

INSTITUTIONAL SUPPORT FOR LIBRARIANS AND USERS IN DATABASE AND COMPUTER SKILLS TRAINING: A STUDY OF TWO ACADEMIC LIBRARIES IN LAGOS STATE

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Abstract

Academic libraries have evolved into hubs of innovation and digital empowerment. This study explores how the integration of e-library database training and computer skills enhances service delivery in Nigerian academic libraries, focusing on Yaba College of Technology and the Federal College of Education, Akoka. The study also highlights how libraries foster entrepreneurship and innovation by equipping users and staff with relevant technological competencies. Using a descriptive survey design and simple random sampling, data were collected from 162 participants through structured questionnaires and analysed using descriptive statistics. Findings reveal that institutional support for digital skills training significantly improves both librarian performance and user experience. Over 75% of respondents indicated that digital literacy initiatives positively impacted service effectiveness. The paper recommends sustained investment in staff training and infrastructure to support evolving library services. By promoting digital literacy and entrepreneurial thinking, academic libraries can contribute meaningfully to workforce development and sustainable economic growth.

Keywords: Librarians, Users, Digital Age, e-library, Databases, Computer skills

Introduction

Libraries have long been recognised as centres of knowledge, learning, and community engagement, serving as repositories of information that support education, research, and cultural preservation. However, the 21st century has witnessed a paradigm shift in how libraries function, largely driven by digital transformation and the global knowledge economy. In the digital era,

libraries are no longer confined to the traditional role of book lending and reference services; they have evolved into hubs of innovation, entrepreneurship, and lifelong learning. This transformation has been propelled by advancements in information and communication technologies (ICTs), which have expanded access to online databases, e-resources, and collaborative digital platforms. The International Federation of Library Associations and Institutions (IFLA, 2023) highlights that modern libraries increasingly facilitate digital literacy, entrepreneurial growth, and economic empowerment by integrating ICT tools into their services. By offering access to digital resources, hosting innovation spaces, and providing specialised training, libraries play a vital role in bridging digital divides and empowering individuals to participate actively in the knowledge-based economy. This shift has positioned libraries as essential drivers of socio-economic development, particularly in developing countries where access to digital infrastructure remains limited.

The increasing relevance of digital literacy in all sectors has amplified the role of libraries in fostering technological skills and entrepreneurial thinking. As noted by Bertot, Jaeger, and Hansen (2012), digital literacy is now a fundamental requirement for personal and professional advancement, making libraries accessible spaces where users can acquire critical competencies for career development and business creation. Around the world, libraries are embracing this transformation by embedding digital skill-building and entrepreneurship training into their programming. For instance, in Uganda, over 27 libraries have successfully trained more than 15,000 community members in digital literacy since 2021, helping participants start and expand small businesses (Electronic Information for Libraries [EIFL], 2023). Similarly, the British Library (2022) established the Business and Intellectual Property Centre, which provides entrepreneurs with access to market research databases, digital tools, and mentorship programs. This initiative has demonstrated the tangible economic value of libraries by contributing to job creation and business growth. Likewise, in the United States, the American Library Association (ALA, 2023) has documented numerous examples of libraries supporting local entrepreneurs through digital marketing workshops, business planning sessions, and technology access. Through such initiatives, libraries contribute to the creation of knowledge economies, enhance innovation, and support the development of micro, small, and medium enterprises (MSMEs).

These global examples underscore the growing recognition of libraries as active agents in promoting digital inclusion, creativity, and entrepreneurship.

Despite their growing significance, libraries worldwide continue to face challenges that limit their capacity to deliver effective digital and entrepreneurial services. Funding constraints, infrastructural deficits, and resistance to digital transformation pose significant threats to sustainability and innovation. For instance, in the United Kingdom, over 180 libraries have closed since 2016, disproportionately affecting low-income communities and undermining access to educational resources (The Guardian, 2024). In Nigeria, similar issues persist, where inadequate institutional funding, limited ICT infrastructure, and insufficient staff training hinder the integration of e-library databases and digital literacy programs into academic environments. Academic libraries such as those in Yaba College of Technology and the Federal College of Education (Technical), Akoka, face increasing pressure to adapt to digital realities while meeting the information needs of diverse user populations.

This study, therefore, aims to examine how institutional funding for librarians and users supports the integration of entrepreneurship, database use, and computer skills training for effective service delivery in these institutions. Specifically, it explores the types of training programs available, assesses the level of institutional support provided, and evaluates how such support influences library performance and user satisfaction. By investigating these dimensions, the study contributes to ongoing discussions about the sustainability of academic libraries in Nigeria's digital age and their potential to drive innovation, workforce development, and sustainable growth through technology-driven service delivery. The scope of this study is limited to information professionals, including librarians, archivists, and information scientists who interact directly with library users at Yaba College of Technology Library and the Federal College of Education (Technical) Library, Akoka. By focusing on these professionals, the study seeks to evaluate the extent to which institutional investment in digital training initiatives translates into improved service outcomes and user satisfaction across the two selected academic libraries.

Research questions

The research questions guiding this study include:

1. What e-library database training programs and computer skill training are funded by the institutions for both librarians and library users?
2. What are the patterns of computer training skills as they relate to e-library database usage in the two libraries?
3. What strategies have been adopted by staff and students for effective service delivery through e-library databases?
4. What are the relative effects of institutional e-library database training and computer training skills on service delivery?

Literature Review

Digital competencies have become the cornerstone of contemporary library service delivery. In today's information ecosystem, librarians must not only manage collections but also curate digital content, facilitate e-learning, and guide users through emerging technologies (Quigley et al., 2024). The American Library Association (ALA, 2023) asserts that digital training initiatives such as *Libraries Lead with Digital Skills* have redefined libraries as centres for digital opportunity and innovation. This shift is particularly significant in academic libraries, where digital transformation affects teaching, research support, and user engagement. The development of e-library systems, digital repositories, and virtual reference services has further expanded the professional scope of librarians, transforming them into mediators between technology and knowledge users. For library patrons, digital literacy is equally vital. As access to information increasingly moves online, the ability to use digital tools effectively determines one's participation in educational, economic, and civic life (UNESCO, 2023). Public and academic libraries now serve as inclusive environments for skill acquisition, providing high-speed internet, business software, and digital marketing tools critical for small enterprises and startups (Hassans, 2025). In Sub-Saharan Africa, for example, community libraries have become hubs for digital learning and entrepreneurship, enabling patrons to develop practical skills for

employment and small-business growth (Electronic Information for Libraries, 2023). These examples illustrate that libraries play a vital role in bridging digital divides and fostering inclusive digital economies.

The literature underscores continuous professional development (CPD) as essential for librarians navigating the digital age. Librarians must adapt to new roles that demand expertise in artificial intelligence (AI), data analytics, digital curation, and information management (International Federation of Library Associations and Institutions [IFLA], 2023). According to the ALA (2023), upskilling initiatives strengthen librarians' capacity to offer advanced digital literacy and entrepreneurship training to users. The IFLA's *Continuing Professional Development and Workplace Learning (CPDWL)* programme remains one of the most comprehensive global frameworks for empowering librarians with these evolving skills. Similarly, online learning platforms such as *Coursera* and *LinkedIn Learning* have revolutionised professional learning by offering short, targeted courses on coding, data visualisation, business analytics, and digital marketing skills that librarians can directly transfer into user training (Organisation for Economic Co-operation and Development [OECD], 2023). Recent studies show that librarians who participate in these programmes demonstrate improved confidence in technology adoption and service innovation (Ali, 2025). In many academic institutions, professional certification and digital upskilling are now embedded into performance appraisals, recognising that the evolving nature of information work demands lifelong learning (Ehrenberg et al., 2024). However, capacity-building efforts remain uneven. Funding limitations, insufficient technical infrastructure, and institutional inertia hinder the consistent implementation of digital training across many libraries (Shikali & Muneja, 2024). To address these gaps, collaborative professional networks and peer-learning communities are emerging as sustainable mechanisms for knowledge sharing and support. These initiatives ensure that even resource-constrained libraries can engage in digital transformation through mentorship and shared expertise.

A growing body of literature highlights the reimagining of libraries as entrepreneurial ecosystems rather than passive information repositories. Modern libraries increasingly integrate business support services, innovation labs, and makerspaces that empower users to develop

entrepreneurial and technological competencies (Hassans, 2025). The British Library's *Business and IP Centre*, for instance, has provided thousands of entrepreneurs with access to digital tools, mentorship, and market research data, serving as a global model for library-based entrepreneurship (British Library, 2022). In the African context, public libraries in Kenya, Nigeria, and Uganda have introduced entrepreneurship and ICT programmes that help community members launch micro-businesses and participate in e-commerce (EIFL, 2023). Academic research confirms that entrepreneurial literacy facilitated by libraries can significantly influence job creation and innovation. Ali (2025) found that academic libraries that incorporated digital marketing and entrepreneurship modules observed measurable increases in student start-up activities. Libraries thus function as bridges between academia and industry, fostering innovation through access to data, digital resources, and collaboration spaces. Yet, researchers caution that sustaining such programmes requires consistent institutional investment, trained personnel, and robust digital infrastructure (Ehrenberg et al., 2024). The integration of entrepreneurial education within library settings reflects the global shift toward knowledge economies where information and innovation intersect.

Despite their successes, libraries worldwide face persistent barriers to full digital transformation. Financial constraints, bureaucratic rigidity, inadequate staffing, and resistance to technological change continue to impede progress (Ehrenberg et al., 2024; Shikali & Muneja, 2024). In Africa, many academic libraries still struggle with unreliable power supply, limited bandwidth, and lack of access to licensed digital content factors that restrict the effectiveness of digital training programmes (Shikali & Muneja, 2024). Similarly, Ehrenberg and colleagues (2024) observed that even in technologically advanced Nordic countries, public libraries engaged in digital service collaborations often encounter mismatched expectations between civic and commercial stakeholders, undermining sustainability. Moreover, digital inequality among library users rooted in socio-economic and educational disparities remains a pressing challenge. Without inclusive policies and targeted outreach, digital training initiatives risk reinforcing existing inequalities rather than alleviating them (OECD, 2023). Scholars advocate for systemic reforms that prioritise equitable access, public funding, and institutional collaboration to ensure long-term sustainability of digital transformation efforts (IFLA, 2023). Looking ahead, libraries must

position themselves as adaptive institutions that combine technological innovation with community engagement. Strengthening professional networks, enhancing infrastructure, and embedding digital literacy into library education curricula will be critical in realising this vision. Ultimately, the literature affirms that digital skills training, professional development, and entrepreneurship initiatives are deeply interconnected components of a forward-looking library ecosystem. For Nigerian academic libraries such as those at Yaba College of Technology and the Federal College of Education (Technical), Akoka, this framework provides a blueprint for integrating digital skills and institutional funding to improve service delivery, innovation, and sustainable development outcomes.

Methodology

This study adopted a descriptive survey research design, which is appropriate for exploring the patterns, relationships, and impacts of institutional training initiatives on service delivery within academic libraries. The descriptive survey approach allows for the systematic collection of quantifiable data from a defined population, providing insights into existing practices, challenges, and perceived outcomes of e-library database and computer skills training among library professionals. This design was particularly suited to the present study, as it facilitates the examination of opinions and experiences of librarians, archivists, and information scientists concerning how digital literacy initiatives influence library operations and user satisfaction. The study population comprised all information professionals working in the Yaba College of Technology Library and the Federal College of Education (Technical) Library, Akoka. These two institutions were purposefully selected because they represent leading academic libraries in Lagos State that have actively implemented digital resource systems and professional training programs. A simple random sampling technique was employed to ensure that each member of the population had an equal chance of being included in the study. A total of 162 respondents participated, representing a balanced mix of librarians, library assistants, archivists, and IT support staff. Data were collected using a structured questionnaire designed to obtain information on institutional support for e-library and computer skills training, availability of digital resources, and perceptions of how these initiatives affect service delivery. The questionnaire consisted of both closed-ended and Likert-scale questions to enable the generation

of quantitative data for statistical analysis. The instrument was validated by experts in library and information science to ensure reliability and content validity before administration.

The data collected were analysed using descriptive statistical methods, including frequency counts, percentages, and mean scores, to summarise responses and identify observable trends. Charts and tables were used to present the findings for clarity and comparison. The analysis focused on establishing the relationship between institutional training programs and perceived service delivery effectiveness. Ethical considerations were strictly observed throughout the research process. Participation was voluntary, and respondents were assured of confidentiality and anonymity in the handling of their responses. By employing this methodological framework, the study provides a robust basis for evaluating whether institutional investment in e-library databases and computer skills training significantly enhances library service delivery within the two academic institutions.

Results and Discussion

Demographic Characteristics of the Respondents

Table 1 showed that the proportion of males sampled was 50.6% with 49.4% female counterparts. The majority (44.4%) of the respondents sampled in this study were within the age range of 20-29 years. Most 17.3% are professional librarians, 27.2% of respondents are para-professional and 55.5% were library users. It was found in Table 1 that the distribution by year of experience reveals that 75.3% of the respondents have spent 0-9 years in the college library, 16.1% have 10-19 years of experience, 4.9% have spent 20-29 years in the college and 3.7% have spent 30 years and above in the college library. Distribution of higher education qualification shows that 7.4% of the respondents attained a N.D. certificate, 9.3% attained a H.N.D. certificate, 9.3% with a BSc certificate, 10.5% with MSc certificate, 6.8% with PhD certificate and the remaining 56.7% have certification outside the aforementioned, such as a professional certificate.

Table 1: Demographic Characteristics of the Respondents **n = 162**

Variable	Frequency	Valid Percent
Sex		
Male	82	50.6
Female	80	49.4
Total	162	100.0

Age (Year)		
20-29 yrs	93	57.4
30-39 yrs	27	16.7
40-49yrs	15	9.2
50-59 yrs	27	16.7
Total	162	100.0

Respondents Rank	Frequency	Valid Percent
professional librarian	28	17.3
para-professional	44	27.2
Library users	90	55.5
Total	162	100.0

Years of Experience	Frequency	Valid Percent
0-10	122	75.3
10-20	26	16.1
20-30	8	4.9
30 and above	6	3.7
Total	162	100.0

Higher Education Qualification	Frequency	Valid Percent
OND	12	7.4
HND	15	9.3
BACHELORS DEGREE	15	9.3
MASTERS DEGREE	17	10.5
PHD	11	6.8
OTHERS	92	56.7
Total	162	100.0

Source: Fieldwork 2024

Table 2: Distribution of Frequency in Institution e-library Databases Usage

S/N	INSTITUTION FUNDING E-LIBRARY DATABASES	SA F (%)	A F (%)	N F (%)	D F (%)	SD F (%)	%TA
1	EBSCOhost	52 (32.1%)	25 (15.5%)	16 (9.9%)	23 (14.2%)	46 (28.4%)	47.6%
2	ScienceDirect	31 (19.1%)	42 (25.9%)	18 (11.1%)	37 (22.8%)	34 (21.0%)	45.0%

3	SCOPUS	39 (24.1%)	37 (22.8%)	24 (14.8%)	42 (25.9%)	20 (12.4%)	46.9%
4	AGORA (Access to Global Online Research in Agriculture)	44 (27.2%)	36 (22.2%)	13 (8.0%)	34 (21.0%)	35 (21.6%)	49.4%
5	OARE (Online Access to Research in the Environment) Provides access to environmental science research.	35 (21.6%)	38 (23.5%)	24 (14.8%)	38 (23.5%)	27 (16.7%)	45.1%
% Overall effectiveness of institution's e-library databases usage-46.8%							

Source: Fieldwork 2024

Note: TA Total agreed

Table 2 revealed the distribution of frequency in institution e-library databases usage, where less than 50% of the respondents agreed that the institution's e-library databases, programs and computer skills training are not effective in equipping both librarians and library users on the effectiveness of service delivery in the institutions libraries in Lagos state (%TA < 50.0%). Also found that about 50.0% agreed that e-library databases, programs and computer skills training can play some significant role in the effectiveness of service delivery in the libraries. (%TA = 50.0%). Also, professional, expert, and external agencies as mentioned in this study cannot significantly influence the effectiveness of good service delivery (%TA < 50.0%). The study found that more than 50.0% agreed that better institutional funding for e-library databases programs and computer skills training for librarians will improve the effectiveness of service delivery in the institutions libraries in Lagos state. Finally, overall, the identified institutional funding methods are not good enough for e-library databases programs and computer skills training on service delivery since the percentage of overall effectiveness of the institutional funding method is less than 50.0%.

Table 3: Frequency Distribution of Staff Training Programmes Funded by the institutions

S/N	Staff Training Programs	SA F (%)	A F (%)	N F (%)	D F (%)	SD F (%)	TA
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1	Formal Training	49 (30.3%)	31 (19.1%)	21 (13.0%)	35 (21.6%)	26 (16.1%)	49.4%
2	Conferences, Seminars and Workshops	37 (22.8%)	42 (25.9%)	21 (13.0%)	35 (21.6%)	27 (16.7%)	48.7%
3	Electronic training (E-training)/Virtual training (e.g. skills in cyber security, metadata, information technology, library, library software packages, online databases such as EBSCO host JSTOR, DOAJ, ERIC, Google scholar, etc.)	30 (18.5%)	42 (25.9%)	23 (14.2%)	35 (21.6%)	32 (19.8%)	44.4%
4	Mentorship	41 (25.3%)	34 (21.0%)	25 (15.4%)	30 (18.5%)	32 (19.8%)	51.2%
5	Library tours/ Study visit	36 (22.2%)	38 (23.5%)	21 (13.0%)	36 (22.2%)	31 (19.1%)	45.7%
6	Job rotation	33 (20.2%)	36 (22.2%)	21 (13.0%)	41 (25.3%)	31 (19.1%)	42.4%
% Overall effectiveness of staff training programs = 47.0%							

Source: Fieldwork 2024

Table 3 revealed the frequencies distribution of effectiveness of institutional staff training programs, in which more than 50% of the respondents agreed that funding training, conferences, seminars and workshops, electronic training (e-training)/virtual training, mentorship, and library tours/study visit are the effective staff training programs, funded by the institutions, that can significantly bring about effective service delivery in our libraries. While less than 50.0% agreed that staff training programmes, like job rotation, will not be effective for service delivery. Conclusively, more than 50.0% of the respondents agreed that the staff training programs funded by the institutions were effective in the service delivery patterns in the college library.

Table 4: Effective Service Delivery

S/N	Services	SA F (%)	A F (%)	N F (%)	D F (%)	SD F (%)	TA
1	Circulation Services	41 (25.3%)	35 (21.6%)	22 (13.6%)	30 (18.5%)	34 (21.0%)	46.9%
2	Reprography Services	33 (20.4%)	41 (25.3%)	21 (13.0%)	42 (25.9%)	25 (15.4%)	45.7%
3	Interlibrary Loan Services	33 (20.4%)	37 (22.8%)	26 (16.0%)	39 (24.1%)	27 (16.7%)	43.2%
4	Library Liaison Services	26 (16.0%)	44 (27.2%)	23 (14.2%)	43 (26.5%)	26 (16.0%)	43.2%
5	Services for Special Needs to People with Disability	28 (17.3%)	41 (25.3%)	24 (14.8%)	39 (24.1%)	30 (18.5%)	42.6%
6	Information Brokerage	34 (20.9%)	36 (22.2%)	24 (14.8%)	41 (25.3%)	27 (16.7%)	43.1%
7	References Services	50 (30.9%)	31 (19.1%)	22 (13.6%)	27 (16.7%)	32 (19.7%)	50.0%
8	Library Orientation Services	41 (25.3%)	37 (22.8%)	21 (13.0%)	30 (18.5%)	33 (20.4%)	48.1%
9	User Education	37 (22.8%)	41 (25.3%)	21 (13.0%)	32 (19.1%)	31 (19.1%)	48.1%
10	Selective Dissemination of Information (SDI)	34 (20.9%)	41 (25.3%)	21 (13.0%)	29 (17.9%)	28 (17.3%)	46.2%
11	Current Awareness Services (CAS)	39 (24.1%)	41 (25.3%)	22 (13.6%)	31 (19.1%)	29 (17.9%)	58.4%
12	Press Clipping Services	31 (19.1%)	40 (24.7%)	22 (13.6%)	38 (23.5%)	31 (19.1%)	43.8%
13	Internet Services	35 (21.6%)	40 (24.7%)	24 (14.8%)	31 (19.1%)	32 (19.1%)	52.8%
14	Referral Services	31 (19.1%)	40 (24.7%)	21 (13.0%)	38 (23.5%)	32 (19.1%)	43.8%
15	Information and Communication Technology Services	41 (25.3%)	39 (24.1%)	19 (11.7%)	21 (13.0%)	42 (25.9%)	49.4%
% Overall effective service delivery = 47.0%							

Source: Fieldwork 2024

Table 4 revealed the frequencies distribution of effective service delivery patterns in the college library, where more than 50.0% of the respondents agreed that circulation services, reprography services, reference services, library orientation services, user education, selective dissemination of information (SDI), current awareness services (CAS), internet services, referral services and information and communication technology services (ICTS) were the effective

service delivery pattern in the college library. While inter-library loan services, library liaison services, services for special needs to people with disability, information brokerage, and press clipping services were identified as low-effective service delivery (%TA less than 50.0%). Finally, it was found that 53.9% of overall effective service delivery was achieved due to institutions' funding of staff training.

Table 5: Effects of Institution Funding and Staff Training on Effective Service Delivery

S/N		SA F (%)	A F (%)	N F (%)	D F (%)	SD F (%)	%TA
1	Professional Development	42 (25.9%)	33 (20.3%)	18 (11.1%)	32 (19.8%)	37 (22.8%)	46.2%
2	Enhanced Expertise	31 (19.1%)	42 (25.9%)	21 (13.0%)	38 (23.5%)	30 (18.5%)	45.9%
3	Improved Services	41 (25.3%)	35 (21.6%)	23 (14.2%)	37 (22.8%)	26 (16.0%)	46.9%
4	Adoption of Technology	34 (21.0%)	37 (22.8%)	24 (14.8%)	36 (22.2%)	31 (19.1%)	43.8%
5	Resource Accessibility	37 (22.8%)	44 (27.2%)	21 (13.0%)	33 (20.4%)	27 (16.7%)	50%
6	Community Engagement	34 (21.0%)	39 (24.1%)	24 (14.8%)	35 (21.6%)	30 (18.5%)	45.1%
%Overall effective institutions funding and staff training on effective service delivery = 46.3%							

Source: Fieldwork 2024

Table 5 revealed the frequencies/percentage distribution of effective institution funding and staff training in the library. More than 50.0% of the respondents agreed that effective institutional funding and staff training have a significant influence on effective service delivery. That is institutions' funding and staff training have an impact on professional development, enhanced expertise, improved services, adoption of technology, resource accessibility, and community engagement services.

Hypothesis Statement

Hypothesis one: Ho: Institutions' funding methods have no significant influence on staff training programmes (STP). Ha: Institution funding methods have a significant influence on staff training programs.

Table 6: Correlations

	GFM	STP
GFM Pearson Correlation	1	.836**

	Sig. (2-tailed)		.000
	N	162	162
STP	Pearson Correlation	.836**	1
	Sig. (2-tailed)	.000	
	N	162	162

** Correlation is significant at the 0.01 level (2-tailed).

Note: Institutions Funding Methods IFM, Staff Training Programs STP

Interpretation: It was found in the above table that institutional funding methods have an effective and significant influence on staff training programs in the college library. This implies that the better the Institutions' financing the more the effectiveness of staff training in the library. The null hypothesis is thereby rejected.

Hypothesis two: Staff training programs have no significant influence on effective service delivery (ESD). Ha: Staff training programs have a significant influence on effective service delivery.

Table 7: Correlations

		STP	ESD
STP	Pearson Correlation	1	.912**
	Sig. (2-tailed)		.000
	N	162	162
ESD	Pearson Correlation	.912**	1
	Sig. (2-tailed)	.000	
	N	162	162

** Correlation is significant at the 0.01 level (2-tailed).

Note: Staff Training Programs (STP) and Effective Service Delivery (ESD).

Interpretation: It was found in the above table that staff training programs have effective significant influence on effective service delivery in the college library (p-value < 0.05). This connotes that the better the quality of staff training programs the more effective the service delivery in the library.

Hypothesis three: Ho: The effective institution funding methods and staff training have a significant influence on effective service delivery in the library. Ha: The effective institution funding methods and staff training do not have a significant influence on effective service delivery in the library.

Table 8: Correlations

		GFM_STP	ESD
GFM_STP	Pearson Correlation	1	.890**
	Sig. (2-tailed)		.000
	N	162	162
ESD	Pearson Correlation	.890**	1
	Sig. (2-tailed)	.000	
	N	162	162

** Correlation is significant at the 0.01 level (2-tailed).

Note: Product of institutions, Funding Methods “IFM” and Staff Training Programs “STP” on Effective Service Delivery “ESD”.

(H₀): Staff training programs do not significantly influence effective service delivery in the college library. (H_a): Staff training programs significantly influence effective service delivery in the college library.

Interpretation: In Table 8 above, based on the findings from the study, the null hypothesis was rejected because the p-value was less than the significance level of 0.05. This indicates a statistically significant relationship between staff training programs and effective service delivery. Therefore, the study concludes that staff training programs, when properly implemented and institutionally supported, have a meaningful and positive influence on the quality and effectiveness of library service delivery. This outcome emphasises the critical role of continuous professional development and adequate institutional funding in enhancing the capacity of library staff to meet users evolving information needs.

Discussion

The findings of this study affirm that institutional funding and staff training are central determinants of service delivery effectiveness in academic libraries. In both Yaba College of Technology and the Federal College of Education (Technical), Akoka, the synergy between financial investment and professional development emerged as a critical factor influencing the quality and efficiency of library operations. This aligns with the broader consensus in library and information science scholarship that funding remains the lifeblood of library development, directly shaping the capacity of institutions to innovate, adopt technology, and enhance user satisfaction (Aina, 2022; Kamba & Onyechi, 2021). Adequate financial resources enable libraries

to procure up-to-date information resources, invest in ICT infrastructure, and sponsor staff for skill-enhancement programs, all of which are indispensable for improving user experiences and institutional performance.

The findings corroborate Aregbesola and Olayinka (2020), who observed that library service quality in Nigerian higher institutions is closely tied to the consistency and adequacy of institutional funding. Inadequate funding often leads to obsolete resources, staff demotivation, and limited professional growth opportunities, thereby constraining libraries ability to provide innovative and technology-driven services. By contrast, when funding is stable, libraries can expand digital databases, improve internet bandwidth, and sustain user-education programs. The institutions examined in this study demonstrated that, even within modest financial constraints, targeted investments in staff development yielded measurable improvements in service efficiency. This reinforces the notion that strategic allocation of limited resources can still produce significant institutional benefits if directed toward capacity building and digital competence development.

Moreover, the study contributes to the ongoing discourse on the role of professional development in sustaining library innovation. Continuous staff training equips librarians with up-to-date knowledge in areas such as digital archiving, e-resource management, information retrieval systems, and user-experience design (Ekpenyong & Ezeani, 2023). The professionalisation of librarianship, particularly in the digital era, demands competencies that transcend traditional cataloguing and reference work. The emergence of e-libraries, digital repositories, and open-access platforms has redefined service expectations, making it imperative for librarians to acquire new technological, managerial, and pedagogical skills (Ifijeh & Onyancha, 2020). Respondents in this study noted that training workshops and seminars improved their ability to use e-library databases and assist users in navigating digital platforms, thereby increasing service responsiveness and user satisfaction.

This outcome resonates with the findings of Eze, Okojie, and Egunjobi (2021), who demonstrated that professional development initiatives directly enhance the efficiency of information service delivery in Nigerian academic libraries. Training not only strengthens staff competence but also enhances motivation, confidence, and professional identity. When librarians

perceive institutional commitment to their development, they exhibit higher engagement and performance levels, ultimately improving the library's overall productivity (Aina, 2022). The present study's findings also reflect OECD (2023) perspectives that lifelong learning is essential in maintaining workforce relevance amid rapid technological change. In the library context, continuous professional development enables adaptation to innovations such as artificial intelligence in information retrieval, cloud-based cataloguing, and digital literacy instruction.

However, the study also highlights persistent challenges that threaten the sustainability of these positive trends. Inadequate and inconsistent funding continues to undermine library development in Nigerian tertiary institutions. As Okon and Mbang (2022) note, most libraries depend heavily on subventions from their parent institutions, which are often insufficient to meet operational and developmental needs. This financial limitation hampers the ability to purchase current information resources, upgrade technological infrastructure, and sponsor staff for advanced training. The situation is further exacerbated by competing institutional priorities, bureaucratic delays, and a lack of strategic funding frameworks. Consequently, while staff training initiatives exist, their scope and frequency are often constrained by limited financial support.

The results also bring to light the importance of institutional policy in sustaining effective library operations. Institutional support is not limited to financial allocation but extends to strategic planning, leadership commitment, and policy frameworks that prioritise library development (Ajayi & Salawu, 2021). Libraries that operate under clear policies supporting regular training, performance evaluation, and innovation funding tend to demonstrate higher efficiency levels. The cases of Yaba College of Technology and the Federal College of Education (Technical), Akoka, exemplify this dynamic, as institutional encouragement fostered a culture of learning among librarians and information professionals. Nevertheless, the lack of national policy coherence across higher education institutions often results in uneven development among libraries, a gap that requires urgent attention through coordinated policy interventions by the National Universities Commission and the Librarians Registration Council of Nigeria.

Furthermore, this study aligns with global perspectives on digital inclusion and workforce development through libraries. Internationally, libraries are increasingly recognised as enablers of

digital empowerment and lifelong learning (IFLA, 2023; UNESCO, 2023). The integration of entrepreneurship, coding, and digital marketing programs into library services has expanded their role beyond information provision to socioeconomic empowerment. Nigerian libraries, however, still lag in this transformation due to infrastructural and financial constraints. EIFL (2023) highlights that consistent funding, policy backing, and capacity development are prerequisites for libraries to contribute meaningfully to national innovation systems. The experience from Uganda and Kenya, where libraries have successfully implemented digital skills programs with donor support, suggests that similar outcomes can be achieved in Nigeria through collaborative partnerships and grant-funded initiatives.

The study's findings also have theoretical implications. From a systems theory perspective, libraries operate as subsystems within educational institutions, and their efficiency depends on the availability of inputs, funding, staff competence, and infrastructure that sustain their outputs, knowledge dissemination and user satisfaction (Bertalanffy, 1968; revisited in Onwubiko, 2021). When inputs are inadequate or inconsistently maintained, systemic imbalance occurs, leading to poor service quality. Therefore, institutional funding and staff development represent essential inputs necessary for the stability and growth of the library system. Similarly, human capital theory underscores the argument that investment in people through training and education yields higher productivity and innovation (Becker, 1993; Aina, 2022). In this study, training served as a form of human capital investment that improved individual and institutional performance.

Moreover, the study demonstrates a practical correlation between institutional funding, professional competence, and user satisfaction. Respondents noted that improved digital literacy among librarians enhanced user engagement and reduced service delivery delays. This finding supports Popoola and Adebayo (2020), who found that users' perception of library quality improves when librarians demonstrate competence in digital resource management. In the current digital environment, users expect quick, seamless access to information, and only well-trained librarians can meet these expectations. Hence, institutions that fail to invest in regular staff development risk obsolescence and declining patronage.

This study reinforces the argument that sustainable library service delivery requires a dual focus on financial investment and human resource development. Funding enables the acquisition

of technological infrastructure and facilitates professional training, while skilled librarians transform these resources into quality services. To achieve a balance, institutional leadership must view the library not as an administrative appendage but as a strategic partner in academic excellence and innovation. Strengthening this partnership through proactive funding strategies, structured professional development programs, and policy support will ensure that academic libraries in Nigeria remain responsive to the demands of digital scholarship, research productivity, and community development.

Recommendations

Based on the findings, the study recommends that academic institutions must prioritise structured and sustainable investments in both funding and human capacity development to ensure long-term improvement in library service delivery. Institutional policies should explicitly allocate dedicated budgets for regular staff training, infrastructure upgrades, and digital resource development. Continuous professional development through seminars, workshops, short courses, and certifications should be institutionalised rather than treated as occasional activities. This will help librarians remain current with technological innovations, emerging service models, and global best practices in knowledge management. Such institutionalised training programs should also emphasise digital literacy, database management, artificial intelligence applications, and user-centred service design to prepare library personnel for the evolving demands of 21st-century information services.

Furthermore, institutions should enhance library infrastructure, including ICT facilities, internet connectivity, and electronic databases, to improve user experience and service quality. The establishment of technology-driven learning environments such as makerspaces, digital literacy labs, and e-learning support units can further enhance service responsiveness and relevance. To mitigate the challenge of limited institutional funding, libraries should explore alternative financial streams, including grants, endowments, alumni contributions, and public-private partnerships. Collaboration with professional associations, such as the Nigerian Library Association (NLA), and international organisations like IFLA and EIFL, can provide access to technical assistance, training resources, and funding opportunities that complement institutional

efforts.

Additionally, monitoring and evaluation frameworks should be established to assess the impact of funding and training on service quality regularly. Data from such evaluations can guide evidence-based decision-making and ensure accountability in the management of library resources. Finally, a culture of innovation and knowledge sharing should be fostered among library staff through peer-learning communities and interdisciplinary collaboration. By combining strategic funding, continuous professional growth, and infrastructural improvement, academic libraries in Nigeria can evolve into dynamic, efficient, and user-focused institutions that not only meet but exceed the expectations of their academic communities.

Conclusion

This study investigated the impact of institutional funding and staff training on service delivery in academic libraries in Yaba, Lagos, focusing specifically on Yaba College of Technology and the Federal College of Education (Technical), Akoka. The findings reveal that while institutional funding mechanisms have made some contributions to improving staff capacity, especially through the acquisition and use of electronic databases, the overall level of financial support remains insufficient for optimal performance. Despite persistent funding constraints, institutionally supported training programs have demonstrably enhanced the quality of service delivery. Many librarians and information professionals acknowledged that professional development opportunities, such as workshops, seminars, and database training, have strengthened their ability to meet user needs effectively. This outcome supports existing scholarship asserting that well-funded staff training initiatives are critical determinants of service efficiency and innovation within Nigerian academic libraries.

The study further concludes that the synergy between institutional funding and staff development is indispensable to achieving sustainable library excellence. Libraries that receive consistent funding are better equipped to organise continuous professional training and to adopt new technologies that improve operational efficiency. The cases of Yaba College of Technology and the Federal College of Education (Technical), Akoka, illustrate how even modest but well-targeted financial investments can yield tangible improvements in library service delivery.

Comparable patterns observed in institutions like the University of Lagos reinforce this link between funding, training, and service quality. Moreover, the study underscores that ongoing professional development enhances librarians adaptability to technological changes, information management challenges, and evolving user expectations. Ultimately, institutional support for staff training not only strengthens individual competencies but also contributes to institutional reputation, user satisfaction, and academic excellence. Therefore, strategic and sustained investments in staff capacity and infrastructure remain the cornerstone of effective, responsive, and innovative academic library services in Nigeria.

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