



**DIGITAL LITERACY COMPETENCIES AND SERVICE DELIVERY
OF LIBRARIANS IN GOVERNMENT OWNED UNIVERSITY
LIBRARIES IN ANAMBRA STATE, NIGERIA**

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Abstract

This paper investigated digital literacy competencies and service delivery among librarians in university libraries in Anambra State, Nigeria. Three research questions guided the study while three null hypotheses were formulated. The correlation research design was adopted for the study. The population of this study comprised 55 librarians in the two government owned universities in Anambra State. The entire population was used as the sample size because the size can be managed by the researcher. Data for this study were collected by means of structured questionnaire titled “Questionnaire on Digital Literacy Competencies” (QDLC) and Questionnaire on Service Delivery among Librarians.” (QSDL). The instrument was rated on a 4-point Likert scale of Strongly Agree (SA); Agree (A); Disagree (D) and Strongly Agree (SD) with values 5, 4, 3, 2 and 1 respectively. The instrument was subjected to face validity by two experts. To ascertain the reliability of the instrument a pilot study was carried out on 20 librarians in University of Nigeria, Nsukka and analyzed using Cronbach Alpha. Which obtained coefficient of 0.89 and 0.78 for QDLC and QSDLNTE respectively. Linear regression was used to answer the research questions and test the null hypothesis at 0.05 alpha levels. The finding revealed that there is a strong positive relationship between information literacy competence, communication competency and service delivery of librarians in government owned university libraries in Anambra State. It was also found that there is a weak positive relationship between ICT competence and service delivery of librarians in university libraries in Anambra State.

Keywords: Literacy, Digital literacy competencies, Service delivery, University libraries.

Introduction

University libraries serve as pivotal hubs for knowledge dissemination, research support, and information access, particularly in regions like Anambra State, Nigeria, where higher education institutions play a central role in fostering academic and societal development. In the digital age, librarians are no longer mere custodians of physical collections but active facilitators of digital resources. Because users expect quick access, remote services, e-resources, virtual



reference, and increasingly digital scholarship, there is a growing need for digital  competencies in university libraries. Librarians must be adept in not only traditional library practices but also in navigating digital platforms, employing information and communication technologies (ICT), creating and managing digital content, and interacting with users through digital channels. These competencies are essential for enhancing service delivery, ensuring that libraries remain relevant, efficient, and responsive to evolving user needs in government owned universities libraries in Anambra State.

Digital literacy refers to an individual's ability to produce clear information through writing and other forms of communication on various digital platforms, encompassing skills in using devices such as smartphones, tablets, laptops, and desktop PCs (Van Laar et al., 2017). While initially focused on stand-alone computers, its scope has expanded to include networked devices, the internet, social media, and emerging technologies, building upon traditional literacy without replacing it (Eshet-Alkali & Amichai-Hamburger, 2018). For librarians, digital literacy is essential for effective service delivery, enabling them to support users in navigating complex digital environments and providing timely, accurate information services (To & Ahmad, 2023).

To fully grasp digital literacy in the context of librarians' roles, it is necessary to examine its key dimensions, which directly influence service delivery in government owned university libraries in Anambra State. Information literacy competence is a foundational dimension, enabling librarians to locate, evaluate, interpret, and use information effectively in digital contexts. This involves critically assessing online sources for credibility, accuracy, relevance, bias, authority, and currency, which is crucial for guiding users in research and problem-solving (Adamu, 2021; Adedore, 2021). In university libraries, strong information literacy competence allows librarians to deliver enhanced reference services, curate reliable digital collections, and teach users how to discern quality information, thereby improving overall user satisfaction and academic outcomes (Tinmaz et al., 2022). This competence aligns with the broader need for librarians to bridge information gaps in an era of abundant but unverified online data.

Building on information literacy, ICT competence forms another critical dimension, involving technical proficiency in using information and communication technologies to manage and deliver library services. This includes understanding hardware, software, and network systems, as well as skills in data processing, coding basics, and emerging technologies like artificial intelligence and big data (Van Laar et al., 2017; Tinmaz et al., 2022). For librarians in government owned university libraries in Anambra State, ICT competence is vital for tasks such as maintaining digital repositories, implementing library management systems, and facilitating remote access to resources, which directly enhances service efficiency and



accessibility (Okechukwu et al., 2025). Without this competence, librarians may struggle to integrate tools like online catalogues or virtual reference systems, limiting their ability to meet the demands of tech-savvy users.

Communication competence extends these technical skills by focusing on effective interaction and collaboration in digital spaces, including multilingual communication, cultural awareness, and the use of platforms for sharing knowledge. This dimension encompasses skills in emailing, social media engagement, and collaborative tools, ensuring librarians can connect with diverse users globally (Tinmaz et al., 2022). In the context of service delivery, communication competence enables librarians in government owned university libraries in Anambra State to provide personalized virtual consultations, promote library resources through digital channels, and foster community engagement, thereby strengthening user relationships and expanding the library's reach in a connected world.

Service delivery of librarians refers to the suite of services that libraries provide to users: reference and information services, user education and training, resource provision (physical and digital), access services (including remote/online access), virtual reference and digital communications, and support for scholarly and research activities. In the status quo in Anambra State, many university libraries have made investments in e-resources, instituted digital catalogues, and in some cases offer online access to journals and databases. However, several reports indicate that service delivery is constrained by weaknesses: limited infrastructure (unstable electricity, low bandwidth), inconsistent ICT skills among staff, delays in providing digital access, low use of advanced digital tools by librarians, and user dissatisfaction with virtual / remote library services (Obiadazie et al, 2023).

Empirically, the study of Agbro and Agbro (2024) revealed that a significant positive relationship: for example, librarians' proficiency in electronic mail strongly predicted job performance. Baro, Obaro and Aduba (2019) revealed that many librarians rate themselves high on basic digital skills (e-mail, social media, database search), but lower on metadata development, website development, or emerging digital tools; overall digital literacy was moderate. This suggests certain digital literacy skills directly influence service delivery outcomes. These studies show that while some digital literacy competencies among librarians are relatively strong, others are weak; and in many cases there is evidence of a positive relationship with service delivery, though the strength and significance varies. Based on this introduction, this study determined the relationship between digital literacy competencies and service delivery of librarians in government owned university libraries in Anambra State.



Objective of the Study

The objective of the study is to investigate relationship between digital literacy competencies and service delivery among librarians in government owned university libraries in Anambra State, Nigeria. In specific terms, the study examined:

1. the relationship between information literacy competence and service delivery of librarians in government owned university libraries in Anambra State.
2. the relationship between ICT competence and service delivery of librarians in government owned university libraries in Anambra State.
3. the relationship between communication competence and service delivery of librarians in government owned university libraries in Anambra State.

Research Questions

1. What is the relationship between information literacy competence and service delivery of librarians in government owned university libraries in Anambra State?
2. What is the relationship between ICT competence and service delivery of librarians in government owned university libraries in Anambra State?
3. What is the relationship between communication competence and service delivery of librarians in government owned university libraries in Anambra State?

Hypotheses

1. There is no significant relationship between information literacy competence and service delivery of librarians in government owned university libraries in Anambra State.
2. There is no significant relationship between ICT competence and service delivery of librarians in government owned university libraries in Anambra State.
3. There is no significant relationship between communication competence and service delivery of librarians in government owned university libraries in Anambra State.

Methodology

The correlation research design was adopted for the study. The population of this study comprised 55 librarians in the two government owned universities in Anambra State. There are 46 in Festus Aghagbo Nwako library Nnamdi Azikiwe University (UNIZIK) and 9 librarians in Chukwuemeka Odumegwu Ojukwu University, Igbariam. The entire population of 55 was used, thus census study was used. Data for this study were collected by means of structured questionnaire titled “Questionnaire on Digital Literacy Competencies” (QDLC) and Questionnaire on Service Delivery among Librarians in New Technological Era” (QSDLNTE). The QDLC is sub-divided into three clusters. Cluster I contained 10 items on information



literacy competence; cluster II contained 8 items on ICT competence; and cluster III ad 9 items on communication competence. The QSDLNTE is a 10-item questionnaire aimed at providing a structured tool for collecting data on how librarians deliver services within the context of today's digital and technology-driven environment. The instrument was rated on a 4-point Likert scale of Strongly Agree (SA); Agree (A); Disagree (D) and Strongly Agree (SD) with values 5, 4, 3, 2 and 1 respectively.

The instrument was subjected to face validity by two experts. The reliability of the instrument was determined through a pilot study. Copies of the instrument were administered to 20 librarians in University of Nigeria, Nsukka. The data collected were analyzed using Cronbach Alpha. Alpha values obtained after data analysis were 0.89 and 0.78 for QDLC and QSDLNTE respectively. Linear regression was used to answer the research questions and test the null hypothesis at 0.05 alpha levels.

Table 1: Linear regression on significant relationship between information literacy competence and service delivery of librarians in government owned university libraries in Anambra State.

N	Pearson r	Df	Cal. T	p-valuei	α level	Remark
55	0.88	53	6.657	0.000	0.05	Significant

Table 1 shows that there is a strong positive relationship of 0.88 existing between information literacy competence and service delivery of librarians in university libraries in Anambra State in the new technological era. Table 1also indicated that at 0.05 level of significance and 53df, the calculated t 6.657 with p-value 0.000 which is less than 0.05 ($t = 6.657$; $df = 53$; $p < 0.05$), the null hypothesis is rejected. This means that there is a significant relationship between information literacy competence and service delivery of librarians in government owned university libraries in Anambra State.

Table 2: Linear regression on ICT competence and service delivery of librarians in government owned university libraries in Anambra State

N	Pearson r	Df	Cal. T	p-value	α level	Remark
55	0.25	53	7.439	0.113iiiiii	0.05	Not Significant

Table 2 shows that there is a weak positive relationship of 0.25 existing between ICT competence and service delivery of librarians in university libraries in Anambra State. Table 2



indicated that at 0.05 level of significance and 53df, the calculated t 7.439 with p -value which is greater than 0.05 ($t = 7.439$; $df = 53$; $p > 0.05$), the null hypothesis is not rejected. This means that there is no significant relationship between ICT competence and service delivery of librarians in government owned university libraries in Anambra State.

Table 3: Linear regression on the significant relationship between communication competence and service delivery of librarians in government owned university libraries in Anambra State

N	Pearson r	Df	Cal. T	p-value	α level	Remark
55	0.82	53	11.532	0.001	0.05	Significant

Table 3 shows that there is a strong positive relationship of 0.82 existing between communication competence and service delivery of librarians in university libraries in Anambra State. Table 3 also indicated that at 0.05 level of significance and 53df, the calculated t 11.532 with p -value 0.001 which is less than 0.05 ($t = 11.532$; $df = 53$; $p < 0.05$), the null hypothesis is rejected. This means that there is significant relationship between communication competence and service delivery of librarians in government owned university libraries in Anambra State.

Discussion of Findings

The finding revealed that there is a strong positive relationship between information literacy competence and service delivery of librarians in government owned university libraries in Anambra State. This finding was in line with the finding of Ikonne, Ibikunle and Babalola (2023) that the librarians' level of information literacy skills was very high and that these skills significantly influenced library service delivery. The finding of Oyekale (2024) supported that information literacy skills have a positive and significant influence on service delivery, particularly via use of social media as a service delivery channel. The corresponding hypothesis revealed that there is a significant relationship between information literacy competence and service delivery of librarians in government owned university libraries in Anambra State. The finding of Awodoyin and Okiki (2022) agreed that a significant positive correlation between information literacy skills (along with perceived self-efficacy) and reference service delivery. Librarians with better information literacy tend to deliver reference services more effectively.

The finding also revealed that there is a weak positive relationship between ICT competence and service delivery of librarians in government owned university libraries in Anambra State. The corresponding hypothesis also revealed that there is no significant relationship between



These findings agree with that of Okere (2022) that reported a weak and positive correlation between availability of ICT facilities and effective service delivery by library personnel. The finding was in line with that of Basahuwa et al (2020) that professional ICT skills had a strong, significant influence on job performance of librarians (public universities in North-Central Nigeria). However, basic ICT skills had no significant influence. The finding supported that of Daniels et al., (2023) that librarians had skills like web application, library networking, cloud technology, etc., and there was a significant relationship between these ICT skills and effective service delivery

The finding revealed that there is a strong positive relationship between communication competence and service delivery of librarians in government owned university libraries in Anambra State. The corresponding hypothesis revealed that there is significant relationship between communication competence and service delivery of librarians in government owned university libraries in Anambra State. This finding was in support with that of Awujoola and Okafor (2021) that communication skill (along with personnel competence) significantly influences undergraduates' use of library information resources. This indicates that when library personnel/librarians are competent in communication, students make better use of library services. Akinwoye (2023) agreed that communication cues (e.g. eye contact, facial expressions, body language) have strong influence on how effective reference services are perceived. On the other hand, this finding disagreed with that of Onuoha and Chukwueke (2023) that a very low positive correlation between media literacy skills of library staff and service delivery, and this relationship was insignificant. The difference between both findings could be as a result of varying opinions of respondents based on their geographical location.

Conclusion

The present study examined the relationship between different dimensions of digital literacy competencies and the service delivery of librarians in government owned university libraries in Anambra State. The findings provide valuable insights into the areas of strength and weakness in librarians' competencies that directly influence their effectiveness. It was revealed that both information literacy and communication competence have strong positive relationships with service delivery, underscoring the fact that the ability to access, evaluate, and communicate information effectively remains the backbone of quality library services. Conversely, ICT competence and digital content creation competence showed weak positive relationships with service delivery, indicating that while librarians are aware of and engage with digital tools, these skills are not yet translating significantly into improved service outcomes. Taken together, these findings suggest the urgent need for targeted training, resource



Recommendations

Based on the findings, the following recommendations were made:

1. University administrations should organize continuous professional development workshops on advanced information literacy, including training on emerging digital resources, to ensure librarians remain at the forefront of guiding users effectively.
2. Universities should provide hands-on ICT training, access to up-to-date technological tools, and mentorship opportunities to build confidence and expertise in using ICT for library operations and user support.
3. The strong positive relationship between communication competence and service delivery indicates the importance of interpersonal and professional communication. Training programs in customer service, digital communication etiquette, and user engagement strategies should be prioritized to strengthen this already effective skill.

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