collection/government publications for purchases (mean=3.38). The librarians can equally do well with minimal supervision as that was revealed to be high (mean=3.28). Lastly on interpersonal relationship of the respondents is very high (mean=3.52) as they agreed that they maintain good interpersonal relationship with library users and co-workers (mean=3.65). Overall, librarians in North-Central, Nigeria performed better in timely job delivery with (mean=3.57) and in interpersonal relationship with (mean=3.52) on a scale of 4-points respectively than in other job performance criteria.

The result for research question two shows the grand mean (mean=3.20,  $SD=.812$ ) on a scale of 4-points in that librarians have high level ICT skills. This is buttressed by the fact that the librarians have a high basic ICT skill (mean =3.14) as well as professional ICT skills (mean =3.27). This outcome is further explained by the responses as they agreed under basic skills that they have the ability to use Word Processing software (Microsoft Word) (mean =3.40), printer (mean =3.39) and are able to download document using mobile phones (mean =3.28), creation of PowerPoint presentations mean=3.16) to a high level. Under professional ICT skills, the respondents agreed that they possess ability to use internet to acquire





information (mean =3.47), use different information search strategy such as Boolean, Google as well as other social media platforms such as WhatsApp, Instagram, Facebook, Twitter, and library blogs (mean =3.38), and to use online copy cataloging for cataloguing and classification of information resources (mean =3.34). This could be because

majority of the respondents are young people who are smart and have great opportunities for acquiring current knowledge on technological applications and devices. However, there is still room for improvement of both the basic skills and the professional skills of librarians in North-Central, Nigeria.

**Table 1:** Influence of ICT Skills on job performance of Librarians

ANOVA					
	Sum of Squares	df	Mean Square	F	Sig.
Regression	6864.673	2	3432.337	69.741	.000 <sup>b</sup>
Residual	13189.755	268	49.216		
Total	20054.428	270			
R=.585		R Square= .342		Adj. R Square= .337	
Coefficients					
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	58.056	2.349		24.720	.000
Basic ICT Skills	-.220	.12	-.153	-1.743	.083
Professional ICT Skills	.949	.118	.705	8.016	.000

Dependent Variable: Job performance of librarians

(Field Survey, 2019)

The analysis result in table 4.6 reveals that there is significant influence of ICT skills ( $F(2, 268) = 69.741, R^2 = .342, P < .05$ ) on the job performance of librarians in public university libraries in North-Central, Nigeria. The result further explains that basic ICT skills ( $B = -.220, P > .05$ ) have no significant influence on job performance of librarians. Whereas Professional ICT skills ( $B = .949, P < .05$ ) has a strong significant influence on job performance of librarians and can wield 70.5% influence on job performance. The implication of this increase in the ICT skills possessed by librarians would result to an increase in their job performance. Therefore with the evidence presented, the null hypothesis is rejected and

restated thus: ICT skills have significant influence on job performance of librarians in public university libraries in North-Central, Nigeria

#### CONCLUSION

This study examined the influence of ICT skills and job performance of librarians in North-Central, Nigeria. The study was carried out to determine the level of librarians' job performance, ascertain the level of ICT skill of librarians and determine the influence of ICT skills on job performance of librarians in public university libraries in North-Central, Nigeria. This study was a success as its objective was achieved. The study has established that librarians in



North-Central, Nigeria exhibit high level of performance, which includes high quality of work; they also have good interpersonal relationship and deliver jobs timely. Librarians also have high quantity of task performance and can work with minimal supervision. The study also concludes that librarians ICT skills are high which encompasses basic ICT skills and professional ICT skills.

#### RECOMMENDATIONS

Based on the findings of the study, the following recommendations are made:

1. Job performance level of librarians in North-Central, Nigeria was found to be high, however, there is room for improvement as the cutoff point was not encouraging; therefore, level of job performance can be improved by the librarians in the region.
2. Librarians can improve on their basic and professional ICT skills to a very high level as the study found that the librarians had high professional ICT skills as well as high basic ICT skills. Training and re-training can be done by professional organizations such as Librarian Registration Council of Nigeria (LRCN) and the Nigerian Library Association (NLA) for librarians on current ICT skills. This could be organized to equip the librarians in current technological trend especially in the use of library hardware and software as well as current users' interfaces.
3. This study found that professional ICT skills had strong significant influence on job performance of librarians. Library heads as a matter of importance must provide avenues where librarians under their leadership can engage in continuous professional development (CPD) for acquiring current and trending ICT skills that can help improve their performance on the job.
4. ICT skills generally had significant influence on job performance, hence,

it is important that librarians in North-Central, improve more on the skills that will equip them for better performance in the region

#### REFERENCES

- ACRL Research Planning and Review Libraries (2012). 2012 top trends in academic libraries: a review of the trends and issues affecting academic libraries in higher education, *C&RL News*, pp. 311-314.
- Agcas. (2012). Academic Librarian Job Description Prospects. Retrieved 06 12, 2017, from <http://www.prospect.ac.uk/academiclibrarian>
- Amusa, O.I., Iyoro. A.O. & Ajani, F.O. (2013). Work environments and job performance of librarians in the public universities in South-West, Nigeria. *International Journal of Library and Information Science*, 5(11), 457-461
- Amusa, O. I., Abdusalam, A. A. & Ajani, F.O (2014) Occupational frustration variables of the librarians in public universities in South-West, Nigeria. *The Information Manager*, 14(1&2), 38-45
- Ansari, M. N. (2013). ICT Skills Proficiency of Library and Information Science Schools. *Chinese Librarianship: An International Electronic Journal (CLIEJ)*, 36, 13. Retrieved June 18, 2017, from <http://www.iclc.us/>
- Ansari, N. N. (2013). ICT Skills and Proficiency of Library Professionals: A Case Study of Universities in Karachi, Pakistan. *Chinese Librarianship: An International Electronic Journal*, 36, 13. Retrieved from <http://www.icic.us/>
- Anyaoku, E. N. (2012). Computer skills set of librarians in Nigeria: Confronting the stereotype.



- Annals of Library and Information Studies*, 59(2), 128-134.  
[https://www.researchgate.net/publication/281297620\\_Computer\\_skills\\_set\\_of\\_librarians\\_in\\_Nigeria\\_Confronting\\_the\\_stereotype/](https://www.researchgate.net/publication/281297620_Computer_skills_set_of_librarians_in_Nigeria_Confronting_the_stereotype/)
- Arinola, A. A., Adigun, G. O., Oladeji, B. O. & Adekunjo, O. A. (2012). Impact of ICT on cataloging & classification of library materials; case study of some selected university libraries in South-West, Nigeria. *American International Journal of Contemporary Research*, 2(6); 122-127
- Armstrong, M. (2000). *Performance management* New York: Kegan Paul.
- Armstrong, M. (2014). *A Handbook of Human Resources Management Practice: Building Sustainable Organisational Performance Improvement* (13th ed.). London: Kogan.
- Atasoy, H., Banker, R., & Pavlou, P. (2012). *Firm-Level Evidence of the Effects of IT Use on Employment and Labor Wages*.
- Ayoku, O. A. & Okafor, V. N. (2015), ICT skills acquisition and competencies of librarians. *The Electronic Library*, 33(3), pp. 502 – 523:  
<http://dx.doi.org/10.1108/EL-08-2013-0155>
- Azlina, A., Razak, F. & Abdilla, W. (2013). Assessing the Effects of UTAUT and Self Determination Predictors on Students Continuance Intention to Use Students Portal. *World Applied Sciences Journal*, 21, 1484-1489.
- Bamiduro, G. (2014). *The Productivity Improvement Strategies: Methodologies, Techniques and Tools*. Abuja: Solarcol Concepts Nigeria Ltd.
- Batool, S.H. & Ameen, K. (2010), Status of technological competencies: a case study of university librarians. *Library Philosophy and Practice*, available at: [www.webpages.uidaho.edu/mbolin/batool-ameen.htm](http://www.webpages.uidaho.edu/mbolin/batool-ameen.htm). Retrieved November 21, 2018.
- Bansode, S. Y. & Viswe, R. R. (2015). Exploring ICT literacy among library professionals working in university libraries in Marathwada region. *International Journal of Digital Library Service*, 5(4), 24-43.
- Bhattacharjee, A. (2011). Understanding Information Systems Continuance: An Expectation-Confirmation Model. *MIS Quarterly*, 25(3), 351-370.
- Bilal, D. (2011). *Automating Media Centre and Small Libraries Unlimited*. Greenwood Publishing Group Inc.
- Chumo, K. P. (2015). Use of UTAUT Model to Access ACT Adoption in Kenyan Public Universities. *Information and Knowledge Management*, 5(12), 79-83.
- Emezue, N. A., & Nwaohiri, N. M. (2013). 21st century librarians and effective information service delivery. *Information Impact: Journal of Information and Knowledge Management*, 4(1), 30-43.
- Ferdinand, U. C. (2011). Influence of ICT literacy skills on its application for library use among academic librarians in South-West, Nigeria. *Unpublished master dissertation submitted to department of library and information science, University of Nigeria, Nsukka*.
- Haliso, Y. (2011). Factors Affecting Information and Communication Technology's (ICT) Use by Academic Librarians in South-Western Nigeria. *Library Philosophy and Practice*.



- Retrieved June 18, 2017, from <http://unlib.unl.edu|LPP>
- Ifidon, S. E. & Ifidon, E. I. (2007). *New Directions in African University Library Management*. Ibadan: Spectrum Books Limited.
- Igbinovia, M. O. & Popoola, S. O. (2016). Organizational culture and emotional intelligence as predictors of job performance among library personnel in Edo State, Nigeria. *Journal of Information Science Theory and Practice*, 4 (2), 34-52.
- Kadli, J. H., & Kumbar, B. D. (2013). Library Resources, Services and Information Seeking Behaviour in Changing ICT Environment: A Literature Review. *Library Philosophy & Practice*.
- Kamba, N. A. (2011). ICT Competency Framework for Library and Information Science Schools in Nigeria: The Need for Model Curriculum. *International Journal of Library and Information Science*, 3(4), 68-80.
- Kayal, S. Bandopadhyay, S. & Banerjee, S. (2015). Information Management Skills Required by the Minority Libraries in Kolkata and Hooghly Districts, West Bengal. *DESIDOC Journal of Library and Information Technology*, 35(3), 207-216.
- Krishnan, S., Teo, T., & Nishant, R. (2011). *IT readiness, ICT usage, and national sustainability development: Testing the source-position-performance framework*.
- Lotriet, H. H., Matthee, M. C. & Alexander, P. M. (2010). Challenges in ascertaining ICT skills requirements in South Africa. *South African Computer Journal*, 46, 38-48. Retrieved on 5th may 2017 from: <http://sacj.cs.uct.ac.za/index.php/sacj/article/view/64/23>
- Mahmood, K. (2012). LIS Curriculum Review Using Focus Group Interviews of Employers. Retrieved June 12, 2017, from <http://digitalcommons.unl.edu|cgi|viewcontent.cgi>
- Matthew, S. K., & Baba, M. D. (2012). Developing Technological Skills for Academic Librarians: A Study on the Universities in Karela, India. *Library Philosophy and Practices*. Retrieved June 18, 2017, from <http://digitalcommons.unl.edu/li|bphilprac/702>
- National University Commission (2017), Monday Bulletin vol.12 No. 16 p.21.
- Odunewu, A. O. & Haliso, Y. (2019). Knowledge Sharing Behaviour and Librarians Job Performance in Nigerian Universities. *Library Philosophy and Practice (e-journal)*. 2396. <https://digitalcommons.unl.edu/libphilprac/2396>
- Okey, R. B. (2010). Globalization and ICT in Academic Libraries in Nigeria: The Way Forward. *Library Philosophy and Practice*. Retrieved from <http://unlib.un/edu/LPP/>
- Okon, A. & Jacob, E. (2010). Use of Information Technology by Academic Librarians of Selected University Libraries in Nigeria. *Global Journal of Mathematics Science*, 2(1), 57-63.
- Okorie, C. N. (2010). Utilization of Automated Electronic Information Service: A Case Study of the University of Agriculture, Abeokuta, Nigeria. *Chinese Librarianship: An International Electronic Journal*. CLIEJ29, 1-8. Retrieved from <http://www.clc.us/clies/ci29/okorie.pdf>
- Olaore, I. B. (2014). The Impact (Positive and Negative) of ICT on



- Education. *Developing Country Studies*, 4(23), 154-156.
- Oyedokun, T. T., Oyewumi, F. A., Akanbi, M. L. & Laaro, D. M. (2018). Assessment of ICT Competencies of Library Staff in Selected Universities in Kwara State, Nigeria. *Library Philosophy and Practice (E-Journal)*. 1797. <https://Digitalcommons.Unl.Edu/Libphilprac/1797>
- Owoeye, J. E. (2011). *Information Communication Technology (ICT) Use as a Predictor of Lawyers' Productivity*.
- Quadri, R. F. (2014). Changing Roles of Libraries and Academic Librarians in a Knowledge Society. *African Educational Journal*, 2(4), 157-160.
- Rouse, M. (2014). *Student Teacher Attitude and Beliefs Towards Using ICT in Education*. Scotland.
- Satpatht, S. K. & Mahanan, R. K. (2011). ICT Skills of LIS Professionals in Engineering Institution in Oriss, India. *Library Philosophy and Practice*. Retrieved from <http://unlib.unl.edu.LPP>
- Somvir, S. K. (2012). Job Performance That Leads to Job Satisfaction Among Library Professional in Haryana State. *International Journal of of Scientific and Research Publications*, 2(5), 1-5.
- TechTerms.com. (2014). *Information Communication Technology-Definition*. Retrieved June 12, 2017, from <http://users/ASUU/DESKTOP/ICT>
- Ugwuanyi, F. C. (2011). Information and Communication Technology Literacy Among Academic Librarians in Enugu. *The Information Technologist*, 6(1), 123-132.
- Ullah, M. (2010). Professional Activities Needed, Competence and Training Needs of Medical Librarians in Pakistan. *Education for Information Journal*, 28(2-4), 115-156.
- UNESCO. (2017). Information and communication technology in education. Retrieved 12 November, 2018, from <http://unesdoc.unesco.org/images/0012/001295/129538e.pdf>
- Yusuf, M. O. (2010). Integrated ICTs in Nigeria Tertiary Education. *The African Educational Research Networks*, 52(2), 43-50.