



## Security Measures as Correlates to Preservation System Adopted in Academic Libraries in Nigeria

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### ABSTRACT

*This study investigated the Security Measures as Correlates to Preservation System Adopted in Academic Libraries in the 21<sup>st</sup> century, Nigeria. The study utilized survey correlation research design and the population for the study consisted of all information materials in the academic libraries in the twenty (20) universities (Both Federal and State) in South-South region of Nigeria. The study utilized purposive sampling technique in six (6) universities with at least one from each of the six (6) states in the region. The academic libraries considered in this study were Delta State University, Abraka Delta State, University of Port-Harcourt, Ambrose Ali University, Ekpoma, University of Calabar, Cross Rivers State, Niger-Delta University, Amassoma, Bayelsa State, and University of Uyo, Akwa Ibom State. A total of three hundred and forty-five (345) respondents from professional and para-professional librarians from the relevant sections of the libraries were chosen for the study. A well-structured questionnaire was developed and utilized for data collections which were administered proportionately across the selected universities. The data collected were vetted which revealed a total of 310 validly filled questionnaire upon which analyses were carried out. The methods of data analysis is inferential statistics (independent sample t-test) to test the hypotheses of the study. The results of the analysis showed that entrance/exit doors measure is the main type of security measure adopted; major preservation strategy adopted by the universities' libraries in the South-South region of Nigeria. Furthermore, the study findings revealed that personnel's security training within and outside the library is the effective measure against theft; alarm systems, closed-circuit cameras and fire/smoke sensors are the most common electronic gadgets used in detecting general crimes in the universities' libraries and information centres in the South-South region of Nigeria. Recommended among others that academic libraries in the South-South region of Nigeria should employ adequately trained human resource on emotional and security intelligence for effective preservation programmes and activities. In addition, adequate security strategies such as the utilization of automated crime checker software.*

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### INTRODUCTION

The protection and security of library and information resources in universities' libraries are key to enhancing the availability of information resources, accessibility, utilization and preservation (Zintah, Tabawa & Oyinyole 2017) It is therefore important that strategies and policies are put in place by the concern

authorities and stakeholders in the library and information science to ensure the preservation of resource materials in libraries and information centres in academic institutions (Mustapha, Hassan & Abdul-Qadri 2013) However, the energy and efforts made by the custodians of libraries and library managers in ensuring the usability and longevity of the life span of



information and library materials are being threatened by the deliberate activities of deviant library customers and users. It is correct and important to note that while some library users go to the library and comply substantially with the library rules and regulation governing how best to handle library and information materials by desisting from theft and mutilation of library materials, deviant users on the other hand, come to the library with the ulterior motive of stealing and mutilating library resources (Ozioko 2016)

Library and information resources of the libraries are not exempted from these problems as they are constantly been either stolen or mutilated. (Omosekejimi, Ijiekhuamhen & Ojeme 2015) observed that libraries all over the world are faced with one form of thefts or the other which include physical materials theft, data theft and money theft. However, the mutilation of libraries and information materials change the nature, quality and usability of the resource materials and sometimes reduce their usefulness to the users (Olajide 2017). This is why libraries do absolutely everything possible to work against theft and mutilation of their resource material through security networks and preservation systems.

Theft and mutilation in academic libraries are a basic global problem. Security of library materials has been the subject of much investigation. However, the situation seems not to be getting better (Innocent 2019). The destructive habits of some users such as theft, mutilation and hiding of library and information materials pose a serious problem to other customers or users who are normally hindered from having access to library and information collections. Arising from these unwholesome activities and practices, the library staff also experience difficulties providing quality services while the library management runs into financial mess of replacing lost or damaged collections (Igbinlola & Akande 2019).

The threat to intellectual property through theft and mutilation has posed tremendous challenges to the library profession worldwide (Godwin & Issac 2019). (Igbinlola & Akande 2019) stated that theft and mutilation of printed and non-printed library and information materials 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 library theft and mutilation of information materials, universities' 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 materials are available for institution and public use, it is therefore the policy of the libraries especially academic libraries to provide the library and its employees and agents with legal protection to ensure security of their collections and information materials (Nneka, Ifeyinwacalista & Obioma-Anyagou 2020).

Theft and mutilation of library materials are antisocial habits which occur frequently in libraries all over Nigeria and particularly libraries in universities in North Eastern region of Nigeria. These universal phenomena have more often than not resulted in user frustration since the library materials and other information materials that may be needed at a particular point in time may not or cannot be found. It also renders library services ineffective and unsecured (Godwin & Issac 2019). When academic libraries especially in the universities' environment allow users to physically handle their materials and to borrow them for a long period of time, these information materials are inevitably vulnerable to theft and mutilation (Mohammed 2017). Some of the library users steal library materials and sell them illegally, while others simply take the materials home for their own private, personal and selfish use and fail to return them (Nneka, Ifeyinwacalista & Obioma-Anyagou 2020). These cases are prevalent among the students/users of academic libraries in universities in Nigeria especially where there is inadequate security and preservation policies and strategies.

Library security does not only require proper maintenance of information centers but also the proper protection of their resources to ensure the availability, longevity and efficient delivery of services to users and customers (Johansson 2008). However, libraries and information centres need a working collection security strategy to achieve this goal. Library management has a basic global responsibility to protect library materials from damage and / or theft. The protection of library resources is important in ensuring the efficient



delivery of library services. Where there is insecurity of library collections, the resources are exposed to dangers such as mutilation, theft and vandalism among others (Pradhan 2017).

In view of the foregoing, university libraries' managers are expected to be proactive in protecting library resources under their watch by the introduction of some preventive security measures in libraries. The twin maladies of theft and mutilation no doubt impact negatively on the smooth access and utilization of information resources as mutilated and stolen materials remain unavailable for use by prospective library users thereby resulting to information resources mortality. (Ferdinand 2015) noted that libraries need to provide, maintain and secure their collections in order to ensure the availability, accessibility and longevity of the collections. (Olajide 2017) reported high rate of theft, mutilation and misplacing of books in Nigerian Universities' libraries.

#### **Objectives of the Study**

1. To find out the types of security measures adopted to secure information resources in the universities' libraries and information centers of South- South Political Zone region of Nigeria
2. To identify the preservation strategies adopted for information resources in the universities' libraries and information centers of South-South Political Zone region of Nigeria
3. To find out the electronic gadgets in use to secure information materials in the universities' libraries and information centers of South –South Political Zone region of Nigeria.

#### **Hypotheses**

- H<sub>01</sub>: The mean scores of federal and state university libraries staff on the preservation strategies adopted for information resources in the universities' libraries and information centers of South –South Political Zone region of Nigeria will not differ significantly
- H<sub>02</sub>: The mean scores of federal and state university libraries staff on the usage of electronic gadgets to secure information materials in the universities' libraries and information centers of South –South

Political Zone region of Nigeria will not differ significantly

#### **LITERATURE REVIEW**

A submission about the library revealed it been a social university with the primary role of preserving as well as conserving library resources (Oluwaniyi 2010). For this regard, libraries and information centers at the moment are undergoing tremendous change in the contemporary world in struggling to get acquainted with the latest information and communication technology (ICT) such as shelf charging-discharging, automated handling of materials, high-speed inventory for the sake of security (Gupta & Madhusudhan 2018). Times New Roman, declared that after fixing the closed-circuit televisions (CCTVs), they became relaxed and they were comfortable about what happens within the library premises. It becomes easy to monitoring the activities of the users in the library from the circulation to the serial and reference sections and the cases of book theft became rare considerably. Vikas Nidagundi who was a final year student of Karnataka. University also posit that he had a difficult time concentrating on his research and studies whenever unserious library users were listening and playing music from their sound devices or cell phones and make some loud noise in the library, but after CCTVs were installed, silence automatically returned in the library.

There are several ways users can report theft or damage to library resources. The most common ones according to (Urhiewhu, Emojorho & Omah 2018) were checked as follows:

- a. Library users began stealing from library collections by hiding stolen goods under clothing such as lab coats, suits, flowing and baggy clothing. In the libraries and information centers they studied, amputation is the main means of theft.
- b. The second most commonly used method was to escape the arteries and check machineries in the library such as follows: use of chemicals to erase the library ownership stamp on the book and remove the fixed date.
- c. Remove the book cover and spare pages to make no distinction between these books.



- d. Steal a borrower ticket from another registered library user and use it to get a book.
- e. A user who works with the library staff to issue more tickets to the user than the library allows.
- f. Users legally borrow books and other resources materials from the library, leave the library, clear date receipts, return to the library, and try to steal books, and use chewing gum and other means to extract date receipts.

In addition, (Urhiewhu, Emojorho & Omah 2018) added that the contents of the library must be safe. Therefore, it is important to provide security equipment through the library to prevent content from being stolen or intercepted. Similarly, educational libraries and information centers in Nigeria have high rates of book theft, disconnection and misplacement. Issues such as increased security at library doors, expulsion of students who are involved in theft or disconnection, multiple copies of frequently used texts, reduced copy costs, and regular research in student hostels. In addition, they found that the best protection for storing books and non-book materials was a solid building and protection should be planned for during and when constructing library buildings with maximum architectural ideas, including site design and building design. The following steps can help minimize the rate of book stealing in the library:

- a. Permanent Director
- b. Search for users exiting the library.
- c. Search student hostel rooms without notice
- d. Keep an integrity guard in the library.
- e. Mass media condemnation of theft warning against being disconnected by library staff
- f. A well-educated security guard to detect stolen books by conducting a thorough physical examination of the books.

Advances in video surveillance technology and advanced cost savings have also made video surveillance a cost-effective tool for managing library rooms. Libraries and

clearing houses use CCTV to identify visitors and staff, monitor workplaces, prevent theft, and protect evidence of police mismanagement. It can also be used for monitoring and recording. Video surveillance systems are fast becoming an important security tool available in libraries and data centers. Library and information centers could use video surveillance to identify visitors and staff, monitor workplaces, rob and protect facilities and other facilities (Etim 2004). The use of closed-circuit television (CCTV) in libraries and information centers can improve the ability to control book theft and magazine page breakage (Issa 2003).

The library uses various security systems to protect library resources from theft and distortion. There is also a serious need to adequately and properly secure and/or maintain this information material to extend their lifetime and to meet the needs of the customers and this can be done through a Collection Security Management Model (CSMM). The elements that make up the security controls for library collections are derived from publicly available literature. These elements are placed in the "Home" of the Library Cache Security Management Model (CSMM). CSMM compared the security management of library collections with a secure home where an installed warning system which provide adequate protection. Nevertheless, even in this safe situation, security can be compromised if the owner unlocks the front door and leaves the house. This shows that security measures are ineffective when people in homes and organizations are sensitive to implementing security procedures. The model can be thought of from five factors. Governance, processes, people, physical and technical perspectives, and the presence of a safety culture in the library. This framework should provide university and library administrators with practical tools to evaluate and implement a more comprehensive approach to storage security management. Confidentiality: This means that this collection is only accessible to people with different permission levels (to manage the types of registered members). But Integrity: the library must ensure the accuracy, correctness and completeness of the information it contains. Therefore, an ideal security



management separates content from accidental or intentional changes. Availability: ensures that authorized customers have reliable and fast access to goods on time (punctuality) and on time promised (reasonable start time), as well as a reliable network system. Stock security, which combines management, practice, personnel, physical and cultural factors ensures an appropriate level of stock security management and, as a primary asset of a library, the risks associated with maintenance of inventory are reduced. All factors are weighted equally in the model to ensure that the confidentiality, integrity and availability of the library are maintained at an appropriate level (Idowu 2011).

### RESEARCH METHODOLOGY

The study uses a descriptive study design as it uses a representative sample of the study population to generalize the entire population and correctional designed method, as this method recognizes the objective measurement and statistical analysis of the data collected from the field. The population of the study is drawn from the selected federal and state university libraries and information centers in the South-south region of Nigeria. The universities libraries staff in these universities' libraries combines professional, par-professional and non-professional staff. The population of this study is therefore placed at two thousand five hundred and six (2,506).

In order to determine the representative sample size for this study, the (Yamane 1967) sample size formula at 0.05 margin of error (95% confidence level) was used to determine the sample from the population of the universities' libraries considered for this study.

This study used cluster sampling as a technique to select the study sample. Cluster sampling is frequently used in large scale studies because it is the least expensive sample

design. It involves first selecting larger groupings, called cluster and then selecting the sample units from the cluster (Nachmias & Nachmias 2000). In addition, cluster sampling is a type of random sample that uses multiple stages and is often used to cover wide geographical area in which aggregated units are randomly selected and then samples are drawn from the sample aggregated units or cluster (Neuman 2011).

Therefore, going by the above, cluster sampling technique was adopted for this study. The university as an institution is structured and the librarians are officially structured into departments and units respectively. Thus, each of the departments and units were clustered and from each cluster simple random sampling was used to select the representative sample size. While purposive sampling enjoys describing strategic information rich users with the goal of making sure that the selected sample provides the necessary depth data, however, the total number of the library staff in the six (6) selected academic libraries and information centers stood at three hundred and forty five (345).

The study instrument used for data collection is a self-developed questionnaire in Likert scale format titled: Security and Preservation System Questionnaire (SPSQ), which was used to elicit responses from the library staffs in the university libraries and information centers of South-South region of Nigeria. The data to be generated via the (SPSQ) were subjected to statistical analyses. The study used descriptive statistics of frequency and means to achieve the objectives of this study and to answer the research questions. In addition, this study will use the average or grand mean to answer the research questions posed by the study. However, the inferential statistical tools of independent samples t-test at 95% confidence interval will be used to test the hypotheses of this study.



## RESULTS

### Result for Research Question One

**Table 1:** Types of Security Measures Adopted to Secure Information Resources in University Libraries South-South, Region of Nigeria

S/N	Security Measures	SA	A	D	SD	Mean
1	Ownership stamps on the textbooks	142	152	12	4	3.39
2	Entrance doors measure (security personnel)	168	132	6	4	3.50
3	Electronic gadget such as: CCTV, RFID Book Drop System, RFID Transponder and Reader system; Moisture and Glass Breaker System	114	122	60	14	3.08
	<b>Average mean (x)</b>					<b>3.32</b>

Source: Field Survey (2022)

The table showed the responses to the questions that were presented to answer the research question one. The mean scores for the security measures reported by the library staffs are 3.39, 3.50 and 3.08 for questions 1, 2 and 3 respectively. The average mean score for the questions is 3.32 which is above the decision mean 2.50. Since these values are above the cut-off point, it implies that majority of the respondents from both federal and state

universities in the South-South region of Nigeria agreed that they adopted the three security measures in their libraries namely: ownership stamp on textbooks, entrance door security measure and use of electronic gadgets. This showed that the universities use both traditional and 21<sup>st</sup> century security measures to self-guide their information resources from theft and or mutilation.

### Result for Research Question Two

**Table 2:** Preservation Strategies Adopted for Information Resources in University Libraries South- South Region of Nigeria

S/N	Strategy	SA	A	D	SD	Mean
1	Positive enhancement of preservation policies	142	134	24	10	3.32
2	Training of staff on preservation of library materials	158	114	32	6	3.66
3	Adequate funding	138	116	40	16	3.21
4	Automatic Installation of fire sprinkler in the library building	128	134	34	14	3.21
5	Chemical de-acidification	90	116	74	30	2.86
6	Microfilming	64	132	86	28	2.75
7	Digital imagery	86	122	84	18	2.88
8	Restoration of degraded library material	110	148	20	32	3.08
9	Provision of adequate security system to prevent theft, mutilation and defacing of paper-based materials	106	138	24	42	2.99
10	Encapsulation of printed books materials	76	130	48	56	2.73
11	Shelving library materials to allow for free flow of air	144	126	24	16	3.28
12	Use of insecticide and insect repellent for library materials techniques	122	150	22	16	3.22
13	Installing air – conditioners in your library	114	170	18	6	3.68
14	Cleaning and dusting	130	158	12	10	3.32
	<b>Average mean (x)</b>					<b>3.16</b>

Source: Field Survey (2022)

In table above showed that both state and federal libraries' staffs in all the universities in South- south strongly agreed on preservation strategies adopted for information resources by their university libraries. The items responded to were: positive enhancement of preservation policies, training of staff on preservation of library materials, adequate funding, automatic installation of fire sprinkler in the library building, chemical de-acidification, microfilming, digital imagery, restoration of degraded library material, provision of adequate security system to prevent theft, mutilation and defacing of paper-based materials, encapsulation of printed

books materials, shelving library materials to allow for free flow of air, use of insecticide and insect repellent for library materials techniques, installation of air – conditioners and cleaning and dusting. There Mean score were 3.32, 3.66, 3.21, 3.21, 2.86, 2.75, 2.88, 3.08, 2.99, 2.73, 3.28, 3.22, 3.68 and 3.32 respectively thereby having an average Mean score of 3.16 which is above the cut-off point 2.50. These showed that all state and federal universities adopted preservation strategies for information resources in university libraries and information centers of South- South region of Nigeria.

### Result for Hypothesis one

**Table 3:** The mean difference of federal and state university libraries staff on the preservation strategies adopted for information resources in the universities' libraries South-South region of Nigeria

Variable	Groups	N	Mean	SD	df	P value	Decision
Preservation strategies	State Universities	135	3.33	0.52	309	0.101	Insignificant
	Federal Universities	175	2.90	0.31			

Source: SPSS output (2022)

Table shows that there is no significant difference in mean scores of federal and state universities' libraries on the preservation strategies adopted for information resources in the universities' libraries. From the table, the total number sample in the three state universities are 135 with (M = 3.33, SD = 0.52) and total number sample from the three federal universities are 175 with (M = 2.90, SD = 0.31). The p-value is equal to 0.101 that is, the result is significant at  $p > 0.05$ . The null hypothesis is therefore accepted which indicates that the mean scores of federal and state university libraries staff on the preservation strategies adopted for information resources in the universities' libraries and information centers of South-South region of Nigeria did not differ significantly. It is thus concluded that in state and federal universities in South-South region of Nigeria did not differ significantly in their mean rating of preservation policies in the protection library resources in university libraries.

### CONCLUSION AND RECOMMENDATIONS

This study was on evaluation, security measures and preservation system adopted in university libraries South-south region of Nigeria. The study established a problem that majority of students in the academic libraries

and information centers lack 21st century approaches to security and preservation of library. This study posits that the types of security measures adopted to secure information resources in the universities' libraries region of Nigeria are currently outdated and cannot serve as preventive measures to protect against theft and mutilation of library and information resources in the institutions, although the use of electronic gadgets was present; a last finding of the study proved this at a negligible rate to include only alarm system, Closed-Circuit TV (CCTV) and Fire /Smoke Sensor. Materials in the universities' libraries in region of Nigeria. However, the researchers concluded on the note that, directly or indirectly there was unevenness in security breaches among the universities study areas, and this is why recommendation. Based on the study findings, the following recommendations are put forward by this study for the federal and state universities a, on issues of security and preservation of library:

1. The universities' libraries of South-south region of Nigeria should deploy other non-physical resources and security measures in addition to existing ones in the universities. Such non-physical resources include the



- use of artificial intelligence, soft cameras and theft-checkers software.
2. The preservation strategies of universities' libraries and information centers of South-south region of Nigeria should move away from the traditional means to use of technology where resources and information are preserved in the cloud and cyber space. In addition, duplications and backups of all materials should be kept in safe at all times.
  3. The current level of technological and electronic gadgets in use to secure information materials in the academic' libraries of South-south region of Nigeria is insufficient to check the wave of theft and mutilation of materials and therefore there is need to employ more sophisticated approach such as the use of touch detectors and bar codes.

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