Preservation and Security of Information Resources in Academic Libraries in Cross River State, Nigeria

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Resumo

This study examines preservation and security of information resources in academic libraries in Cross River State, Nigeria. The purpose of the study was to identify the methods adopted in preserving and securing information resources, determine the extent to which information resources lost through non-preservative, theft and mutilation constitute problems, identify factors that constitute barriers to effective preservation and security of information resources and proffer strategies for effective preservation and security of information resources. A survey research design was used while questionnaire was administered to 107 library staff randomly selected from twelve academic libraries in Cross River State. 93 questionnaires were returned and were used for the analysis. The data was analyzed using descriptive statistics (mean score). The findings revealed that, the study libraries adopted digitalization, binding, fumigation, electronic security system, laminating/photocopying, marks of ownership, cleaning and dusting, staff surveillance, and air condition/ventilation to preserve and secure their information resources. The problem of information resources loss through non-preservative is higher than that of theft and mutilation. Inadequate funding, lack of competent manpower, lack of preservation and security policy, inadequate infrastructure, harsh environmental conditions and lack of equipment were barriers to effective preservation and security of information resources. All the items in the instrument were accepted as strategies for effective preservation and security of information resources in the study area. The study recommends among others that: funding from government and the parent institutions to the library should be increased, Preservation and security policies in libraries should be formulated and implemented.

Keywords: Academic Libraries, preservation, security, and information Resources.

INTRODUCTION

Academic libraries are established to provide opportunities for research and learning in tertiary institution. Any library attached to a post-secondary or tertiary institution can be described as an academic libraries. Thus, academic libraries are as varied and distinctive as the academic institutions they serve. In the Nigerian context academic libraries according to Ogar (2024) are all libraries attached to universities, polytechnics, colleges of Agriculture; colleges of education, Military institutions like the Nigerian Defiance Academy, the War College, Nigerian Institute for strategic studies, Research Institutions, Schools of Nursing, College of Health Technology and to any other post-secondary institutions.

He further added that, all over the world libraries exist in tertiary institution. Academic libraries are established to assist their parent institutions to perform their functions and roles by selecting, acquiring, processing, preserving and securing their information resources, which are made available to users. Libraries are also an essential part of the organization of a tertiary institutions and the basis of all study and research. The academic libraries hold a very important and large proportion of the nation's literary wealth and resources. They represent the tertiary institutions sole instrument capable of reflecting the totality of knowledge and the institutions' major purposes and of relationships and interdependences of its many departments and faculties (Ogbodo, 2010).

The basic purpose of academic libraries is to support teaching, learning and research activities as well as provide recreational services in the tertiary institutions environment; an objective which is achieved through a systematic acquisition, storage, organization, preservation and security as well as dissemination of all forms of recorded and undocumented information for the purpose of reading, study and consultation in all fields relevant to the programmes of the institution they serve (Ogar, 2024).

Preservation and security of information resources are very important, this is because they protect the resources from harm, damage, mutilation and theft. They also help to safeguard the ideas, knowledge and experiences that are passed on from generation to generation. According to Ogar (2020), preservation and security of information resources in academic libraries involves all the managerial, technical and financial considerations applied to retard deterioration and extend the useful life of resources to ensure their continued availability. Actions are taken on storage and accommodation provisions, staffing levels, policies, techniques and methods involved in preserving library and archival materials and information contained in them. These are what library and information resources are done to retain the quality of materials in order to make them available for generations to come.

Hornby (2016) defined preservation as the degree to which something has not been changed or damaged by aged , weather, etc. it is simply the act of ensuring that something is kept at its original state for a very long time without reducing in its quality and value. While, security is freedom for risk or danger, safety, doubt, etc. it encompasses all the equipment, personal practices and procedures used to assures safety to prevent a crime such as burglary, etc (Abioye & Adew, 2013). Isebe, (2014) see preservation as protection against disasters as well as thieves or intruders. It also deals with the protection of buildings, equipment, resources and staff. Preservation and security of information resources are interchangeably used to embrace all actions taken by the library to protect its information materials. They are integral library operations that can make library information resources to remain perpetually useful. Information

resources should not be allowed to first deteriorate before repair work is done. Preventive measures should rather be embarked upon to prolong the life span of such resources to prevent and avoid costly repair and restoration.

Information security is the practice of defending information and information bearing materials from unauthorized access, use, disclosure, disruption, modification, perusal, inspection, recording or destruction. It is a general term that can be used regardless of the form the data may take (electronic, physical, etc) (Omosekejimi, Ijiekhuamhen & Ojeme, 2015). The threat to library information resources through theft and mutilation has posed tremendous challenges to the library profession worldwide (Godwin and Issac 2019). Igbinlola and Akande, (2019) stated that theft and mutilation of printed and non-printed library and information resources are common phenomenon in Nigerian University libraries and if not checked will create a serious threat to library' material collections and their preservations. As a result of the rising incidence of insecurity of information resources, academic libraries are suffering serious losses of especially printed materials such as books, journals, periodicals, newspapers and other library information properties (Suleiman, Faga & Ejeh 2019). In other to ensure that research and other important information resources are available for institution and public use, Nneka, Ifeyinwacalista & ObiomaAnyaogu, (2020) stated that the library policy especially academic libraries should provide the library and its employees and agents with legal protection to ensure security of their collections and information resources.

Preservation and security of information resources are important when it comes to the issues of academic libraries. It helps to improve the life span of those resources in the library. The need to preserve information resources stemmed from the desire to link knowledge of the past with that of the present and future. The fact remains that information resources in academic libraries should not be allowed to first deteriorate before repair work is done. This is the reason preventive and security measures are embarked upon to prolong the life span of the information resources in libraries.

The issue of preservation and security of information resources is very important to the existence of a library. Harvey, (1993) in Ogbodo, (2010) observed that deterioration is on a massive scale, affecting such an immense volume of materials in the libraries throughout the world, that to suggest it will become the major professional concern of the coming decades is no exaggeration. Already the problems exist. The magnitude of the problem is enormous. The factors that worsen the problems vary from that of the quality of the environment in which library collections are stored, the ways of handling these collections, increased use of library resources as a consequence of improved education, to recent awareness of our cultural heritage inherent in the materials themselves. Ogar (2020) on his part observed that the techniques that have been developed to prevent and control crime are far more sophisticated than the chaining of books. The presentation of research about library crime, disruption and deterioration can provide insight into the problems faced by librarians and stimulate thought about the range of solutions to the problems of crime, disruption and deterioration. Further, these problems arise from theft, mutilation, war, and vandalism of library materials. Others are related to disaster occurrences such as flooding, earthquake, volcanic eruptions and fire. Therefore it becomes imperative that the librarians should inculcate preservation, conservation and restoration as one of its programmes, make arrangement for restoration of damaged materials and educate other staff towards achieving this aim (Lincoln & Lincoln (1987) in Ogar (2020).

Information resources can be in print or in electronic version, and they are vital and delicate. The way they are handled can affect the life span of the records contained in them. These records must be preserved and secured for future purposes. Feather, (1997), information resources are also materials consulted for knowledge about a topic, a theme, an event, a date, a number, a place or even a word. Some information resource lend themselves to quick and easy use and are called reference resources (Aina, 2004). Other types of information resources are; Journals, official publications and statistics, theses and dissertations, internet sources, non-book material like cartographic materials, sound recordings, motion picture. All these information resources are stored in the library to provide the information that the uses need.

Statement of the problem

Academic libraries often suffer losses of their information resources due to a variety of reasons. These include: poor quality of paper, poor quality of book production, poor handling of information resources, inadequate funding, temperature and relative humidity, light intensity, biological agent acting on information resources, fire and flood, lack of disaster control planning, lack-a-deistical attitude of staff to preservation and security and decisional conflicts.

In spite of many benefits derived from effective preservation and security of information sources in the libraries, academic libraries in Cross River State may still be backward in the methods they adopt in protecting their information sources. The current situation as observed by the researcher in academic libraries in Cross River State with regard to preservation and security of information sources is not known.

Unavailability of information resources in academic library leads to users' frustration while information resources lost is a financial waste to the library. Most of the information resources destroyed are very expensive to acquire or replaced and more importantly contain vital information which may not be acquired by the library once lost. This therefore has created a need for in-depth investigation into the various methods used in preserving and securing information resources in academic libraries in Cross River State, Nigeria.

Purpose of the study

The purpose of the study is to:
1. To identify the methods adopted in preserving and securing information resources in academic libraries in Cross River State, Nigeria.
2. To determine the extent to which information resources loss through non-preservative, theft and mutilation constitute problems in academic libraries in Cross River State, Nigeria
3. To identify the factors that constitute barriers to effective preservation and security of information resources in academic libraries in Cross River State, Nigeria.
4. To proffer strategies for effective preservation and security of information resources in academic libraries in Cross River State, Nigeria

Research questions

The study aimed at addressing the following research question**s**:
1. What methods of preserving and securing information resources are adopted in academic libraries in Cross River State, Nigeria?
2. What is the extent of information resources loss through non-preservative, theft and mutilation in academic libraries in Cross River State, Nigeria?

3. What are the factors that constitute the barriers to effective preservation and security of information resources in academic libraries in Cross River State, Nigeria?
4. What are the strategies adopted for effective preservation and security of information resources in academic libraries in Cross River State, Nigeria?

LITERATURE REVIEW

Preserving and securing information resources in academic libraries is crucial for ensuring long-term accessibility and preventing damage or theft. This involves implementing physical preservation techniques, maintaining a controlled environment, and employing security measures like inventory control and access restrictions (Ogar, 2019)

The most complex issues facing libraries world over today is how best to preserve and secured information resources that compromise their collections. Since all library resources are not of equal value, decisions must be made concerning what should be preserved and secured. This process also involves setting priorities and determining of appropriate preservation and security methods and techniques that will be adopted to prolong the life span of library materials (Akande, 2009). Akporhonor (2011) identified the need to adopt preventive measures in preservation, conservation and security of library resources and records. These include proper housing of documents, protection against heat, humidity, light, air pollution, dust, insects, fungi, water and mishandling. The author suggests inclusion of conservation and preservation in library education and training. There are different methods and techniques librarians and archivists can employ to prolong the life span of materials in their custody. They include: Care and Handling; Inventory control; Control of Environmental Factors; Marks of ownership; Taking precautions against theft; Reformatting; Guarding against mutilation and vandalism; and Controlling entrances and exits.

Anasi (2010) affirmed that the practice of good housekeeping is probably the simplest and expensive method of preventive conservation for any type of information resources. There are two aspects to housekeeping. These are, cleaning the building and cleaning the information resources which include the use of vacuuming and dusting. Users should be prohibited from eating, drinking and smoking in the library. One of the most important factors affecting the longevity of library materials is the environment in which these information resources are stored, used and displayed. Affirming the above, Mohammed (2006) cited by Ogar (2020) stated that conducive environment has a profound positive effect on the longevity of every item in the library. In the same vein, Chaudhary (2012) stated that after collection protection, environmental control is the most cost-effective investment in building design to extend service life of the collection. The benefits of extended service life and reduced collection maintenance costs, in addition to considerations of human comfort, often can justify environmental control throughout the library.

Ogar (2012) noted that preservation involves stabilizing the environment under which the information resources are kept. Stabilization of the environment implies control of excessive temperature, relative humidity and instituting good house-keeping practices. The information resources must be in good sate and available for consultation. The non-current resources are often relegated to one corner of the rooms, the corridors or basements. They are also badly stored that they get exposed to dust, sun and rain which are responsible for their fast deterioration.

The ISO/IEC 27005 (2022), standard provides guidance on managing information security risks. It emphasizes identifying and assessing risks, deciding on risk treatments, monitoring risks, and keeping stakeholders informed. This framework is applicable to all types and sizes of organizations, including academic libraries, to ensure the confidentiality, integrity, and availability of information.

Information resource loss through non-preservatives, theft, and mutilation presents a serious problem in academic libraries. The issue demands urgent attention through the implementation of preservation policies, improved user education, enhanced security measures, and investment in digital alternatives. Ogar (2020), observed that without intervention, these losses will continue to undermine the effectiveness and reliability of academic libraries.

Ogar (2020) reported that the combined effect of non-preservatives, theft, and mutilation loss of information resources results to decline in service quality. He went further to add that users will be unable to access required materials, leading to dissatisfaction and hindering research and academic success. Moreover, the cost of replacing lost or damaged materials, especially rare or out-of-print items, can be exorbitant. Ogar (2020) report affirm Olorunsola (2001) report who emphasized that continuous loss of resources erodes the value of the library collection and compromises the institution's academic mission.

According to Aina (2004) as cited by Ogar (2019), many academic libraries in Africa lack the necessary infrastructure for proper preservation, resulting in the rapid degradation of paper-based materials leading to poor library services. Ogar (2019) also cited Olatokun and Ayanbode (2009) report that poor handling by users and staff, combined with environmental issues like humidity and pests, accelerates the wear and tear of library collections as a result many academic libraries in Nigeria cannot meet the demand of their users. A study by Ajegbomogun (2004) at the University of Ibadan revealed that theft was the most frequent form of information resource loss, significantly impacting the availability of core textbooks and reference materials. Oyewusi and Oyeboade (2009) found that mutilation was driven by user frustration over inadequate access to essential materials, especially when demand exceeds supply.

Several factors hinder the effective preservation and security of information resources in academic libraries in Nigeria and Cross River State in particular. These challenges according to Beauty and Tangkat, (2024) include inadequate skilled manpower, lack of efficient technology, lack of financial resources to adopt modern technology for effective documentation, and lack of information technology skills, among others.

Jimada and Aduku (2015), study reported that technologies such as DSpace software are commonly used in African Institutional Repositories (IRs) to manage and preserve digital content. However, challenges like lack of long-term funding and insufficient technical staff with the required skills hinder effective digital preservation. They went on to add that, Federal University Libraries in Nigeria face issues like lack of digital preservation policy, inadequate power supply, unskilled professionals, technological obsolescence, poor maintenance culture, technophobia, storage media degradation, inadequate funding, changes in technology, and inadequate infrastructure as factors hinder the effective preservation and security of information resources.

Ogunmodede and Ebijuwa (2013) observed that a survey of literature on preservation and conservation of library materials in Africa as stated by Popoola (2003) and Olatokun (2010) revealed that the prominent inhibitors to effective and efficient preservation of information materials in African libraries, archives and record centres

include: Inadequate Finance; Inadequacy of Equipments/Materials; Tropical climate; Manpower and other infrastructure; Lack of Preservation and Conservation Policy; Quality of paper and ink; Maintenance culture; and Administrative problem.

The empirical evidence highlights that the preservation and security of information resources in academic libraries are hampered by a complex interplay of financial, technical, environmental, and institutional factors. Addressing these barriers requires a holistic approach, including improved funding, staff training, policy formulation, and technological upgrades

To buttress this Adeleke, Okusaga & Lateef (2010) submitted that, if any organization will meet its objectives in the performance of its obligations it must take further steps to conserve and preserve information materials for posterity. Consequently, they proffered some feasible recommendations as: improved funding, training programmes for information handlers/users such as librarians, archivist, and information technicians on preservation, conservation and security management. Such training programmes should include environmental control, storage, housing, and handling of information materials. Also, an improvement in the storage environment should be paramount.

Academic libraries worldwide employ a variety of strategies to ensure the effective preservation and security of their information resources. Empirical studies from different regions provide insights into these practices, highlighting both common approaches and context-specific adaptations. Ogar (2020) study reported that to achieve a holistic approach to preservation and securing of information resources in academic libraries, integration of technological solutions with policy frameworks and capacity building are needed to address existing challenges.

The Northeast Document Conservation Centre (NDCC) (2015), identify activities that are involved in preserving library information resources to include: Environmental control, disaster planning, security protecting, storage and handling, reformatting and library binding. Also Asunmo and Yaya (2022) equally mention the following as strategies in the preservation and security of information resources: computerization, binding, air conditioners, vinyl discs, video discs, lamination, microgroove discs, shellac discs, mylar, floppy discs, magnetic tapes, and de-acidification. Oluwatuyi (2020) on his part identified installation of air-conditioning, fire extinguishers, thunder arresters, shelves and cabinets and CCTV security camera systems as some of the strategies and methods employed in the preservation and security of information resources in libraries. Adeleke, Okusaga and Lateef (2010) submitted that, if any library will meet its objectives in the performance of its obligations it must take further steps to preserve and secured its information resources for posterity. Which should include training programmes for its staff on preservation and conservation management. Such training programmes should comprise environmental control, storage, housing, security and handling of information materials. Also, an improvement in the storage environment should be paramoun.

METHODOLOGY

This study adopted a survey research design. The population of this study consists of all library staff working in all academic libraries in Cross River State the libraries(The libraries are: University of Calabar Library, Calabar; University of Cross River State Library, Calabar; Federal College of Education Library, Obudu; Cross River State College of Education libaray, Awi Akamkpa (now Cross River University of Education

and Entrepreneur); Cross State College of Health Technology Library, Calabar; Federal Polytechnic Ugep Library, Ugep: College of Nursing Science Library, Itigidi; College of Nursing Science Library, Calabar; College of Nursing Science Library, Obudu; College of Nursing Science Library, Ogoja; Arthur Jarvis university library, Akpabuyo and Havilla University Library, Nde, Ikom.), A simple random sampling technique was adopted and a total of 107 respondents were selected for the study. A structured questionnaire was developed and administrated to the respondents, 102 were returned, 9 of the returned questionnaires were rejected because they were not completely filled. Therefore a total of 93 questionnaires (87%) were used for the analysis. To determine the reliability of the instrument, A Cronbach Coefficient Alph (α) reliability method was adopted to test the reliability of the instrument which shows a reliability index of .86%. The data was analyzed using descriptive statistics (mean score). The criterion mean was set at 2.50.

RESULTS

The data in respect of this study as collected are presented below:

Research question1: What methods of preserving and securing information resources are adopted in academic libraries in Cross River State, Nigeria?

Table 1: Mean responses of library staff on the methods adopted in preserving and securing information resources

S/N	Methods of protecting and security of information resources adopted in your library	S A	A	D	S D	Mean	Decision
1	Digitalization	56	19	12	6	3.34	Accepted
2	Binding	41	38	10	4	2.99	Accepted
3	Fumigation	26	54	11	2	3.08	Accepted
4	Electronic security system	59	24	7	3	2.94	Accepted
5	Laminating/ Photocopying	49	39	5	0	2.60	Accepted
6	Marks of ownership	61	32	0	0	3.14	Accepted
7	Cleaning and Dusting	64	26	1	0	3.15	Accepted
8	Security personnel at library entrance	20	9	36	28	2.23	Rejected
9	Firefighting equipment (in case of fire)	57	28	6	2	3.51	Accepted
10	Staff surveillance	56	29	8	0	3.52	Accepted
11	Proper storage of information sources	58	32	3	0	3.15	Accepted
12	Air condition/ventilation	59	33	1	0	3.15	Accepted

The data used for answering research question 1 were generated by collating library staff responses on items measuring their agreement and disagreement with methods of preserving and security of information resources adopted in their library. The sum of the scores were subjected to analysis using descriptive statistics (mean score) as shown in table 1. The findings showed that academic libraries in Cross River State adopted digitalization, binding, fumigation, electronic security system, laminating/ photocopying, marks of ownership, cleaning and dusting, firefighting equipment (in case of fire), staff surveillance, proper storage of information sources and air condition/ventilation to preserve and secure their information resources in their libraries. This is based on the mean score of 2.50 and above. On the other hand, the result of the study revealed that Security personnel at library entrance is not adopted as preservation and security method. The reason for this is that Security personnel are not to be station at the entrance of the library but within the library environment.

Research question2: What is the extent of information resources loss through non-preservative, theft and mutilation in academic libraries in Cross River State, Nigeria?

Table 2: Mean responses of library staff on the Extent of information resources loss through non-preservative, theft and mutilation

S/N	Extent of information resources loss in your library in the past one year?	Very High Extent	High Extent	Low Extent	Very Low Extent	Mean	Decision
1	Through non-preservative	56	29	6	2	3.34	Accepted
2	Through theft	49	34	8	2	2.99	Accepted
3	Through mutilation	69	21	2	1	3.04	Accepted

To answer research question 2, the mean scores of the respondents on extent of information resources loss through non-preservative, theft and mutilation in academic libraries in Cross River State were computed and analyzed. The criterion mean score of 2.50 was adopted as cut-off point in deciding the extent of information resources loss through non-preservative, theft and mutilation in academic libraries in Cross River State. Table 2 shows that the problem of non-preservative is higher than that of theft and mutilation since non-preservative has a mean score of 3.34 and that of mutilation and theft are 3.04 and 2.99 respectively.

Research question3: What are the factors that constitute the barriers to effective preservation and security of information resources in academic libraries in Cross River State, Nigeria?

Table 3: Mean responses of library staff on the factors that constitute the barriers to effective preservation and security of information resources

S/N	Factors that constitute barriers to effective preservation and security of information resources in your libraries?	S A	A	D	S D	Mean	Decision
1	Inadequate funding of libraries	53	34	5	1	2.94	Accepted
2	Lack of competent manpower	51	36	4	2	2.60	Accepted
3	Lack of preservation and security policy	49	38	6	0	3.11	Accepted
4	Inadequate infrastructure	52	37	3	1	3.15	Accepted
5	Lack quality of paper and ink	9	20	36	28	2.23	Rejected
6	Harsh environmental conditions accelerate information resources depreciation	36	28	7	2	3.48	Accepted
7	Lack of equipment needed for preservation and security of information resources	56	29	5	3	3.52	Accepted
8	Administrative policy	43	36	10	4	2.76	Accepted

In answering research question, 3, mean scores of respondents on the factors that constitute the barriers to effective preservation and security of information resources in academic libraries in Cross River State were analyzed. The main score of 2.50 was used as a criterion mean point in determining which factor is a barrier while a mean score of less than 2.50 is considered as not a barriers. The result analyzed and presented in Table 3 shows that out of eight items, seven items (87.5%) were accepted as barriers to effective preservation and securing of information resources. These seven items were accepted because the ratings were above the criterion mean of 2.50. This means that they are constraints to effective preservation and securityof information resources. While lack of quality paper and ink is not accepted as barrier to effective preservation and security of information resources in academic libraries in Cross River State, with a mean score of below the criterion mean score of 2.50.

Research question 4: What are the strategies adopted for effective preservation and security of information resources in academic libraries in Cross River State, Nigeria?

Table 4: Mean responses of library staff on the strategies for effective preservation and security information resources

S/N	strategies adopted for effective preservation and security of information resources in your library	S A	A	D	S D	Mean	Decision
1	Provision of adequate funding to the library	43	26	18	6	2.85	Accepted
2	Vigilance/surveillance	48	28	15	2	2.83	Accepted
3	Insurance	41	36	12	4	3.17	Accepted
4	Installation of electronic security system	53	36	4	0	3.24	Accepted
5	Capacity building of staff	50	36	5	2	3.16	Accepted
6	Adequate environment control, and dusting of library materials	52	33	7	1	3.23	Accepted
7	Installing burglary proofs on the windows	46	34	10	3	2.91	Accepted
8	Formulating and implementing of policy in preservation and security of library materials	54	18	17	4	3.30	Accepted
9	Punishing offenders	45	32	14	2	2.94	Accepted
10	Regular fumigation	40	38	10	5	2.61	Accepted
11	Improved quality of paper and ink	23	50	16	4	2.65	Accepted
12	Installation of strong anti-virus	43	26	20	4	2.76	Accepted

To answer research question 4 the mean responses of respondents was computed and analyzed. Table 4 shows the mean responses on the strategies to be adopted for improving preservation and security of information resources in academic libraries in Cross River State. From the analyzed data, the respondents supported all the ten items as strategies for improving the preservation and security of information resources. The upheld strategies and their mean score are: Provision of adequate funding to the library (2.85), vigilance/surveillance (2.83) Insurance (3.17), Installation of electronic security system (3.24), capacity building (3.16), Adequate environment control, and dusting of library materials(3.23), Installing burglary proofs on the windows (2.91), Formulating and implementing of policy in preservation and security of library materials (3.30), Punishing offenders (2.94), Regular fumigation (2.61), Improved quality of paper and ink (2.65) and Installation of strong anti-virus (2.76). The mean scores of these items are above the criterion mean of 2.50.

DISCUSSION

Methods of preserving and securing information resources are adopted in academic libraries in Cross River State.

The findings of this study revealed that the academic libraries in the study area adopt the following methods in preserving and securing their information resources: digitalization, binding, fumigation, electronic security system, laminating/ photocopying, marks of ownership, cleaning and dusting, firefighting equipment (in case of fire), staff surveillance, proper storage of information sources and air condition/ventilation to preserve and secure their information resources in their libraries, While present of security personnel at library entrance was rejected as preservation and security method adopted in the study area.

This finding affirmed the findings of Hassan and Emmanuel (2006), Abdulrazaq (2015) and Ogar (2020) who identify methods of preservation, conservation and security of library materials to include: reformatting, digitization, cleansing and dusting, managing of surroundings with the aid of using set up enthusiasts and air conditions, lamination, binding, photocopying and marks of ownership as the most effective methods of preservation and security of library resources.

Extent of information resources loss through non-preservative, theft and mutilation in academic libraries in Cross River State.

The finding of the study with regard to research question two indicated that, the three factors listed in the instrument are serious problems academic libraries in Cross River State are experience in spite of the fact that the libraries have staff at the entrances of the libraries for checking users going in and out of the libraries, with librarians and other electronic security system that check on users to prevent mutilation.

The finding is in agreement with Ajegbomogun (2004), Hassan and Emmanuel (2006), Oyewusi and Oyeboade (2009) and Ogar (2019) views and findings that non-preservative, mutilation, theft and overdue were among the problems affecting the libraries they studied. Non-preservative, mutilation and theft are major problems facing libraries today which is in line with the view of Allen (1997) that disaster from theft and mutilation and other problems may be as devastating as any natural disaster for library's collection.

Factors that constitute the barriers to effective preservation and security of information resources in academic libraries in Cross River State.

The findings of the study shows that inadequate funding, lack of competent manpower, lack of preservation and security policy, inadequate infrastructure, harsh environmental conditions accelerate information resources depreciation, lack of equipment needed for preservation and security of information resources and administrative policy are factors that constitute barriers to effective preservation and security of information resources in academic libraries in Cross River State. The findings also revealed that lack of quality paper and ink is not a barriers to effective preservation and security of information resources in academic libraries.

This finding is in line with the findings of Fedehan (2009), Olatokun (2010), Ogunmodede and Ebijuwa (2013), Voters (2017), Ogar (2020) and Beauty and Tangkat, (2024) who reported in their separate study that the prominent inhibitors to effective and efficient preservation of information resources in African libraries, archives and record centres include: inadequate finance; inadequacy of equipments/materials; tropical climate; manpower and other infrastructure; lack of preservation and conservation policy; quality of paper and ink; maintenance culture; and administrative problem.

Strategies adopted for effective preservation and security of information resources in academic libraries

The results of the analyses shows that all the items in the instrument were accepted as strategies for effective preservation and security of information resources in academic libraries in the study area. They include: provision of adequate funding to the library, vigilance/surveillance, Insurance, Installation of electronic security system, capacity building, Adequate environment control, and dusting of library materials, Installing burglary proofs on the windows, Formulating and implementing of policy in preservation and security of library materials, Punishing offenders, Regular fumigation, Improved quality of paper and ink and Installation of strong anti-virus.

This finding is in consonance with Fadehan (2009) Adeleke, Okusaga and Lateef (2010), Oluwatuyi (2020), Ogar (2020) and Asunmo and Yaya (2022) who in their separate study also found that the above mentioned strategies, if applied will help the libraries in reducing or eliminating challenges against preservation and security of information resources in libraries. The finding is also in line with Olatukun (2008) who

encouraged libraries to have skilled staff in the libraries for preservation and security programmes because of the specialized activities involved.

CONCLUSION AND RECOMMENDATIONS

Based on the findings of this study, it can be concluded that academic libraries in Cross River State are facing significant challenges in preserving and securing their information resources due to high demand as a result of high population of users. While efforts exist, they are often hindered by financial and infrastructural constraints. Therefore a holistic approach is need to achieve affective preservation and securing of the information resources in academic libraries, which can be done through integration of technological solutions with policy frameworks and capacity building. To address these, this study recommends:

1. Funding from government and the parent institutions to the library should be increased.
2. Embarking on training and retraining of library staff and security men on the importance of ensuring that tight security is maintained.
3. Modern security system such as surveillance camera, electronic detective and alarm in addition to other sample such as bar code on print resources should be installed
4. Preservation and security policies in libraries should be formulated and implemented
5. Regular stock taking /audits of physical and digital information resources should be carried out in the libraries to as attend the state of the resources in the library, as well as efforts should be made to enhance manual methods for protecting library materials

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