



DIGITAL COMPETENCIES AND JOB PERFORMANCE OF LIBRARY STAFF IN UNIVERSITIES IN DELTA STATE, NIGERIA

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Abstract

Purpose: The paper investigated the relationship between digital literacy skills and the job performance of library staff in university libraries within Delta State.

Design/Methodology/Approach: The research adopted a descriptive survey research design to systematically observe the technical competencies of library personnel and their subsequent service output without manipulating any variables. The study population comprised of 89 library staff across various university libraries in Delta State. Data were collected using a self-developed structured questionnaire, which was validated and tested for reliability.

Findings: The findings of the study revealed that the level of digital competencies among library staff in university libraries in Delta State is high. Similarly, the level of job performance among library staff was found to be high. Correlation analysis indicated that digital competencies statistically significantly influence the job performance of library staff.

Originality/Value: The paper recommended, among others, that university managements provide continuous digital training and adequate technological infrastructure to sustain and enhance the current performance levels of library staff.

Keywords: Delta State, Digital Competencies, Digital Literacy, Job Performance, University Libraries.

Paper type: Empirical research

Introduction

Job performance as a multifaceted construct represents the entire expected value which an organization derives from the discrete or explicit series of task related behaviours that employee(s) carries out over a given period. The concept is fundamentally defined by the efficiency, effectiveness, and quality with which an individual fulfills their assigned professional responsibilities to meet institutional goals (Ng et al., 2024). Modern organizational

theories categorize this construct into task performance, which involves the core technical requirements of a job, and contextual performance, which includes proactive behaviors that support the broader social and psychological environment of the workplace (Smith, 2024). Ultimately, high job performance is an integration of individual competence, mental well-being, and the strategic alignment of personal output with the organization's mission (Yang et al., 2024).

In university libraries, job performance is often characterized by the proficiency with which staff manage information dissemination, curate academic collections, and facilitate the research needs of students and faculty. Library staff performance has evolved from traditional clerical duties to complex roles involving the management of electronic resources, metadata curation, and digital reference services (Abddulraheem et al., 2024). Consequently, a librarian's effectiveness is measured by their ability to provide timely, accurate, and user-centered information services that enhance the university's academic standing (Gill, 2024). When library staff perform optimally, they serve as the backbone of the institution's intellectual infrastructure; however, a decline in their productivity directly impairs the quality of research and learning within the university community.

Digital competencies are critical to job performance, with studies consistently reporting that ICT skills significantly predict service quality and staff efficiency in academic libraries (Basahuwa, Unegbu, & Babalola, 2020). However, gaps remain: in many developing contexts, librarians rely heavily on self-learning rather than structured training, often due to inadequate

institutional investment. Library staff continue to embrace ICT tools needed to promote their efficiency in rendering library services to patrons.

Digital competencies and job performance is increasingly recognized as the primary determinant of success in the modern information landscape. Digital literacy encompasses the ability to find, evaluate, and communicate information through various digital platforms, serving as the essential technical foundation for 21st century library operations (Godwin, 2024). Librarians with advanced digital dexterity - ranging from database navigation to the ethical application of Artificial Intelligence - demonstrate significantly higher administrative efficiency and service accuracy (Agbro & Agbro, 2024). As academic libraries transition toward cloud-based repositories and automated systems, the digital competence of the workforce becomes the engine of institutional progress. Therefore, this study seeks to investigate how these technical skills influence the professional output of library staff, providing an empirical basis for enhancing productivity in an increasingly digitized academic environment.

Statement of the Problem

Ideally, the integration of high level digital competencies among university library staff should result in a seamless, technology-driven information service delivery system that effectively supports the university's research and teaching objectives. It is expected that proficient digital skills would allow library staff to automate routine technical tasks, manage vast electronic databases with precision, and provide sophisticated digital reference support that bridges the gap between complex information sources and the end-user.

However, despite the clear necessity for digital proficiency, there is a persistent disparity between the expected digital standards and the actual job performance of many library staff in university settings. Many librarians continue to face significant challenges in navigating advanced electronic information systems, managing institutional repositories, and adopting emerging library automation software. This lack of technical competence often manifests as slow service delivery, underutilization of expensive digital subscriptions, and a general inability to meet the evolving digital expectations of the academic community. These observed failings suggest a critical gap in the digital

preparedness of the library workforce, which not only hinders individual job performance but also threatens the relevance and utility of the university library in a digital-first era.

Objective of the study

The objectives of this study are to:

1. assess the level of digital competencies among university library staff in universities in Delta state
2. findout the level of job performance of library staff in universities in Delta state
3. reveal the relationship between digital competencies and job performance of library staff in university libraries

Hypothesis

The following hypothesis was formulated to guide this study:

1. There is no significant relationship between digital competencies and job performance of library staff in university libraries

Literature Review

Digital Competencies among University Library Staff

Over the past few years, research on university library staff's digital competencies has increased, particularly in developing countries. Many studies share a similar methodological approach-survey, often combined with interviews or mixed methods to explore self-reported competencies, challenges, and institutional supports. Findings indicate generally high levels of digital proficiency among librarians, with limited influence of demographic variables such as gender or rank on overall skill levels. In the same vein, several investigations in Nigerian university libraries report strong digital literacy abilities, enabling librarians to function effectively in digital environments and support technology-enhanced services. These studies collectively suggest that while competence varies by institution, university librarians increasingly demonstrate the skills required to meet the routine demands of a digital library setting (Hamad et al., 2020).

Studies by Rahmadanita (2022) and Idubor and Ogunbodede (2024) consistently demonstrate that higher digital competence is associated with improved job effectiveness and more efficient delivery of

library services. Research across national contexts demonstrates that ICT proficiency predicts service quality and operational performance among university librarians. Many studies identify continuous training and professional development as the strongest organisational strategies for improving digital competence. One recent survey revealed high levels of basic digital skills, including computer use, internet searching, and handling digital tools, but also identified challenges such as unreliable power supply, inadequate ICT facilities, and limited training opportunities, all of which hinder further growth in digital expertise (Atchrimi & Ogunbodede, 2024).

Job Performance of Universities Library Staff

Job performance of university library staff refers to the level to which they achieve anticipated results after engaging in tasks assigned to them over a given period of time. It has to do with the efficiency and effectiveness with which employees fulfill their assigned organizational responsibilities (Ng et al., 2024). Recent literature emphasizes that performance is not merely an output of labor but a complex outcome influenced by the psychological well-being of the individual and their trust in supervisory leadership (Yang et al., 2024). Furthermore, the measurement of this

construct has shifted toward a more holistic integration of defined goals and objectives, often utilizing frameworks like Objectives and Key Results (OKRs) to align individual achievements with broader institutional development (Vuong & Nguyen, 2022). These general theories suggest that a sustainable workplace environment, characterized by autonomy and mental health support, is essential for optimizing overall employee productivity (Zhenjing et al., 2022).

In university libraries, library staff, job performance is increasingly viewed through the lens of specialized competencies, practical skills, and the ability to meet the evolving information needs of academic stakeholders (Abddulraheem et al., 2024). Research indicates that library personnel performance is heavily contingent upon institutional motivation, with factors such as job security and the opportunity to exercise professional autonomy serving as primary drivers of work efficiency (Abddulraheem et al., 2024). However, many academic libraries face significant performance barriers, including inadequate ICT infrastructure and a lack of capacity-building initiatives, which can hinder the ability of staff to deliver high-quality services (Oyeniran & Irenea, 2021).

Consequently, the performance of library staff is often a reflection of the balance between their intrinsic professional commitment and the level of extrinsic support provided by the university management (Japheth & Ndoh, 2021).

Relationship between Digital Literacy Skills and Job Performance of Library Staff

The relationship between digital literacy skills and job performance of library staff has to do with the link that exists between the two concepts within the university library work environment. Library staff digital literacy has transitioned from a supplementary skill to a core requirement for professional effectiveness (Godwin, 2024). Empirical evidence indicates a significant positive relationship between digital literacy levels and the quality of library service delivery, as staff with high technical proficiency can navigate complex information systems with greater speed and accuracy (Agbro & Agbro, 2024). For instance, specific skills such as electronic mailing and database management have been found to be strong predictors of administrative efficiency, accounting for a high percentage of the variance in reported performance metrics (Agbro & Agbro,

2024). Conversely, a lack of digital competence often results in subpar service outcomes, leading to increased user grievances and a reliance on alternative, non-library information sources (Basahuwa et al., 2024).

Methodology

This study which explored digital literacy skills and job performance among library staff in university libraries in Delta State adopted the descriptive survey research design to systematically observe the technical competencies of library personnel and their subsequent service

output without manipulating any variables. 89 library staff in university libraries across Delta State participated in the study. Data gathered using a self-developed structured questionnaire designed to measure specific digital literacy indicators and performance metrics on a Likert scale were coded and analyzed using the Statistical Package for the Social Sciences (SPSS) version 25, utilizing both descriptive statistics to summarize the skills gap and inferential tools to determine the strength of the relationship between digital dexterity and professional effectiveness.

Results

Table 1: Level of Library Staff Digital Competencies

S/N	Statement on Digital Competencies	VHL	HL	ML	LL	VLL	$\bar{x}$	St.d
1	I can effectively use library management software for routine library operations.	8	10	35	26	6	2.86	1.04
2	I am competent in searching and retrieving information from online databases.	22	27	18	15	3	3.59	1.16
3	I can troubleshoot basic computer and software-related problems in the library.	17	18	22	15	13	3.13	1.34
4	I am able to assist users in accessing electronic resources and digital collections.	28	30	18	9	-	3.91	0.98
5	I can create, edit, and manage digital documents using basic productivity tools (e.g., Word, Excel, PowerPoint).	21	19	31	14	-	3.55	1.04
6	I am skilled in using internet tools and online platforms for library service delivery.	20	22	18	11	14	3.27	1.39
7	I can effectively use institutional repositories and digital archives.	22	19	20	15	9	3.35	1.32
8	I understand basic cybersecurity practices for protecting digital library resources.	33	21	15	10	6	3.76	1.28
9	I can support patrons in using digital learning and research tools.	16	19	29	10	11	3.22	1.26

10	I participate regularly in digital skills training or professional development programs.	15	16	23	18	13	3.02	1.32
N = 85 Criterion Mean = 3.00 Aggregate Mean = 3.37 St.d = 1.26								

Table 1 presents information on the level of digital competencies of librarians in university libraries. The results show that the individual item means range from 2.86 to 3.91, while the aggregate mean is 3.37, which is higher than the criterion mean of 3.00. This indicates that, overall, librarians possess a high level of digital competencies.

The standard deviation of 1.26 suggests a moderate variation in responses, meaning that while most librarians demonstrate high digital competencies, there are some differences in proficiency levels across specific skills. Based on these results, it can be concluded that the level of digital competencies of librarians in university libraries is high.

Table 2: Level of Library Staff Job Performance

S/N	Statement on Job Performance	VHL	HL	ML	LL	VLL	$\bar{x}$	St.d
1	I complete my assigned library tasks accurately and on time.	27	27	19	10	2	3.79	1.09
2	I provide quality assistance to library users when responding to their information needs.	28	20	16	19	3	3.59	1.24
3	I effectively utilise both print and digital resources when carrying out my duties.	29	21	17	16	2	3.69	1.19
4	I consistently meet the performance expectations set by my library management.	10	15	33	16	11	2.96	1.16
5	I demonstrate efficiency in handling routine library operations.	22	18	27	18	0	3.52	1.09
6	I contribute positively to improving library services and user satisfaction.	23	29	18	10	5	3.65	1.17
7	I regularly update my skills to enhance my job performance.	15	18	30	11	11	3.18	1.24
8	I show initiative in solving work-related problems in the library.	27	28	10	15	5	3.67	1.25
9	I maintain a high level of professionalism when interacting with library users and colleagues.	28	28	17	12	0	3.85	1.03
10	I achieve the work targets and goals assigned to me in the library.	18	31	15	17	4	3.49	1.16
N = 85 Criterion Mean = 3.00 Aggregate Mean = 3.54 St.d = 1.16								

Table 2 above presents information on the job performance of librarians in

university libraries. The results show that the individual item means range from 2.96 to 3.85, while the aggregate mean is 3.54,

which is higher than the criterion mean of 3.00. This indicates that, overall library staff demonstrate a high level of job performance.

The standard deviation of 1.16 suggests moderate variation in responses, indicating that while most librarians perform their duties effectively, there are some differences in specific areas such as

consistently meeting performance expectations and updating skills. Based on these results, it can be concluded that the level of job performance of library staff in university libraries is high.

Hypothesis: There is no significant relationship between digital competencies and job performance of university library staff.

Table 3: Correlation on the Relationship Between Digital Competencies and Job Performance of University Library Staff

		Digital Competencies	Job Performance
Digital Competencies	Pearson Correlation	1	.875
	Sig. (2-tailed)		.000
	N	85	85
Job Performance	Pearson Correlation	.875**	1
	Sig. (2-tailed)	.000	
	N	85	85

$\alpha = 0.05$

Table 3 shows the correlation between digital competencies and job performance of librarians. The result reveals that the correlation coefficient r is 0.875, which indicates a strong positive relationship between digital competencies and job performance. The significance level (p-value) is 0.000, which is less than the alpha level of 0.05. Therefore, the null hypothesis stating that there is no significant relationship between digital competencies and job performance of librarians is rejected. The conclusion is that digital competencies statistically significantly influence the job

performance of librarians in University libraries in Delta State.

Discussion of the Findings

Level of Digital Competencies of Library staff in University Libraries

The findings from research question one revealed that the level of digital competencies of library staff in university libraries in Delta State is high. The result is consistent with the work of Hamad et al. (2020), who reported that librarians in several Nigerian university libraries demonstrated strong digital literacy abilities that enabled them to function effectively in

technology-supported environments. Their study showed that demographic variables such as gender and rank exerted little influence on overall skill levels, mirroring the present study's indication that competence is generally high across staff categories. Similarly, Atchrimi and Ogunbodede (2024) found that university library staff exhibited high proficiency in core digital skills, including computer operations, online searching, and the use of digital tools required for routine library services. Although their study acknowledged infrastructural challenges such as limited ICT facilities and inconsistent power supply, the librarians nonetheless demonstrated strong foundational and intermediate competencies, reinforcing the high skill levels reported in Delta state.

However, not all studies support this positive trend. The findings of Yusuf & Endouware (2021) contradict the present study by revealing low to moderate levels of digital competency among academic librarians in certain Nigerian institutions. Their work highlights significant gaps in essential ICT abilities, particularly in specialized or advanced tasks such as digital preservation, advanced database management, and troubleshooting. They argued that many library staff struggle to

meet the technical requirements of contemporary digital library operations without targeted and continuous training. This contrast with the high competencies found in Delta state and underscores that digital skill levels may vary widely across regions, institutions, and infrastructural conditions.

Level of Job Performance of Library staff in University Libraries

The findings from research question four showed that the level of job performance of library staff in university libraries is high. This finding is supported by Fabunmi (2023), who investigated the influence of self-efficacy on library staff's job performance in public universities in Southern Nigeria. He found that librarians reported a high level of job performance ($M = 84.49$), particularly in teamwork, personal discipline, and task-specific duties, and that self-efficacy had a strong positive effect on their performance. Likewise, Posigha and Idiedo (2022) observed that library staff in university libraries in the South-south region of Nigeria possessed high self-efficacy, which significantly correlated with high job performance; their study showed that self-efficacy and motivation combined to positively predict librarians' work effectiveness. However, this finding contrasts with the results of Akporhonor and

Umukoro (2022), who studied staff development programmes and job performance of university librarians in South-South Nigeria. While they also reported a very high level of job performance, they found that the availability of staff development programmes was very low. Their findings suggest that high performance may persist even when formal training and development support are limited; raising questions about what other factors are sustaining that high level of performance.

Relationship between Digital Competencies and Job Performance of Librarians in University Libraries

The findings from hypothesis revealed that digital competencies statistically significantly influence the job performance of library staff in University libraries in Delta State. This finding is supported by Ubogu (2022), who examined the influence of ICT competencies on job performance in Nigerian university libraries. He found that librarians with stronger ICT competencies such as computer skills, information retrieval skills, and digital literacy demonstrated significantly better job performance, including improved efficiency, service delivery, and administrative effectiveness. Similarly, Atchrimi and

Ogunbodede (2024) reported that university library staff in South-south Nigeria possesses high levels of basic digital competence and that these competencies significantly relate to their effectiveness in library roles.

Summary of the major findings revealed that:

1. The level of digital competencies among library staff in university libraries in Delta State is high.
2. The level of job performance of library staff in the universities is high;
3. Digital competencies statistically significantly influence the job performance of library staff.

Conclusion

Based on the findings, it is concluded that digital literacy is a critical driver of professional efficiency within university libraries in Delta State. The high level of digital competency among staff directly correlates with their high job performance, suggesting that when library personnel are tech-savvy, they are better equipped to navigate modern information systems, manage digital resources, and meet the evolving needs of the academic community. By implication, digital

proficiency is no longer optional but a foundational element of effective librarianship in the 21st century.

Recommendations

Based on the result of this study, the following recommendations are deemed necessary:

1. **Continuous Professional Development:** since digital trends keep evolving rapidly, university managements should institutionalize periodic training and workshops to ensure staff competencies remain up-to-date with emerging technologies (e.g., AI in libraries, advanced data curation).
2. **Infrastructure Upgrades:** to sustain the high level of job performance, libraries must ensure that the digital tools and high-speed internet required to exercise these skills are consistently available and well-maintained.
3. **Performance Incentive Schemes:** librarians who demonstrate exceptional digital innovation in their service delivery should be recognized or incentivized to encourage a culture of technological excellence.

4. **Curriculum Alignment:** for aspiring librarians, library schools should continue to emphasize digital literacy to ensure that new entrants meet the high performance standards observed in Delta State.

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