

Transforming University Library Building Conservation: A Descriptive Study of Preservation Practices in Nigeria

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ABSTRACT: University libraries face significant challenges in conserving their buildings, which is crucial for the effective preservation of information. The study examined the conservation of library building for effective information preservation in particular university libraries located in Nigeria. Descriptive survey design was adopted with population of 325 library staff. The instruments for collecting data is questionnaire. Data were analysed using mean score, standard deviation, percentage and *t-test*. Results: conservation criteria include clearing and cleaning of the library building, repair of roof, windows and doors, installation of fire and smoke alarm system, and the provision of enough security personnel around the building. Library buildings are being conserved to protect resources against natural disasters like flooding, and earthquake, against man-made disaster like fire, making library resources accessible, promote an end to wasteful use of non-renewable information resources, to encourages best practices in records management, and it provides an extremely attractive environment for the use of books. Findings establish lack of adequacy level of policy and regulatory framework emphasizing that disaster management, storage capacity for documentary resources, appropriateness of environmental conditions are to be consider in the library. The study offers library managers a comprehensive approach to balancing conservation with modernization. Its practical and innovative implications include implementation of eco-friendly materials to reduce environmental impact of library buildings, Integration of IoT sensors for climate control among other. The study recommended that the university library management should ensure regular fumigation in the library, all linkages should be fix and adequate funds be made available for library to effectively conserve the library, provide monitoring system for environmental condition, storage capacity for digital resources and disaster preventive measure in the library.

Keywords: conservation, information, library building, preservation, university library.

ABSTRAK: Perpustakaan universitas menghadapi tantangan signifikan dalam konservasi bangunan yang sangat penting untuk menjaga kelestarian informasi secara efektif. Penelitian ini meneliti konservasi bangunan perpustakaan untuk pelestarian informasi yang efektif di perpustakaan universitas tertentu yang berlokasi di Nigeria. Desain survei deskriptif digunakan dengan populasi 325 staf perpustakaan. Instrumen pengumpulan data berupa kuesioner. Data dianalisis menggunakan skor rata-rata, simpangan baku, persentase, dan uji *t*. Hasil penelitian menunjukkan bahwa kriteria konservasi mencakup pembersihan dan pemeliharaan bangunan perpustakaan, perbaikan atap, jendela, dan pintu, pemasangan sistem alarm kebakaran dan asap, serta penyediaan personel keamanan yang cukup di sekitar gedung. Bangunan perpustakaan dilestarikan untuk melindungi sumber daya dari bencana alam seperti banjir dan gempa bumi, serta dari bencana buatan manusia seperti kebakaran, memastikan aksesibilitas sumber daya perpustakaan, mengakhiri pemborosan sumber daya informasi yang

tidak terbarukan, mendorong praktik terbaik dalam manajemen arsip, dan menyediakan lingkungan yang sangat menarik untuk penggunaan buku. Temuan penelitian menunjukkan kurangnya kerangka kebijakan dan regulasi yang memadai, menekankan bahwa manajemen bencana, kapasitas penyimpanan untuk sumber daya dokumenter, serta kesesuaian kondisi lingkungan perlu dipertimbangkan di perpustakaan. Studi ini menawarkan pendekatan komprehensif bagi manajer perpustakaan untuk menyeimbangkan konservasi dengan modernisasi. Implikasi praktis dan inovatifnya meliputi penerapan bahan ramah lingkungan untuk mengurangi dampak lingkungan dari bangunan perpustakaan, integrasi sensor IoT untuk pengendalian iklim, dan lain-lain. Penelitian ini merekomendasikan agar manajemen perpustakaan universitas memastikan fumigasi rutin di perpustakaan, memperbaiki semua kebocoran, serta menyediakan dana yang memadai agar perpustakaan dapat mengonservasi bangunan perpustakaan secara efektif, menyediakan sistem pemantauan kondisi lingkungan, kapasitas penyimpanan untuk sumber daya digital, dan langkah-langkah pencegahan bencana di perpustakaan.

Kata kunci: bangunan perpustakaan, informasi, konservasi, pelestarian, perpustakaan universitas.

INTRODUCTION

The biggest problem facing the conservation of library buildings for effective information preservation in university libraries in Nigeria, is inadequate funding. Libraries often struggle with limited budgets, which restricts their ability to maintain and conserve their facilities. The deterioration of library infrastructure, caused by factors such as inadequate funding, poor maintenance, and environmental conditions, poses a serious threat to the long-term accessibility of valuable resources. These libraries house essential academic materials that support research, learning, and development within the university community (Bakare & Mutula, 2017), provide access to a vast array of academic materials, including books, journals, and digital resources, which are essential for both routine learning and specialized research needs (Fitzgerald & Eustis, 2022). Libraries likewise provide support for research programs by teaching research inquiry skills, facilitating collaborative work, and providing necessary material resources (Wiggins et al., 2020) among others. Libraries devoted to supporting teaching and learning at universities are known as university libraries. They were set up to help the institution achieve its goals of research, teaching, and learning. The purpose of the university library is to support faculty, staff, students, and other members of the university community. According to Nkamnebe, Udem, and Nkamnebe (2014), libraries are the source of knowledge power for research and higher education. Because of its special place in the university system, libraries play a major role in determining the overall quality of an institution. To Arthur and Brafı (2013), university libraries are entities that are created, owned, and funded by the universities they serve. Their collections encompass both print and electronic information resources, which are systematically acquired, processed, organized, and distributed to the entire user community to enhance their academic pursuits (Mesagan et al., 2021).

Library buildings serve as the first line of defense against environmental hazards such as humidity, temperature fluctuations, dust, and pollution, all of which can damage books, manuscripts, and digital media. Well-maintained

buildings with controlled environments help prevent materials from deteriorating, ensuring that information resources remain intact and accessible over time (Cruz et al., 2023). Controlling environmental factors such as temperature and humidity is vital for preserving materials, especially in libraries and archives (Diulio et al., 2019). Additionally, a well-conserved library building provides a safe space for both physical collections and digital media (Smith, 2017). In case of structural issues as leaking roofs or cracked walls, can lead to water damage and mold growth, which are extremely harmful to paper and other information storage media (Car et al., 2018). Good shelving, secure storage rooms, and sufficient space as a result of efficient storage systems, all contribute to the orderly preservation of materials (Dare & Ikegune, 2019). When buildings are not maintained, storage spaces can become cramped, unorganized, or even unsafe, making it harder to protect information resources and maintain proper cataloging and access systems.

Building conservation also encompasses security enhancements, which are important for safeguarding information resources. Libraries with secure windows, doors, and surveillance systems are better equipped to protect their collections from theft, vandalism, and unauthorized access. Libraries need stable, well-maintained buildings to house and support technology for digital preservation. Proper electrical systems, climate control, and data infrastructure are crucial for running servers, scanners, and other equipment used in digitizing and preserving information. Without a structurally sound building, it becomes difficult to install and maintain these technologies, limiting the library's ability to digitize and thus preserve information long-term. Therefore, the longevity of a library building is connected with the longevity of its collections. When libraries invest in building conservation, they are also investing in the long-term sustainability of their information resources. A well-preserved building creates a foundation for ongoing preservation efforts, allowing libraries to maintain, expand, and adapt their collections to serve future generations.

Without appropriate conservation efforts, the physical integrity of these buildings and, consequently, the information they protect, is at risk. Also, issues such as humidity, pest infestations, and outdated facilities exacerbate the damage, reducing the lifespan of books, documents, and digital resources. Addressing this problem requires a strategic approach, involving increased investment, modern preservation techniques, and enhanced maintenance protocols to ensure that these libraries can continue to serve as repositories of knowledge for future generations. In order to extend the life of information resources by preventing damage or correcting deterioration, conservation is understood to be a set of policies and practices implemented by library managers (Victoria, William & Frederick, 2013). It encompasses restoration and preservation in particular locations (National Conservation Advisory Council in the United States, cited in Udo-Anyanwu & Mezieobi, 2020). Reasons why conservation is important includes to meet the demand for natural resources and to preserve the standard of living (Njeze, 2012). Eden & Feather (2017) explain that the sustainable use of conservation of resources, entails handling

and utilizing them with caution in order to ensure their availability for future generations. Given the significance of conservation for libraries, encouraging and promoting the growth of library conservation practices worldwide was the main objective of the 1984 IFLA meeting in Nairobi, whose program was formally inaugurated in Vienna, Austria, in April 1986. Conservation practices play a crucial role in maintaining a steady flow of information essential for documenting the histories of nations, facilitating research endeavors, and preserving knowledge for future generations. Maintaining the physical structure of the library entails taking proper care of the library building such as fixing windows, doors, painting, covering any opening through which biological agents can enter the library to destroy the information resources, installing thunder storm protector among others.

Preservation is the protection of library original features and historical elements. It works to guarantee that every stakeholder has an equal chance to view and appreciate important and distinctive records. The art of preservation is as old as human civilization itself (Ekere, cited in Mesagan, Ogar, Adurota, Aye, & Wogu, 2021). Preservation involves the careful maintenance of collections and individual items, ensuring they remain as close to their original condition as possible through suitable housing, handling, repair, and conservation practices (Eden & Feather, 2017). It entails ensuring the stability of the conditions in which the library materials are stored (Akotia, 2019). The archives of human civilization will also be lost if the materials in these libraries is lost. Effective preservation of information resources in university libraries begins from stabilizing the actual library physical structure (library building) in such a way that environmental or natural disasters will not easily destroy or damage it (Ekere cited in Mesagan et al, 2021).

The journey to effective information preservation should start from conserving and safeguarding the library building against environmental or natural disasters since the information resources in libraries are housed in the library building, which if not well protected against rapid destruction can lead to quick lost or deterioration of information stored in the university libraries. Lack of adequate conservation practices in university libraries will make the library building a heaven for biological agents of deterioration like rats, insects, mould, termites, lizards, etc who survive better in environment with less care.

The conservation of library buildings in Nigeria holds significant relevance as libraries play a crucial role in educational development, information dissemination, and cultural preservation. With Nigeria's growing population and expanding educational needs, well-maintained library buildings are essential for providing accessible learning environments, preserving historical records, and supporting lifelong learning. Conservation efforts ensure the structural integrity and functionality of these facilities, enabling them to continue serving the public effectively. This study is significant as it highlights the need for sustainable preservation practices to safeguard library infrastructure, promote literacy, and ensure that future generations have access to essential resources for knowledge and cultural heritage.

Statement of Problem

Prior research has been carried out in different part of the world on conservation of library materials in Southwest (Osunride & Adetunla, 2016; Adeleke, Aina, & Lateef, 2011); Alegbeleye (2013) on disaster Control Planning for libraries, Eden & Feather, (2017); Harvey, (2013) policies and strategies for the preservation of archives and records in the United Kingdom. However, there seems to be grey interest on library building conservation which housed the information where the cultural heritage of every nation is preserve. Hence the need for the topic conservation of library building for effective information preservation in selected university library in Nigeria.

Purpose of the Study

Examining library building conservation for efficient information preservation in Enugu State university libraries was the primary goal of the study. The specific objectives of the study were: 1) Examine the methods used in conserving library building among university libraries Nigeria; 2) Examine conservation criteria for library buildings towards effective information preservation in selected university libraries, Nigeria; 3) Ascertain reasons for conserving library building in university library in Nigeria; 4) Examine the adequacy of policy and regulatory framework on the conservation of library building in selected university libraries, Nigeria.

Research Question

To direct the investigation, the following research questions were carefully formulated: 1) What methods are used in conserving library buildings among selected university libraries in Nigeria? 2) Which conservation standards are most appropriate for library buildings in Nigeria, in order to effectively preserve information? 3) What are the reasons for conserving library buildings in university library in Nigeria? 4) What is the adequacy level of policy and regulatory framework on the conservation of library buildings in Nigeria?

Hypothesis

The null hypotheses outlined below will be examined at the 0.05 significance level and have been established to steer the investigation.

- H₀₁:** The mean evaluations of male and female librarians about the techniques applied to library building conservation do not significantly differ from one another.
- H₀₂:** The mean scores of male and female librarians regarding the justifications for preserving library buildings do not significantly differ from one another.
- H₀₃:** The mean scores of male and female librarians regarding the suitability of laws and regulations for the preservation of library buildings do not significantly differ from one another.

Concept of Preservation

Conservation encompasses the administrative and financial aspects of maintaining library and archival items, including storage and housing arrangements, staffing levels, policies, strategies, and approaches (IFLA, 2010). Conservation, within the field of library and information science, focuses on the preservation and restoration of ongoing access to library buildings. The practice of minimising or limiting destruction on the physical library building is implemented to provide the utmost security of the material and papers. Jordan (2020) defines it as a comprehensive concept that encompasses various actions, beliefs, practices, and organisations aimed at maintaining the cleanliness, functionality, usability, and durability of the library building and its surroundings. The field of study that focuses on the examination, identification, management, and prevention of the decline, degradation, and harm to collections in cultural heritage institutions is known as conservation (Njeze, 2012). According to Eden and Feather (2017), preservation refers to the implementation of management, technological, and financial measures to slow down the deterioration process and prolong the lifespan of collection items, hence ensuring their ongoing availability. Libraries have implemented preservation strategies that take into account their geographical location and environmental conditions.

The primary objective of conservation techniques is to ensure the long-term preservation of libraries and equipment (IFLA, 2010). According to Njeze's (2012) definition in the Harrods librarian approach, preservation refers to the managerial and financial aspects related to storing, processes, and methods used to protect library resources and the information they hold. Ania (2015) encompasses all the precautions implemented to ensure the security of both printed and non-printed resources, as well as the preservation of the library to prevent any form of degradation. The totality of maintenance encompasses all the management and budgetary concerns, storage and accommodation accommodations, staffing level policies, techniques, and methodologies involved in safeguarding documentary resources (Okonkwo, 2011; Akande, 2010).

The Institute of Museum and Library Services (2015) emphasises that preservation refers to any action that effectively prolongs the lifespan or usefulness of a collection, whether it consists of living or non-living items. This includes individual items or entities within a collection, as well as structures, buildings, or sites, by reducing the likelihood or rate of deterioration. The document elaborated on preservation actions, which encompass planning, conservation treatment, and preventive measures aimed at enhancing the environment or mitigating the potential for damage or loss. Ogunmodede and Ebijuwa (2013) define "persistence" as the act of staying or remaining in a particular situation for an extended period of time. In 2013, the National Conservation Advisory Council in the United States defined preservation as the deliberate effort to slow down the process of deterioration by controlling the structure of the object. Additionally, it clarified that preservation presently encompasses a wider scope, including both conservation and activities related to safeguarding, upkeep, and rehabilitation of the library. Harvey, a film released in

2013. Conservation procedures often encompass policies, strategies, environmental control, housekeeping operations, training in archive material handling for both consumers and staff, security measures, disaster management, and access protocols (Eden and Feather, 2017). They additionally observed it as the preservation of specific artefacts in a manner that closely resembles their original state, achieved by suitable housing, handling, repair, and conservation treatment.

Importance of Conservation of Library Environment

Ensuring an appropriate environment for the library will extend the longevity of both the building itself and the resources within it, while also improving long-term accessibility in the library. The environmental factors that are typically monitored encompass temperature, relative humidity, air quality (including both gaseous and particulate matter), illumination sources and intensity, as well as the presence of microbial infestations (Jordan, 2020). According to Osunride and Adetunla (2016), successful environmental control is contingent upon the use of appropriate furniture, including closed shelves and shallow drawers, as well as containers such as horizontal or vertical files and document boxes. Additionally, suitable housing options like paper or polyester enclosures play a crucial role. The recommended protocols involve the integration of pest management and emergency preparedness into the upkeep of buildings and collections (Popoola, 2003; Harvey, 2013). Conservation encompasses both proactive and reactive measures. Preventive conservation refers to the implementation of adequate measures to safeguard materials in a controlled environment, where variables are maintained within a range that minimises damage. On the other hand, interventive conservation involves direct interaction between the conservator and the cultural material. This includes activities such as cleaning, stabilising, repairing or replacing parts of the original, and consolidating, which involves securing flaking paint (Osunride & Adetunla, 2016).

Existence of Conservation Policies

Many African countries lack a national information strategy, which hinders the development of preservation and conservation policies in libraries and information centres (Wamukoya & Mutula, 2005). In a study conducted by Oluwaniti (2010), the conservation programmes of archives in Kenya were examined and it was discovered that the conservation departments lacked a disaster control plan. According to Forde, as mentioned in Ngulube (2005), preservation policies for cultural resources are essential instruments for organisations that are dedicated to ensuring the survival of materials under their care. Policies are crucial as they establish objectives to be attained and provide instructions for their implementation. Conversely, predetermined policies enable a resourceful distribution of finances and personnel, and outline other areas of execution and oversight. Inadequate preservation policies impeded the efficient administration of preservation (Ekwelan, Okafor & Ukuwoma, 2011). While the

presence of preservation policies does not ensure their execution. While it is true that implementing preservation policies without adequate resources and experienced staff would be challenging, it is imperative to develop comprehensive policies that cover all essential tasks for preserving documentary materials in the long term.

Barriers to effective conservation of library building

It is unsurprising that the majority of libraries had numerous challenges in regards to the maintenance of both the physical infrastructure of the library and the resources of knowledge. Undoubtedly, information managers in African countries, particularly librarian/information professionals, records managers, and archivists, encounter the challenge of ensuring efficient preservation. In the past, East and South African regions encountered difficulties related to the protection and maintenance of natural resources (Mnjama & Wamukoya, 2004). Akotia (2020), a member of the Ministry of Finance in Uganda, expressed the view that the government of Uganda places great importance on the conservation of information resources and records in its various establishments during its tenure. One of the main obstacles to effectively and efficiently preserving library buildings in African libraries is the lack of financial resources. Most African libraries, including those run by the government, archives, and information centres, do not allocate sufficient funds in their annual budgets for library preservation.

The lack of attention given to conserving and preserving library structures has resulted in a low priority for the management of these libraries in terms of preserving information resources: 1) Unfavorable government economic policies hinder the preservation efforts of libraries in Africa, as they are not given the necessary priority. These economic measures encompass the imposition of substantial levies and tariffs on the importation of equipment used for preservation purposes; 2) One of the main issues in preservation is the lack of knowledge about how to preserve and conserve. Even if there is not enough money to address the preservation needs adequately, it is not a major problem until there is a widespread understanding of what has to be done (Akussah, 2006 quoting Darling). This demonstrates the essential role that information plays in conservation strategies. Ngulube (2005) observed that the main obstacle to implementing effective conservation projects is not solely a lack of money, but also a deficiency in conservation expertise; 3) The primary cause of the conservation challenges in libraries is the insufficient dedication of librarians. The importance of educating librarians about preservation has gained widespread recognition as a crucial component of any strategy aimed at tackling preservation issues. Akussan (2006) recommended that providing ongoing educational opportunities in conservation is crucial for individuals who need to update their certifications or who want to expand their existing knowledge.

RESEARCH METHOD

This study adopt a descriptive survey as its research design to investigate conservation of library building for effective information preservation in some selected university libraires in Nigeria. The area of the study is Nigeria which include the selection of some Universities in Nigeria across some geopolitical zones. The area was randomly selected by the researchers without a specific criterial. The institutions used for the study include Enugu state University, Obafemi Awolowo University, Nnamdi Azikwe University, Akwa, Anambra and Tai solarin University of Esducation, Ogun State. This university were purposively selected. This align with purposive sampling procedure which stated that the researchers have the ability to deliberately choose participants according to particular characteristics or criteria that are pertinent to the objectives of the study (Mesagan et al., 2022).

Data was collected through the use of structure questionnaire. The questionnaire was sent to them both institutions through their institutional emails which their responses were retrieved immediately they responded with the help of reserach assistant.

The population of the study is 325 respondents/librarians. This comprises of librarians across the selected universities who were willing to respond as at the time of collecting the data. The choice of study population of University librarians (5), Deputy University librarians (3), principal librarians (9), senior librarians (22), librarian 1 (46), librarians II (30, assistant librarians (125) and non-professional (85) was because they are all involved in onservation processes in the library. Structure questionnaire was the instrument used. Convinient sampling technique was used in dathering data from the resondents based on their willingness and availability.

To ensure the reliability of the items of the questionnaire, the questions were first distributed to 15 librarians in Nnamdi Azikiwe Library, University of Nigeria. Cronbath Alpha method was used for the pilot study to evaluate the internal consistency of the questionnaire items. It was regarded as a suitable measure of internal consistency because of the characteristics of the questionnaire employed. An overall index of 0.758 was arrived at. The study used mean score (\bar{x}), Standard Deviation (SD) and t-test statistics for data analysis.

RESULT AND DISCUSSION

Results

Demographic variables of the study include that of the gender, and professional status the group focused on. Gender was considered as a variable responsible in conservation of library building for effective information preservation. This made it easier to understand how the respondents were distributed, with male making up 42.8% and female 57.2% of the population.

In addition to the variables being evaluated, there was also the professional status of the respondents. The study focuses on eight categories of librarians with their frequencies and percentages as follows: University Librarians ($f = 5$, 1.5%), Deputy Uni. Librarian ($f = 3$, .9%), Principal Librarian ($f = 9$, 2.8%),

Senior Librarian (f=22, 6.8%), Librarian 1 (f= 46, 14.2%), Librarian II (f= 30, 9.2%), Assistant Librarian (f=125, 38.5%) and Non-professionals (f= 85, 26.2%).

What are the methods used in conserving library buildings among university libraries in Nigeria?

Table 1. Mean Responses on the methods used in conserving library building in university libraries in Nigeria

S/N	Methods	Mean	SD	Decision	Rank
1	Clearing and Cleaning of the library building	3.17	.734	7 th	Accepted
2	Provision of enough security personnel around the campus	2.84	.725	9 th	Accepted
3	Fumigation of the environment	2.97	.704	8 th	Accepted
4	Installation of air conditioner in the library	3.27	.568	4 th	Accepted
5	Installation of thunder protector	3.25	.547	5 th	Accepted
6	Repair of roof, windows and doors	3.33	.643	2 nd	Accepted
7	Installation of flood protector in the library	4.00	.000	1 st	Accepted
8	Installation of earthquake protector	3.32	.660	3 rd	Accepted
9	Installation of fire and smoke alarm system	3.24	.603	6 th	Accepted
Cluster Mean		3.26	.365		

In view of the above research question on the methods used in conserving library buildings for effective information preservation among university libraries in Nigeria. Table 1 focused on the methods used in conserving library building for effective information preservation among university libraries in Enugu State, Nigeria which includes Installation of flood protector in the library, repairs of roof, windows and doors, installation of air conditioner in the library, installation of earthquake protector and installation of thunder protector among others with their mean scores ranges from 4.00 and 3.17 respectively were strongly agreed in terms of method used.

However, since the overall cluster mean was 3.26 and above criterion mean of 2.5, the method used in conserving library building for effective information preservation in libraries is agreed upon. The standard deviation of method used in conserving library building in libraries is .365 indicating the opinion of respondents tended to gravitate toward one another.

What are the conservation criteria for library building towards effective information preservation in university libraries in Nigeria?

Table 2. Mean responses on the conservation criteria for library building towards effective information preservation in university libraries in Nigeria

S/N		Mean	SD	Decision	Rank
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1	Sustainability: forward looking the provision to accommodate changes in the information management environment	3.17	.734	4 th	Accepted
2	Security: adequate and continuous protection against environmental and physical damages	2.84	.725	6 th	Accepted
3	Effectiveness: The buildings guarantees and provide adequate capacities for the preservation of information resources	2.97	.704	5 th	Accepted
4	Adaptability: Coping and adjusting with change that might affect the preservation of information resources	3.27	.568	2 nd	Accepted
5	Diversity: Range of designs and spaces to accommodate difference types of information resources	3.25	.547	3 rd	Accepted
6	Completeness: Interior and exterior design of the library building adequately cater for the preservation of divert or types of information resources	3.33	.643	1 st	Accepted
Overall Mean		3.13	.441		

In accordance of the question regarding conservation criteria for library buildings towards effective information preservation for effective information preservation among university libraries in Nigeria. Librarians were expected to indicated their agreement on the reasons indicated. Table 2 shows that the major conservation criteria for library building towards effective information preservation along with their respective mean scores are **completeness**: Interior and exterior design of the library building adequately cater for the preservation of divert or types of information resources (3.33); **adaptability**: Coping and adjusting with change that might affect the preservation of information resources (3.27); **diversity**: Range of designs and spaces to accommodate difference types of information resources (3.25); **sustainability**: forward looking the provision to accommodate changes in the information management environment (3.17); **effectiveness**: The buildings guarantees and provide adequate capacities for the preservation of information resources (2.97) and **security**: adequate and continuous protection against environmental and physical damages (2.84) and were all agreed upon by the respondents.

Therefore, since the overall cluster mean of 3.13 was above criterion mean of 2.5, the conservation criteria for library building in libraries were agreed upon. The standard deviation of conservation criteria for library building .441 indicating the opinion of respondents tended to gravitate toward one another.

What are the reasons for conserving library buildings in your university library in Nigeria?

Table 3. Mean Responses on the reasons for conserving library building in university libraries in Enugu State, Nigeria

S/N	Item statements	Mean	SD	Decision	Rank
1	It protect library resources against natural disasters like flooding, earthquake	3.32	.660	1 st	Accepted
2	It helps to protect library resources against man-made disaster like fire	3.24	.603	3 rd	Accepted
3	conserving library building makes library resources accessible	3.20	.610	4 th	Accepted
4	It supplies equipment designed to safeguard original materials during their utilization.	3.20	.600	4 th	Accepted
5	contributes to the cessation of the excessive consumption of non-renewable informational resources	3.10	.626	7 th	Accepted
6	It fosters and advocates for best practices in records management	3.06	.638	9 th	Accepted
7	It creates a highly appealing atmosphere for engaging with books	2.95	.686	10 th	Accepted
8	It provide security and safety of library resources	3.29	.573	2 nd	Accepted
10	It make library resources usable	3.17	.633	5 th	Accepted
9	It ensure long term survival of library resources	3.15	.597	6 th	Accepted
11	It preserve human heritage and writing	3.07	.607	8 th	Accepted
12	It save cost of acquiring new resources	3.10	.630	7 th	Accepted
Cluster Mean		3.15	.381		

The above question was formulated to gather views regarding the reasons for conserving library buildings for effective information preservation among university libraries in Enugu State. Librarians were expected to indicated their agreement on the reasons indicated. Table 3 shows responses on the reasons for conserving library buildings in the selected universities under study. Responses gathered includes that: it protects library resources against natural disasters; it provides security and safety of library resources; it helps to protect library resources against man-made disaster like fire; conserving library building by making library resources accessible; Equip the library with protective measures for original materials during usage; enhance the accessibility of library

resources; guarantee the enduring preservation of library assets; save cost of acquiring new resources; preserve human heritage and writing; encourages the reduction of unnecessary usage of non-renewable information resources and creates an incredibly inviting atmosphere for book with mean scores ranges from 3.32 to 2.95 respectively were strongly agreed on as reasons for conserving library buildings in universities.

Hence, since the overall cluster mean of 3.15 and was above criterion mean of 2.5, the reasons for conserving library buildings in universities were agreed upon. The standard deviation of reasons for conserving library buildings in universities items ranges between .660 and .686 indicating the opinion of respondents were homogenous in their responses. The standard deviation of reasons for conserving library buildings .381 indicating the opinion of respondents gravitate toward one another.

What is the adequacy level of policy and regulatory framework on the conservation of library buildings in Enugu State, Nigeria?

Table 4. Mean Responses on the adequacy of policy and regulatory framework on the conservation of library building in university libraries in Nigeria

Policy regulatory framework		Mean	SA	Decision	Rank
1	Storage capacity for documentary resources	3.26	.680	1 st	Accepted
2	Storage capacity for digital resources	3.20	.716	4 th	Accepted
3	Appropriateness of environmental conditions	3.25	.635	2 nd	Accepted
4	Monitoring system for environmental condition	3.24	.646	3 rd	Accepted
5	Disaster preventive measure	3.16	.686	5 th	Accepted
6	Disaster management	3.26	.680	1 st	Accepted
Cluster Mean		3.22	0.511		

Table 4 shows the adequacy level of policy and regulatory framework on the conservation of library buildings in Nigeria. Responses on the adequacy level of policy and regulatory framework shows that disaster management, storage capacity for documentary resources, appropriateness of environmental conditions, monitoring system for environmental condition, storage capacity for digital resources and disaster preventive measure with mean scores of 3.26, 3.25, 3.24, 3.20, and 3.16 respectively were considered highly adequate conservation policy and regulatory framework for library building. However, the cluster mean was 3.22 and above criterion mean of 2.50 the adequacy level of policy and regulatory framework for conservation of library building were accepted. The standard deviation of the adequacy level of policy and regulatory framework for conservation of library building of .511 indicating the opinion of respondents gravitate toward one another.

Hypotheses

H0₁: There is no considerable variation in the average ratings between male and female librarians regarding the methods used in conserving university library buildings for effective information preservation among university libraries in Nigeria.

Table 5. T-test analysis of mean ratings of men and female librarians on the methods used in conserving university library buildings in Enugu State, Nigeria

Gender	N	\bar{x}	SD	t-value	Df	Sig.	Decision
Male	139	3.26	.398	-.025	323	.909	NS
Female	186	3.26	.344				

Table 5 presents the results of the T-test comparing the mean ratings of male and female librarians regarding the methods employed in the conservation of university library buildings in Nigeria. The findings indicate a T-value of -0.025, with 323 degrees of freedom and a significance value of 0.90, suggesting that there is no significant difference between the mean ratings of male and female librarians concerning the conservation methods utilized in Nigerian university libraries.

The findings displayed in Table 5 indicate that there are no notable differences in the average ratings provided by male and female librarians regarding the methods employed for the conservation of university library buildings in Nigeria. Consequently, the hypothesis asserting that there is no significant difference in the mean ratings between male and female librarians on the methods used in conserving university library buildings in Nigeria was accepted. This implied that librarians have the same level the methods used in conserving university library buildings in Nigeria regardless of gender.

H0₂: There is no considerable variation in the average ratings given to male and female librarians regarding the reasons for conserving university library building in Nigeria.

Table 6. T-test result of the mean ratings of men and female librarians on the reasons for conserving university library building in Nigeria

Gender	N	\bar{x}	SD	t-value	Df	Sig.	Decision
Male	139	3.10	.393	-2.273	323	.384	NS
Female	186	3.19	.367				

Table 6 is the T-test result of mean ratings of men and female librarians on the reasons for conserving library buildings for effective information preservation among university libraries in Nigeria. Result reveals that the T- value -2.273 with degree of freedom of 323 and significant value of 0.384 determined, that there is no significant difference in the mean rating of male and female librarians on the reason for conserving library building for effective information preservation among university libraries in Nigeria.

Results presented showed that there are no significant differences in the mean ratings of male and female librarians on the reasons for conserving library buildings in Nigeria. Therefore, the null hypothesis of no significant difference in the mean ratings in male and female librarians on reasons for conserving university library buildings in Nigeria was accepted. This implied that librarians reason for conserving university library buildings in Nigeria are same.

H0₃: There is no considerable variation in the average ratings given to male and female librarians regarding the adequacy of policies and regulatory framework on the conservation of university library building in Nigeria.

Table 7. The results of the T-test indicate the mean ratings for male and female librarians on the adequacy of policies and regulatory framework on the conservation of university library building in Nigeria

Gender	N	\bar{x}	SD	t-value	Df	Sig.	Decision
Male		3.26	.503	1.192	323	.384	NS
Female		3.19	.514				

Table 7 result is on the T-test result of the mean ratings of men and female librarians on the adequacy of policies and regulatory framework on the conservation of university library building in Nigeria. Result reveals that T-value of 1.192, accompanied by a degree of freedom of 323 and a significance value of 0.384, indicates that there is no statistically significant difference in the mean ratings between male and female librarians on the adequacy of policies and regulatory framework on the conservation of university library building in Nigeria.

The findings indicated that there are no notable differences in the average ratings provided by male and female librarians regarding the sufficiency of policies and regulatory frameworks related to the conservation of university library buildings in Nigeria. Therefore, the null hypothesis of no significant difference in the mean ratings in male and female librarians on the adequacy of policies and regulatory framework on the conservation of university library building in Nigeria is accepted. This implied that the adequacy of policies and regulatory framework on the conservation of library building is not gender based.

Discussion

The major methods employed in conserving library buildings in university libraries in Nigeria include clearing and cleaning the premises, fumigating the environment, ensuring sufficient security personnel around the campus, installing earthquake protectors, fire and smoke alarm systems, repairing the roof, windows, and doors, and installing thunder protectors. The finding correlate with Ozioko, (2014) whose previous research demonstrated that the current preservation methods involve the removal of debris and the removal of dust from materials. The fumigation process involves the application of

chemicals, which aligns with the findings of Adeleke, Aina, and Lateef's (2011) earlier research. Olatokun (2008) stated that cleaning was the most frequently employed method for preserving and conserving materials in the library.

The study uncovered that the primary factors for preserving information effectively in university libraries in Nigeria include sustainability, which involves anticipating and adapting to changes in the information management environment. Security refers to the provision of sufficient and ongoing protection against environmental and physical harm. Effectiveness refers to the assurance and provision of sufficient capacities within buildings to preserve information resources. Adaptability refers to the ability to cope with and adjust to changes that may impact the preservation of information resources. Diversity refers to the range of designs and spaces available to accommodate various types of information resources. The interior and exterior design of the library building effectively accommodate the preservation of various forms of information resources, ensuring their integrity and completeness. This finding aligns with the research conducted by Yeni and Wiwit (2022), which showed that implementing appropriate measures for managing a library's collection, such as conservation techniques, will guarantee its long-term preservation. Consequently, if libraries are unable to effectively carry out conservation measures, the collections will suffer injury and deterioration, resulting in the cessation of information access.

The investigation uncovered that the primary motivations for preserving library infrastructure in Nigerian university libraries are to safeguard library materials from natural calamities such as flooding and earthquakes, as well as to protect them from man-made disasters like fires and floods. It supplies devices for safeguarding the original materials while usage; It aids in advocating for the cessation of wasteful utilisation of non-renewable information resources. Furthermore, no statistically significant correlation was found between gender and the methods of conservation utilised in the library. Ozioko (2014) concurred with the notion that the objectives of conserving information resources are as follows: facilitating the preservation of original materials during their usage; enhancing the accessibility of library resources; bolstering the long-term survival of library resources; establishing a welcoming atmosphere for book utilisation; implementing effective air conditioning systems in the library; advocating for comprehensive records management practices; eliminating the wasteful consumption of non-renewable information resources; enhancing user and staff education on appropriate handling of library resources; and providing training and development opportunities for staff members in preservation and conservation techniques.

The occurrence of flooding, which leads to the deterioration of the area and necessitates conservation efforts, aligns with the findings of the earlier study conducted by Osunride & Adetunla (2016). The findings indicate that the policy and regulatory framework for conserving library buildings in Nigerian university libraries includes a monitoring system for environmental conditions, measures to prevent disasters, disaster management protocols, sufficient storage capacity for

documentary resources, adequate storage capacity for digital resources, and appropriate environmental conditions. These findings contrast the research conducted by Janet and Femi-Wale (2015), which showed that only a small number of specialised libraries have established written policies for the preservation and protection of library items. Additionally, none of the university libraries surveyed acknowledged having a written policy in place.

Practical implications for Library Management

Implementing sustainable materials and energy-conserving technologies can help reduce the environmental impact of library buildings. Utilizing solar panels, green roofs, and energy-efficient lighting systems supports both conservation efforts and sustainability goals, ensuring that the buildings are not only preserved but also resilient against climate change.

Integrating smart building technologies can make libraries more adaptive and interactive through the use of IoT (Internet of Things) sensors for climate control. This will help maintain ideal conditions for preserving books and archives, while minimizing energy use, and enhance safety and protection of valuable collections. By rethinking library spaces to accommodate modern needs such as study areas, community spaces, and technology labs. Libraries will continue to serve their communities purposefully and promoting lifelong learning.

Engaging the local community in the conservation process can lead to innovative designs that reflect the unique cultural heritage of the area. This can be done by incorporating local architectural styles and using regionally sourced materials, which not only preserves but also enriches the community's connection to the library.

Digitizing collections reduces physical wear on historical documents, ensuring longevity. virtual reality (VR) and augmented reality (AR) can also allow visitors to explore collections interactively, which can be particularly effective for rare or fragile artifacts. To maintain the architectural heritage of library buildings, conservationists can employ restoration techniques that protect historical features. This approach includes using restoration materials that match the original ones and techniques that maintain the architectural integrity of the building, ensuring that libraries remain cultural landmarks for future generations.

Contribution of the Study to knowledge and Library Management

The study is significance to library managements as it offers the following contributions: 1) The study contributes to library management by showcasing sustainable practices that can help reduce operational costs and environmental impact; 2) The study introduced advanced preservation techniques that can prolong the life of library buildings and collections; 3) By focusing on adapting reuse and space flexibility, the study establishes how library buildings can be repurposed to meet the evolving needs of the community; 4) The study emphasizes the importance of integrating digital and smart technologies into library buildings. Library managers can use these for climate control and security

as well as digital cataloguing and virtual access point; 5) The study serves as a foundational resource for developing policies related to the conservation and modernizations of library buildings. Library managers and policymakers around the world can use the study to formulate guidelines that balance historical preservation with contemporary functionality.

Limitations and subestions of the Study

This study presents several limitations that should be acknowledged. First, the use of descriptive statistics such as mean and standard deviation may not fully capture the complexities of library building conservation. Additionally, the decision to include gender as a variable in hypothesis testing, based on the researchers' personal observations, may overlook other important factors such as educational qualifications and years of experience that could influence preservation efforts. Furthermore, the study's primary focus on the conservation of library buildings and the policies related to maintaining these structures does not explore potential obstacles that could hinder the implementation of these conservation techniques. The exclusive use of a questionnaire as the data collection tool may also limit the depth of the information obtained.

Based on these findings, several suggestions for future research have emerged. First, given the regional focus of this study, similar research should be conducted in other parts of Nigeria, such as the Southwest and Northern regions, to provide a broader understanding of library building conservation. Additionally, future studies should explore librarians' perspectives on the preservation of library buildings and the future of information resources. Expanding the research to include variables such as years of experience and certification levels could provide a more comprehensive view of preservation methods. Researchers are also encouraged to employ multivariate analysis techniques to examine the topic in greater depth. Finally, further research should investigate the potential challenges librarians face in preserving library buildings and explore viable solutions to address these challenges.

CONCLUSION

Throughout history, academic libraries have been specifically designed to support teaching, learning, scholarly work, and research activities in order to fulfil the goals and aspirations of the institutions. The study has demonstrated the significance of keeping library buildings to ensure effective access to information resources. It has identified the strategies used to conserve the physical library and prevent its collapse, as well as guaranteeing a suitable atmosphere in Enugu State. The criteria used for protecting library buildings in Southeast Nigeria were sustainability, adaptation, diversity, and completeness. According to the study's findings, the researcher emphasised the significance of preserving library buildings as a crucial and necessary measure for ensuring effective conservation in libraries. Put simply, Nigeria has a well-established legal and collaborative framework in place for conserving library buildings at university libraries. This structure can be readily adapted. Furthermore, the

preservation of library buildings is motivated by the need to safeguard library contents from potential damage caused by natural disasters. There was no significant correlation observed between gender and the methods used, the motivation for conservation, or the effectiveness of policies and regulatory framework in relation to library conservation.

Consequently, this study proposes the following recommendations: 1) The libraries must maintain a consistent and efficient fumigation process, as well as implement sufficient security measures for the library building, in order to safeguard the contents (library resources) against rats and theft; 2) Consideration of repairing damaged doors and windows to avoid unauthorized entry by strangers; 3) A comprehensive assessment of weather and environmental control needs to be conducted at these campuses. Installation of air-conditioners is essential; 4) In the current age of technical advancements, libraries should consider using modern methods for preservation and conservation. This includes using technologically advanced ICT devices to ensure the durability and lifespan of the library building, its properties, and the information contents stored therein.

Declaration

Conflict of interest None.

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