12

COMPUTER LITERACY SKILLS AND JOB PERFORMANCE OF LIBRARIANS IN FEDERAL UNIVERSITY LIBRARIES IN SOUTH-EAST, NIGERIA.

Chioma Peace ODOCHA-AGUOCHA[1] (Ph.D.), Prof. Chidi NWOSU[2]

University Library, University of Agriculture and Environmental Sciences, Umuagwo, Imo State[12].

peace.odocha@uaes.edu.ng[1] & chidi.nwosu@uaes.edu.ng[2]

Abstract:

Purpose: This study investigated computer literacy skills and job performance of librarians in federal university libraries in South-East, Nigeria, with particular focus on basic computing skills and digital technology skills. Specifically, the study sought to determine the level of basic computing and digital technology skills possessed by librarians, and determine the level of job performance of librarians in university libraries in South-East, Nigeria. Three objectives were stated and three research questions guided the study.

Design/Methodology/Approach: The population comprised 150 librarians and was manageable hence the adoption of census enumeration technique. Out of 150 copies of the questionnaire distributed across the federal universities in South-East, Nigeria, 145 were retrieved in usable form. A structured questionnaire was used for data collection. Data collected were analyzed using frequency counts, mean and standard deviation. A criterion mean of 2.50 formed the basis for decision.

Findings: The findings of this study revealed high level competency of basic computing and digital technology skills by librarians, with a grand mean of 2.81 and 2.68 respectively. The findings further revealed that librarians demonstrated a generally high level of job performance, with a grand mean of 2.80.

Practical Implication: The findings indicated a high skill in both basic computing and digital technology skills alongside high performance rate. This implies that both the library and the university management should identify areas with specific skill gaps and organize regular digital technology training, refresher workshops, install functional computers, reliable internet and relevant library software and other facilities. These measures will enable librarians' apply skills more effectively in their routine duties which implies improved service delivery and job performance.

Originality/Value: The study provides evidence for academic library management that there are gaps in librarians' basic computing and digital technology skills in order to provide targeted training as well as ICT facilities. It will absolutely enhance service delivery in academic libraries.

Keywords: Computer literacy skills; Basic computing skills; Digital technology skills; Job performance; Librarians.

Paper type: Empirical research

Introduction

Information and Communication Technologies (ICT) has transformed the operations and service delivery of academic libraries. Contemporary university libraries increasingly depend on computers, digital platforms, electronic information resources, automated library systems and internet-based services to perform routine and professional activities. Consequently,

librarians are expected to possess appropriate technological competencies to effectively perform the duties. Computer literacy has therefore become an important competency for librarians. It extends beyond merely knowing how to switch on and operate a computer to include the ability to use computer applications and digital technologies effectively in carrying out professional responsibilities. The International Federation of Library Associations and Institutions (IFLA, 2020) has emphasized that information professionals require appropriate digital and information technology competencies to function effectively in an increasingly digital environment. Within computer literacy, basic computing skills constitute the foundation upon which more advanced digital competencies are developed. Basic computing skills include the ability to operate a computer, use a keyboard and mouse, create and manage files and folders, use word-processing applications, save and retrieve documents, print and scan documents, and perform other routine computer operations. These skills are particularly important because many everyday library activities require librarians to interact with computer-based systems.

Outside these foundational abilities are digital technology skills, which involve the effective use of contemporary digital tools and applications for marketing library resources. These may include the use of electronic databases, digital library platforms, online communication and collaboration tools, web applications, integrated library management systems, institutional repositories and other online services. The IFLA (2020) report indicated that meaningful digital inclusion requires not only access to technology but also the basic skills and self-confidence needed to use digital technologies effectively.

The importance of these skills is particularly useful in university libraries, where librarians are increasingly involved in electronic resource management, digital information services, online reference services, digitization, institutional repositories, database searching, current awareness services and user education. Oyovwe-Tinuoye, Omeluzor and Ijiekhuamhen (2021), in their study found that ICT skills influenced the effectiveness of librarians' work in university libraries in South-South Nigeria. Their findings also revealed weaknesses in areas such as web applications, troubleshooting, digital conferencing and other technology-related competencies. In a similar study by Ubogu (2022), he found that librarians demonstrated above-average ICT competence and used ICT for activities such as current awareness and user

education. Moruwawon and Kumar (2023) also reported that technological competencies among library professionals were affected by factors such as inadequate funding and unstable power supply. Computer literacy skills are important because they can support the effective and efficient performance of librarians' in their duty posts.

Job performance refers to the extent to which employees effectively accomplish the responsibilities associated with their positions. In university libraries, librarians' job performance may involve activities such as organization and retrieval of information, circulation services, reference services, current awareness services, digitization, document management, user education and other professional library activities. Previous studies have established connections between technology-related competencies and librarians' work. George, Okwu and Ogunbodede (2022), for instance, reported a significant relationship between digital literacy and job performance among librarians in Rivers State university libraries. Tomomowo-Ayodele and Omoike (2020) however, reported a contrasting finding that digital literacy did not significantly translate into job performance among library personnel in selected academic libraries in South-West Nigeria. These contrasting findings indicate that possession of technological skills does not necessarily produce identical outcomes across library environments. Furthermore, much of the existing literature tends to treat ICT skills, computer literacy and digital literacy as broad concepts. Limited attention has been given to foundational basic computing skills from broader information and communication technology skills while examining the job performance of librarians, particularly in federal university libraries in South-East Nigeria. This creates a need for a study that examines these aspects of computer literacy in federal university libraries.

It is against this background that this study investigates computer literacy skills and job performance of librarians in federal university libraries in South-East, Nigeria, focusing specifically on basic computing skills and digital technology skills.

Purpose of the Study

The main purpose of the study was to ascertain the level of computer literacy skills and job performance of librarians in federal university libraries in South-East, Nigeria.

Specifically, the objectives are:

1. determine the level of basic computing skills possessed by librarians in federal university libraries in South-East, Nigeria;
2. determine the level of digital technology skills possessed by

librarians in federal university libraries in South-East, Nigeria; and
3. determine the level of job performance of librarians in federal university libraries in South-East, Nigeria.

Research Questions

The following research questions guided the study:

1. What is the level of basic computing skills possessed by librarians in federal university libraries in South-East, Nigeria?
2. What is the level of digital technology skills possessed by librarians in federal university libraries in South-East, Nigeria?
3. What is the level of job performance of librarians in federal university libraries in South-East, Nigeria?

Literature Review

Computer Literacy Skills

Computer literacy skills refer to the knowledge and practical abilities required to operate computers and perform basic computer-based tasks effectively. In university libraries, these skills provide the foundation for librarians to work with electronic documents, information systems, digital resources and other technology-supported library operations. Endouware and Omehia (2022) found that librarians in university libraries possessed basic ICT competencies in areas such as word processing, data storage and retrieval, electronic presentations and internet searching, although weaknesses existed in operating systems and software. Similarly, Ilesanmi (2023) reported that ICT skills were important for librarians' effective service delivery in Nigerian university libraries. Ahiauzu, Nyemezu, and Nsirim (2020) also found that LIS educators demonstrated competence in basic computer operations, indicating the importance of foundational computer skills in professional information environments. More recently, Amadi (2024) reported a positive relationship between librarians' computer literacy and lecturers' satisfaction with information services in Nigerian university libraries. These studies establish computer literacy as an essential foundation for effective professional activities in contemporary university libraries.

Basic Computing Skills

Computer literacy refers to the knowledge and practical skills required to operate computers and use computer-based applications effectively. In the library environment, it enables librarians to perform administrative, technical, and professional tasks involving information technologies. The increasing transition from predominantly print-based services to hybrid and digital library environments has

made computer literacy an essential competence for librarians. Mbajiorgu, Ezeani, Ezema, and Asogwa (2021) identified computer literacy and data-processing skills as important competencies required by librarians for the management of digital libraries in Nigerian universities. Similarly, Edet and Alex-Nmecha (2023) reported that librarians require digital skills, including online searching and the use of digital tools, to perform effectively in contemporary library environments. Computer literacy extends beyond the basic ability to operate a computer to the practical application of computer skills in accomplishing professional tasks. George et al (2022), found a significant relationship between digital literacy and the job performance of librarians in university libraries in Rivers State, indicating the importance of technology-related competencies in professional library practice. Ogunbodede and Atchrimi (2024) also reported a high level of digital competencies among librarians in university libraries in Nigeria, while noting challenges associated with ICT infrastructure and opportunities for skills development.

Digital Technology Skills

Digital technology skills refer to the ability to use digital tools, platforms, and technologies to access, evaluate, create, manage, and communicate information effectively. In university libraries, these skills enable librarians to work with electronic resources, digital databases, library management systems, online communication platforms, and other technologies used in contemporary information services. Sambo, Imran, and Akanbi (2022) noted that digital literacy has become an important requirement for librarians as library services increasingly depend on digital technologies and electronic information resources. Similarly, Ogunbodede and Atchrimi (2024) found that librarians in university libraries in South-South Nigeria possessed a high level of basic digital competencies, although inadequate ICT facilities and limited opportunities for ICT training constrained the development of these skills. Tomomowo-Ayodele and Omoike (2020), reported substantial computer-related competence among library personnel in selected academic libraries. Digital technology skills also encompass the ability to critically evaluate digital information, use digital tools responsibly, create and manage digital content, and apply appropriate security and ethical practices. Oyovwe-Tinuoye et al. (2021) in the study identified several ICT-related areas in which librarians required additional competence, including troubleshooting,

web applications, digital conferencing and other digital technologies. Moruwawon and Kumar (2023), emphasized the importance of continuous ICT training and adequate technological facilities. These competencies are increasingly relevant to librarians because contemporary library services require the integration of electronic resources, digital information systems, and online platforms into professional activities. George et al (2022) reported a significant relationship between digital literacy and job performance among librarians in Rivers State university libraries, suggesting that the effective application of digital technologies is relevant to professional work performance.

Job Performance of Librarians

Job performance refers to the extent to which employees effectively and efficiently accomplish the tasks and responsibilities associated with their jobs. In university libraries, librarians' job performance is reflected in the effective delivery of professional and technical services, quality of information services, productivity, commitment to assigned duties, and the ability to apply professional knowledge to meet users' information needs. Adebayo and Akinyemi (2021) observed that job performance in university libraries encompasses librarians' ability to apply their professional and technical knowledge to the practical demands of library work. Their study found that the level of job performance among librarians in university libraries in South-West Nigeria was moderate. Job performance is also influenced by the skills and conditions under which librarians carry out their professional responsibilities. George et al (2022) found a significant relationship between digital literacy skills and the job performance of librarians in state-owned university libraries in Rivers State, Nigeria, indicating the relevance of technology-related competencies to librarians' work performance. Similarly, Omotunde (2022) examined self-efficacy and job performance among librarians in Nigerian university libraries and found that, although librarians demonstrated high self-efficacy, the relationship between self-efficacy and job performance was not statistically significant. Urhefe-Okotie and Ojeabulu (2023) further reported that the extent of job performance among librarians in Federal Universities in South-South Nigeria was considerably low and identified inadequate ICT facilities, poor funding, and interpersonal challenges as factors affecting effective service delivery.

Methodology

The study adopted a descriptive survey research design. The design was considered

appropriate because the study sought to determine the existing levels of basic computing skills, digital technology skills and job performance among librarians. The population of the study comprised 150 librarians in the federal university libraries in the south-East, Nigeria; distributed as follows: UNN 55; UNIZK 20; FUTO, 46; MOUAU 24; AE-FUNAI 6. Census enumeration method was adopted due to the manageable population size. Response rate 96.7%. A structured questionnaire was used for data collection. The instrument was organized into sections covering basic computing skills, digital technology skills and job performance. Responses were measured using a four- point modified Likert scale: Very high skill /Very high performance =3.50 - 4.00, High Skill/ High Performance = 2.50 – 3.49, Low skill/ Low Performance = 1.50 -2.49, Very low skill/ Very Low Performance = 1.00 -1.49. Therefore, any item with a mean score of 2.50 and above was interpreted as high skill, while an item below 2.50 was seen as low-level skill. Data were analyzed using frequency count, mean and standard deviation. The grand mean was used to determine the overall level of skills.

Results and Discussion

Table 1: Mean and standard deviation of level of Basic Computing skills

S/N	Statement	VHS (4)	HS (3)	LS (2)	VLS (1)	Mean	SD	Decision
1	Ability to use Microsoft office (boot and reboot)	50	55	30	10	3.00	0.91	High Skill
2	Ability open folder and copy and save in external devices.	30	55	50	10	2.72	0.87	High Skill
3	Ability to name/rename and save document	60	40	30	15	3.00	1.02	High Skill
4	Ability to use Spreadsheet to calculate	50	60	20	15	3.00	0.95	High Skill
5	Ability to make use of Powerpoint for presentation in appropriate folder.	40	60	30	15	3.86	0.94	High Skill
6	Ability to set database using MS access	25	30	50	40	2.28	1.05	Low Skill
Grand Mean						2.81	0.99	High Skill

Key: M = Mean, SD = Standard Deviation, HL = High level, LL = Low level

The results in Table1 show the item mean scores used in determining the level of basic computing skills possessed by librarians. Based on the criterion mean, items 1, 3, and 4 had the same mean score of (3.00) with SD (0.91, 1.02 and 0.97) respectively, while ability to open folder and copy and save in external devices scored 2.72 (0.87). The highest-rated skill was the ability to use PowerPoint for

presentations and save presentations appropriately 3.86 (0.94**)**. However, the ability to set up databases using MS Access recorded a low mean of 2.28 (1.05)**,** indicating an outstanding competency gap. Generally, as evidence with the grand mean of 2.81, which is above the criterion mean of 2.50; the findings indicated that librarians are proficient in routine basic computing applications but require further training/ reskilling in database management to strengthen their digital competencies and effectiveness in technology-driven library services.

Table 2: Mean and standard deviation of level of digital technology

S/N	Digital Technology Skills	VHS	HS	LS	VLS	Mean	SD	Decision
1	Ability to evaluate information media sources critically for accuracy.	30	30	70	15	2.52	0.94	High Skill
2	Ability to convert library print resources to digital.	25	45	50	25	2.48	0.97	Low Skill
3	Ability to use digital tools ethically and safely	50	50	15	20	3.03	1.04	High Skill
4	Ability to share resources with other colleagues	55	60	15	15	3.07	0.95	High Skill
5	Ability to use utilize online communication channels like email, Facebook etc.	25	50	40	30	2.48	1.01	Low Skill
6	Ability to understand and use library marketing platforms	25	50	45	25	2.52	0.97	High Skill
Grand Mean						**2.68**	**1.01**	**High Skill**

Table 2 shows the mean rating of level digital technology skills of librarians in the selected state universities in South East, Nigeria. From the criterion, all the items scored above criterion decision mean. Item 1 and 6 had the same mean score of 2.52, The highest-rated skill was the ability to share resources with colleagues 3.07 (0.95), followed by the ability to use digital tools ethically and safely 3.03 (1.04). However, the ability to convert print resources to digital and the ability to utilize online communication channels had 2.48 (0.97, 1.01) which was below the criterion mean, indicating areas requiring improvement. Inferring from the grand mean of 2.68, the findings show that librarians had high level of digital technology skills, but further training in digitization and effective use of online communication tools are needed.

Table 3: Mean and standard deviation of level of job performance of librarians

S/n	Job Performance Activities	VHP	HP	LP	VLP	Mean	SD	Decision

1	Registration of Users	50	50	20	25	2.93	1.05	High Performance
2	Provision of reference services	50	60	10	25	2.76	0.93	High Performance
3	Selection/ ordering and acquisition of information materials	30	70	25	20	2.66	1.18	High Performance
4	Digitization of information resources	50	30	30	35	3.00	0.95	High Performance
5	Cataloguing and classification	50	60	20	15	2.52	1.07	High Performance
6	Current awareness services and selective dissemination information services	30	50	30	35	2.86	1.07	High Performance
7	Research data management.	50	50	20	25	2.52	1.07	High Performance
8	Storage /retrieval of files	30	50	30	35	3.03	0.89	High Performance
9	Abstracting and indexing services	40	60	25	20	2.52	1.07	High Performance
10	Library orientation service	50	60	25	10	2.83	0.99	High Performance
11	Bibliographic compilation services	40	60	20	25	2.79	1.03	High Performance
12	Provision of access to data basses	40	60	20	25	2.79	1.10	High Performance
Grand Mean						**2.80**	**1.05**	

The result in Table 3 shows the mean scores of level of job performance. It indicates that librarians demonstrated a high level of job performance. The highest-rated job performance was storage and retrieval of files and documents, with a mean of 3.03 (0.89), followed by digitization of information resources, with 3.00 (0.95). Registration of users bibliographic had 2.93 (1.05), Current awareness services and selective dissemination of information services.2.86 (1.07), Library orientation service 2.83 (0.99), compilation services and Provision access to data basses had mean score 2.79 with SD (1.03, 1.10). Selection/ ordering and acquisition of information materials 2.66 (1.18). Although the grand mean of 2.80 indicated generally high job performance but the lowest-rated activities were cataloguing and classification, research data management and abstracting and indexing services, each with a mean of 2.52 indicating that they required strengthening.

Discussion of Findings

The first objective of this study was to determine the level of basic computing skills possessed by librarians in federal university libraries in South East. The result

of the analyzed data revealed that librarians possessed high skill competence in basic computing skills. This suggests that most librarians were able to perform basic computer-related task required in their professional roles. This finding is in line with the report of Ogunbodede and Atchrimi (2024) that there is a high level of digital competencies among librarians in university libraries in Nigeria, It is also in line with George et al (2022) who found a significant relationship between digital literacy and the job performance of librarians in university libraries in Rivers State, stressing the importance of technology-related competencies in professional library practice. Tomomowo-Ayodele and Omoike (2020), reported substantial computer-related competence among library personnel in selected academic libraries. The lower mean recorded for one basic computing item in the present study suggests that possession of general computer competence does not necessarily mean that librarians are equally competent in every basic computing skills. This also agrees with Oyovwe-Tinuoye et al. (2021), who identified specific areas of ICT weakness among librarians such as web applications, troubleshooting, digital conferencing and other technology-related competencies.

The second objective was to ascertaining the level of digital technology skills possession among the librarians studied. The finding indicated that librarians possess high digital skills but that there were some areas requiring capacity development. The finding is consistent with George et al (2022) who reported a significant relationship between digital literacy and job performance among librarians in Rivers State university libraries, suggesting that the effective application of digital technologies is relevant to professional work performance. But the low skills identified in some digital technology show that there are areas requiring urgent attention, this is in consonant with Oyovwe-Tinuoye et al. (2021) who identified several ICT-related areas in which librarians required additional competence such as including troubleshooting, web applications, digital conferencing and other digital technologies. The result is particularly important because modern academic library services are now dependent on digital technologies virtual library. The high rather than very high-level competence suggests the need for continuing professional development. It also in support with Moruwawon and Kumar (2023), who emphasized the importance of continuous

ICT training and adequate technological facilities to enhance digital skills.

Third objective sought to determine the level of job performance which indicated generally a high performance across activities listed. Storage and retrieval of files and digitization of information resources recorded mean above the criterion mean which suggests that librarians were relatively effective in information saving and retrieval as well as technology-related activities like scanning. The finding is in agreement with George et al. (2022), whose study reported a significant relationship between digital literacy and job performance but contrasted with Urhefe-Okotie and Ojeabulu (2023), who reported that job performance among librarians in Federal Universities in South-South Nigeria was considerably low and identified inadequate ICT facilities, poor funding, and interpersonal challenges as factors affecting effective job performance. The finding also contrasted the result of Tomomowo-Ayodele and Omoike (2020), who found that digital literacy did not significantly translate into job performance. This difference demonstrates that the acquisition of digital technology skills alone may not be sufficient to guarantee uniformly high job performance in all academic job performance.

Conclusion

The study concludes that basic computing and technology skills are indispensable to effective library service delivery in the contemporary academic environment, where routine library operations, information access, research support and user services are increasingly dependent on technology. The findings show that librarians in federal university libraries possessed high skills and indicated high level of performance. However, mean scores variation in skills and performance activities show that strengthening the competencies are required in this ICT driven academic environment. Therefore, academic libraries should prioritize continuous training to ensure that librarians remain competent and respond quickly to changing technological and information needs of modern library users.

Recommendations

Based on the findings, the study recommends that:

1. University library management should organize regular ICT training and retraining programmes to strengthen librarians' basic computing competencies and digital technology skills.
2. Librarians should be exposed to contemporary digital technology training, including electronic resources, digital library systems,

online information services, web applications and other technologies relevant to modern library practice.

3. Lower-rated job performance areas should receive special attention, particularly Cataloguing and classification, research data management and abstracting and indexing services.

References

Adebayo, S. O., & Akinyemi, B. A. (2021). Talent management practices and job performance of librarians in university libraries in Nigeria. *The Journal of Academic Librarianship, 47*(2), 102319. https://doi.org/10.1016/j.acalib.2021.102319

Ahiauzu, B. E., Nyemezu, C. O., & Nsirim, O. (2020). Assessment of ICT skills of LIS educators for the adoption of blended learning in Rivers State, Nigeria. Information Impact: Journal of Information and Knowledge Management, 11(3), 51–62. https://doi.org/10.4314/iijikm.v11i3.6

Amadi, E. C. N. (2024). A correlation analysis of librarians' computer literacy and lecturers' satisfaction with information services in Nigerian university libraries. Michael Okpara University of Agriculture Repository. Edet, G., & Alex-Nmecha, J. C. (2023). Professional development for librarians in Rivers State in a digital age. *Nigerbiblios: Journal of National Library of Nigeria, 33*(2), 47–55.

Endouware, C. B.-E., & Omehia, A. E. (2022**).** Assessment of ICT competencies among librarians in university libraries in Bayelsa State, Nigeria. *Mousaion: South African Journal of Information Studies, 40*(1), 1–15. https://doi.org/10.25159/2663-659X/11612

George, T. M., Okwu, E., & Ogunbodede, K. F. (2022**).** Digital literacy and job performance of librarians in Rivers State university libraries, Nigeria. *Library Philosophy and Practice (e-journal)*, 7011.

Ilesanmi, T. C. (2023). Librarians' ICT skills and service delivery in private universities in Nigeria. *Information Impact: Journal of Information and Knowledge Management, 14*(1), 54–75. https://doi.org/10.4314/iijikm.v14i1.4

International Federation of Library Associations and Institutions. (2020). Libraries in digital skills policies. IFLA.

International Federation of Library Associations and Institutions. (2020). Mobilising libraries for digital skills delivery. IFLA.

International Federation of Library Associations and Institutions. (2020). Understanding library tech needs and readiness. IFLA.

International Federation of Library Associations and Institutions. (n.d.). *Skills for a digital world*. IFLA. IFLA: Skills for a Digital World

Mbajiorgu, O., Ezeani, C. N., Ezema, I. J., & Asogwa, B. E. (2021). Skills and training requirements of librarians

for management of digital libraries in Nigerian universities. *Trends in Libraries, Information Science and Technology*, 1(1), 16 -28.

Moruwawon, O. I., & Kumar, S. (2023). Factors affecting the technology skills and job performance of library professionals in Nigerian universities. *International Journal of Library and Information Science S tudies*, 9(1), 29. https://doi.org/ 10.37745/ijliss.15/vol9n11229

Ubogu, J. O. (2022). The influence of ICT competencies on job performance in Nigerian university libraries. *Asian Journal of Information Science and Technology*, 12(2), 41–46. https://doi.org/10.51983/ajist-2022.12.2.3350

Ogunbodede, K. F., & Atchrimi, I. A. (2024). Digital competencies of librarians in university libraries in Nigeria. *Zambia Journal of Library & Information Science*, *8*(1). https://doi.org/10.53974/unza.zajlis.8.1.132

Ogunbodede, K. F., & Atchrimi, I. A. (2024**).** Digital competencies of librarians in university libraries in Nigeria. *Zambia Journal of Library & Information Science*, *8*(1), 9–13. https://doi.org/10.53974/unza.zajlis.8.1.132

Okiki, O. C., & Durodolu, O. O. (2018). Enhancing job performance of librarians in academic libraries through technological change. University of Ibadan Journal of Library and Information Science, 1(1).

Omotunde, O. I. (2022**).** Self-efficacy and job performance of librarians in university libraries in Nigeria. *The International Information & Library Review*, *54*(4), 325–340. https://doi.org/10.1080/10572317.2022.2035887

Oyeniran, K. G. (2023). Impact of job stress on job performance of librarians in selected public university libraries in Nigeria. *Library Philosophy and Practice (e-journal).*

Oyovwe-Tinuoye, G. O., Omeluzor, S. U., & Ijiekhuamhen, O. P. (2021). Influence of ICT skills on job performance of librarians inuniversity libraries of South-South, Nigeria. *Information Development*, 37(3), 345–358. https://doi.org/ 10.1177/0266666920983393

Sambo, A. S., Imran, A. A., & Akanbi, M. L. (2022). Digital literacy skills among certified librarians in Nigerian libraries: Library overview. *Journal of Digital Learning and Education*, *2*(2). https://doi.org/10.52562/jdle.v2i2.316

Tomomowo-Ayodele, S. O., & Omoike, A. D. (2020). Influence of digital literacy skills on job performance of library personnel in selected academic libraries in Southwestern, Nigeria. *University of Ibadan Repository*.

Ugwu, C. I., & Ejikeme, A. N. (2023). Knowledge management, organizational culture and job performance in Nigerian university libraries. *IFLA Journal*, 49(1), 99–116. https://doi.org/10.1177/03400352221103896

Urhefe-Okotie, E. A., & Ojeabulu, N. (2023). Library services as determinants of job performance of librarians in Federal Universities in

South-South, Nigeria. *Lafia Journal of Library and Information Science, 3*(1), 177–191.