

---

## Disaster Preparedness and Security Management in two academic Libraries in South West Nigeria

**FATADE Adeola T. (CLN)**

damselt@gmail.com  
The Polytechnic Library  
Adegbenro, D.S.  
Polytechnic, Itori  
Ogun State

**AJIBOYE Bosede A. (PhD)**

‘Nimbe Adedipe Library  
Federal University of Agriculture, Abeokuta  
[ajiboyeba@funaab.edu.ng](mailto:ajiboyeba@funaab.edu.ng)

and

**OGUNJIMI, Mayowa S. I**

Mkoguns005@gmail.com  
West Nigeria Christian College

### Abstract

Collections in academic libraries are threatened not just by disaster, but also by security risks. A survey was conducted to investigate disaster preparedness and security management in two academic libraries in South-West, Nigeria. The population was 169 staff of the Polytechnic Library at The Polytechnic, Ibadan and Kenneth Dike Library, University of Ibadan. Census method was used to include the entire population comprising professional and para professional librarians, and support staff. A self-developed, structured questionnaire with four-points Likert scales was used for data collection. Data was analyzed with descriptive statistics. Findings showed that hacking was a major security threat to the academic libraries, particularly those with e-libraries. Fire disaster was also found to be among the major disaster threatening the academic libraries. The grand mean was 3.1 with a standard deviation of 0.83 suggesting that, overall disaster preparedness and security management in the two academic libraries in south west Nigeria understudied is in the affirmative. Academic libraries should have disaster response teams that would respond to disasters is among the recommendation.

**Key words:** Academic libraries, Disaster Preparedness, Security Management

### Introduction

Academic library buildings and their collections could be at risk in the event of a disaster and or security breach hence, the need to protect these resources. Robert (2018) defined disasters as unexpected events with destructive consequences. Protecting library collections will have a great impact on the survival of the library. Collections in academic libraries can be threatened

not just by theft and vandalism, but also by disasters (e.g., fire or flood) and damage from careless handling or poor environmental conditions. Disaster preparedness and security measures are therefore essential elements of preventive programme in libraries. Many libraries all over the world have lost vital information sources, some of which are irreplaceable, as a result of disaster. Issa, Aliyu, Adedeji and Rachael (2012) opined that when librarians accept holdings into their repositories, they automatically take responsibility for their custody. However, this may be jeopardized, if the materials get damaged or lost as a result of a disaster.

Basic precautions and the development of a disaster plan will help prevent unnecessary loss of valuable records in the instance of a disaster. A disaster is a natural or man-made event which has intensive negative impact on people, goods, services and the environment, exceeding the affected community's capability to respond. They are unusual events which suddenly kill or injure large number of people and damage properties. Disasters can occur suddenly without prior warning or signs hence, the libraries need for the library to prepare ahead. Disaster preparedness, a pro-active strategy, rather than the re-active approach is the best for mitigating disasters. Disaster preparedness, as a concept encompasses all measures aimed at protecting safety of life and properties when disasters occur. It also includes all actions designed to enhance response in order to reduce damage and facilitate early recovery of services. Njoroge (2014) identified key aspects of disaster preparedness such as developing emergency operation plans, training specific staff members for emergency response and institutionalizing incident response command systems.

Insecurity is another challenge in contemporary societies. Not only do individuals require security and safety of their lives and properties, but also, organizations such as libraries. Security of library materials is an important aspects of library service, but more important is the safety of library patrons and staff. Security management involves taking measures to ensure that the materials available for use in the archives are kept in a good condition and protected from being stolen. Security management in the library refers to the overall manner in which collection security policies, programs, procedures, or measures are deployed to mitigate risk and ensure access. Security management is the process designed to protect library collections against un-authorized removal or loss". Another aspect of library security management relates to preservation of library collections against environmental, chemical and biological agents that can cause deterioration of library collections (Abioye & Adeowu, 2013). The goal of the security system in the libraries should be to provide a safe and secure space for library employees, library resources and equipment, and patrons.

Library materials and building are vulnerable to disasters of various kinds and security threats. Academic libraries are threatened by disasters such as fire, flood, tornado, hurricane and earthquake as well as damage from careless handling or poor environmental conditions. Admittedly, some libraries still grapple with some of these aforementioned threats ad challenges. Disaster preparedness and security management are the strategies that can be adopted to prevent disaster and security problems in academic libraries. It is against this backdrop this study investigated disaster preparedness and security management in two academic libraries in South West Nigeria

## **Objectives of the Study**

The specific objectives of the study are to:

- i. determine the types of disasters that academic libraries in South-West Nigeria face;
- ii. ascertain the level of disaster preparedness of academic libraries in South West Nigeria;
- iii. find out the security risks that academic libraries are faced with in South West Nigeria;
- iv. ascertain the security management strategies adopted by the academic libraries in South West Nigeria;
- v. identify the challenges to disaster preparedness and security management in academic libraries in South West Nigeria.

## **Literature Review**

Aboyade, Kolajo, Popoola, Agbetuyi and Adetunji (2021) examined the extent of disaster preparedness in three university libraries in South-West Nigerian. The survey research method was adopted. A response rate of 73% was recorded and descriptive statistics was used to analyze the data. Disaster Likelihood Index (DLI) was used to measure propensity to disaster and of the seven indicators, water leakages (3.89) and faulty power supply (3.15) had the highest index scores as the most probable sources of disaster. In addition, results revealed that the most available disaster management utilities in the libraries were fire extinguishers, emergency exits and smoke detectors.

Ijiekhuamhen, Omosekejimi and Rhima's (2020) study revealed that the types of disasters that occur in the selected public and private university libraries in South-South Nigeria were mutilation of library materials, computer viruses, biological agents, hacking, theft of library materials, leaking roofs and substandard library building materials. A majority of the respondents also indicated that there was no disaster preparedness plan available in their university library. Fire extinguishers, air fresheners, anti-virus, thunder arrestors, sand buckets and emergency exit doors were the disaster preparedness facilities and equipment available to mitigate disaster in the university libraries.

Ugwuanyi, Ugwu and Ezema (2015) study examined the types of disasters that occur in university libraries and the extent of application of preventive, technological and coping measures in managing these disasters. The study adopted descriptive survey design and the major instrument for data collection was questionnaire. The results showed that university libraries in South-East, Nigeria had experienced disasters which resulted in adoption of some preventive measures. It was however found that no significant technological and coping measures were applied in managing disasters in the university libraries.

Yamson and Cobblah (2016) recommended the use of Close Circuit Television (CCTV), electronic sensors and electronic surveillance systems and the need to employ well-trained security personnel in the library. Ilo, Ngwuchukwu, Michael-Onuoha and Segun- Adeniran (2019) found that inadequate disaster facilities and equipment as well as poor funding were the

greatest challenges confronting disaster mitigation in federal and state universities in Nigeria. Robert (2018) listed weak organizational policies regarding disaster management, weak emergency plan, poor attitude to disaster management by staff members, general poverty in the institutions and overpopulation as some of the factors that limit organizations to effectively manage disasters and security.

Iroeze and Iroeze (2021) investigated the current status of preparedness in disaster management among academic libraries in the South east geopolitical zone of Nigeria. A base level of knowledge on disaster preparedness of current practices was assessed by a questionnaire which was distributed to 380 librarians at 5 academic libraries, 356 responses were received and after sorting 337 were analysed. Frequency and percentage tables were used in the analysis of the data collected. Flood and fire were identified as major threats to disaster in most academic libraries in South east. Most of the academic libraries do not have a written disaster preparedness plan. Disaster preparedness measures and staff involvement in disaster preparedness by these libraries were found to be generally inadequate.

Moustapha (2022) examined the security of information resources in academic libraries in Kwara State, Nigeria. Academic libraries in Kwara State include both private and public institutions. The libraries were predominantly selected for academic purposes, such as Kwara State University, University of Ilorin, Al-Hikmah University, and Kwara State Polytechnic Ilorin. Targeted sampling was used to select 25 respondents from a pool of 115 professionals in all four academic libraries in Kwara State. The results revealed that common methods of maintaining information resources in academic libraries in Kwara State included connectivity, and environmental control, while digitization and migration were not adopted.

Tukur (2022) examined the availability of disaster equipment and measures for disaster prevention, response and recovery in some selected academic libraries in Gusau metropolis, Zamfara State, Nigeria. Survey research method was adopted for the study using questionnaire as the research instrument. 86 copies of the questionnaires were systematically distributed across the four selected academic libraries in the city and out of which 82 copies (95.34%) were filled, returned and found suitable for use. Thus, the data collected using the questionnaire were analysed using tables, frequency and percentage. The results revealed that thunder arrestor is the disaster prevention equipment with highest rate in the libraries, followed by smoke detectors for detecting early sign of fire disaster. Finally, majority of respondents 40 (48.78%) strongly agreed that inadequate funding constitute a major constraint to disaster preparedness in the libraries.

Endouware and Emmanuel (2023) investigated librarians' perceptions of the security of library resources in university libraries in Bayelsa State, Nigeria. The survey research design was adopted for the study. The population of the study consisted of 72 librarians from the four sampled university libraries in Bayelsa State. Data were collected from the same librarians. The findings revealed that librarians' perceptions of the security of library resources in university libraries in Bayelsa State varied in the contexts that showed positive attributes. The study further revealed that book mutilation, book miss-shelving, non-return of borrowed books, impersonation, and book theft as the major security challenges encountered by university librarians.

Abidin, Kiran, and Samsuddin (2023) found that academic libraries in Malaysia are perceived to have a strategy and their own plans to respond to a disaster crisis, but they lack a formal

disaster management plan. Findings also demonstrate how open science can assist libraries in gaining access to real-time data and information about disasters, in sharing their experiences with others, and in responding effectively to emergencies.

### Methodology

The research design adopted for this study was the descriptive survey. The population comprised all the staff members (professional, para-professional librarians and supporting staff) working in Kenneth Dike Library, University of Ibadan and The Polytechnic Library, The Polytechnic of Ibadan. The rationale for choosing a university and polytechnic library is to avoid concentrating on universities alone as reflected in previous studies. The entire 110 staff of Kenneth Dike Library and the 59 staff of the Polytechnic Library participated in the study by census. A structured questionnaire developed by the researchers was used for data collection. The research instrument was tagged “Disaster Preparedness and Security Management of National Archive of Nigeria” (DPSMNAN). ALikert-type scale instrument with four-points ranging from strongly disagree (1) to strongly agree (4). The instrument was validated by experts in the Department of Library, Archival and Information Studies, University of Ibadan. A decision rule was created to interpret scores, as shown in Table 1. Data were analyzed with descriptive statistical measures such as frequency distributions and percentages in the Statistical Package for Social Sciences (SPSS).

**Table 1. Decision Rule to Interpret the Mean Scores for the Likert Type Scale**

Mean Score	Interpretation of the statement
1.00 – 1.5	Strongly Disagree (Negative)
1.51 – 2.5	Disagree (Negative)
2.51 – 3.5	Agree (Positive)
3.51 – 4.0	Strongly Agree (Positive)

### Results

The research questions that were asked in the study were answered in the following order:

#### Research Question 1:

What are the types of disasters that academic libraries in South West Nigeria are prone to?

Table 2 shows the results of the types of disasters that are prevalent in academic libraries in South-West, Nigeria.

**Table 2: Types of disasters in academic libraries**

S/N	Disasters	SD (%)	D (%)	A (%)	SA (%)	$\bar{x}$	$\sigma_x$
1.	Fire disaster	6 (3.8)	7 (4.5)	78 (49.7)	66 (42.0)	3.30	.729
2	Rodents attack	6 (3.8)	17 (10.8)	69 (43.9)	65 (41.4)	3.23	.792

3	Pest/ insect outbreak	10 (6.4)	19 (12.1)	94 (59.9)	34 (21.7)	2.97	.771
4.	Malicious Vandalism	18 (11.5)	8 (5.1)	105 (66.9)	26 (16.6)	2.89	.816
5.	Bombings/Act of terrorism	16 (10.2)	24 (15.3)	93 (59.2)	24(15.3)	2.80	.822
6.	Earthquakes	6 (3.8)	50 (31.8)	72 (45.9)	29 (18.5)	2.79	.785
7.	Floods/landslide	15 (9.6)	36 (22.9)	92 (58.6)	14 (8.9)	2.67	.771
8.	Volcanic eruption	28 (17.8)	22 (14.0)	90 (57.3)	17 (10.8)	2.61	.903
9.	Cyclones and hurricanes	29 (18.5)	34 (21.7)	89 (56.7)	5 (3.2)	2.45	.827
	Grand mean					2.85	0.8

**Key:** Strongly Disagree (SD); Disagree (D); Agree (A); Strongly Agree (SA); Mean ( $\bar{x}$ ); Standard deviation ( $\sigma_x$ )

Table 2, shows that many of the respondents indicated the various types of disasters that confront the two academic libraries. The grand mean was 2.85 with a standard deviation of 0.8. This finding suggests that academic libraries are prone to disasters. Regarding the types of disaster, fire disaster had the highest mean score ( $\bar{x}$ =3.30) followed by rodents attack ( $\bar{x}$ =3.23), war-time destruction ( $\bar{x}$ =3.04), pest/ insect outbreak ( $\bar{x}$ =2.97) among others. The least of the disaster as indicated by few of the respondents was cyclones and hurricanes ( $\bar{x}$ =2.45). Perhaps, this was due to the fact that cyclones and hurricanes were not commonly experienced in African countries. Fire disaster had highest mean score notably because it is the most common type of disaster that can easily consume academic libraries.

### Research Question 2:

What is the level of disaster preparedness in the two academic libraries?

Table 3 showed the distributions as the responses by the respondents on the level of disaster preparedness of two academic libraries in South West Nigeria.

**Table 3: Disaster preparedness of the selected academic libraries**

S/N	Disaster Preparedness	SD (%)	D (%)	A (%)	SA (%)	$\bar{x}$	$\sigma_x$
1.	Development of disaster preparedness plan	3 (1.9)	15 (9.6)	54 (34.4)	85 (54.1)	3.41	.742
2.	General vulnerability analysis and risk assessment of the library	6 (3.8)	19 (12.1)	53 (33.8)	79 (50.3)	3.31	.829
3.	Availability of emergency response equipment and materials	5 (3.2)	20 (12.7)	56 (35.7)	76 (48.4)	3.29	.811

4.	Regular checks of library building regarding water leakages	5 (3.2)	9 (5.7)	79 (50.3)	64 (40.8)	3.29	.717
5.	Good drainage and flood proof systems	4 (2.5)	17 (10.8)	71 (45.2)	65 (41.4)	3.25	.750
6.	regular inspections of buildings regarding the wiring	3 (1.9)	19 (12.1)	71 (45.2)	64 (40.8)	3.25	.740
7.	Conduct of regular test on the library building	8 (5.1)	17 (10.8)	62 (39.5)	70 (44.6)	3.24	.841
8.	Staff and user training on disaster management and mitigation	7 (4.5)	20 (12.7)	63 (40.1)	67 (42.7)	3.21	.832
9.	Provision of exit plans	12 (7.6)	18 (11.5)	53 (33.8)	74 (47.1)	3.20	.925
10.	Provision of emergency response equipment and materials	8 (5.1)	28 (17.8)	48 (30.6)	73 (46.5)	3.18	.905
11.	Availability of disaster policy documents	8 (5.1)	30 (19.1)	61 (38.9)	58 (36.9)	3.08	.874
	Grand Mean & Std Deviation					3.24	0.81

**Key:** Strongly Disagree (SD); Disagree (D); Agree (A); Strongly Agree (SA); Mean ( $\bar{x}$ ); Standard deviation ( $\sigma_x$ )

As shown in Table 3, the grand mean was 3.24 with standard deviation of 0.81. This shows that most of the participants strongly agreed to the statements on the level of disaster preparedness in their libraries. From the results, the development of disaster preparedness plan had the highest mean score ( $\bar{x}$ =3.41), followed by general vulnerability analysis and risk assessment of the library ( $\bar{x}$ =3.31), availability of emergency response equipment and materials ( $\bar{x}$ =3.29), regular checks of library building regarding water leakages ( $\bar{x}$ =3.29), good drainage and flood proof systems ( $\bar{x}$ =3.25), among others. The least of the disaster preparedness as indicated by most of the respondents was availability of disaster policy documents ( $\bar{x}$ =3.08). This implies that there is positive level of disaster preparedness in academic libraries studied.

### Research Question 3:

What are the security risks that academic libraries are faced with in South West Nigeria?

Table 4 shows the distribution of responses on the security risks that academic libraries are faced with in South-West Nigeria.

**Table 4: Security risks in two academic libraries in South West Nigeria**

S/N	Security Risks	SD (%)	D (%)	A (%)	SA (%)	$\bar{x}$	$\sigma_x$
1.	Hacking	10 (6.4)	20 (12.7)	29 (18.5)	98 (62.4)	3.37	.936
2.	Threats to computer systems/networks	7 (4.5)	20 (12.7)	66 (42.0)	64 (40.8)	3.19	.825

3.	Computer vandalism	4 (2.5)	31 (19.7)	82 (52.2)	40 (25.5)	3.01	.747
4.	Deliberate damage/mutilation of library materials from users	9 (5.7)	21 (13.4)	76 (48.4)	51 (32.5)	3.08	.829
5.	Pages are eaten by book insects or silver fish	4 (2.5)	27 (17.2)	79 (50.3)	47 (29.9)	3.08	.756
6.	Excessive photocopying of library materials	7 (4.5)	34 (21.7)	58 (36.9)	58 (36.9)	3.06	.875
7.	Book borders and pages are doodled	12 (7.6)	23 (14.6)	75 (47.8)	47 (29.9)	3.00	.870
8.	Defacing of library materials (writing in books)	7 (4.5)	27 (17.2)	83 (52.9)	40 (25.5)	2.99	.780
9.	Using someone else's ID to borrow materials	11 (7.0)	28 (17.8)	77 (49.0)	41 (26.1)	2.94	.849
10.	Misuse/mishandling of library materials	11 (7.0)	16 (10.2)	102 (65.0)	28 (17.8)	2.94	.748
11.	Poor cooperation with library security officers	12 (7.6)	35 (22.3)	82 (52.2)	28 (17.8)	2.80	.820
12.	Deviant act or delinquent behaviours (smoking, sex, fighting)	19 (12.1)	34 (21.7)	69 (43.9)	35 (22.3)	2.76	.935
	Grand mean & Std Deviation					3.01	0.9

**Key:** Strongly Disagree (SD); Disagree (D); Agree (A); Strongly Agree (SA); Mean ( $\bar{x}$ ); Standard deviation ( $\sigma_x$ )

Table 4 shows the security risks that The Polytechnic Library and the Kenneth Dike Library are faced with. Based on the results, the grand mean was 3.01 with standard deviation of 0.9. Hacking had the highest mean as security risk Nigeria ( $\bar{x}$ =3.37), followed by threats to computer systems/networks ( $\bar{x}$ =3.19), stealing/theft of information materials in academic libraries ( $\bar{x}$ =3.11), pages are eaten by book insects or silver fish ( $\bar{x}$ =3.08), deliberate damage/mutilation of library materials from users ( $\bar{x}$ =3.08), excessive photocopying of library materials ( $\bar{x}$ =3.06), computer vandalism ( $\bar{x}$ =3.01), among others. The least of the security risks as indicated by the majority of respondents was deviant acts or delinquent behaviours (smoking, sex, fighting) ( $\bar{x}$ =3.19). The implication is that hacking is major threat to academic libraries particularly those with e-library facilities and need be addressed.

#### **Research Question 4:**

What are the security management strategies adopted by the academic libraries in South West Nigeria?

Table 5 shows the results on the disaster preparedness and security management strategies adopted by the academic libraries in South West Nigeria as indicated by the respondents.



**Table 5: Security management strategies adopted by the academic libraries**

S/N	Items	SD (%)	D (%)	A (%)	SA (%)	$\bar{x}$	$\sigma_x$
1.	Installation of Fire extinguishers	3 (1.9)	9 (5.7)	39 (24.8)	106 (67.5)	3.58	.690
2.	Installation of smoke detectors	10 (6.4)	8 (5.1)	37 (23.6)	102 (65.0)	3.47	.859
3.	Training on preservation and conservation programme	3 (1.9)	16 (10.2)	47 (29.9)	91 (58.0)	3.44	.754
4	written disaster and security policies	9 (5.7)	6 (3.8)	60 (38.2)	82 (52.2)	3.37	.811
5.	Keeping the library and its environment clean to prevent rodents	12 (7.6)	5 (3.2)	56 (35.7)	84 (53.5)	3.35	.869
6.	comprehensive inventory of library collections and an update on regular basis	10 (6.4)	16 (10.2)	42 (26.8)	89 (56.7)	3.34	.903
6	Conferences and Seminar attendance	14 (8.9)	15 (9.6)	35 (22.3)	93 (59.2)	3.32	.974
8	Training on digitization and automation	4 (2.5)	16 (10.2)	65 (41.4)	72 (45.9)	3.31	.757
9.	Investment in comprehensive insurance scheme	4 (2.5)	30 (19.1)	37 (23.6)	86 (54.8)	3.31	.867
10.	Conduct of regular test on the library building	9 (5.7)	14 (8.9)	54 (34.4)	80 (51.0)	3.31	.860
11.	Provision of adequate and sufficient storage facilities	6 (3.8)	20 (12.7)	60 (38.2)	71 (45.2)	3.25	.822
	Grand mean & Std Deviation					3.36	0.77

**Key:** Strongly Disagree (SD); Disagree (D); Agree (A); Strongly Agree (SA); Mean ( $\bar{x}$ ); Standard deviation ( $\sigma_x$ )

Table 5 reveals the security management strategies adopted by the academic libraries. The grand mean was 3.36 with standard deviation of 0.77. Regarding security management strategies, installation of fire extinguishers had the highest mean score ( $\bar{x}$ =3.58), followed by installation of smoke detectors ( $\bar{x}$ =3.47), training on preservation and conservation programme ( $\bar{x}$ =3.44), written disaster and security policies ( $\bar{x}$ =3.37) ( $\bar{x}$ =3.19), keeping the library and its environment clean to prevent rodents ( $\bar{x}$ =3.35), comprehensive inventory of library collections and an update on regular basis ( $\bar{x}$ =3.34), among others. The least of the disaster preparedness and security management strategies adopted by the academic libraries was provision of adequate and sufficient storage facilities ( $\bar{x}$ =3.25). By implication, installation of fire extinguishers, smoke detectors which are missing in the two academic libraries and need be adopted as security management measure.

### Research Questions 5:

What are the challenges of disaster preparedness and security management at the academic libraries in South-West Nigeria?

Table 6 show the results of the challenges to disaster preparedness and security management in the academic libraries under study as indicated by the respondents.

**Table 6:** Challenges of disaster preparedness and security management at the academic libraries in South West Nigeria

S/N	Challenges	SD (%)	D (%)	A (%)	SA (%)	$\bar{x}$	$\sigma_x$
1	Inadequate fire-fighting equipment	15 (9.6)	15 (9.6)	38 (24.2)	89 (56.7)	3.28	.986
2.	Remote areas do not have access to telecommunication security system	8 (5.1)	29 (18.5)	35 (22.3)	85 (54.1)	3.25	.933
3.	Lack of sensitization of staff on disaster preparedness and security management	10 (6.4)	18 (11.5)	61 (38.9)	68 (43.3)	3.19	.878
4.	Uncoordinated transportation and rescue plan	8 (5.1)	25 (15.9)	67 (42.7)	57 (36.3)	3.10	.849
5.	Inadequate	14 (8.9)	18 (11.5)	67 (42.7)	58 (36.9)	3.08	.917
6.	Lack of skilled personnel	8 (5.1)	32 (20.4)	59 (37.6)	58 (36.9)	3.06	.882
7	Hardware and software failure	11 (7.0)	15 (9.6)	87 (55.4)	44 (28.0)	3.04	.811
8.	Absence of insurance policy	16 (10.2)	33 (21.0)	43 (27.4)	65 (41.4)	3.00	1.019
9.	Lack of modern fire-fighting equipment-fire alarms, fire-suppression system, smoke detectors	23 (14.6)	21 (13.4)	61 (38.9)	52 (33.1)	2.90	1.024
10	Unstable power supply	18 (11.5)	21 (13.4)	77 (49.0)	41 (26.1)	2.90	.921
11.	Inadequate Training of Librarians and Users on Disaster and security management	9 (5.7)	30 (19.1)	89 (56.7)	29 (18.5)	2.88	.771
	Poor siting and planning of library buildings	21 (13.4)	49 (31.2)	43 (27.4)	44 (28.0)	2.70	1.022
	Grand Mean					3.03	0.91

**Key:** Strongly Disagree (SD); Disagree (D); Agree (A); Strongly Agree (SA); Mean ( $\bar{x}$ ); Standard deviation ( $\sigma_x$ )

Table 6, shows the challenges of disaster preparedness and security management at the academic libraries under study. The grand mean was 3.03 with standard deviation of 0.91 Regarding the challenges of disaster preparedness and security management, lack of enough fire-fighting equipment had the highest mean score ( $\bar{x}$ =3.28), followed by remote areas do not have access to telecommunication security system ( $\bar{x}$ =3.25), lack of sensitization of staff on

disaster preparedness and security management ( $\bar{x}=3.19$ ), uncoordinated transportation and rescue plan ( $\bar{x}=3.10$ ), among others. The least of the challenges as affirmed by the respondents was poor citing and planning of library buildings ( $\bar{x}=2.70$ ). This implies academic libraries are faced with challenges that may impair the management of disasters.

### **Discussion of Findings**

The results revealed that academic libraries in South West Nigeria are prone to various types of disasters as indicated by the respondents. They include library material, fire disaster ( $\bar{x}=3.30$ ), war-time destruction ( $\bar{x}=3.04$ ) and pest/ insect outbreak ( $\bar{x}=2.97$ ). The findings corroborated Ijiekhuamhen, Omosekejimi and Rhima (2020) that noted that disaster occurrences in university libraries are usually composed of both natural and man-made disasters. Natural disasters includes; pest/ insect outbreak, fire, flood, storms, earth quakes, and hurricanes to mention but a few, while man-made disasters includes; rioting, war, terrorism. Furthermore, results showed that regarding security management strategies, installation of fire extinguishers had the highest mean score ( $\bar{x}=3.58$ ), followed by installation of smoke detectors ( $\bar{x}=3.47$ ), training on preservation and conservation programme ( $\bar{x}=3.44$ ), written disaster and security policies ( $\bar{x}=3.37$ ) ( $\bar{x}=3.19$ ) this findings corroborates Aboyade, Kolajo, Popoola, Agbetuyi and Adetunji (2021) that the most available disaster management utilities are fire extinguishers, emergency exits and smoke detectors in the libraries with 90%, 75.9% and 72.4% respectively. The current findings of the results however, revealed that the hacking is a major security risk. The implication is that hacking is major threat to academic libraries and need be addressed in academic libraries in South West Nigeria. The findings is corroborated by Urhiewhu, Emojorho and Omah (2018) that averred that collection insecurity implies the need for archives to provide, maintain and secure its collection to ensure longevity, accessibility and effective provision of services to users. To achieve this noble objective however, libraries need an effective strategy to assess the degree of collection insecurity they are facing and establish an acceptable level of collection security implementation of great importance to protect vital records of the institution (vital records: records that an organization cannot do without).

Findings of the present study revealed that disaster preparedness and security management strategies adopted by the academic libraries in South West Nigeria as indicated by majority of the respondents included installation of Fire extinguishers ( $\bar{x}=3.58$ ), installation of smoke detectors ( $\bar{x}=3.47$ ), training on preservation and conservation programme ( $\bar{x}=3.44$ ), written disaster and security policies ( $\bar{x}=3.37$ ) ( $\bar{x}=3.19$ ), Keeping the library and its environment clean to prevent rodents ( $\bar{x}=3.35$ ), and comprehensive inventory of library collections and an update on regular basis ( $\bar{x}=3.34$ ). The finding supports Ugwuanyi, Ugwu and Ezema (2015) that university libraries in South East, Nigeria had experienced disasters which resulted in adoption of some preventive measures. It was however found that no significant technological and coping measures were applied in managing disasters in the university libraries. Furthermore, the findings is in line with Kootshabe (2010) that disaster preparedness, management and control are one of the key areas of preservation management which ensures that records are protected from human induced and natural disasters. It is important for organizations dealing

with disasters to know and understand disasters that are likely to affect them in order for them to prepare in advance.

Findings further revealed the challenges to disaster preparedness and security management at the academic libraries in South West Nigeria. These included lack of enough fire-fighting equipment ( $\bar{x}$ =3.28), remote areas do not have access to telecommunication security system ( $\bar{x}$ =3.25), lack of sensitization of staff on disaster preparedness and security management ( $\bar{x}$ =3.19), uncoordinated transportation and rescue plan ( $\bar{x}$ =3.10), among others. The findings is supported by Omosekejimi, Ijiekhuamhen and Ojeme (2015) that highlighted challenges faced by academic libraries in disaster preparedness and security management: Inadequate fund is a major setback affecting disaster preparedness and security management. Libraries and information centres lack the financial; resources to purchase and install the telecommunication security systems and devices that can help to protect the level of security required as a result of the budgetary allocations from their parent organization.

### **Conclusion**

Admittedly, continued existence of functional academic libraries are threatened by various kinds of disasters such as fire, flood, pest/insect, termites attacks to mention few and other security challenges such as hacking, theft etc. The current study for instance showed that fire disaster is a major threat to library resources. Hence, it important that academic libraries need to assess their vulnerabilities and familiarize themselves with all the necessary steps to take to response to any disasters by developing a strong disaster preparedness and security management strategies. Time invested in establishing an appropriate and effective disaster preparedness plan will pay inestimable dividends in ensuring the well-being of staff and resources.

### **Recommendations**

The following recommendations were made for the study:

1. Academic libraries should have disaster response teams who would response to disasters, a leader should be appointed to head the disaster team and other staff should be trained on what to do if any sudden disaster occurs
2. Academic libraries need do more in a bid to prevent fire, rodents, pests/insects-termites attack and any other disasters.

### **References**

- Abareh, M. A. (2014). Survey of disaster preparedness by heads of academic libraries in North-Eastern Nigeria. *Global Journal of Academic Librarianship*, 3(1), 45-57,
- Abidin, M., Kiran, K & Samsuddin, S. (2023). Evidence of open science principles in library disaster management: The Malaysian Academic Library experience. <https://umlib.um.edu.my/images/library%20publication/ICoLIS%202023/Evidence%20of%20Open%20Science%20Principles.pdf>

- Abioye, A., & Adeowu, O. (2013). Security risks management in selected academic libraries in Osun State, Nigeria. *The Information Manager*. 13 (1 & 2)
- Aboyade, M., Kolajo, F., Popoola, S., Agbetuyi, P., & Adetunji, M., (2021). An assessment of disaster preparedness in the libraries of south-western, Nigerian universities (2021). *Library Philosophy and Practice* (e-journal). 6698. <https://digitalcommons.unl.edu/libphilprac/6698>
- Awotola, U. C., & Olowolagba, J. A (2018). The use of academic library resources and services by undergraduate in Ibadan North Local Government of Nigeria. *GNOSI: An Interdisciplinary Journal of Human Theory and Praxis*, 1(2). Retrieved on 5/11/2021 (DOI:<https://doi.org/10.5281/zenodo.3519581>)
- Endouware, B., & Emmanuel, O. (2023). Librarians' perceptions of the security of library resources in university libraries in Bayelsa State, Nigeria". *Southern African Journal of Security* 1:18 <https://unisapressjournals.co.za/index.php/sajs/article/view/12125>.
- Ijiekhuamhen, O. P., Omosekejimi, A. F., & Rhima, T., E. (2020). Disaster preparedness and prevention strategies of university libraries in Nigeria. *Library Progress International*.40, 1, 44-54. DOI: 10.5958/2320-317X.2020.00006.9
- Ilo, P.I., Ngwuchukwu, M., Michael-Onuoha, H.C., & Segun-Adeniran, C.D. (2019). Challenges of disaster training: implication for federal and state university libraries in Nigeria. *Disaster Prevention and Management*, 28(3), 332-342.
- Iroze, P. & Iroze, P. C., (2021). Level of disaster management preparedness by library staff in academic libraries: The experience of academic libraries in south eastern states, Nigeria" *Library Philosophy and Practice* (e-journal). 6689. <https://digitalcommons.unl.edu/libphilprac/668>
- Issa, A., Olanrewaju, A, M, Adedeji, A., F., & Akangbe, B. R, (2012). Disaster preparedness at the State Public Library, Ilorin, Kwara State, Nigeria. *Library Philosophy and Practice* (e-journal). 712.
- Kootshabe, T.G. (2010). Preservation of records in selected government ministries and departments in Botswana. MARM dissertation, University of Botswana, Gaborone.
- Moustapha, A. A., (2022). Security of information resources in academic libraries in Kwara state, Nigeria. *Library Philosophy and Practice* (e-journal). 7476. <https://digitalcommons.unl.edu/libphilprac/7476>
- Njoroge, R. W., (2014). An investigation on disaster preparedness and mitigation for computer based information systems in selected university libraries in Kenya. Unpublished Thesis Submitted in fulfillment of the requirements for the Degree of Doctor of Philosophy in the School of Education of Kenyatta University.

- Nkamnebe, E. C., Udem, O. K., & Nkamnebe, C. B., (2014). Evaluation of the use of university library resources and services by the Students of Paul University, Awka, Anambra State, Nigeria. *Library Philosophy and Practice*. 11, 47. Retrieved from <http://digitalcommons.unl.edu/libphilprac/1147>
- Omosekejimi, A, F., Ijiekhuamhen, O. P., & Ojeme, O. (2015). Library and information resources' security: Traditional and electronic security measures. *International Journal of Academic Research and Reflection*. 3, 3, 1-14.
- Osunride, A. A., & Adetunla, B.O.G (2016). Security control and disaster preparedness as panacea for preservation and conservation practices in university libraries in South-West, Nigeria. *International Journal of Online and Distance Learning*. 1, 1, 26 - 35. Retrieved from [www.iprjib.org](http://www.iprjib.org)
- Rattan, P. (2013). Role of library and information centers in disaster management. *Library Philosophy and Practice*.
- Robert, M. (2018). Assessment of records disaster preparedness and recovery procedures at nakasongola district local Government Central Registry. *East African School of Library and Information Science*
- Siti Juryiah Mohd, K & Norazlina, D. (2015). Disaster preparedness for academic libraries in malaysia: an exploratory study. World Academy of Science, Engineering and Technology. *International Journal of Social, Behavioral, Educational, Economic and Management Engineering*, 9, 10,
- Solomon-Uwakwe, B. (2019). Disaster awareness and preparedness in academic libraries: The case of Michael Okpara University of Agriculture Library, Umudike, Nigeria. *Library and Information Perspectives and Research*, 1, 1-15. Retrieved from: [credencepressltd.com](http://credencepressltd.com)
- Tukur, B. (2022). Availability of disaster preventive, response and recovery measures for disaster preparedness in academic libraries: An appraisal of some selected academic libraries in Gusau metropolis, Nigeria" (2022). *Library Philosophy and Practice* (e-journal). 7191. <https://digitalcommons.unl.edu/libphilprac/7191>
- Ugwuanyi, R, Ugwu, M, & Ezema, K. (2015). Managing disasters in university libraries in South East Nigeria: Preventive, Technological and coping measures. *Library Philosophy and Practice* (e-journal). 1289. <http://digitalcommons.unl.edu/libphilprac/1289>
- Urhiewhu1, L. O., Emojoorho, D. & Omah, J. E., (2018). Security measures adopted to prevent theft of library resources in selected academic libraries. *International Journal of Library and Information Science Studies*. 4, 1, 1-10,

Yamson, G. C. & Cobblah, M. (2016). Assessments of collection security management in academic libraries: A case study of Central University Library. *European Scientific Journal*, 392-425