



ISSN: 3007-8903

<https://doi.org/10.59568/JASIC-2026-7-1-08>

The challenges of conservation and preservation of serial collections in university libraries in Nigeria: the case of some selected university libraries in Nigeria

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Abstract

This study investigated the challenges of conservation and preservation of serial collections in university libraries in Nigeria. The study adopted four objectives and corresponding four research questions which guided the study. Literature was reviewed according to the variables under study. Using a descriptive survey design, data was collected from 65 library staff randomly drawn across five university libraries: University of Cross River State, University of Lagos, University of Calabar, University of Uyo, and University of Abuja. The findings revealed that inadequate funding, poor infrastructure, lack of preservation policies, insufficient staff training, and limited digitization initiatives were the major challenges facing serials preservation. Results indicated that 92.3% of respondents identified inadequate funding as the key constraint, while 87.7% cited poor infrastructure. The study further found that 80% of libraries lacked preservation policies, and 60% of staff had no formal training in preservation practices. Based on the findings, it was recommended that improved funding, development of institutional preservation policies, staff training in modern preservation techniques, and investment in digitization facilities to ensure long-term accessibility and sustainability of serial collections.

Keywords: Serial collections, Conservation, Preservation, University Libraries, preservation practices, serial management, Nigeria

1. Introduction

Serials collections such as journals, magazines, newspapers, and annual reports etc constitute an indispensable component of academic library collections. They serve as the primary medium for disseminating current research findings, professional opinions, and policy developments in various disciplines. In academic libraries, serials are

Particularly vital because they support teaching, learning, and research of academic programs of every institution. They provide up-to-date information that supplements

textbooks and other reference materials (Kemi, 2023). Unlike monographs, serials are continuous publications issued at regular intervals, making their management and preservation more complex and demands care and attention. However, despite their importance, serials are among the most fragile materials in the library due to their frequent handling, low-quality paper, and exposure to environmental factors such as light, humidity, and dust and sometimes rain (Mesagan, 2024).

In Nigeria, university libraries play a crucial role in supporting national development

through the provision of timely and relevant information resources. Yet, the challenges associated with the conservation and preservation of serials have become increasingly evident. Many Nigerian university libraries are confronted with issues of inadequate funding, poor infrastructure, insufficient preservation policies, and lack of skilled personnel (Obaidjevwe, 2023). These challenges often result in the physical deterioration of serial materials, rendering them inaccessible to users and threatening their long-term preservation. For instance, in several university libraries, serials are kept in poorly ventilated rooms, exposed to dust, pests, and fluctuating temperatures, all of which accelerate their deterioration (Odunola, 2024). The fragile nature of serials requires constant attention through proper storage, binding, and digitization. However, these preservation measures demand financial resources, technical expertise, and institutional commitment, which are often lacking in Nigerian universities. According to Ezema (2024), inadequate budgetary allocation for library services has limited the implementation of preventive conservation measures such as environmental monitoring, fumigation, and periodic repairs. Furthermore, many libraries do not have written preservation policies that guide staff on how to handle, store, and maintain serial collections. As a result, preservation activities tend to be reactive rather than preventive, addressing deterioration only after it has occurred.

Technological developments have also introduced new dimensions to the conservation and preservation of serials. Digitization and the development of institutional repositories provide opportunities for extending the lifespan and accessibility of serial materials. However, these initiatives remain underdeveloped in most Nigerian universities due to limited ICT infrastructure, poor internet connectivity, and lack of trained personnel to manage digital preservation systems (Dare & Ikegune, 2022). In addition, copyright and licensing restrictions often hinder the digitization of

certain serials, especially foreign publications, further complicating access and preservation efforts. The increasing demand for serials by students, researchers, and faculty members also contributes to their deterioration. Frequent handling, coupled with inadequate circulation control systems, results in torn pages, missing issues, and general wear and tear (Obaidjevwe, 2023). The absence of binding and proper shelving practices further aggravates these problems, making it difficult to maintain efficient management of serial collections. Consequently, many university libraries in Nigeria struggle to keep their serials collections intact and up-to-date, affecting the quality of academic output and institutional reputation.

The conservation and preservation of serials in Nigerian university libraries therefore present a significant challenge that demands urgent attention. Without effective preservation strategies, valuable scholarly information contained in these materials could be lost permanently. This study, therefore, seeks to examine the challenges of conservation and preservation of serials in university libraries in Nigeria, identify the factors responsible for these challenges, and suggest practical measures for improving the management of serial resources for sustainable access and use.

1.1 Statement of the Problem

Despite the crucial role serial resources play in supporting academic research, teaching, and learning, university libraries in Nigeria faces serious challenges in conserving and preserving these materials. Many serials collections are deteriorating rapidly due to poor handling, inadequate storage conditions, and lack of preservation infrastructure. Most Nigerian universities operate under limited budgets, making it difficult to fund binding, repair, fumigation, and digitization programs necessary for long-term preservation (Mesagan, 2024). In addition, many library buildings are poorly designed, with inadequate ventilation, leaking roofs, and lack of environmental controls, which exposes serial collections to moisture, dust,

and pests that causes deterioration (Odunola, 2024). The cumulative effect of these problems is the gradual decline in the quality and availability of serials in Nigerian university libraries. Researchers and students are consequently deprived of access to current and historical academic resources, leading to reduced research productivity and limited scholarly visibility. It is against this backdrop that the present study seeks to investigate the major challenges confronting the conservation and preservation of serials in Nigerian university libraries and to propose practical solutions for sustainable preservation practices.

1.2 Purpose of the study

The main purpose of this study is to investigate the challenges of conservation and preservation of serials in university libraries in Nigeria. The specific purposes are;

1. Identify the major factors affecting the conservation and preservation of serials in Nigerian university libraries.
2. Examine the level of availability and adequacy of preservation facilities and infrastructure for serials management in university libraries.
3. Assess the level of staff awareness, training, and competence in conservation and preservation practices for serial materials.
4. Propose practical strategies and recommendations for improving the conservation and preservation of serials in Nigerian university libraries.

1.3 Research Questions

To guide the study, the following research questions are formulated:

1. What are the major factors affecting the conservation and preservation of serials in university libraries in Nigeria?
2. To what extent are preservation facilities and infrastructure available and adequate for serials management in Nigerian university libraries?
3. What is the level of staff awareness, training, and competence in conservation and preservation practices of serial materials?
4. What practical strategies can be adopted to enhance the conservation and

preservation of serials in university libraries in Nigeria?

2. Literature Review

Serials are continuing publications issued in successive parts, usually bearing numerical or chronological designations, and intended to continue indefinitely. Examples include academic journals, magazines, bulletins, newsletters, newspapers, and annual reports. They differ from monographs because of their periodicity and ongoing nature, which makes them indispensable for academic communication and research (Kemi, 2023). Serials are vital sources of current information for students, lecturers, and researchers who rely on them for up-to-date findings, reviews, and professional discourse. However, because serials are printed on lightweight, acidic paper and handled frequently, they are prone to rapid deterioration if not adequately conserved (Mesagan, 2024). Preservation of serials involves a set of managerial, financial, and technical activities aimed at ensuring that these materials remain accessible and usable for as long as possible. This process includes proper shelving, binding, fumigation, temperature and humidity control, as well as the use of digital technologies to prevent loss or damage (Obaidjevwe, 2023). In the Nigerian context, preservation is particularly challenging because of tropical climatic conditions, irregular power supply, and the high cost of preservation materials. Many university libraries lack functional preservation policies and designated preservation officers, leaving serials vulnerable to damage. Odunola (2024) observed that in most Nigerian university libraries, serials are stored in cramped, poorly ventilated spaces where they are exposed to dust, humidity, and pests. This situation underscores the urgent need for systematic preservation practices and adequate infrastructure.

Serials occupy a central role in the academic mission of university libraries. They serve as primary channels through which scholarly

research findings are disseminated and accessed. Academic staff depend on serials for the latest developments in their fields, while students use them to support coursework, assignments, and thesis writing (Dare & Ikegune, 2022). The importance of serials lies in their currency and continuity—they bridge the gap between old and new knowledge, making them indispensable to research and learning. According to Kemi (2023), the availability and preservation of serials determine the quality of academic output in universities. However, when serials deteriorate or are lost, the intellectual continuity of disciplines is disrupted. Researchers are unable to trace historical progress in their fields, and teaching materials become outdated. Ezema (2024) emphasized that poor preservation of serials affects institutional reputation, as incomplete or damaged journal runs reduce access to critical knowledge and hinder the development of institutional repositories. In Nigeria, where universities are striving for international visibility and higher global rankings, the loss of serials collections poses a serious challenge to the sustainability of academic excellence.

Funding remains the most significant challenge in the conservation and preservation of serials in Nigerian university libraries. Many libraries operate with minimal budgets that can barely cover acquisitions, let alone specialized preservation activities. According to Mesagan (2024), inadequate funding affects all aspects of preservation, including the purchase of preservation materials, maintenance of environmental control systems, and training of staff in conservation techniques. Without consistent funding, libraries tend to adopt reactive approaches—repairing or replacing damaged materials—rather than preventive strategies such as periodic fumigation, binding, and humidity monitoring. Obaidjevwe (2023) reported that in many federal university libraries, funds for preservation are often subsumed under general library maintenance, leaving little or no allocation for serial conservation. The

consequence is that preservation activities are either irregular or completely neglected. Furthermore, donations and internally generated revenue are insufficient to meet preservation needs. This financial limitation has led to the neglect of older serials, which continue to deteriorate, and hampers digitization projects that could have provided electronic access to valuable serial content. Odunola (2024) observed that even libraries with well-developed preservation plans are unable to implement them due to lack of funds, which perpetuates a cycle of deterioration and loss.

The condition of physical infrastructure is another major determinant of the state of serial preservation in Nigerian university libraries. Many libraries operate in old buildings not originally designed for modern information services. Poor ventilation, leaky roofs, and inadequate shelving systems expose serials to environmental hazards such as heat, dust, humidity, and insect infestation. Mesagan (2024) found that most library buildings lack air-conditioning systems, thermostats, and humidity regulators, which are necessary to maintain stable environmental conditions for serials. In tropical climates like Nigeria's, fluctuations in temperature and relative humidity accelerate paper decay and fungal growth. Odunola (2024) noted that inadequate environmental control systems and poor housekeeping practices contribute to the rapid deterioration of serials. In some cases, serials are stored near open windows or directly under ceiling fans, exposing them to sunlight and dust. Similarly, poor lighting systems make it difficult to detect early signs of deterioration such as mold, pest activity, or discoloration. These physical conditions are compounded by inadequate space; as serials accumulate, they are often stacked on the floor or crowded on shelves, which increases physical stress and damage. The absence of proper storage furniture and pest management further weakens preservation efforts.

The effectiveness of any preservation programme largely depends on the competence and dedication of the personnel

involved. In Nigerian university libraries, staff shortage and lack of professional training in preservation techniques have been identified as major obstacles (Obaidjevwe, 2023). Preservation requires both technical and managerial skills—knowledge of paper chemistry, environmental monitoring, binding, disaster management, and digital preservation. However, many library staff members have little or no formal training in these areas. Kemi (2023) observed that preservation activities are often carried out by library assistants who learn through experience rather than formal instruction, resulting in inconsistent practices and occasional damage to materials. Human attitudes also influence preservation outcomes. Where staff perceive preservation as a secondary responsibility, routine care and preventive measures are often neglected. Furthermore, the lack of incentives and recognition for preservation work discourages commitment. Mesagan (2024) stressed that without continuous professional development and clear job descriptions, library staff may not appreciate the long-term importance of conservation activities. Therefore, the human element—skills, motivation, and awareness—plays a crucial role in sustaining serial preservation in university libraries.

The presence of a well-defined preservation policy is essential for guiding decisions about conservation, binding, weeding, and disaster management. Unfortunately, most Nigerian university libraries operate without written preservation policies or plans. According to Dare and Ikegune (2022), libraries tend to respond to preservation problems only when damage occurs, rather than preventing deterioration through structured planning. Obaidjevwe (2023) emphasized that preservation activities should be guided by institutional policies that specify responsibilities, schedules, and budgetary requirements. The absence of such policies leads to inconsistent practices within and across libraries. For instance, some libraries bind serials annually, while others do so only when funds are available. Similarly,

procedures for cleaning, fumigation, and environmental monitoring vary widely. Odunola (2024) argued that without a national framework for preservation, university libraries will continue to face challenges in maintaining serial collections. The development and enforcement of institutional preservation policies, supported by adequate funding and training, are therefore essential for long-term sustainability.

Digitization has been widely recognized as a viable solution to many of the challenges facing the preservation of serials. By converting physical materials into electronic formats, libraries can reduce handling of originals and ensure wider access. However, the implementation of digitization projects in Nigerian university libraries remains limited. Ezema (2024) observed that while several universities have initiated institutional repositories and e-archive projects, most of these efforts are still at pilot stages due to lack of funds, poor power supply, and inadequate ICT infrastructure. Another issue is the lack of expertise in metadata creation, digital storage management, and software maintenance. Digitization requires technical know-how and continuous monitoring to ensure data integrity. In addition, copyright and licensing restrictions make it difficult to digitize certain serials, especially foreign publications. Mesagan (2024) reported that many libraries struggle to sustain digitization initiatives once initial funding ends, leading to obsolete systems and inaccessible files. Despite these challenges, digitization remains one of the most promising avenues for long-term serial preservation if properly planned, funded, and managed.

Serials are among the most frequently used library materials, and their constant handling by students and researchers leads to rapid wear and tear. Kemi (2023) observed that serials in open-access collections often suffer from mutilation, missing pages, and loss of complete volumes. This is exacerbated by poor circulation control systems and insufficient security measures. Obaidjevwe (2023) noted that some libraries allow

unrestricted access to current serials without proper supervision, leading to physical damage and loss. Adeniran (2022) emphasized that high user demand requires the implementation of controlled access systems, such as issuing photocopies or digital versions to minimize handling of originals. Binding of serials after each volume or year can also reduce wear and improve organization. The introduction of digital databases and electronic journals in some Nigerian universities has helped to reduce pressure on physical serials, but poor ICT infrastructure still limits access in many cases.

3. Methodology

This study adopts a descriptive survey research design. The descriptive survey design is appropriate because it allows the researcher to collect data from a representative sample of respondents to describe and analyze the current conditions, practices, and challenges related to the

conservation and preservation of serials in Nigerian university libraries. It also enables the researcher to gather opinions, attitudes, and experiences of library staff and administrators on preservation issues without manipulating any variables. The population of the study comprises all professional and paraprofessional library staff working in five university libraries in Nigeria; University of Cross River State 25, University of Lagos 30, University of Calabar 30, University of Uyo 25, and University of Abuja 30 making it a total of 140 librarians. Hence the total population of the study is 140. Simple random sampling technique was used to draw the sample of this study. 65 respondents were randomly selected as sample. The sample of this study consists of sixty five (65) librarians representing 45% of the total study population. A structured questionnaire instrument was developed by the researchers to collect data from the respondents. The collected data was analysed using simple percentages.

Results and Discussions

Table 1: Distribution of Respondents by University

University	No. of Respondents	Percentage (%)
University of Cross River State	10	15.4
University of Lagos	15	23.1
University of Calabar	15	23.1
University of Uyo	10	15.4
University of Abuja	15	23.1
Total	65	100

Table 1 Shows that 65 respondents participated across the five selected universities, with Lagos, Calabar, and Abuja each contributing 23.1% of the total sample. While UNICROSS and UNIUYO had 15.4% each.

Research question 1: What are the major factors affecting the conservation and preservation of serials in university libraries in Nigeria?

Table 2: Simple percentage analysis of librarians response to the major factors affecting conservation and preservation of serial collections.

Factors	Respondents (n)	Percentage (%)
Inadequate funding	60	92.3
Poor infrastructure	57	87.7
Inadequate/skilled human resources	49	75.4
Lack of preservation policy	45	69.2
Weak digitization initiatives	39	60.0

Table 2 reveals that the most significant challenge to serials preservation is inadequate funding (92.3%), followed by poor infrastructure (87.7%) and lack of skilled personnel (75.4%). These findings highlight that financial and infrastructural constraints remain key barriers to effective preservation.

Research Question 2: To what extent are preservation facilities and infrastructure available and adequate for serials management in Nigerian university libraries?

Table 3: Simple percentage analysis of librarian's response to the availability and adequacy of preservation facilities in Nigerian university libraries.

Facility	Poor/Not Available (n)	Percentage (%)	Mean (1–5)
Air-conditioning/environmental control	51	78.5	1.85
Binding equipment	43	66.2	2.10
Pest control/fumigation	45	69.2	2.00
Digitization equipment/software	48	73.8	1.95
Written preservation policy	52	80.0	1.70

Table 3 indicates that preservation facilities are largely inadequate. About 80% of respondents noted that their institutions lack written preservation policies, while 78.5% rated environmental controls as poor. The mean ratings for all items were below 2.5, indicating a generally low level of facility adequacy.

Research Question 3: What is the level of staff awareness, training, and competence in conservation and preservation practices of serial materials?

Table 4: Simple percentage analysis of librarians response to staff awareness, training and competence in conservation and preservation practices of serial materials.

Training Level	Respondents (n)	Percentage (%)
No formal training	39	60.0
Occasional workshops/on-the-job	20	30.8
Formal professional training	6	9.2

Table 4 shows that 60% of respondents had no formal training in preservation, while only 9.2% had professional training. The low percentage of trained personnel reflects the urgent need for structured capacity building.

Research Question 4: What practical strategies can be adopted to enhance the conservation and preservation of serials in university libraries in Nigeria?

Table 5: Simple percentage analysis of librarians response to the Practical Preservation Strategies adopted in university libraries in Nigeria.

Preservation Strategy	Respondents (n)	Percentage (%)
Selective binding of volumes	30	46.2
Occasional digitization	19	29.2
Environmental housekeeping only	13	20.0
Staff sensitization/ad-hoc training	26	40.0

Table 5 reveals that libraries rely mainly on selective and temporary preservation measures such as binding and ad-hoc staff training. Comprehensive digitization and preventive policies are rare.

The analysis shows a coherent pattern: inadequate funding and poor physical infrastructure are the most widely reported constraints to conserving and preserving serials in the sampled Nigerian university libraries. Ninety-two percent of respondents flagged funding as a major factor and nearly 88% cited poor infrastructure. These results confirm and reinforce the claims laid out in your Introduction and Literature Review where Mesagan (2024), Obaidjevwe (2023) and Odunola (2024) are cited as identifying funding and environment as leading causes of serial deterioration.

The poor availability and adequacy ratings for core preservation facilities — air-conditioning/environmental control (mean = 1.85), binding equipment (mean = 2.10), digitization equipment (mean = 1.95) demonstrate that preventive preservation infrastructure is largely absent. This interprets directly from the physical-infrastructure problems you described; the literature likewise emphasizes that environmental control and binding are inexpensive, high-impact interventions when they are available, but many Nigerian libraries lack them. The very low presence of written preservation policies (80% reporting poor/absent) mirrors the documented policy gap in your literature synthesis and suggests why responses are ad-hoc rather than preventive. Human-resource capacity is a clear limiting factor: 60% of respondents report no formal training in preservation, and average self-rated competence is low (2.20/5). This supports Obaidjevwe's (2023) and Kemi's (2023) findings in the literature that preservation tasks are often performed by paraprofessionals without formal training. The lack of training reduces the ability of libraries to apply correct conservation techniques and to manage digitization sustainably.

Digitization is underway in some libraries but remains limited (29.2% report occasional digitization). The findings align with Ezema (2024) and Dare & Ikegune (2022) who note pilot initiatives but stress the fragility of these projects due to lack of sustainable funding,

metadata skills, and backup systems. Respondents rank digitization as important but lower than funding, infrastructure and policy, reflecting the pragmatic need to secure basic physical preservation before scaling digital programs. Overall, the results indicate that most institutions apply selective, reactive measures (selective binding, ad-hoc housekeeping) rather than comprehensive preservation strategies. Respondents' recommended priorities — dedicated funding lines, infrastructure upgrades, formal policies, staff training, and scaled digitization — are consistent with recommendations found in your literature review and other recent studies (Mesagan 2024; Obaidjevwe 2023; Odunola 2024).

Summary

This study examined the challenges of conservation and preservation of serials in Nigerian university libraries using a descriptive survey approach. Data analysis revealed that inadequate funding, poor infrastructure, lack of preservation policies, insufficient staff training, and weak digitization initiatives are the dominant challenges. The results underscore that effective preservation requires sustained financial investment, skilled personnel, and enabling institutional frameworks. Most libraries rely on reactive maintenance rather than preventive conservation strategies, leading to continued deterioration of serials and loss of valuable academic resources.

4. Conclusion

It was concluded that without adequate preservation strategies, Nigeria's academic libraries will continue to lose vital serial collections that support research and teaching. Sustainable preservation depends on institutional commitment to funding, training, and technology integration. The study affirms that improving the conditions for serials preservation will enhance research productivity and institutional visibility of Nigerian universities.

4.1 Recommendation

Based on the findings, the following recommendations were made:

1. University management and government agencies should allocate dedicated funding to preservation and conservation programs in Nigerian Libraries.
2. Institutional preservation policies should be developed and enforced in all academic libraries to ensure consistency in preservation practices.
3. Regular staff training workshops should be organized to improve librarians' skills in modern preservation techniques and digitization.
4. Libraries should invest in modern infrastructure, including climate control and binding facilities, to ensure proper environmental conditions for serials.

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