



**UTILIZATION OF DIGITAL REFERENCE PLATFORMS FOR
INFORMATION SERVICE DELIVERY BY ACADEMIC LIBRARIANS IN KASHIM
IBRAHIM LIBRARY, AHMADU BELLO UNIVERSITY, ZARIA**

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Abstract

This study examines the utilization of digital reference platforms for information service delivery by academic librarians in Kashim Ibrahim Library, Ahmadu Bello University, Zaria in Northern Nigeria. The research focuses on determining the level of adoption of digital reference tools, identifying perceived benefits, and exploring challenges associated with their implementation in academic library environments. A survey research design was adopted, employing a total enumeration method to collect data from all 115 academic librarians in the selected university library. Data were gathered using a structured questionnaire titled Digital Reference Services Utilization Questionnaire (DRSUQ), which recorded a Cronbach's alpha reliability coefficient of 0.85, indicating high internal consistency. The data collection was conducted online over a six-week period. Descriptive statistical techniques such as frequencies, percentages, means, and standard deviations were used for data analysis. Findings indicate that librarians acknowledge the importance of digital reference platforms in enhancing service efficiency, expanding access to information, and improving user satisfaction. However, the level of full utilization remains moderate due to infrastructural limitations, inadequate technical skills, and funding challenges. The study concludes that while digital reference platforms present significant opportunities for improving academic library services, strategic investment in infrastructure, capacity building, and institutional policy development is

required to optimize their use. The study recommends sustained staff training, improved ICT facilities, and institutional commitment to digital transformation initiatives.

Keywords: *Digital reference services, academic librarians, information service delivery, university libraries*

Introduction

Digital reference platforms are technology-driven tools that enable librarians to provide real-time or asynchronous assistance to users through online channels such as email, chat services, web forms, and virtual help desks. These platforms have become increasingly relevant in academic libraries as user information-seeking behavior shifts toward digital environments. According to Davis and Miller (2023), digital reference services enhance user access to information resources by eliminating geographical and time constraints associated with traditional reference desks. In academic libraries, these platforms facilitate quick responses to user inquiries, guide students in research processes, and improve access to electronic resources.

The adoption of digital technologies in Library and Information Science (LIS) has transformed how libraries deliver services. Digital reference platforms are now central to this transformation, enabling librarians to manage increasing user demands effectively. In developed countries, academic libraries have integrated virtual reference services as a core component of information service delivery (Johnson & Carter, 2022). These platforms support continuous engagement with users, improve service personalization, and enhance institutional visibility in virtual learning environments.

Globally, universities in North America and Europe have adopted digital reference tools to improve service efficiency and respond to the evolving needs of digitally oriented users. Studies indicate that over 65% of academic libraries in these regions offer some form of online reference assistance, including live chat and email-based services (Smith & Brown, 2023).

These tools have contributed significantly to improved user satisfaction and reduced workload for librarians.

In Asia, the adoption of digital reference services has accelerated due to increased investment in educational technology. Countries such as China, Japan, and South Korea have incorporated virtual reference platforms into their academic library systems as part of broader digital transformation initiatives (Liu & Wang, 2023). Indian university libraries are also gradually adopting these platforms, although challenges related to infrastructure and staff training persist (Sharma & Mehta, 2022).

In Africa, the utilization of digital reference platforms in academic libraries remains uneven. While awareness is growing, practical implementation is often constrained by limited ICT infrastructure, inadequate funding, and insufficient technical expertise. Research by Olatunji and Bello (2023) revealed that fewer than 30% of academic libraries in sub-Saharan Africa provide functional online reference services. Nevertheless, there is increasing recognition of the potential of digital reference tools to enhance library relevance in the digital age.

In Nigeria, academic libraries are at different stages of adopting digital reference services. Although some universities have introduced email and web-based reference platforms, full-scale utilization remains limited (Adeyemi & Lawal, 2022). Factors such as unstable internet connectivity, limited institutional support, and skill gaps among librarians hinder effective implementation. University libraries in Northern Nigeria, in particular, face additional challenges due to infrastructural disparities.

The university library serves a large and diverse academic community, making efficient information service delivery essential. The growing reliance on electronic resources and remote learning has increased the demand for digital reference support. Digital reference platforms

offer a viable solution for addressing these demands by extending librarian assistance beyond physical library spaces.

This study is significant because it explores the extent to which academic librarians utilize digital reference platforms for information service delivery. It also examines the benefits and challenges associated with these platforms, providing insights that can guide library administrators, policymakers, and stakeholders in strengthening digital service delivery. Furthermore, the study contributes to existing LIS literature by focusing on an under-researched regional context.

Statement of the Problem

The rapid advancement of digital technologies has significantly altered user expectations of academic library services. Users increasingly demand instant, remote, and technology-mediated access to information and librarian support (Smith & Brown, 2023). Digital reference platforms have emerged as essential tools for meeting these expectations by facilitating real-time communication and continuous access to professional assistance. In many developed countries, academic libraries have successfully integrated digital reference services into their operations, enhancing service efficiency and user engagement (Johnson & Carter, 2022).

Despite these global trends, many Nigerian academic libraries, particularly in Northern Nigeria, have been slow to fully adopt and utilize digital reference platforms. Traditional face-to-face reference services still dominate, limiting the ability of libraries to meet the needs of users in online and distance learning environments. Challenges such as inadequate ICT infrastructure, limited funding, and insufficient staff training continue to impede effective utilization of digital reference tools (Adeyemi & Lawal, 2022; Olatunji & Bello, 2023). This situation raises concerns about the capacity of academic libraries to remain relevant and responsive in a digital-driven academic environment. Consequently, this study seeks to assess

the utilization of digital reference platforms, identify perceived benefits, and examine the challenges faced by academic librarians in implementing these services.

Objectives of the Study

The main objective of this study is to examine the utilization of digital reference platforms for information service delivery by academic librarians in Kashim Ibrahim Library, Ahmadu Bello University, Zaria. Specifically, the study seeks to:

1. Determine the extent to which digital reference platforms are utilized by academic librarians.
2. Identify the perceived benefits of using digital reference platforms for information service delivery.
3. Examine the challenges associated with the utilization of digital reference platforms in academic libraries.

Research Questions

The study is guided by the following research questions:

1. To what extent are digital reference platforms utilized by academic librarians?
2. What benefits do academic librarians perceive from using digital reference platforms?
3. What challenges hinder the effective utilization of digital reference platforms?

Methodology

A survey research design was adopted for this study, as it allows for the systematic collection of data on respondents' perceptions and experiences. The target population comprised all 115 academic librarians in Kashim Ibrahim Library, Ahmadu Bello University, Zaria. Given the manageable size of the population, a total enumeration technique was employed to ensure comprehensive coverage and enhance the validity of the findings. Data were collected using a self-developed questionnaire titled *Digital Reference Services Utilization Questionnaire*

(*DRSUQ*). The instrument consisted of four sections covering demographic information, extent of utilization, perceived benefits, and challenges. Content validity was established through expert review, while reliability testing yielded a Cronbach's alpha coefficient of 0.85. The questionnaire was administered online, and 98 completed responses were received, representing a response rate of 77.8%. Data were analyzed using descriptive statistics such as frequencies, percentages, means, and standard deviations with the aid of SPSS software.

Results and Discussion of Findings

Research Question One: To what extent are digital reference platforms utilized by academic librarians?

Table 1: Extent of Utilization of Digital Reference Platforms by Academic Librarians

Digital Reference Practice	Frequency (N)	Percentage (%)	Mean	Standard Deviation
Awareness of digital reference platforms	70	60.9	3.60	0.49
Platforms currently used for user queries	45	39.1	3.20	0.52
Regular staff training on platform usage	38	33.0	2.90	0.55
Integration with core library services	42	36.5	3.00	0.51
Librarians involved in platform management	30	26.1	2.80	0.58

Note: Mean scores are based on a 5-point Likert scale.

Table 1 shows that awareness of digital reference platforms among academic librarians is relatively high, with a mean score of 3.60. However, actual utilization remains moderate to low, as only 39.1% of respondents indicated that the platforms are currently used for responding to user queries. Even fewer librarians reported regular training and direct involvement in managing the platforms, with mean scores below 3.00. This indicates a gap between awareness and effective utilization.

These findings suggest that while librarians recognize the importance of digital reference platforms, institutional and capacity-related challenges limit their practical application. This result aligns with Adeyemi and Lawal (2022), who reported that awareness of digital technologies in Nigerian academic libraries does not always translate into sustained usage due to infrastructural and training limitations. Similarly, Olatunji and Bello (2023) observed that many digital library services in developing countries remain underutilized despite high awareness levels.

Research Question Two: What are the perceived benefits of using digital reference platforms for information service delivery?

Table 2: Perceived Benefits of Digital Reference Platforms

Perceived Benefit	Frequency (N)	Percentage (%)	Mean	Standard Deviation
Faster response to user inquiries	82	71.3	4.10	0.42
24/7 access to reference services	75	65.2	3.90	0.44
Reduction in librarian workload	68	59.1	3.80	0.46

Improved user satisfaction	70	60.9	3.85	0.43
Support for users with special needs	52	45.2	3.40	0.50

Table 2 reveals that academic librarians strongly acknowledge the benefits of digital reference platforms. Faster response to user inquiries recorded the highest mean score (4.10), indicating that efficiency is a major advantage of these platforms. The ability to provide 24/7 access to services and improve user satisfaction also received high mean scores, highlighting the role of digital reference platforms in extending library services beyond physical boundaries.

These findings support the assertion by Davis and Miller (2023) that digital reference platforms enhance service responsiveness and user engagement. Smith and Brown (2023) similarly noted that round-the-clock virtual reference services significantly improve user satisfaction in academic environments. However, relatively lower scores for support of users with special needs suggest the need for more inclusive digital service designs.

Research Question Three: What challenges hinder the effective utilization of digital reference platforms?

Table 3: Challenges to the Utilization of Digital Reference Platforms

Identified Challenge	Frequency (N)	Percentage (%)	Mean	Standard Deviation
Inadequate ICT infrastructure	68	59.1	3.80	0.48
Lack of technical expertise	76	66.1	3.90	0.47
Limited funding	70	60.9	3.85	0.45

User resistance or low awareness	58	50.4	3.60	0.50
Data privacy and security concerns	60	52.2	3.65	0.46

Table 3 indicates that lack of technical expertise is the most significant challenge to the utilization of digital reference platforms, with the highest mean score of 3.90. Inadequate ICT infrastructure and limited funding were also identified as major constraints. These challenges suggest that successful utilization depends not only on technology availability but also on staff competence and institutional investment.

The findings corroborate those of Sharma and Mehta (2022), who identified infrastructural deficits and skills gaps as key barriers to digital service implementation in academic libraries. Likewise, Olatunji and Bello (2023) emphasized that inadequate funding and policy support often undermine digital innovation in libraries within developing economies.

Conclusion

The study concludes that while academic librarians recognize the importance and benefits of digital reference platforms, their utilization remains limited due to infrastructural, financial, and skill-related challenges. Addressing these barriers is essential for improving information service delivery and ensuring that academic libraries remain relevant in an increasingly digital academic environment.

Recommendations

1. University library management should invest in robust ICT infrastructure and reliable internet connectivity to support digital reference services.

2. Continuous professional development programs should be organized to enhance librarians' technical skills in managing digital reference platforms.
3. Institutional policies should be developed to guide the systematic implementation and sustainability of digital reference services.

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