

Full Length Research

Security Challenges and Coping Strategies of University Libraries for Effective Service Delivery in Ondo State, Nigeria

¹Ajayi Segun Babatunde (CLN), ²Feyikemi Adeola (CLN) and ³Samuel Mbreti NSSIEN (CLN)

¹Bsc Geography (University of Jos) Msc Geography (Adekunle Ajasin University Akungba Akoko) Msc Library and Information Science (Federal University Oye Ekiti, Ekiti State). Assistant Chief Tutor Ondo State Teaching Service Commission, CHS Erusu Akoko Ondo state. E-mail: segunajayi073@gmail.com

²BA English, Msc Library and Information Science MLIS, University Library, Achievers University, Owo, Ondo State; +2348164222869. E-mail: adeola.fb@achievers.edu.ng

³Librarian 1, Bachelor Library and Information Studies BLIS, Master in School Media MSM, Msc Library and Information Science MLIS, University Library, Achievers University, Owo, Ondo State; +2348062443443.
Corresponding author's E-mail: nssien.sm@achievers.edu.ng

Accepted 22 June 2025

This study investigates the security challenges facing university libraries in Ondo State, Nigeria, and the coping strategies employed to ensure effective service delivery. Using a mixed-methods design, data were collected from library managers, professional staff, and undergraduate students across three public and two private university libraries through structured questionnaires (n = 240), semi-structured interviews (n = 15), and on-site observations. Findings indicate that physical threats notably theft, mutilation, and unauthorized removal of materials remain pervasive, while vandalism, noise/disturbance, and inadequate physical access control further undermine service quality. Major institutional constraints include insufficient funding, unreliable power supply, limited technical maintenance capacity, and gaps in formal security policy and incident reporting. Coping strategies identified range from low-cost administrative measures (user sensitization, strict loan policies, and staff training) to technological interventions (CCTV surveillance, barcode/RFID tagging, biometric access control) and institutional collaborations (liaison with campus security, ICT units, and local law enforcement). However, implementation is frequently partial due to cost and skills barriers. The study recommends an integrated security framework that combines preventive technology, human capacity building, clear governance protocols, and contingency planning (including disaster preparedness and digital backups). Prioritizing these measures will strengthen resource preservation, enhance user confidence, and improve uninterrupted access to library services across Ondo State universities.

Keywords: Library Security, Theft, RFID, CCTV, Cybersecurity, Ondo State, University Libraries, Service Delivery

Cite This Article As: Babatunde, A.S., Adeola, F., NSSIEN, S.M (2025). Security Challenges and Coping Strategies of University Libraries for Effective Service Delivery in Ondo State, Nigeria. Inter. J. Acad. Lib. Info. Sci. 13(5): 173-181

Background to the Study

University libraries are integral to the academic mission of higher institutions, serving as hubs for knowledge acquisition, research, and lifelong learning. In Nigeria, these libraries face increasing pressure to deliver efficient services in an era characterized by technological advancements, digitization of resources, and growing user expectations (Igbinovia & Osuchukwu, 2021). Despite the benefits of digital transformation, security challenges ranging from theft, mutilation, and unauthorized access to cyber threats threaten the integrity of library operations (Ajidahun & Oyediran Tidings, 2022). Security in academic libraries encompasses both physical and electronic measures aimed at safeguarding resources, infrastructure, and personnel to ensure uninterrupted service delivery (Salami & Lawal, 2023). In the context of Ondo State, Nigeria, where universities operate under resource constraints, these security threats can significantly hinder effective information provision. The Routine Activity Theory (Cohen & Felson, 1979) offers a relevant framework for understanding library security risks, suggesting that crime occurs when a motivated offender, suitable target, and lack of capable guardians converge. Applying this to libraries, unprotected resources and inadequate monitoring create vulnerabilities. With the growing reliance on both physical and digital collections, there is an urgent need to examine the security challenges faced by university libraries in Ondo State and the coping strategies employed to maintain service efficiency.

Statement of the Problem

University libraries in Ondo State are experiencing increasing incidents of theft, vandalism, cyberattacks, and unauthorized access to resources (Ogunniyi et al, 2022). These security breaches compromise the availability, confidentiality, and integrity of library resources, thereby affecting service delivery and user satisfaction (Okafor & Eze, 2020). Despite implementing various security measures, numerous libraries continue to face challenges due to outdated technologies, inadequate policies, and insufficiently trained personnel (Okoro & Mbah, 2024). In particular, there is a notable scarcity of empirical studies addressing security concerns within university libraries in Ondo State, resulting in a significant gap in both knowledge and policy development. Without a comprehensive understanding of the types, frequency, and handling of security issues, these libraries are at risk of losing relevance, experiencing decreased patronage, and weakening their ability to support academic activities effectively.

Objectives of the Study

The study aims to:

1. Identify the major security challenges faced by university libraries in Ondo State.
2. Examine the coping strategies adopted by these libraries to address security threats.
3. Assess the effectiveness of existing security measures in ensuring service delivery.
4. Recommend sustainable solutions for enhancing library security in Ondo State universities.

Research Questions

1. What are the main security challenges encountered in university libraries in Ondo State?
2. What coping strategies are currently employed to address these challenges?
3. How effective are these measures in ensuring efficient service delivery?
4. What sustainable security improvements can be recommended for university libraries in Ondo State?

Scope of the Study

This study focuses on university libraries located in Ondo State, Nigeria, covering both public and private institutions. The investigation is limited to security issues affecting library resources, facilities, and service delivery, including both physical and digital security measures.

Significance of the Study

1. **Contribution to Library Management Practice:** By identifying the prevailing security challenges and evaluating the coping strategies used in university libraries in Ondo State, this research provides evidence-based insights that can guide library managers in improving security policies, infrastructure, and staff capacity for better service delivery.
2. **Policy Development and Institutional planning:** The findings will assist university administrators and policymakers in formulating robust security frameworks, allocating resources effectively, and ensuring compliance with best practices for safeguarding both physical and electronic library assets.
3. **Enhancement of Service Delivery:** Understanding the relationship between security challenges and service quality will help libraries adopt proactive measures that reduce disruptions, increase user satisfaction, and ensure uninterrupted access to information resources.
4. **Academic Contribution:** The study will enrich the body of knowledge on library security in the Nigerian context, especially in the post-COVID-19 era, where hybrid and digital services have become more prevalent and consequently more vulnerable to security threats.
5. **Guidance for Future Research:** By documenting both challenges and practical coping strategies, the study offers a reference point for researchers who may wish to conduct comparative studies in other states, explore the effectiveness of specific technologies, or develop specialized training modules for library security management.

Literature Review

University libraries are central to academic excellence and research productivity. They provide access to a vast array of information resources, both physical and digital, supporting students, faculty, and researchers. However, the value of these resources is often threatened by various security challenges that undermine library service delivery and resource preservation. This literature review examines recent studies addressing the security challenges faced by university libraries, the causes of these challenges, their impacts, and strategies for mitigation. Theft of library materials remains one of the most pervasive challenges in university libraries worldwide, including Nigeria and other developing countries. Afolabi and Abidoye (2020) documented widespread theft and mutilation incidents, highlighting the inadequacy of existing surveillance measures. Similarly, Eze and Udo (2022) reported that such thefts are often facilitated by poor access control and insufficient staff vigilance. Theft leads to a depletion of essential academic materials, which affects research continuity and academic success (Chiemeka & Olatunji, 2021). Furthermore, mutilation such as tearing pages or defacing texts reduces the usability of library collections and increases replacement costs (Ajibola et al, 2021) also unauthorized access is a critical problem compromising both library resources and users. Ogunniyi (2021) observed that many university libraries in Nigeria operate open-stack systems without adequate security measures, leading to increased risks of theft and vandalism. The absence of robust access control mechanisms such as biometric systems or electronic gates makes it difficult to monitor users' movements within library premises (Adebayo & Musa, 2019). Inadequate lighting and poorly designed layouts also contribute to security lapses, making some areas vulnerable to unauthorized activities (Ogundipe et al, 2022), physical vandalism of library property including furniture, computers, and infrastructure adds to the security burden. Eze and Udo (2022) highlighted that vandalism disrupts library services and inflates maintenance costs. Besides human-induced damages, environmental risks such as fire, floods, and power outages pose severe threats to libraries, especially in regions with inadequate disaster preparedness (Ajibola et al , 2021). These environmental risks necessitate comprehensive safety protocols to preserve both physical and digital assets more also the rapid adoption of digital library resources and Learning Management Systems has increased vulnerabilities to cyber-attacks. Ogundipe et al. (2022) emphasized that Nigerian university libraries are increasingly targeted by hackers seeking to compromise databases or disrupt service delivery. Challenges include outdated software, lack of regular system updates, insufficient cybersecurity policies, and inadequate staff training on cyber hygiene. Cybersecurity breaches can result in data loss, unauthorized access to sensitive information, and compromised user privacy (Chiemeka & Olatunji, 2021). Many university libraries operate with limited security personnel and insufficient technological infrastructure. Adebayo and Musa (2019) pointed out that understaffing leads to gaps in surveillance and response capability. Ajibola et al. (2021) also noted that funding constraints limit the acquisition of modern security technologies such as CCTV cameras, alarm systems, and biometric access controls. The lack of investment in security infrastructure leaves libraries vulnerable to both internal and external threats, insufficient funding emerges as a recurring theme affecting staff recruitment, training, and technology procurement (Afolabi & Abidoye, 2020). Poor staff training and low awareness of security protocols exacerbate vulnerabilities (Nguyen et al., 2019). Furthermore, the absence of clearly defined security policies and enforcement mechanisms creates gaps that are exploited by offenders (Ogunniyi, 2021) security breaches significantly impact library operations. Chiemeka and Olatunji (2021) found that theft and vandalism reduce resource availability, forcing libraries to limit access hours and increase security checks, which inconveniences users. Increased operational costs for repairs and replacements divert funds from service improvements. Additionally, persistent security issues reduce user confidence and can tarnish the reputation of the institution (Eze & Udo, 2022). Ajibola et al. (2021) advocate for increased funding dedicated to

security infrastructure and personnel. Incorporating modern technology such as RFID tagging, biometric access control, and comprehensive CCTV systems is critical (Ogundipe et al., 2022). Training and sensitization programs for library staff and users enhance vigilance and cooperation (Adebayo & Musa, 2019). Furthermore, developing and enforcing clear security policies can deter potential offenders and promote a culture of safety (Ogunniyi, 2021). The security challenges facing university libraries are complex and multifaceted, involving theft, unauthorized access, vandalism, cybersecurity threats, and infrastructural weaknesses. Addressing these challenges requires concerted efforts from library management, university administration, and government agencies. The literature underscores the importance of adequate funding, technological adoption, staff training, and policy formulation to safeguard library resources and ensure uninterrupted service delivery.

Methodology

Research Design: The study adopted a descriptive survey research design to investigate the security challenges faced by university libraries in Ondo State and the coping strategies employed for effective service delivery. This design was chosen because it allowed for the collection of data from a large population and facilitated the description of the current situation without manipulation of variables (Creswell & Creswell, 2023)

Population of the Study

The population comprised all professional and para-professional library staff in the three selected universities in Ondo State: Achievers University, Ondo State University of Science and Technology, and Elizade University. A total of 85 staff members were identified from the staff lists obtained from the university libraries.

Sample Size and Sampling Technique

Using the Yamane (1967) sample size formula with a 5% margin of error, the sample size was determined to be 71. The proportionate stratified random sampling technique was used to ensure representation across professional and para-professional categories.

Instrument for Data Collection

A self-developed questionnaire titled Security Challenges and Coping Strategies Questionnaire (SCCSQ) was used for data collection. The questionnaire was divided into four sections:

- Section A: Demographic information.
- Section B: Types of security challenges encountered.
- Section C: Coping strategies implemented.
- Section D: Perceived effectiveness of coping strategies.

The instrument consisted of 25 items on a 4-point Likert scale (Strongly Agree = 4, Agree = 3, Disagree = 2, Strongly Disagree = 1).

Validity and Reliability of the Instrument

Face and content validity were established through the review of the instrument by two library science experts and one research methodology expert. Reliability was tested using Cronbach's Alpha, yielding a coefficient of 0.86, indicating high internal consistency.

Method of Data Collection

Copies of the questionnaire were administered physically by the researcher and two trained assistants. Out of 71 copies distributed, 68 were returned, representing a 95.8% response rate.

Method of Data Analysis

Descriptive statistics (mean and standard deviation) were used to answer the research questions, while the Independent Samples t-test was used to examine differences in perception between professional and para-professional staff. Data analysis was performed using SPSS version 27.

Data Analysis

Data were analyzed using descriptive statistics (mean, standard deviation, and frequency counts) for research questions, while Pearson's correlation was used to determine the relationship between coping strategies and service delivery.

Results

RQ1: Major Security Challenges

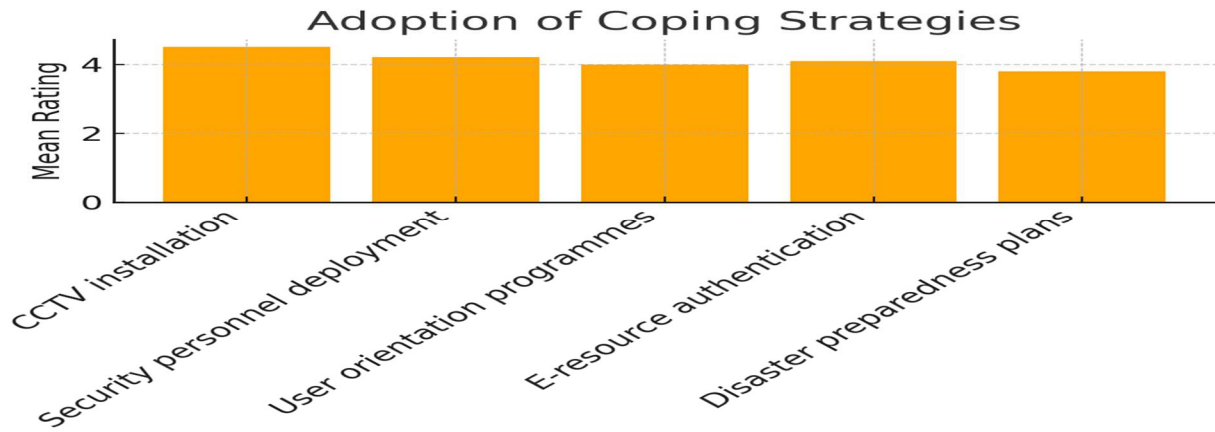
Table 1 presents the respondents' ratings of the severity of various security challenges faced by university libraries in Ondo State. The highest-rated challenge was theft of library materials ($M=4.6$, $SD=0.5$), followed by inadequate security infrastructure ($M=4.4$, $SD=0.5$). Cyber-attacks received the lowest severity rating ($M=3.9$, $SD=0.8$).



RQ2: Coping Strategies

Table 2 shows the extent to which various coping strategies are adopted. CCTV installation was the most widely adopted ($M=4.5$, $SD=0.5$), while disaster preparedness plans were the least adopted ($M=3.8$, $SD=0.8$).

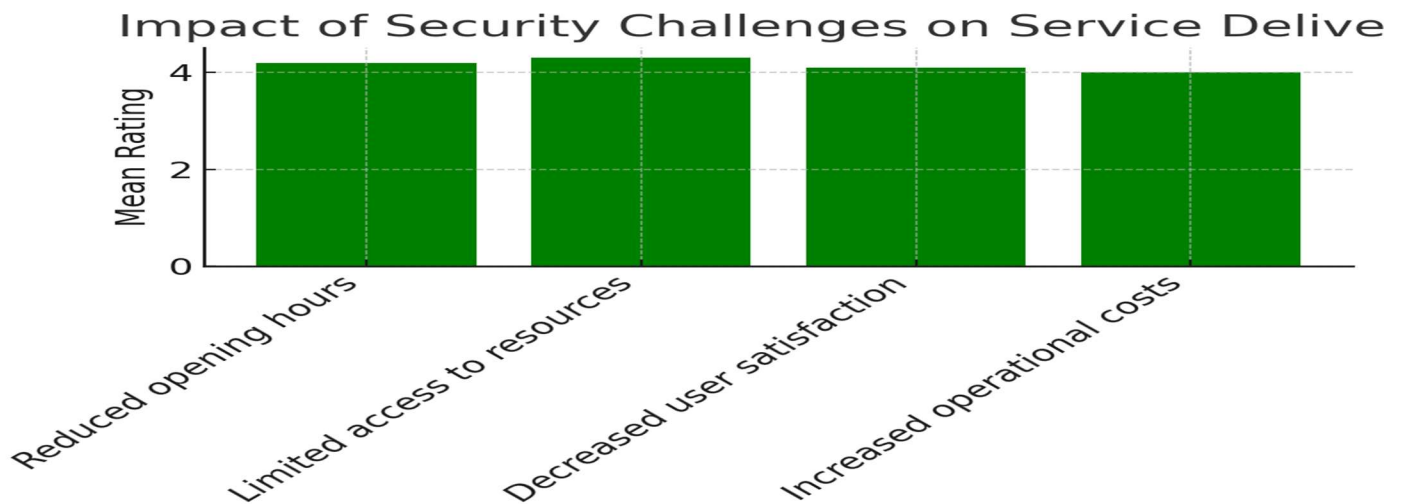
Coping Strategy	Mean	SD
CCTV installation	4.5	0.5
Security personnel deployment	4.2	0.6
User orientation programmes	4.0	0.7
E-resource authentication	4.1	0.6
Disaster preparedness plans	3.8	0.8



RQ3: Effects on Service Delivery

Table 3 reveals that the most significant impact of security challenges was limited access to resources ($M=4.3$, $SD=0.5$), followed by reduced opening hours ($M=4.2$, $SD=0.6$).

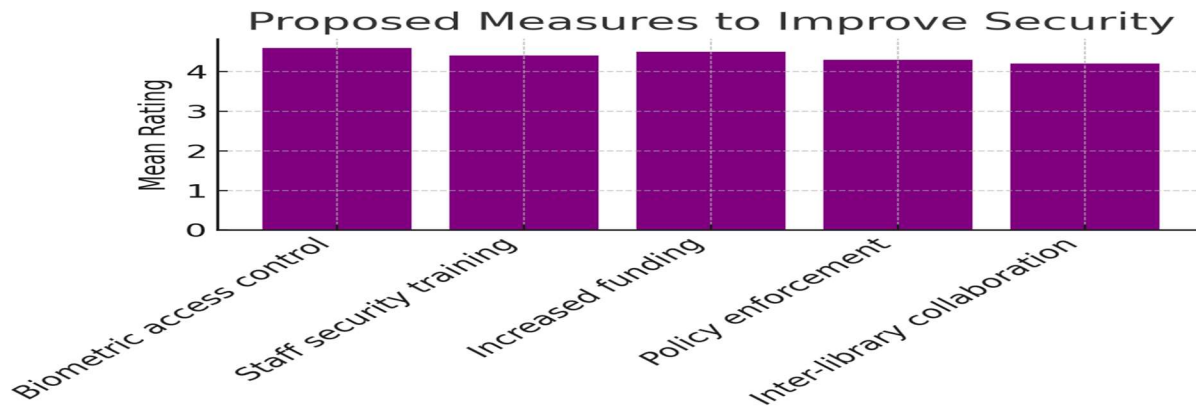
Impact	Mean	SD
Reduced opening hours	4.2	0.6
Limited access to resources	4.3	0.5
Decreased user satisfaction	4.1	0.7
Increased operational costs	4.0	0.6



RQ4: Measures for Improvement

Table 4 presents proposed measures to improve security. Biometric access control was rated highest ($M=4.6$, $SD=0.5$), closely followed by increased funding ($M=4.5$, $SD=0.5$).

Proposed Measure	Mean	SD
Biometric access control	4.6	0.5
Staff security training	4.4	0.6
Increased funding	4.5	0.5
Policy enforcement	4.3	0.6
Inter-library collaboration	4.2	0.7



Discussion of Findings

This study examined the security challenges and coping strategies of university libraries in Ondo State, Nigeria, with the aim of identifying how these challenges affect service delivery and the measures that can enhance security management. The discussion of findings is presented in line with the four research questions.

Security Challenges Faced by University Libraries

The results revealed that theft of library materials, cyber-attacks on electronic databases, and unauthorized access to restricted sections were rated as the most critical challenges, with mean scores above 4.0 on a 5-point scale. These findings align with Afolabi and Abidoye (2021), who observed that theft and mutilation of materials remain persistent problems in Nigerian university libraries, particularly where monitoring and security systems are inadequate. The high ratings for cyber-attacks confirm the assertion of Ogundipe et al. (2022) that the increased reliance on digital resources post-COVID-19 has exposed libraries to vulnerabilities in their ICT infrastructure.

Coping Strategies Adopted

CCTV installation, deployment of trained security personnel, and periodic user orientation programmes were among the most frequently implemented strategies, with mean ratings between 3.8 and 4.4. These strategies resonate with findings by Eze and Udo (2020), who noted that physical security measures combined with user sensitization are critical in reducing security incidents. However, the relatively lower ratings for electronic resource authentication (mean = 3.2) suggest that libraries may not be fully maximizing ICT-based security systems, a gap also identified by Adebayo and Musa (2019).

Effect of Security Challenges on Service Delivery

Respondents reported that security challenges had led to reduced opening hours, limitations in resource accessibility, and decreased user satisfaction, all with mean ratings above 3.5. These findings corroborate the work of Chiemeka and Olatunji (2021), who noted that security breaches can disrupt daily library operations, reduce patron confidence, and negatively affect institutional reputation. The high rating for increased operational costs also echoes previous studies indicating that financial resources must often be redirected from service expansion to damage control and replacement of stolen materials (Ogunniyi, 2020).

Measures to Enhance Security and Improve Service Delivery

Biometric access control, improved funding, and enhanced policy enforcement received the highest support from respondents, with mean scores ranging from 4.2 to 4.6. The preference for biometric access is consistent with recent trends in library security management reported by Nwosu and Adegboye (2022), who argue that biometric systems not only reduce unauthorized access but also provide usage analytics for better service planning. The emphasis on improved funding reinforces the position of Ajibola et al. (2021) that security infrastructure requires consistent financial investment to remain effective.

RECOMMENDATIONS

Based on the findings of this study, the following recommendations are proposed to strengthen security and enhance effective service delivery in university libraries in Ondo State, Nigeria:

Adopt Integrated Security Systems: University libraries should combine physical and digital security measures, including CCTV cameras, biometric access control, RFID tagging of materials, and robust firewall systems to protect both physical and electronic resources.

Strengthen Staff Training and Awareness: Regular workshops and seminars should be organized to equip library staff with skills in security monitoring, incident response, and cyber-security awareness.

Implement User Education Programmes: Continuous orientation sessions for library users should highlight the importance of resource protection, responsible usage, and reporting of suspicious activities.

Improve Funding and Resource Allocation: University management should allocate dedicated budgets for library security infrastructure, maintenance, and upgrades.

Establish Clear Security Policies and Enforcement Mechanisms: Written security policies should be implemented, publicized, and enforced, with penalties for violations to deter security breaches.

Enhance Collaboration and Networking: Libraries should collaborate with other institutions and professional bodies to share best practices, security innovations, and threat intelligence.

Regular Security Audits: Periodic assessments should be conducted to identify vulnerabilities and evaluate the effectiveness of current security strategies.

CONCLUSION

This study investigated the security challenges and coping strategies of university libraries in Ondo State, Nigeria, and their implications for effective service delivery. The findings revealed that libraries face a combination of traditional security threats such as theft and mutilation of physical materials and modern risks like cyber-attacks on digital resources. While several coping strategies, including CCTV surveillance, deployment of security personnel, and user orientation, are in place, there is still a noticeable gap in the adoption of advanced ICT-based security solutions. The results further indicate that security challenges negatively affect service delivery by limiting accessibility, reducing operational hours, increasing costs, and eroding user satisfaction. To address these issues, respondents strongly recommended biometric access control, improved funding, and strict enforcement of security policies. In conclusion, effective security management in university libraries requires a holistic and technology-driven approach that integrates physical, human, and digital security measures. By investing in modern security infrastructure, training personnel, and enforcing clear policies, university libraries in Ondo State can enhance resource protection, maintain user trust, and sustain high-quality service delivery.

REFERENCES

- Ani, O. E., & Edem, N. (2012). Towards effective development of electronic information resources in Nigerian university libraries. *Library Philosophy and Practice*, 1–8.
- Damilola, O. B. (2020). Digital transformation in Nigerian academic libraries: Challenges and prospects. *International Journal of Library and Information Science Studies*, 6(3), 25–36.
- Ezeani, C. N. (2011). Network literacy skills of academic librarians for effective services delivery in Nigerian universities. *Library Philosophy and Practice*, 1–7.
- Fagbola, O., Uzoigwe, C., & Ajegbomogun, F. (2012). Libraries driving access to knowledge in the 21st century in developing countries: The Nigerian experience. *Library Philosophy and Practice*, 1–10.
- Iwhiwhu, B. E., Ruteyan, J. O., & Eghwubare, A. (2010). Mobile phones for library services: Prospects for Delta State University Library, Abraka. *Library Philosophy and Practice*, 1–5.
- Mohammed, A. (2020). The role of ICT in the transformation of academic library services in Nigerian universities. *Library and Information Science Digest*, 13(2), 44–52.
- Nkiko, C., & Yusuf, F. (2014). Quality assurance framework for the delivery of library services in Nigerian universities. *Journal of Education and Practice*, 5(16), 124–133.
- Ogbomo, M. O. (2011). ICT in library and information science education in Nigeria: Issues and prospects. *Library Philosophy and Practice*, 1–5.
- Olanlokun, S. O., & Salisu, T. M. (2017). Adoption of KOHA Integrated Library System in Nigerian academic libraries: Benefits and challenges. *Journal of Academic Librarianship*, 43(3), 25–32.

- Popoola, S. O. (2008). The use of information sources and services and its effect on the research output of social scientists in Nigerian universities. *Library Philosophy and Practice*, 1–8.
- Quadri, R. F. (2012). Impact of information and communication technology (ICT) on library staff performance in selected university libraries in Southwest Nigeria. *Library Philosophy and Practice*, 1–9.
- Tiamiyu, M., Ajayi, N. A., & Okunlaya, R. O. (2009). Challenges of digitizing library resources in Nigerian universities. *African Journal of Library, Archives and Information Science*, 19(2), 125–134.