

Components of Preservation and Availability of Information Resources in Academic Libraries in South-South Geo-Political Region, Nigeria

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ABSTRACT: *The paper studied preservation and availability of information resources in academic libraries in south-south geo-political region, Nigeria. The study was hinged on correlational research design. The population of the study was culled from three academic libraries in the South-South Geopolitical region of Nigeria, namely Donald Ekong Library, University of Port Harcourt, Kenneth Dike Library, University of Ibadan and Nnamdi Azikiwe Library, University of Nigeria, Nsukka. Simple random sampling technique was used to sample 87 respondents. 84 (97%) respondents provided complete response. Data were collected, arranged and analysed using Pearson Product Moment Correlation (PPMC). Findings show that preservation techniques of preventive preservation, passive preservation, active preservation and restorative preservation have significant relationship with the availability of library resources with active preservation having the highest significant relationship in academic libraries in south-south geopolitical zone in Nigeria. Consequently, it was recommended that libraries should engage in active preservation its collection and to ensure availability of library resources.*

KEYWORD: Preservation, academic libraries, universities, preventive preservation, passive preservation, active preservation, and restorative preservation.

INTRODUCTION

Every generation leave a mark in terms of documented issues, concerns, ideas, knowledge, discourse and events, and the only way to do this was by leaving a legacy in the form of documented matter. The present world is fast transforming from industrial to information revolutionized economy. This requires speedy, accurate, ready and reliable information, consequently, large amount of information is being generated every moment. The information has become a strategic raw material and a dominating factor in decision-making. These information are vital for the progression of human society. The way they are handled can affect the life span of the records contained in them, hence these records must be preserved for future

use. The process of encoding and recording information has evolved over a thousand years. The way in which generations expressed their ideas, skills, and emotions, among others has led to the production of information materials since time immemorial.

The library is a repository of knowledge in print and nonprint format, saddled with the responsibility organizing, disseminating and preserving the knowledge for presents and future use. Libraries as curators of cultural heritage of human knowledge, must rise up to the occasion in ensuring the longevity of information and knowledge deposited in their care. This, is because information resources are the priceless heritage of mankind as they contain facts, ideas, thoughts, accomplishments and evidence of human development in multifarious areas, ages and directions. Academic libraries are libraries established in institution of higher education such as universities, polytechnics and colleges of education with the core mandate of supporting its host institution to achieve its major objectives of teaching, learning, and research by providing excellent information resources in all formats, services and creating a conducive environment to enhance usage. American Library Association (ALA) glossary of library and information science (2013), see the library as a collection of materials in various formats organized to provide physical, bibliographical and intellectual assess to a target group, with staff trained to provide services and programs related to the information needs of its target group.

The availability of library information resources in the library depends on the system of preservation or reservation practices put in place by a library to ensure its collection are in good and stable usable condition. Library materials are constantly deteriorating, to ensure its availability and long-lasting nature, it must be properly preserved. The practice of preservation in libraries is as old as librarianship. Chaudhary (2011), opines that preservation of information is central to the mission of libraries. Accordingly, Hendrikus (2019) broadly defined preservation as “financial management, ways of storage, personnel, techniques and methods for preserving information and the physical form of library materials.” Oyeniyi (2015), opines that preservation of library sources entails all efforts and actions taking to elongate the lifespan of information material. The efforts for preservation include digitization of library resources, reformatting of library materials, binding and repair of worn-out materials and microfilming directed at preventing deterioration, or restoring damaged materials to a usable condition.

Deterioration of information materials should be taken seriously because it is one of the challenges faced by libraries. Library materials deteriorate because of several groups of factors, some inherent in the materials and others beyond the control of the library. Library holdings may begin to deteriorate because of the organic materials from which they are made. Maravilla (2008), established that library materials and archive collections are composed, mainly of paper, parchment, palm leaves, birch bark, leather and adhesives used in book binding, are influenced by two main forms of deterioration. One is biological decoration caused by insect’s attack or fungal growth, and the other form of deterioration is caused by adverse environmental conditions such as extremes of dampness or wide fluctuations in relative humidity associated with large variations in day and night temperatures, lights and atmospheric pollutants. These two forms of deterioration are interconnected because humid conditions favour the growth of

fungi and accumulations of dust and that will attract insects. To ensure the availability and long lasting of library resources, setting preservation practices should be adopted by libraries to preserve its holdings such as digitization, binding or repair of worn-out materials, de-acidification, microfilming, fumigation and proper maintenance of library materials like proper shelf reading, dusting of library materials as well as de-acidification. The contents of libraries represent the cultural and intellectual heritage of the world and their loss would be tragic. Valuable materials must be saved from the ravages of time and use; from the effects of natural and man-made disasters; and from the deterioration of the chemically unstable product from which they are created. Consequently, it is envisaged that if good measures are put in place towards the preservation of library resources, will enhance availability of library materials to aid research and slow down deterioration. The above, informed the decision to evaluate preservation techniques and availability of information resources in academic libraries.

LITERATURE

Libraries have always struggled against the physical destruction of their collections. Fires, floods, earthquakes, and wars have damaged the holdings of countless libraries, destroying forever much of the recorded history of human civilization. Aina (2007) defines preservation as a means of taking care of library materials to avoid deterioration. While the Institute of Museum and Library Services (2009) defines preservation as a process that effectively extends the life or useful life of a living or non-living collection, the individual items or entities included in a collection, or structure, building or site by reducing the likelihood or speed of deterioration. The art of preservation is as old as human civilization itself. The need to keep the past heritage and knowledge alive birthed preservation. For nearly two millennia the preservation of work of art on paper has been practiced in Far East. The library is for use. Hence, Osunrinde and Obatikun (2018) have defined it in terms of use. This includes the facilities, personnel and information materials. Preservation of library resources is seen as an activity carried out by libraries and its Liberians to prolong the lifespan of information resources in the library, it enhances the accessibility and ensures availability of library resources to serve its targeted users. These activities involved proper care and handling of library resources, proper shelving, maintaining the required temperature and relative humidity and other measures put in place to extend the lifespan of library sources. Murray (2005), sees preservation as an indirect method of treatment in which the environment around an item is changed such as stabilizing, maintaining temperature, humidity, light exposure, air pollution, dirt, dust and mold. Jordan (2003), opined preservation of library resources to involve all principles, practices, and organizations that enhance the lifespan of library resources and ensure accessibility of recorded knowledge. Jordan established that preservation encompasses activities such as general collections repair, microfilming, photocopying, digitization, environmental monitoring and control, care and handling of materials, disaster preparedness and recovery, binding and preservation education and training.

Libraries are established to provide information resources in different formats and types to fulfil or satisfy the information need of its users. library resources consist of all items or resources acquired, processed and made available in the library to its users or patrons to meet

their different information needs. Popoola (2013), ascertained that until 1980's, preservation of library resources was thought to be relevant to rare book materials and special materials by librarians, thus information materials found in the library are susceptible to deterioration or breakdown over time, and to replace them maybe difficult and expensive if not practically impossible. He further states that libraries are faced with the problem of deterioration of information materials in their holdings, thus these information materials have deteriorated to a great extent thereby losing their intellectual contents. Popoola (2013) opined that thousands of volumes of information materials in most African academic libraries and information centres are either in state of brittleness or beyond repair because of preservation issues. Modern libraries maintain collections that include not only printed materials such as, books, periodicals, newspapers, and magazines, but also art reproductions, films, sound and video recordings, maps, photographs, microfiches, microfilms, CD-ROMs, computer software, online databases, and other media. In addition to maintaining collections within library buildings, modern libraries often feature telecommunications links that provide users with access to information at remote sites (Kademani, Kalyane and Kumar, 2003).

According to Chaudhary (2011), valuable materials must be saved from the destruction caused by time and use; from the effects of natural and man-made disasters and from the deterioration of chemically unstable products from which they are produced. He went forward to establish that through preservation, libraries provide a sense of immortality, with the ever-changing world outside, the library remain stable and dependable. Through digitization reformatting and preservation, Librarians are able to retain materials while at the same time adapting to new methods. He further opined that through these means, libraries can adapt to changes in user needs without changing the quality of the material itself. He concluded that through preservation efforts, patrons can rest assured that all the materials are constantly deteriorating over time, the library will remain a stable reliable environment for their information needs.

According to Onyeniyi (2015), preservation refers to all efforts and actions taken to extend the lifespan of information material. These efforts will include planning, following principles and practices directed at preventing deterioration, or restoring damaged materials to a usable condition. Onyeniyi (2015) maintains that since paper information resources are organic in nature because part of their components is created from cellulose hemicelluloses, which are plant cells, the materials are most likely to be influenced by natural decay and deterioration within a short period of time. Inherent chemical, pollutant induced, light-induced, biological and physical agents are all forms of deterioration to library resources. Hence, library needs to be protected from these factors of deterioration. He further ascertains that libraries and archives should preserve their materials to ensure their accessibility and longevity to foster research, and to prevent spending on replacement costs of old materials.

Preservation of information is crucial and incorporates part of the academic library operations, therefore library staff should be trained on how to apply knowledge to protect and secure information resources. Ntui and Ottong (2009), noticed that the preservation and conservation of library materials has been neglected for too long in Nigeria. The study maintained that librarians are aware of the importance of preservation, but little progress has so far been made

to establish formal preservation programs for library resources. According to IFLA Principles for the care and handling of library materials (2010), preservation to include “all the managerial and financial procedures including storage and accommodation provisions, staffing levels, policies, techniques, and methods involved in preserving library and archival material and the information contained in them. Osunride and Adetunla (2016), ascertained that library security is the most prominent used measures of preservation, dust and particulate matters at the major causes of deterioration of library materials. They established that dusting, cleaning and proper shelving are the major preservation techniques adopted by libraries. They further ascertained that lack of proper preservation practices in academic libraries are the causes of deterioration. The concept of preservation is firmly rooted in the idea that mankind learns from the past and that evidence of the past therefore has considerable significance to the human race and is worth saving. Preservation of library materials techniques include the following:

Fumigation - is one way to preserve library materials by using chemicals on library materials so that fungi do not grow, and it ensures that fungi, insect, others destroyers of library materials are prevented.

Deacidification - is the preservation of library materials by stopping the acidity process contained in the paper.

Lamination - which means coating the library material with special paper, so that the library material becomes durable.

Encapsulation - is one way to protect paper by encasing it in an air-tight transparent container to prevent physical damage such as brittle due to age, the influence of acid, because of being eaten by insects, storage errors and the like.

Binding - is the work of gathering or combining loose sheets into one, which is protected by a protective cover.

Cloud computing – is a preservation technique where library information materials are converted to electronic format and migrated to the cloud without much of a difficulty.

Backup/Replication - in a typical storage backup system, a copy of the data is replicated at multiple locations. When a change is made to one copy, that change gets mirrored to the other locations according to the backup schedule.

Web archiving - web archiving technology enables capture, presentation and reproduction and of valuable content from the life web in an archival setting, so that it can be independently managed and preserved for future generations.

The term preservation involved the activity of visually, chemically and digitally reducing damage and preventing the loss of information content and the purpose of this preservation is to extend the life of library materials. According to Hendrikus (2019), preservation consists of four components namely:

- a. Preventive conservation is an action in optimizing environmental conditions for training, raising awareness, recruiting competent professional staff that will professionally utilize the resources at their disposal in preventing damage or loss of library materials. However, no matter the level of professionalism, the nature of each

- information material determines the extent of the effectiveness of this approach. Importantly, this approach focuses on librarians/or record managers that the records.
- b. Passive conservation is an activity to extend the life of a collection, which includes monitoring cleanliness, clean air, and the use of air conditioners, including conducting surveys to determine the physical condition of the collection and the condition of the collection storage environment. The focus is on creating enabling environment where the longevity of materials can be improved.
 - c. Active conservation is an action directly related to the collection, which includes making protective boxes, repacking collections, re-binding by replacing protective sheets (paper-back) with acid-free paper, cleaning the collection, removing acid (deacidification) and others.
 - d. Restorative preservation is an action to extend the collection by improving the collection's appearance so that it approaches its original state in accordance with the rules and ethics of conservation. This is done to restore damaged or damaging information materials.

Archivists and librarians place great emphasis on preserving content for the long term while ensuring its everyday usability. Digital media have become popular, in part, because content can be accessed and distributed easily and quickly, and because digital media can store the equivalent of reams of documents or hundreds of songs on one tape or disc. Optical discs can provide faster access than magnetic tape to a particular file, song, video clip, document, record, or photograph within collections stored on the medium. These benefits have prompted significant increases in analog-to-digital conversion of existing documents, books, periodicals, photographs, and graphics, as well as music and moving images.

Ntui, Ebam-Agbor and Orim (2019), opines that preservation is an activity associated with maintaining library and archival materials for use either in their original physical form in some other usable forms. The response of proactive treatment of library materials to restore them physically or stabilize chemically, thus sustaining their survival as long as they are needed in the original form. The study ascertained that libraries play a vital role in this communication between the past, present and future. Whether the cultural record is contained in books or electronic formats, libraries ensure that these records are preserved and made available for later use. The study established that library holdings at the priceless heritage of mankind as they preserve facts, ideas and evidence of human development in the variety of areas, ages and direction, any loss to such materials becomes irreplaceable. Therefore, preserving these intellectual, cultural heritage becomes not only the academic commitment but also the moral responsibilities of the librarians or information scientist who are in charge of these repositories. Ozioko (2014), posited that academic libraries are created to serve their mother institution. They serve and help the institutions that created them to achieve their aims and objectives. This research was guided by the following objectives.

1. To determine the relationship between preventive conservation and availability of library resources in academic libraries.

2. To identify the relationship between passive preservation and availability of library resources in academic libraries.
3. To find out the relationship between active preservation on availability of library resources in academic libraries.
4. To establish the relationship between restorative preservation and availability of library resources in academic libraries.

METHODOLOGY

Correlational research design was adopted for this study. The population of the study was culled from three academic libraries in the South-South Geopolitical region of Nigeria. Using simple random sampling technique, 87 respondents were sampled from the three academic libraries in the order of 19 from Donald Ekong Library, University of Port Harcourt, 26 from Kenneth Dike Library, University of Ibadan and 42 from Nnamdi Azikiwe Library, University of Nigeria, Nsukka. Out of 87 copies of questionnaires distributed, 84 copies were fully completed and retrieved indicating a response rate of 97%. Data were collected, arranged and analysed using Pearson Product Moment Correlation (PPMC).

RESULT AND DISCUSSION

Table 1: Preventive preservation and availability of library information resources.

SN	Variables	$\sum x$	$\sum x^2$	\bar{x}	\pm	r	r.crit.	Decision
1	Preventive Preservation	3356	45362	55.62	4.85			
2	Availability of information resources	4138	68454	65.34	2.93	0.75	0.217	Significant

N = 84

Table 4.1 shows that tested relationship between preventive preservation and availability of information resources are positively correlated with a correlation coefficient of 0.75 indicating a high positive relationship. This is obtained with r critical of 0.217 at a degree of freedom of 82 ($r = 0.75 > r. \text{crit. } 0.217, p = 0.05$), thus, the relationship between preventive preservation and availability is statistically significant. According to Hendrikus (2019), preventive conservation is an action in optimizing environmental conditions for training, raising awareness, recruiting competent professional staff that will professionally utilize the resources at their disposal in preventing damage or loss of library materials. This finding shows that an upward movement in preventive measures taken by the library incurs an upscale of availability of information materials. However, the researcher reasoned that since this approach is librarian-centred, perhaps, this may have been a motivation to librarians influencing the response that led to the positive relationship obtained. Consequently, this finding show that preventive preservation ensures availability of information resources, and may also be a source of motivation for librarians.

Table 2: Passive preservation and availability of library resources in academic libraries.

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SN	Variables	$\sum x$	$\sum x^2$	\bar{x}	\pm	r	r.crit.	Decision
1	Passive preservation	3658	58324	52.97	1.73			
2	Availability of information resources	4138	68454	65.34	2.93	0.52	0.217	Significant

N = 84

The Table 2 shows the relationship between passive preservation and availability of digital information resources. The coefficient of relationship was obtained as $r = 0.52$, with a degree of freedom of 82 and r. critical of 0.217 indicating a positive significant relationship between passive preservation and availability of information resources in academic libraries in south-south geopolitical zone of Nigeria. Evidently, literature shows that passive preservation is aimed at creating enabling environment where the longevity of materials can be improved. In this condition where monitoring cleanliness, clean air, and the use of air conditioners, including conducting surveys to determine the physical condition of the collection and the condition of the collection storage environment are carried out, information resources are expected to be available for utilization as all these culminated to Hendrikus (2019) definition of preservation as “financial management, ways of storage, personnel, techniques and methods for preserving information and the physical form of library materials”.

Table 3: Active preservation on availability of library resources in academic libraries.

SN	Variables	$\sum x$	$\sum x^2$	\bar{x}	\pm	r	r. crit.	Decision
1	Passive Preservation	4352	78464	57.97	3.13			
2	Availability of information resources	4138	68454	65.34	2.93	0.80	0.217	Significant

N = 84

The analysis on Table 3 shows the testing of the relationship between active preservation and availability of information resources in academic libraries. The analysis shows that the Pearson Product Moment Correlation formula used obtained a coefficient of 0.80. This is a high positive relationship. Furthermore, the relationship is statistically significant at 0.05 alpha level with a degree of freedom of 82 ($r = 0.80 > r. \text{crit. } 0.217, p = 0.05$). Thus, there is significant high relationship between passive preservation and availability of information resources in academic libraires in south-south geopolitical zone in Nigeria. This finding is expected as it is focused on the library materials. According to Onyeniyi (2015), preservation refers to all efforts and actions taken to extend the lifespan of information material. These efforts will include planning, following principles and practices directed at preventing deterioration, or restoring damaged materials to a usable condition. Hence, preservation in general supposed to improve availability of information resources since it ensures that longevity of library information resources.

Table 4: Restorative preservation and availability of library resources in academic libraries.

SN	Variables	$\sum x$	$\sum x^2$	\bar{x}	\pm	r	r. crit.	Decision
1	Restorative preservation	3972	64132	55.31	2.54			
2	Availability of information resources	4138	68454	65.34	2.93	0.42	0.217	Significant

N = 84

The Table 4 above shows the correlation of 0.42 indicating a low correlation coefficient. The coefficient of 0.42 was obtained with r critical of 0.217 and degree of freedom of 82 ($r = 0.42 > r. \text{crit. } 0.217, p = 0.05$). This is statistically significant at 0.05 alpha level. Hence, the low relationship restorative preservation and availability of information resources in academic libraries in south-south geopolitical zone in Nigeria is statistically significant. Restorative preservation is aimed at improving the collection's appearance so that it approaches its original state. This suggests that it is a preservative measure that is focused on reparation after damage has occurred. Ntui, Ebam-Agbor and Orim (2019), opines that preservation is an activity associated with maintaining library and archival materials for use either in their original physical form in some other usable forms. However, the usefulness of information materials is inferred from their usage, therefore the restoration period takes these resources out of the shelves thereby inhibiting accessibility. This and many other scenarios may account for the low relationship obtained.

CONCLUSION

Academic libraries have focused more attention on teaching, learning and research activities with the aim of achieving the mission and vision of the parent institution without showing much attention on the preservation and availability of resources the library holds. This study established the relationship of preservation on availability of library resources in the academic libraries. From the analysis and discussion of the findings, the researcher discovered that preservation techniques such as preventive preservation, passive preservation, active preservation and restorative preservation have significant relationship with the availability of library resources in academic libraries in south-south geopolitical zone in Nigeria. However, active preservation obtained the highest significant relationship. Consequently, it was recommended that libraries should engage in active preservation its collection and to ensure availability of library resources.

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