
A Survey of Disaster Management Practices in Selected Public University Libraries in Nigeria

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Abstract

The paper investigated disaster management practices in selected University libraries in Nigeria. The descriptive design survey was adopted for the study. The study covered federal and state university libraries in South-West, Nigeria. The population of the study consists of all librarians from the federal and state university libraries of the studied area. The exact population of the study was two hundred and thirty-seven librarians. The researcher employed the total enumeration sampling technique, which involves studying the entire population. Five research questions were used to guide the study. Questionnaires were raised to elicit data from the respondents, which were validated through expert's opinion. Data generated for the study were analyzed using some descriptive statistics of percentages, mean and frequency counts. It was discovered that the perceptions of librarians vary in disaster management practices. Some of the problems encountered in disaster management include a lack of disaster preparedness plans, inadequate fund allocation to libraries and inadequate disaster facilities and modern Technological equipment. The paper identified strategies for effective disaster management in university libraries in Nigeria. These strategies include the development of a disaster preparedness plan, regular surveillance to prevent theft and mutilation of library books, vulnerability analysis and risk assessment to evaluate the types of emergencies that might affect library collection, staff training and raising awareness of the need to protect documents from disaster. Based on the findings above, the study recommends that there should be adequate disaster preparedness plans to guide librarians and users on the management of disaster in our libraries. Training of librarians and other staff on disaster control and prevention should be carried out as well as adequate funding of the libraries by the government.

Keywords: *Disaster, disaster management, libraries, public universities*

Introduction

From the time immemorial, library have been indispensable agents of information gathering, organizing, storing, retrieval and dissemination. According to Aina, (2004) university library is the most important retrieval institution. The academic health, intellectual vitality and effectiveness of any university depend largely upon the state of the health and excellence of its library, thus making it the heart of an academic institution. A well-equipped library is therefore very vital to the education and general information of the masses. With the colossal amount of money spent on the development of a library, one expects that adequate arrangements be made to protect the materials against disaster. While the economic situation in the country bites harder,

librarians should make changes in the various aspects of their professional practice to guard against disaster in any form. Libraries, right from earliest times to the present have been suffering a lot of threats from disasters such as flood, fire, harmattan, leaking roofs, mutilation, insects, fungi and theft. All these have caused great ravages to the library resources as a result of poor disaster management practices.

Therein, the unprecedented increase in damages caused by disasters in the recent past has become a cause for national and international concern. Over the past decade, the number of natural and human-induced disasters has relentlessly risen and has considerably inflicted unquantifiable strife and injury on their impeccable victims. The unpredictability of their occurrences, how they occur and which one occurs, first has been a great concern to individuals and organizations worldwide. For instance, the Center for Research on the Epidemiology of Disasters (CRED,1984) described the disaster as the tragedy of a natural or human-made hazard that negatively affects society or the environment. In a similar vein, the World Health Organization (WHO) defines disaster as “a sudden ecological phenomenon of sufficient magnitude to require external assistance”. It is also defined as any event, typically occurring suddenly, that causes damage, ecological disruption, loss of human life, deterioration of health and health services, and which exceeds the capacity of the affected community on a scale sufficient to require outside assistance (Landsman, 2001). Similarly, in a world of copious digital technologies, university libraries have enough shares of disasters. Unfortunately, a library disaster has to do with any event that directly or indirectly affects the smooth administration of a university library by disrupting its normal services to its users. It is an unexpected event, which puts library resources or collections at risk. According to Alegbeleye (1993), disaster occurs in a library when any event causes a sudden removal of records and documents from accessibility and use. He further argues that libraries are very prone to disasters. The endemic damages by disasters in libraries, whenever any of them strikes, leave the affected library in a deplorable condition. No matter how the threats appear, or how they influence university libraries, the ability to safeguard and preserve their collections should be uppermost in their policies.

Consequently, with the colossal amount of money spent on the development of a library, one expects that adequate arrangements be made to protect the materials against disaster as the economic situation in the country bites harder, librarians should make changes in the various aspects of their professional practice to guard against disaster in any form. The preoccupation of the librarians at this period should be how to ensure the survival of the existing collection. However, it seems unfortunate that library materials, library buildings and other facilities are not properly planned and managed against disaster occurrence by the parent institution, the librarians themselves or the government. It is therefore viewed, that this inadequate protection against disaster is jeopardizing the culture of the society and the future generation. Given the foregone, the researcher intends to investigate disaster management practices (preparedness and mitigation) in selected university libraries in Nigeria.

Objectives of the study

The main objective of the study is to investigate the disaster management practices in selected public university libraries in Nigeria. The specific objectives are to:

- i. Identify the types of disasters that are ravaging library resources in public university libraries in Nigeria;
- ii. Identify the disaster preparedness facilities and equipment available for the mitigation of disaster in the university libraries;
- iii. Ascertain the level of awareness of librarians to the disaster preparedness plans in the university libraries;
- iv. Identify the strategic plans put in place to curb the likelihood of disaster in the university libraries;
- v. Identify the challenges associated with disaster management practice in the university libraries;

Research Questions

- i. What are the kinds of disasters ravaging library resources in public university libraries in Nigeria?
- ii. What are the types of disaster facilities and equipment available for the mitigation of disaster in the university libraries?
- iii. What is the level of awareness of disaster preparedness plans that mitigate disaster in the university libraries?
- iv. What are the strategic plans put in place to safely guide the library resources against the likelihood of disaster?
- v. What are the challenges associated with disaster management practices in university libraries?

Related Literature

Disasters in libraries are as old as the word library. The Great Alexandria Library of Ancient Egypt was believed to be the largest library in the ancient world. Estimated to hold a collection strength of more than 500 volumes of Egypt, Assyria, Persia, Greece, India and other nations of the world (Chesser, n.d). It was home to the legendary scrolls of the works of great thinkers like Socrates, Plato, Homer etc. The way 'what', 'how' and 'by whom' this gargantuan collection of human knowledge went into extinction has remained a subject of debate. However, the focus is not to do a root-cause analysis of the events that triggered the demise of the great library, but to gain insight into the disappearance of one of the Seven Wonders of the World in the ancient world called Books (Rollin, 1851). The dramatic increase and the unprecedented damages caused by disasters in the recent past have become a cause for national and international concern. Over the past decade, the number of natural and human-induced disasters has relentlessly risen and has considerably inflicted unquantifiable strife and injury on their impeccable victims. The unpredictability of their occurrences, how they occur and which one occurs, first has been a great concern to individuals and organizations worldwide. In a study carried out by Teferra (1996) on Ethiopian libraries, mutilation constitute a serious threat in the libraries studied as indicated by 93% of the respondents and the materials frequently mutilated were mainly books and periodicals. IFLA (2006) International Federation of Library Association defines a disaster, whether natural or man-made as "an event whose timing is unexpected and whose consequences are seriously destructive.

Types of Disaster in University Libraries

The most common examples of disasters in the library and information services context are floods and fires, but the term covers a range of natural and human-made phenomena, including storms, earthquakes, pests, explosions, asbestos, bombs, thefts, and civil disorder (Corrall & Brewerton, 1999). There are various types of disasters affecting university libraries across the globe.

Specifically, Charlotte and Clay (2001) classified disasters into four broad categories namely;

- i. Accidental Disasters: This type of disaster is caused by loss of power, fire outbreak due to electrical issues, exposed wire and voltage overload etc.
- ii. Natural Disasters: This type of disaster is mainly composed of earthquakes, flooding, thunderstorms lighting etc.
- iii. Internal Disasters: Some examples of internal disasters include sabotage by library and university management, theft, mutilation and violence.
- iv. Technological Disasters: This type of disaster is prominent due to advances in information communication technologies. Some examples are computer vandalism, hacking and computer viruses

Alegbeleye (1993) in his study listed several disasters that have struck information centers in Africa. According to him, in 1988, records were destroyed when a record centre was burnt down by students in Sierra Leone. In another incident, the Nigerian Institute of Policy and Strategic Studies Library in Jos experienced an electrical failure resulting in a fire that destroyed many books, artefacts, and other monuments in 1987. In Kenya, the then Colonial Secretary's office containing early colonial records was gutted by fire in 1939, resulting in considerable loss of valuable records. In Botswana, the old Immigration Department building near the railway line in Gaborone was gutted by fire in the 1990s, resulting in many records being burnt (Hlabaangani & Mnjama, 2008). Jimoh (2004) reported a fire incident that consumed the library of Federal Polytechnic, Idah, North Central Nigeria which burnt down the institution's library perpetrated by protesting students. Unfortunately, the very recent earthquake and the tsunami tragic disaster in Japan will further extend the long list of library disasters.

Disaster facilities and equipment

Various factors trigger the occurrence of a disaster on the surface of the earth. Some of these include sudden earth movement, climate change, volcanic eruption, human and animal activities which include inadequate facilities and equipment and many more. Disasters in libraries usually occur suddenly without any warning signs. Therefore, there is a need to prepare ahead of time. Disaster preparedness entails careful planning; it involves getting ready by putting the necessary measures in place so that in the event of a sudden occurrence of disaster the library would know what to do. Part of the measures that need to be put in place in preparing for disaster are facilities and equipment. In the finding of research conducted by Sawant (2014) on preservation and conservation practices in academic libraries in the Mumbai district of India using 41 respondents, most of the Libraries indicated that they have fire extinguishers 30 (85.7%). Commenting more on the availability of facilities and equipment to mitigate disasters in university libraries,

Promise, Mole, Izuagbe and Ekwueme (2018) in their study of disaster preparedness and response in university libraries in Nigeria found that there is an adequate availability rate of fire extinguishers, sand buckets, emergency exit doors, anti-virus software and thunder arrestors. Other core disaster equipment like dehumidifiers, dryers, dust extractors, plastic sheet covers, warning alarms etc. are lacking in the libraries. Echezona, Ugwu and Ozioko (2010) studied disaster management in university libraries: perception, problems and strategies. The study revealed that the lack of adequate facilities to fight disasters was identified as the major challenge in disaster management.

Disaster Preparedness plans and level of awareness in university libraries

Disaster preparedness is a dynamic process that requires good cooperation and coordination among different types of professionals. Disasters are usually unforeseen events with unpredictable catastrophic effects, most often, resulting in irredeemable loss. Disasters are occurrences that disrupt the normal environmental conditions of the community, imposing a significant level of hardship that exceeds the capacity of the affected community to recover completely [WHO/ Emergency Humanitarian Action EHA, 2002). Libraries and other relevant institutions need to take proactive steps towards preparing for disasters through the analysis of the peculiarity of their environment and resources to formulate a disaster preparedness plan (McIlwaine, 2006).

Promise, Mole, Izuagbe and Ekwueme (2018) measured disaster preparedness and response in university libraries in Nigeria, evaluating the role of disaster equipment. The study revealed that the disaster preparedness and response practices primarily carried out in the studied libraries include regular inspection and maintenance of electrical equipment, ensuring disaster equipment is in its rightful positions and timely replacement of fire extinguishers on expiration. In the same vein, Marfor and Borteye (2016) also did a study on disaster preparedness at Kwame Nkrumah University of Technology Ghana and the majority of the staff indicated that they are aware of the location of emergency exits and the location of fire extinguishers. As Finley (2001) claims “Every library needs a disaster preparedness plan and that planner needs to plan for the worst. It’s right to hope for the best, but you should plan for the worst”. In the same vein, Nwokedi, Panle and Samuel (2017) investigated the extent of staff disaster preparedness to ascertain readiness/competence to prevent, mitigate, respond or recover adequately in the event of future occurrence. The study revealed that staff are aware of the fire safety instructions and safety measures in the library. But sadly, the study found that staff are unaware of what to do to salvage partly damaged resources in the case of a fire disaster, and such, they were not prepared. If after two fire disasters, the library and its staff are still not prepared for the same catastrophe, the outcome will be better imagined than experienced in the case of other disasters never experienced or prepared for.

Strategic plans put in place to safely guide disaster in university libraries

Disaster prevention is a key area in disaster management practices and the ultimate goal is to slow down the wear and tear of library information stock thereby prolonging the lifespan and

ensuring long-term access to the resources. Whereas achieving this goal dependent on factors such as adequate funding, the availability of relevant technology infrastructure and technical expertise are also essential to the success of the entire process. A revelation from the study of World Health Organization/Emergency Humanitarian Action (1998) noted that the basic objective of mitigation is to reduce the intensity of risks and hazards from becoming a disaster. The researchers observed further that even if it is impossible to eliminate hazards, vulnerability can be minimized, laying a stronger foundation for the response and recovery process. In other words, when disaster prevention fails, control measures should be adopted. Disasters cannot be adequately and efficiently prevented or mitigated without training and re-training of personnel who could respond to recover using available facilities and know-how. The role of training towards disaster preparedness has been acknowledged in literature (Issa, Aliyu, & Abareh, 2014) to impact mitigation, response and recovery. Thus, how well the mitigation process is harnessed and coordinated, is a measure of disaster preparedness. The studies of Echezona, Ugwu and Ozioko (2010) for instance affirmed the development of a disaster preparedness plan, vulnerability analysis and risk assessment, backing up library websites regularly, staff training and raising awareness of the need to protect documents from disaster are the disaster prevention strategies employed in the university libraries in Southern Nigeria. Abareh (2014) examined this phenomenon in North-Eastern Nigeria focusing on academic library Heads in the twenty-one academic institutions located in the region. Sadly, the study showed that none of the libraries had insurance policies. This implies that a vital part of the recovery procedure was left out in the disaster recovery plans of the studied libraries if at all a plan exists. Adequate disaster preparation and control of hazards are relatively cheaper than the recovery process. Thus, it is a justifiable supposition that disaster prevention and control is preferable in many instances compared to the costly and endless process of post-disaster recovery.

Challenges faced by Librarians in mitigating Disaster in University Libraries

Disasters have happened throughout the history of libraries and information services and some of them have even eliminated entire organizations; in other words, most concerned librarians and archivists in the world look more closely at the collection. This is because the magnitude of the disaster management problem becomes increasingly threatening and the situation has been partly caused by many years of neglect and partly by the environmental conditions most often beyond the control of the librarians and other information managers. Eden and Mathews (1997) identified some of the following as problems of disaster management: insufficient exit in the library, firefighting equipment not in working order and order of advice to users and defective lifts. Research has shown that many institutions with disaster plans rarely review, update or test them. More importantly, staff are not adequately trained in emergency procedures. In the same vein, 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. Echezona and Ugwu (2010) stated that inadequate facilities and fund allocation to libraries are some of the major problems that militate against disaster management. The government pays little or no attention to disaster management finance to the public libraries as a whole. Similarly, Echezona, Ugwu and Ozioko (2015) in their study of disaster management in university libraries: perception, problems and

strategies.0The researchers found that some of the problems encountered in disaster management include lack of adequate facilities, inadequate fund allocation to libraries and lack of interest on the part of some librarians on disaster management issues. The results were alarming. Again, out of 177 libraries, only 39 (22%) had a disaster plan (IFLA-PAC, 2006). These findings probably may be a general reflection of what is obtainable in most academic libraries in Nigeria today.

Methodology

The study investigated the disaster management practice in selected public university libraries in Nigeria. The study covered all the federal and state university libraries in Southwest, Nigeria. The descriptive survey research design was adopted for the study. Thereafter total enumeration sampling technique was used for the study. The total enumeration has to be used when the population is not large enough to achieve a desirable level of precision. five research questions were answered in the study and a questionnaire titled Disaster Management Practice Questionnaire (DMPQ) containing 50 items was designed and administered to all professional librarians of selected university libraries across the Southwest geopolitical zone of Nigeria. Before the instrument was used, it was submitted to experts in the Department of Library and Information Science of Delta State University, Abraka for scrutiny and content and face validity. The simple percentage and frequency counts were used to analyze the data. In all a total of 332 copies of the questionnaire were distributed and 237 copies were returned and found usable which made up of (71.4%) response rate and is considered adequate for the study.

Table 1: Questionnaire Response Rate

No of Questionnaire distributed	No of Questionnaire retrieved	Percentage
332	237	71.4

Table I shows the questionnaire response rate, out of the 332 copies of the questionnaires distributed to the respondents, the researchers were able to retrieve 237 copies. Hence, there was a 71.4 % response rate.

Table II: Gender

Gender	Frequency	Percentage
Male	135	56.9%
Female	102	43.1%
Total	237	100

Table: II above shows that 135 (56.9%) of the respondents were male, while 102 (43.1%) of the respondents were female. This implies that there were more male librarians than females in Southwest, Nigeria at the time of this study.

Findings

Does your university library have disaster preparedness plans?

Table: III.Availability of Disaster Preparedness Plans

Availability of Disaster Preparedness Plans	Frequency	Percentage
There is a disaster preparedness plan in my university library	45	18.9 %
There is no disaster preparedness plans in my university library	192	81.1%
Total	237	100

Table iii

The table shows the availability of disaster preparedness plans in university libraries, 45(18.9%) indicated there is a disaster preparedness plan available in their libraries, while 192(81.1%) of the respondents indicated that there was no disaster preparedness plan available in their libraries.

Table: iv. Types of disaster ravaging university libraries in Nigeria

S/N	Kinds of Disaster	Frequency	Percentage
1	Leaking roof & substandard library materials	210	88.6%
2	Earthquake	---	---
3	Hacking	30	12.6%
4	Flood	24	10.1%
5	Mutilation of Library materials	235	99.2%
6	Theft of Library materials	230	97.0%
7	Thunderstorm/ Lightening	200	84.4%
9	Computer vandalism	101	42.6%
11	Fire outbreak	207	87.3%
12	Biological agents (rodents, insects, termites)	220	92.8%
13	Environmental pollution	87	36.7%
14	Landslide erosion	----	-----
15	Computer virus	130	54.9%
16	Typhoon	_---	_-----

The results in the table revealed the types of disasters that occur in university libraries in Nigeria. It is showed that the majority 235 (99.2%) indicated mutilation of library materials and closely followed by theft of library materials with 230 (97.0%), 220(92.8%) indicated biological agents such as rodents and other insects while 210 (88.6%) indicated leaking roof and substandard library materials, 207 (87.3%) indicated fire outbreak, 200 (84.4) indicated

Thunderstorm/ lightening and other inadequate building protection, 130 (54.9%) indicated computer virus 101(42.6%) indicated computer vandalism, 87 (36.7%) indicated environmental pollution, 30 (12.6%) indicated hacking of system and 24 (10.1%) indicated flooding.

Table: v. Disaster Management Practices Facilities and Equipment

S/N	Facility	Readily Available (RA)	Available (A)	Rarely Available (RA)	Not Available (NA)
1	Warning Alarm	37 (15.6%)	53 (22.3%)	67 (28.2%)	80 (33.7%)
2	Insecticides	86 (36.2%)	61 (25.7%)	47 (19.8%)	43 (18.1%)
3	Anti-virus software	90 (37.9%)	70 (29.5%)	46 (19.4%)	31 (13.0%)
4	Fire extinguishers	97 (40.9%)	78 (32.9%)	32 (13.5%)	30 (12.6%)
5	Sound bucket	89 (37.5%)	67 (28.2%)	47 (19.8%)	34 (14.3%)
6	Fumigation chemical and equipment	88 (37.1%)	69 (29.1%)	37 (15.6%)	43 (18.1%)
7	Security camera (CCTV)	42 (17.7%)	35 (14.7%)	67 (28.2%)	93 (39.2%)
8	Air purifier	48 (20.2%)	42 (17.7%)	70 (29.5%)	77 (32.4%)
9	Anti –Hacking/spyware software	43 (18.1%)	37 (13.6%)	70 (29.5%)	87 (36.7%)
10	Dust extractors	78 (32.9%)	76 (32.0%)	46 (19.4%)	37 (15.6%)
11	Air fresheners	80 (33.7%)	73 (30.8%)	47 (19.8%)	37 (15.6%)
12	Thunder arrestors	85 (35.8%)	70 (29.5%)	45 (18.9%)	37 (15.6%)

The respondents were asked to indicate the extent of the availability of facilities and equipment for mitigating disaster in their university libraries. These results show that the majority of the respondents 175 (73.8%) indicated fire extinguishers were readily available in their libraries, closely followed were about 160 (67.4%) respondents indicated anti-virus readily available in their libraries, 157(66.2%) indicated fumigation was chemical and equipment availability, 156(65.8%) indicated sand bucket, closely followed is thunder arrestors with 155 (65.4%), 154(64.9%) indicated dust extractors, 80(33.7%) indicated anti-hacking/spyware software, 90(37.9%) indicated warning alarm, 77(32.4%) indicated security camera presence.

Table: vi. Disaster Preparedness Plans and level of Awareness

S/N	Disaster Preparedness Plans Awareness	Very Highly Aware	Highly Aware	Less Aware	Not Aware
1	Are you aware of the availability of fire extinguisher locations and how to use them	92 (38.8%)	90 (37.9%)	35 (14.7%)	20 (8.4%)
2	Are you aware of what to do to salvage slightly damage resources e.g books	30 (12.6%)	34 (14.3%)	83 (35.0%)	90 (37.9%)
3	Are you aware of the emergency exit doors and phone No of the person in charge	92 (38.8%)	88 (37.1%)	37 (15.6%)	20 (8.4%)
4	Do you know multiple well-stocked emergency kits location in the building	85 (35.85)	80 (33.8%)	40 (16.9%)	32 (13.5%)
5	Do you know of library building floor plans and key areas of the building	52 (21.9%)	20 (8.4%)	77 (32.55%)	88 (37.1%)
6	Are you aware of the most precious collections to be evacuated in case of a fire outbreak	40 (16.6%)	22 (9.2%)	81 (34.1%)	94 (39.6%)
7	Are you aware of any staff training in disaster emergency recovery planning & risk assessment	30 (12.6%)	40 (16.8%)	84 (35.8%)	90 (37.9%)
8	Are you aware of the list of staff to be called and their phone number in case of an emergency	87 (36.7%)	86 (36.2%)	40 (16.6%)	24 (10.1%)
9	Are you aware of the available list of services needed in an emergency exit unit	80 (33.7%)	72 (30.3%)	55 (23.2%)	30 (12.6%)
10	Are you aware of the functionality of the fire extinguisher, fire alarm and water system	78 (32.9%)	89 (37.5%)	39 (16.5%)	31 (13.1%)
11	Are you aware if the call-out list and the entire preparedness plans are regularly updated	30 (12.6%)	30 (12.6%)	79 (33.3%)	98 (41.3%)
13	Are you aware of the location of the electrical control switch?	45 (18.9%)	20 (8.4%)	81 (34.1%)	91 (38.3%)

Disaster Preparedness Plans and level of Awareness

The results revealed that the majority of the respondents 182 (76.7%) indicated they were highly aware of the availability of fire extinguishers locations and how to use them closely followed by

180 (75.9%) respondents indicated they were highly aware of emergency exit doors and phone numbers of the person in charge, 173(72.9%) aware of the list of staff to be called and their number in case of emergency. However, very few librarians 60 (25.2%) indicated they are aware if the call-out list and the entire preparedness plans are regularly updated while a large percentage of about 173 (72.9%) indicated they are not aware, 175 (73.8%) indicated that they do not aware of most precious collection to be evacuated in case of fire outbreak and very handful percentage of just 62 (25.8%) indicated they are aware, 174 (73.4%) indicated that they are not aware of any staff training in disaster emergency recovery planning & risk assessment while only a very few respondents with 70 (29.4%) indicated they are aware, 172 (72.5%) indicated that they are not aware of the location of the electrical control switch and few respondents of just 65 (27.4%) indicated they are aware 165 (69.6%) indicated that they are not aware library building floor plans and keys areas of the building while also very few respondents with just 72 (30.3%) indicated they are aware.

Table: vi. Disaster strategic plans towards safe guiding the library resources in the university libraries

S/N	Disaster strategic plans to safely guide Library resources	SA	A	D	SD
1	Regular check of the library building regarding roof leakages	84 (35.4%)	78 (32.9%)	39 (16.4%)	36 (15.1%)
2	Staff training on disaster and mitigation plans	89 (37.5%)	75 (31.6%)	34 (14.3%)	39 (16.4%)
3	Development of disaster preparedness plans	90 (37.9%)	80 (33.7%)	47 (19.8%)	20 (8.4%)
4	Backing up library electronic resources in the cloud	90 (37.9%)	77 (32.4%)	30 (12.6%)	40 (16.8%)
5	Installation of CCTV, and other electronic gadgets to monitor library resources in the library	81 (34.1%)	90 (37.9%)	36 (15.1%)	30 (12.6%)
6	Regular fumigation of the library and its environment against insects and other biological agents	90 (37.9%)	79 (33.3%)	30 (12.6%)	38 (16.0%)
7	Installation of anti-virus, anti-hacking /spyware software on all university library system	85 (35.8%)	73 (30.8%)	43 (18.1%)	36 (15.1%)
8	General vulnerability analysis and risk assessment of the library	52 (21.9%)	40 (18.8%)	70 (29.5%)	75 (31.6%)
10	Regular inspection of the library building regarding electrical installation & wiring	78 (32.9%)	73 (30.8%)	46 (19.4%)	40 (16.8%)
11	Regular surveillance to prevent theft and mutilation of library books	89 (37.5%)	87 (36.7%)	31 (13.0%)	30 (12.6%)

Note: A- Agree; SA – strongly Agree; D- Disagree, SD- strongly Disagree

The respondents were asked to state the strategic plans towards safely guiding library resources in their libraries. The results in the table show that the majority of the respondents 176 (74.2%) agreed and strongly indicated regular surveillance to prevent theft and mutilation of library books, closely followed by 171 (72.1%) respondents agreed and strongly indicated that the Installation of CCTV, and other electronic gadgets to monitor library resources in the library, 170 (71.7%) strongly agreed or indicated the development and availability of disaster preparedness plans, 169 (71.3%) agreed and strongly indicated regular fumigation of library and its environment against insects and other biological agents, 167 (70.4%) agreed and strongly indicated backing up library electronic resources in the cloud, 164 (69.1%) indicated Staff training on disaster and mitigation plans, 162 (68.3%) indicated regular check of library building regarding roof leakages, 158 (66.6%) indicated Installation of anti-virus, anti-hacking /spyware software on all university libraries system. However very low number of respondents about 92 (38.8%) agreed and strongly indicated general vulnerability analysis and risk assessment of the library.

Table: vii. Challenges associated with disaster management practices

S/N	Challenges	SA	A	D	SD
1	Insufficient funding for disaster management plans	95 (40.0%)	82 (34.5%)	30 (12.6%)	30 (12.6%)
2	Lack of awareness campaign on disaster mitigation	89 (37.5%)	78 (32.9%)	40 (21.5%)	30 (16.4%)
3	Lack of disaster preparedness plans	98 (41.3%)	94 (39.6%)	30 (12.6%)	15 (6.3%)
4	Lack of skilled personnel in disaster mitigation and response	79 (33.3%)	76 (32.1%)	42 (17.7%)	40 (16.8%)
5	Absence of insurance policy	82 (34.5%)	79 (33.3%)	36 (19.4%)	30 (12.6%)
6	Irregular assessment of Hazard and vulnerability	30 (12.6%)	50 (21.0%)	70 (29.5%)	87 (36.7%)
7	Poor citing and planning of the library building	75 (31.9%)	80 (33.7%)	32 (13.5%)	50 (21.1%)
8	Inadequate disaster facilities and modern Technological equipment	80 (33.7%)	77 (32.4%)	40 (16.8%)	40 (16.8%)
9	Unreliable power supplies for operating sophisticated disaster equipment	88 (37.1%)	81 (33.3%)	41 (18.1%)	27 (11.3%)
10	Inadequate training of librarians and users on disaster management practices	42 (17.7%)	40 (16.8%)	75 (31.6%)	80 (33.7%)
11	Most libraries operate without adequate security and non-involvement of library staff	94 (39.6%)	82 (34.5%)	39 (16.45)	22 (9.2%)
12	Inadequate implementation and enforcement of preparedness plans	86 (36.2%)	70 (29.5%)	33 (13.9%)	33 (13.9%)

Note: A- Agree; SA – strongly Agree; D- Disagree, SD- strongly Disagree

In Table vii, the respondents were asked to state the challenges associated with disaster management practices in their libraries. The majority of the respondents 192 (81.0%) agreed and strongly agreed that lack of disaster preparedness plans, closely followed were 177 (74.6%) of the respondents who agreed and strongly indicated insufficient funding for disaster management plans, 176 (74.2%) agreed and strongly agreed or indicated that most of the libraries operate without adequate securities and non-involvement of library staff in the security arrangement while 167 (70.4%) of the respondents agreed and strongly indicated that lack of awareness campaign on disaster mitigation, 169 (71.3%) agreed and strongly indicated unreliable power supplies for operating sophisticated disaster equipment, 157 (66.2%) agree and strongly indicated inadequate disaster facilities and modern Technological equipment, 156 (65.8%) agreed and strongly indicated inadequate implementation and enforcement of preparedness plans. However, while just a few respondents 82 (34.5%) agreed and strongly indicated inadequate training of librarians and users on disaster management practices and closely followed are just 80 (33.7% respondents agreed and indicated irregular assessment of Hazard and vulnerability.

Discussion of findings

Availability of Disaster Preparedness plans

The analysis shows that the majority of the respondents indicated that disaster preparedness plans were not available in their libraries while a handful number of respondents showed that they had preparedness plans. These findings are in line with McIlwaine's (2006) study that affirmed that libraries and other relevant institutions need to take proactive steps towards preparing for disasters through the analysis of the peculiarity of their environment and resources to formulate disaster preparedness plans. Also IFLA –PAC (2006) surveyed in 2003 among National libraries to find out which of them had disaster plans, it was established that out of 177 libraries studied, only 39 (22%) had disaster plans.

Types of disaster ravaging university libraries in Nigeria

The analysis showed that the majority of the respondents agreed and strongly agreed that mutilation of library materials and theft of library materials are the major causes of disaster in their libraries. Closely followed are the biological agents, leaking roof, and fire outbreak respectively. The study equally showed that none of the respondents indicated that typhoons, landslide erosion and Earthquakes had caused disaster in their libraries. The findings align with the study carried out by Teferra (1996) on Ethiopian libraries, where he affirmed that mutilation constitutes a serious threat in the libraries studied as indicated by 93% of the respondents and the materials frequently mutilated were mainly books and periodicals. Also, this finding is consistence with Alegbeleye's 1993 study where he affirmed that biological agents such as rodents, fungi and insects destroy books and library materials and the most hit areas are tropical countries.

Disaster facilities and equipment

The respondents were asked to indicate the extent of the availability of facilities and equipment for mitigating disaster in their university libraries. The analysis showed that the majority of the respondents indicated fire extinguishers were readily available in their libraries. Closely followed were the anti-virus availability, fumigation, chemical, equipment, and availability of sand buckets respectively. The study also revealed that anti-hacking/spyware software, warning alarms and security cameras otherwise called CCTV were not readily available in most of the university libraries studied. The finding is in line with Promise, Mole, Izuagbe and Ekwueme (2018) who all established in their studies that there was adequate availability of fire extinguishers, sand buckets, emergency exit doors, anti-virus software and thunder arrestors. Other core disaster equipment like dehumidifiers, CCTV Anti-hacking/spyware software, dryers, dust extractors, plastic sheet covers, and warning alarms were lacking in the libraries.

Disaster Preparedness plans and awareness in university libraries

The respondents were asked to state the disaster preparedness plans and the level of awareness in the university libraries. The analysis of the study revealed that the majority of the respondents indicated that they are aware of the location of fire extinguishers/ how to use them and familiar with the emergency exit doors and the rest. However, a large number of the respondents indicated that they did not know what to do to evacuate the precious collection in case of emergency. The findings collaborated with Marfor and Borteye's (2012) study on disaster preparedness at Kwame Nkrumah University of Technology Ghana where the majority of the staff indicated that they are aware of the location of emergency exits and the location of fire extinguishers. The finding is also aligning with Nwokedi, Panle and Samuel's (2017) study where they investigated the extent of staff disaster preparedness to ascertain readiness/competence to prevent, mitigate, respond or recover adequately in the event of future occurrence. The study found that staff was aware of the fire-safety instructions and safety measures in the library. However, sadly, the same study found out that staff were unaware of what to do to salvage partly damaged resources in the case of a fire disaster, and as such, they were not prepared.

Strategic plan to guide against disaster in university libraries

The respondents were asked to state the Strategic plans put in place to safely guide disaster in university libraries. The majority of the respondents agreed and strongly agreed that theft and mutilation of books is a major disaster in most libraries and that, there is a need for regular surveillance to prevent or possibly reduce this ugly incident also very high number equally supported the installation of CCTV and other electronic gadgets to monitor library resources. This might be possible because of the funds required to train skilled personnel and other financial involvement, especially in the procurement of the tools needed for the exercise. The findings collaborated with the studies of Echezona, Ugwu and Ozioko (2010) where they all

affirmed that the development of a disaster preparedness plan, vulnerability analysis and risk assessment backing up library websites regularly, staff training and raising awareness of the need to protect the document from disaster are the disaster prevention strategies employed in the university libraries in Southern Nigeria. Also survey carried out in 2003 among National libraries to find out which of them had disaster plans, it found that out of 177 libraries studied, only 39 (22%) had disaster plans (IFLA-PAC, 2006).

Challenges associated with the management of disaster practices

The respondents were asked to state the challenges associated with disaster management practices. The finding of the study revealed that the majority of library managers operate without disaster preparedness plans. The finding also shows insufficient funds for managing disasters and the non-involvement of library staff in the security arrangement. The finding is in line with Echezona, Ugwu and Ozioko (2015) study of disaster management in university libraries: perception, problems and strategies. The researchers established that some of the problems encountered in disaster management include lack of adequate facilities, inadequate fund allocation to libraries and lack of interest on the part of some librarians in disaster management issues. The finding also collaborated with the study conducted by 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.

Conclusion

The university libraries are the nerve centres of academic programmes in university education. The resources in their custody are quite valuable for the achievement of the tripartite function of teaching, learning and research. Therefore, the urge to invest would not be allowed to be wasted through disaster. This places a responsibility upon stakeholders especially librarians for a concerted effort and commitment towards the preservation of library resources against disaster. The findings of the study therefore showed that a large percentage of the libraries studied did not have disaster preparedness plans. However, the study revealed the availability of basic facilities and equipment like fire extinguishers, bucket sand and so on but sadly, equipment like anti-hacker spyware software, security cameras otherwise called CCTV and others for proper surveillance work was not readily available.

Recommendations

Based on the foregoing, the researchers recommend as follows:

- i. University libraries should have proper surveillance in place through the installation of CCTV and other electronic gadgets to reduce the mutilation of library print resources currently in the increase in Nigerian university libraries

- ii. University library management as a matter of urgency should draft and approve disaster preparedness plans for their libraries to be able to efficiently tackle disasters that might occur at any time.
- iii. Modern fire- fighting equipment such as smoke detectors, fire alarms fire suppression systems and even effective anti-virus to mitigate the effects of viruses should be acquired and installed in the library and staff should be trained on how to use them to ensure quicker emergency response

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