

Strategies For Disaster Preparedness and Management Practice in Academic Libraries in Kebbi State, Nigeria.

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Abstract—This study was designed to determine disaster management in academic libraries in Kebbi State. The study was guided by five research questions covering the types of disasters that have affected these libraries and the extent of damages. It also looked at the disaster management plan, whether there is any in place and who the members of the disaster management committee are. The research design was descriptive survey with a population of 60 librarians and 84 library officers from 21 academic libraries in Kebbi State. No sampling was done because the population was small and manageable. The instruments for data collection were questionnaire and interview schedule. The questionnaire was designed in line with four-point rating scale. One hundred and fifty-three (153) copies of the questionnaire were administered of which one hundred and twenty-eight (128) were correctly filled and returned showing 89.70% response rate. Data was analysed using mean and standard deviation. The findings of the study revealed that the major disasters that have affected academic libraries in Kebbi State were pests, fire, roof leakage and data alteration (these disasters can cause great damages to the library collections, building and personnel). The study also showed that not all libraries were prepared for disaster management (with only a few accepted to have a written disaster management plan). Furthermore, the findings showed that the libraries have the following as some of the problems militating against disaster management: lack of fire alarms, lack of training of staff on disaster management, lack of budgetary allocation for disaster management and lack of fire fighters. The following recommendations were made to remedy the problems: cordial relationship between library management and library staff, having a disaster management plan in place, regular training of staff, seminars and workshops on disaster management, proper electrical installations in the library, proper foundation of library building and approval by town planning authority. They added that regular updating of disaster plan; ensuring the library personnel, building and collections and budgetary allocation for disaster management would also serve as remedies.

Index Terms—Disaster, Disaster Preparedness, disaster management, disaster management plan, Damages

I. INTRODUCTION

Academic libraries are those libraries located in higher institutions of learning such as universities, polytechnics, colleges of education and research institutions. Academic libraries have an important role in the transmission of information and knowledge in higher educational institutions as they facilitate the teaching, learning and research functions of their respective institutions. They are referred to as the heart or nerve centers of institutions of higher learning where all academic activities revolved. The users of these academic libraries are students, lecturers, and the whole academic community (Aina, 2018). Aina emphasizes that in a university system, the quality of library services rendered by a university library is an important factor in the ranking of universities. This expression is acceptable by Ndagana (2016) who expressed that academic libraries are mainly established for research, teaching, and study purposes. Ndagana emphasized further that these academic libraries try as much as possible to develop their holdings in all areas in which courses are offered by their various institutions. The history of academic libraries in Nigeria as Oyedum (2015) traced it to the development of higher education. Oyedum said the first institution of higher learning in Nigeria was the Yaba higher college opened in 1934 to provide vocational and professional training for secondary school teachers, medical, agricultural, veterinary and forestry assistants as well as in engineering for subordinate positions based on government workforce and private enterprise requirements. It had a total stock of 20,000 volumes by 1948. In that same year the volumes were taken over by the university college Ibadan when it was established. With time academic

libraries began to increase following the development of higher institutions of learning in Nigeria, where the collections also increase especially with the introduction of information technology. Here some academic libraries have been connected to the internet so as to make available current relevant materials to their communities. Edoka (2014), listed the following as functions of academic libraries: To provide information materials required for the academic programmes of the parent institution; to provide research information resources in consonance with the needs of faculty and students; to provide information resources for recreation and for personal self-development of users and to provide study accommodation in a useful variety of locations. Others include providing protection and security for these materials; to co-operate with other libraries at appropriate levels for improved information services and to provide specialized information service to appropriate segment of the wider community.

Academic libraries make available to its users a variety of library collections. Oyedum (2015) expressed that it is generally believed that, it is not the library building, qualification or experience of library staff that makes the library important rather it is the quality of its collection that a user uses in judging the adequacy of any library. Thus, collection of a library is the most important needs of the users. That is why the need for well-developed academic programs depends on the strength of its library collections. One cannot expect an excellent academic program in any educational institution without the support of a well-equipped library. The services of the academic library are shared to the different components such as circulation unit, reference unit, serials unit, documents unit, acquisition unit, cataloguing unit etc for easy dissemination of information. These units function to serve the needs of the library users (students, lecturers and non-teaching staff). Each unit is very important to the success of the academic library as they all aimed at satisfying the needs of users by safeguarding the collections from harm such as threats of disaster.

Hence disaster can occur or happen when least expected, it sometimes comes unannounced. Disaster is defined differently by different authors, according to Alegbeleye (2013) disasters are unexpected events which put people and materials at risk, damage buildings, destroy information and communication infrastructures, disrupt services and render

documentary materials inaccessible to users. They are sudden adverse or unfortunate extreme incidents which cause great damage to human beings, materials as well as plants and animals. The Oxford Advanced Learner's Dictionary (2012) defines disaster as unexpected event such as a very bad accident, flood or fire that kills many people or causes serious damage. Disasters occur rapidly, instantaneously and indiscriminately (Khan, 2018). He also observed that these events which occur aggravate natural environmental processes to cause disasters to human society, such as sudden tectonic movements leading to earthquake and volcanic eruptions, continued dry conditions leading to prolonged droughts, floods, atmospheric disturbances, collision of celestial bodies, etc.

Khan (2018) further expressed that disasters have always co-existed with civilizations which through technological advancement, developed initiatives resulting in the creation of many infrastructure and permanent assets. This means that all aspects of man's endeavor are affected by disaster. In this study, disaster is seen as an occurrence causing widespread destruction and distress to lives and properties. It is an emergency situation or occurrence that happens unexpectedly and demands immediate attention. Various literature consulted revealed that academic libraries have been faced with varying degrees of threats such as disaster which calls for serious concern of the academic librarians. The extent of this problem varies from one library to another. In some cases, the dimension of the problem is so severe, while in others it is mild depending on the area the library is situated. Disaster could be natural or man-made. The natural disasters are those natural events in the environment that occur without man's influence or intervention such as flood, hurricane, earthquake, volcanic eruption, fire, drought, typhoon, tsunami, mudslide, extreme cold or heat wave. While man-made disasters are those caused or influenced by man, causing financial losses, risks, hazards and suffering such as, war, water from broken pipes, leaking roofs, explosives, liquid chemical spills, building deficiencies, terrorism, pests, insects, data alteration, viruses' injection, tempering with password, server destructions etc.

Fire has done a great damage to academic libraries and information centers all over the world. Fire has wreaked havoc in such Nigeria libraries as Forestry

Research Institute Library in 1988, National Library of Nigeria in 1990 and more recently the University of Jos Library in 2013. Likewise flood, Ngulube and Magaji (2016) noted that Cape Town in South Africa experienced flooding which hit rural communities in Kwazulu-Natal and the Eastern Cape. University of Ibadan was destroyed by flood in 1980, 1995 and more recently in 2011 (Onwubiko, 2015).

In recent times terrorism has become an issue and a major threat to libraries and other information centers. For instance, the September 11, 2001 terrorists bombing of the World Trade Centre, where three libraries were damaged, and the Pentagon libraries destroyed records, books and other documentary materials (Buchanan, 2012). In Nigeria terrorists who named themselves “Armed Bandit” (meaning western education is forbidden) are greatly causing havoc to the whole country especially in the extreme North where library users hardly visit the libraries in recent times. For these problems to be solved there is need to find out ways of preventing those which are preventable and managing or controlling those that are not preventable. The consequences of disaster to academic library are disastrous as it may affect the entire library collections and services. This might bring: the complete close up of the libraries; damage to library materials and buildings; reduction in the volume of library materials such as books, journals, magazines, computers etc.; unsatisfactory library services and frustration to users. Therefore, there is the need for disaster management in the academic libraries.

Disaster management is generally defined as the actions taken by an organization in response to unforeseen or unexpected events that adversely affect the environment and people in the area surrounding that organization. For example, fire, flooding, earthquakes, wars etc. Disaster management focuses on ways to prevent disaster from happening or reduce the consequences when it happens (McMillan, 1998). He pointed out that it encompasses all aspects of planning for and responding to disasters, including hazard analysis, vulnerability reduction (preparedness), prevention, mitigation, response, recovery and rehabilitation. Disaster management assists in determining the likelihood of hazards and lessening the consequences of risks to library materials as it looks at the precautions of disasters which can be prevented or minimized. Lyall (2015) observed that

disaster management is a continuous and integrated multi-sectional, multi-disciplinary process of planning and implementing the measures aimed at preventing or reducing the risk of disasters, mitigating the severity or consequences of disasters, preparedness, rapid and effective response and recovery to disasters. Ahenkorah- Marfo and Borteye (2020) citing Akussah and Fosu, stressed that disaster management aims at: protecting people, libraries and materials, avoiding a disaster by being pro-active, reducing the possibility and the effects of a disaster if it happens, and expediting response and recovery efforts in an organized and systematic manner. They further explained that disaster management in libraries became an issue as a result of the National Disaster Management Organization (NADMO) report about the annex of the Balme Library of the University of Ghana which was destroyed by fire. With the above views therefore, disaster management is no longer a choice, but mandatory for all including academic libraries, individuals and organizations. The fullest provision for library maintenance is regarded as the primary and most vital need in the equipment of an academic institution.

Disaster management in the view of Haigh (2016) has four phases (disaster management lifecycle) such as mitigation; preparedness; response; and recovery. Mitigation is the first phase of disaster management which aimed to minimize the effects of disaster in academic libraries, archives and all information centers. Mitigation is the action to reduce the consequences of a disaster impact such as injuries and loss of life and properties, since it may not be possible to prevent all disasters. This phase is also known as pre-disaster mitigation. At this phase focus is on meeting the basic needs of the people until more permanent and sustainable solutions can be found.

Preparedness focuses on the efforts put in place to prevent the occurrence of a disaster and how to fight or control the impact when it happens. In other words, it involved activities as planning (developing a disaster management plan) and training the library community to respond to and recover from a disaster. These measures can be described as readiness to deal with disasters which can be enhanced by having response mechanisms and procedures, rehearsals, developing long-term and short-term strategies, public education and building early warning systems (Haigh, 2014). The response phase is the implementation of the action

plans when disaster occurs in order to reduce or ameliorate the negative impact of a disaster. This could be in form of search and rescue operations aiming at salvaging lives, properties and the entire environment. Recovery is the fourth phase of disaster management and is the restoration of all aspects of the disaster's impact on a community and the return of the local economy to some sense of normalcy, including saving lives, meeting humanitarian needs (food, shelter, clothing, public health and safety), and supporting the morale of the affected population (Rosenberg, 2013). This phase can be broken into two periods, the short-term and the long-term. The short-term lasts from six months to one year and it involves delivering immediate services to businesses. While the long-term can range up to decades, requires thoughtful strategic planning and action to address more serious or permanent impacts of a disaster.

Onwubiko (2015) mentioned that there was no emergency body until 1990 when National Emergency Management Agency (NEMA) came into being by the National Emergency Relief Agency (NERA) decree in 1990. Onwubiko said that by implication, there was no disaster management before 1990. He mentioned that by 1993 the Federal Government then expanded the scope of disaster management through decree 119 which raised the status of NERA to an independent body under the presidency with the responsibility for formulating general policies and guidelines relating to management of disasters in Nigeria. This has added strength to academic libraries consider disaster management is a major concern for everyone in the academic library so that all academic collections would survive and be available to users when required. Kingori and Otiike (2017) opined that disaster management is important because of the value of the material, physical and human resources which can be affected by them.

Academic libraries must be prepared for all types of disasters, whether natural or man-made, that may occur in their libraries, as the effect of not being prepared may lead to loss of materials, loss of life, or, ultimately, the loss of the library building. They must also be able to respond to disaster when it happens, be able to recover from it and lastly be able to prevent those which are preventable by being security conscious. Plumbe (as cited in Asuzu, 2020) backed it up by saying that the best protection a library can give to its collections is to have a concrete building such

that the library building is solidly designed to secure the collections as well as to provide readers easy access to library collections. He stated further that security can take precedence over accessibility because security provides some guarantee to the continued availability of library materials, since without any security measures; nothing will be left in the libraries.

Academic libraries in Kebbi State exist within their respective institutions (federal, state, religious organization and privates) to serve their various academic needs. They have a pivotal role in the transmission of information and knowledge in their higher educational institutions in order to facilitate the teaching, learning and research functions of their respective institutions. Therefore, disaster management in these libraries should be granted with all seriousness as they are functioning under disastrous conditions because of the crisis that engulfed the state from 2001 to date. The flooding that swept some parts of the state in 2012 and the recent fire that engulfed university of Jos library on the 27th March 2013. And also, with the threats that come from Armed Bandit which destroyed Gombe State University Administrative block, bombing of Christian worshippers in a chapel in Bayero University, Kano. In Jos campus of Plateau State, someone was caught with substances suspected to be explosive devices. Thousands of lives have been lost, there has also been extensive damage to properties, and the development prospects of the state have been set back. Jos, the state capital and a major northern city is the epicenter of much of the insecurity in Plateau State. This does not go well for the security of the population as Government organizations, places of worships, markets, social gatherings and schools are the places mostly targeted.

Statement of the Problem

Academic libraries are referred to as the heart or nerve centers of the institutions. Materials in the academic libraries are vulnerable to disaster of various kinds, such as fire, flood, pests' destructions, windstorm, computer viruses etc. They usually leave in their trail very unpleasant experiences. Effective disaster preparedness in these academic libraries is necessary. The disaster management preparedness would safeguard the institutions from losing their library materials, as the effect of not having disaster

management measures in academic libraries would cause them to lose their materials when disaster strikes. The academic libraries in Kebbi State appear to be facing many problems such as disasters especially attacks from these rebellious armed bandits whereby their valuable materials are at risk, if necessary, steps are not taken. When disaster or threats of disasters in the libraries are not managed properly, there is that tendency of losing library materials, personnel and the entire library buildings, and making the higher institutions' effort of stocking their libraries with resources that support their academic programmes ineffective. There is no any empirical study on disaster management in academic libraries in Kebbi state. Thus, the problem of the study is: determine disaster management in academic libraries in Kebbi state.

Objectives of the Study

This study is undertaking to determine disaster preparedness and management in academic libraries in Kebbi State. Specifically, the study is set to achieving the following:

- (1) To identify the nature of disasters that have affected academic libraries in Kebbi State.
- (2) To ascertain the disaster management plan academic libraries used
- (3) To find out the problems militating against disaster management in academic libraries in Kebbi State.
- (4) To determine the strategies that can be adopted by academic libraries in Kebbi State to help in disaster management.

Research Questions

The following research questions are formulated to guide this study:

1. What are the disasters that have affected academic libraries in Kebbi State?
2. What disaster management plan does these academic libraries use?
3. What are the problems militating against disaster management in academic libraries in Kebbi State?
4. What are the strategies that can be adopted by academic libraries in Kebbi State to help in disaster management?

Significance of the Study

The findings of this study are expected to be significant to the following: administrators of academic institutions, administrators of academic libraries, library committees, librarians, authors, publishers, students and researchers. In specific terms the findings will be significant to academic institutions administrators in the area of policy formulation that concerns disasters matters of their institutions. While those administrators in the libraries will benefit from the findings if adopted in terms of planning for disaster especially in formulating written policies of their libraries, for example those that concern disaster and disaster threats and how to choose who will be members of the disaster plan committee.

The findings of the study will also be significant to library committee on disaster matters by creating more awareness and consciousness as regards the strategies to enhance effective disaster management. It is also hoped that this work will be educative to librarians on disaster management. It will assist them in identifying their lapses and hence improve on their security awareness of their resources. It is expected that the study will reveal to the librarians the existing measures that will be used to prevent the occurrence of disasters in their libraries.

Authors and publishers are also expected to benefit from the findings of this study as they will be enlightened on the benefits of proper management of disasters as it an existing body of knowledge. Finally, this research work is hoped to be of interest and assistance to students and researchers who will embark on similar studies in the future, as it is hoped to contribute to existing body of knowledge in disaster management and it will serve as a reference material and a working document for academic libraries in Nigeria and in Kebbi State in particular.

II. REVIEW OF RELATED LITERATURE

Academic libraries are libraries that are attached to post-secondary institutions. They are therefore as varied and distinctive as the institutions which they serve such as universities, polytechnics and colleges. Their main purpose is to support the objectives of their parent institutions, in the areas of teaching, learning and research (Aina, 2015). The users of these academic libraries are students, lecturers, support staff (non-teaching staff) and the local community in which

the institution is located. This library is regarded as the heart of the intellectual system of the institution. The quality of academic institution like the university is measured by the services provided by the library because of its unique position in the overall university system.

Academic libraries assist by acquiring, preserving and disseminating information resources that would satisfy the needs of both present and future users (Maidabino 2020). Gelfand (as cited in Maidabino, 2020) calls the library, "the only centralized location where new and emerging information technologies can be combined with knowledge resources in a user-focused, services-rich environment that supports today's social and educational patterns of learning, teaching and research." Library services can only be achieved through the availability of library collections. Maidabino (2020) stated that academic library managers are expected to acquire, preserve and disseminate information resources that would satisfy the needs of both present and future users.

The concept of disaster is seen differently by different authors. For example, Alegbeleye (2013) sees disaster as an unexpected event which puts people and materials at risk, damage buildings, destroy the information infrastructure, disrupt services and render documentary materials inaccessible to users. Ahenkorah-Marfo and Borteye (2020) on other hand defined disaster as a common phenomenon that can and will happen when least expected. Ahenkorah-Marfo and Borteye emphasized that disaster often comes unannounced and uninvited with disastrous consequences.

From the above definitions disaster has become endemic in the society because every day there is news of one form of disaster or the other. Disasters are so numerous and they differ from country to country and from library to library. These disasters can be natural or man-made which include flood, fire, hurricane, earthquake, tsunami, volcanic eruption, windstorm, wars, water leakage, roof leakage, pest, insects etc. Natural Disasters are natural occurrences in the environment without human influence that can or have caused a lot of financial losses, risks, hazards and suffering to libraries, humanity and the environment at large. This is because Natural disasters are uniformed, unavoidable, more dangerous and destructive (Adedeji, Odufuwa and Adebayo, 2012). They emphasized that natural disasters are often frightening

and difficult to understand, because we have no control on when and where they happen but we can only control them through how we prepared as communities and governments to deal with the dangers that natural disasters bring.

In Nigeria for instance during the Nigerian Civil War of 1967-1970, the two libraries of the University of Nigeria at Nsukka and Enugu campuses lost over 60,000 volumes. The buildings were virtually unaffected but library furniture and equipments were looted (Alegbeleye cited in Asuzu 2000). He pointed that the personal library of late Dr Nnamdi Azikiwe and the Divisional Libraries of the then Eastern Nigeria located at Onitsha, Umuahia and Ikot Ekpenwere also affected.

Much of the buildings are done by non professioners and so do not have the profession knowledge to use and fix all the necessaries. The roofing should be such that rain water can flow down easily without entering inside the library. Buildings (libraries) should not be done on water ways. Book pests include rats, cockroaches, termites and book lice. Nwalo (2013) said these pests are attracted to the library by food remnants and they make many damages to the library books and furniture. He expressed further that to keep them off the library bringing food items (especially cooked ones) into the library must stop or be prohibited. He concluded by saying that the library users should be made categorically clear in the library manual and at the library orientation programs annually. Insects damage the library materials in a great extent such as silverfish, cockroaches, booklice bookworms and termites. Hickin (2015) opined that it would be difficult to overestimate the potential threat to books in tropical and sub-tropical areas of the world where termites occur. Termites occur in extremely large numbers with serious damage even before any obvious signs of injury are observed. Hickin advised that constant vigilance would minimize damage to books which can proceed to entire destruction; application of insecticide on the foundation of the building; steel wool should be used for roofing instead of wood; and monitoring of building premises for the presence of termites as soon as they are detected.

The effects of natural disasters are all over the universe and are difficult to prevent but measures can be taken to reduce the possibility of damage. In the past flood has done a great damaged to library materials as reported by Goetz (2013). He expressed

that books and materials kept in the basement of the libraries within the flood zones are mostly affected. He mentioned another major loss of circulation books in the homes of those affected by floods. In order to save this situation O'Connell suggested that a rare books room which contained the most precious collections should never be located underneath lavatories, air conditioning equipment or water pipes. The consequences of disasters on the academic libraries are great as there will be depletion of library resources; denial of materials to users who are in need of them; frustration and discouragement on the part of the users who cannot locate materials they are aware that are in the library and total destruction of library materials. Disaster management assists in determining the likelihood of hazards and lessening the consequences of risks to library materials. Disaster management aims at looking at the precautions by which disasters can be prevented or minimized. Archives, libraries and museums should take measures to prevent disasters. It also encompasses all aspects of planning for and responding to disasters, including hazard analysis, vulnerability reduction(preparedness), prevention, mitigation, response, recovery and rehabilitation. It may refer to the management of both the risks and the consequences of disasters. According to Warfield (2018) disaster management aims to reduce, or avoid the potential losses from hazards, assure prompt and appropriate assistance to victims of disaster, and achieve rapid and effective recovery. These would include activities such as arranging insurance assessment, drying or treating materials, offering counseling to staff, providing a temporary service, and returning storage areas and services to normal. Despite the fact that not all disasters can be prevented, one can prepare for and also know how to react to them in order to minimize their effect. 'Disaster management' is a term commonly used in libraries and also understood by archivists. Haigh (2012) in his disaster management lifecycle outlined the following as disaster management lifecycle: Mitigation; Preparation; Response; Recovery. When appropriate, libraries security staff should take steps to limit potential damage while waiting for emergency personnel (public safety or physical plant) to arrive. Such steps include making sure those patrons and staff are not in danger. Safety of human beings comes before protection of library materials. Libraries' security staff themselves should not take unwarranted

risks to save library materials. Eliminating the source of the problem is also an important step to take in an emergency. Libraries security staff are trained to use fire extinguishers to put out the fire, if possible. In the event of water damage, libraries' security staff will attempt to cut off the water supply to the affected area. The next step is to get materials out of danger. If the number of materials threatened by water is small, they can simply be moved to a dry place. For large problems, plastic sheeting can be spread over the stacks to shield them from water coming from above. No clean up or salvage work should be attempted until the situation is stable and a damage assessment has been made. It is better to be prepared in readiness for disasters that could occur in the library. Perhaps, the greatest threats to library collections are considered to be from fire and water, as physical damages such as earthquake, hurricane and tornado are not as common, especially in our country Nigeria. Library staff should be vigilant and mindful of any signs of problems arising in these areas.

Disaster preparedness in relation to internet services in the library should form part of the library's written Disaster Control Plan. Internet services are at risk from "disasters" such as fire and flood but are also particularly vulnerable to theft, hardware/software failure, hacking and virus attacks. The nature of Library automation means that a loss of Information Technology functionality can seriously inhibit the library's ability to provide even the most basic service to users and suppliers; and will have a detrimental effect on staff's ability in carrying out their day-to-day duties. Microsoft is committed to helping customers become secure and stay secure by providing tools to identify common security misconfigurations, reduce attack surface area, and monitor events and performance in real time.

Problems militating against Disaster Management

Ahenkorah-Marfo and Borteye (2020) saw the following as problems militating against disaster management: Lack of planning at all levels, lack of mitigation planning, lack of coordination and networking, delayed response and lack of trained man power, etc. They stressed further that disaster reduction needs serious and concerted efforts with a multi layered cooperation and coordination between all the stake holders, ranging from government agencies, NGOs, and library and information centers.

The study was carried out in the main library of KNUST and it sought to find out the preparedness of the library and its staff to prevent, fight and manage disasters when they occur. Ahenkorah-Marfo and Borteye illustrated that 87.23% responses given as regarded training of staff members in disaster management, which showed that training of staff members has not been often. But that during an interview with the librarian who disagreed and said that training for the staff of the library is done annually by the head of the fire unit on campus. The librarian then explained that the varied responses to this question could be by the fact that most staff members are involved in the shift system and may not have been available for some of these training programmes. This does suggest that some members of staff currently are not very prepared and equipped adequately to deal with any potential disaster that may occur. It is however important to upgrade skills of staff.

Akussah and Fosu in Ahenkorah-Marfo and Borteye (2020) expressed that there are varying levels of lack of preparedness of most academic libraries for disasters in Ghana. While Azigba and Edet (2019) who carried out a study on disaster preparation is critical to libraries in W. Africa and came up with an assumption that academic libraries in West Africa do not have adequate budget to sufficiently cover disaster control and should reach out for external help. Backing up this is the study of Echezona, Ugwu and Ozioko (2020) that highlighted lack of adequate facilities, inadequate fund allocated to libraries and lack of interest on the part of some librarians on disaster management as problems encountered in disaster management in academic libraries.

Uche and Udo-Anyanwu (2016) discovered in their study inadequate fund; absence of permanent library security staff; lack of modern security devices and irregular power supply as major problems in managing disasters in academic libraries.

Lyll (2015) emphasized that lack of disaster management plan is a great problem in managing disaster in academic libraries. Uche and Udo-Ayanwu (2016) agreed with him where from their study discovered most of the academic libraries do not have disaster management plan. They expressed that there is an implication when a disaster of higher magnitude such as flood, fire or earthquake occurs, the library will not know where to start from or what to do. That is why he said every library should have a disaster plan

that will prepare them ahead of time on how to handle materials damaged by disasters.

Strategies for enhancing Disaster Management

University of Maiduguri Center for Disaster Risk Reduction and Development Studies (CDRMDS) (2011) highlighted the importance of disaster management as seen by the government of Nigeria who introduced NEMA as one of the steps towards a holistic approach in addressing issues relating to disasters in the country. The center highlighted that NEMA has taken major steps in the management of disaster such as taken Disaster Risk Reduction (DRR) into the university education for the purpose of capacity building, public education and to raise awareness. The NEMA collaborated with six (6) universities (one in each of the six geopolitical zones of the country). The universities are: University of Maiduguri, Maiduguri for North-East zone; Ahamdu Bello University Zaria for North-West zone; University of Nigeria for South-East zone; Federal University of Technology Minna for North Central zone; University of Technology Port-Harcourt for South South zone and University of Ibadan for South West zone.

Khan (2018) opined that trained and knowledgeable staff is the key to disaster preparedness because they have the possibility of ensuring that:

- Awareness is raised of the need to protect documents from disasters;
- Preventive steps to minimize damage are taken;
- Vulnerability analysis and risk assessment to evaluate the types of emergencies that might affect their institution and its collections are conducted;
- Disaster preparedness plans are developed;
- Health and safety regulations are adhered to during salvage operations;
- Salvaging of collections is prioritized; and
- The media is dealt with strategically during and after the disaster.

Alegbeleye in Ngulube and Magazi (2016) opined that the training and education on disaster management should target all members of staff and the disaster management team. The results from their study revealed that training in disaster management was only confined to the disaster management team which shouldn't have been the case. There is need to train all the staff members on general disaster response

strategies in order to ensure that lives are saved in the event of a disaster. Other strategies commended by Echezona, Ugwu and Ozioko (2020) are development of disaster preparedness plan, vulnerability analysis and risk assessment be conducted to evaluate the types of emergencies that might affect library collections, personnel and building, backing up library websites regularly, staff training and raising awareness of the need to protect document from disaster.

Ahenkorah-Marfo and Borteye (2020) expressed that disasters can be well managed and even be prevented if members of staff are trained and equipped adequately with the basics of what to do to prevent disasters and what not to do when there is a disaster. Corral and Brewerton in Ahenkorah-Marfo and Borteye (2020) saw training as a critical component of disaster planning which can take several forms including awareness talks, briefing sessions, hands-on practice, simulation exercises and video presentations

Summary of Literature Review

In the course of reviewing the literatures, the researcher consulted textbooks, journals articles, seminar papers, articles from internet and also made use of other important publications. In literatures reviewed, an attempt was made to look at the concept of academic libraries, disasters and disasters types, and disaster management in academic libraries. And it also deals with how to manage them through preparedness, prevention, response and recovery. It looks at the various forms of disaster (natural and man-made-, flood, fire, earthquake, volcanic eruption, war and act of terrorism) and security threats (theft and mutilation, misuse of books, mis-shelving, misuse of OPAC).

From literature reviewed disaster management in a small or giant library, public or academic library has been an abiding concern of librarians over the years as disaster whether natural or man-made can have catastrophic effects on library materials. It makes no sense to have clear and logical policies for stock acquisition, if the library does not also have proper policies to ensure that the materials are secured by having a disaster plan in place which will help librarians know ahead of time how to handle materials damaged in a disaster.

It is generally accepted that disasters do affect the libraries both direct and indirect. Direct effects are those that affect them through events that happened to or in the libraries while indirect are those that

happened through the library users especially those who borrowed library materials for home use and were affected by the disasters. Theories such as Chaos theory, McGregor's Theory X and Y and Disaster Management Theory: The Black Swan were discussed under theoretical framework. How these theories relate to disaster management in academic libraries were also discussed

Empirical literature related to the study were also reviewed and are of the opinions that libraries should endeavor to have disaster plan and use it to protect their collections as no library can be excluded from or is immune to the possibility. Disaster management is a matter of basic security for libraries and archives, their staff and their collections. Natural disasters cannot be prevented but measures can be taken to eliminate or reduce the possibility of trouble. Likewise, the theories also back it up by encouraging heads of libraries to create an environment conducive for their subordinates to participate in the running of the library as disaster management is concern.

The review also paid attention on various factors that can hinder effective disaster management such as lack of disaster management plan, lack of frequent staff training on disaster management, lack of disaster management committee in place etc. The reviews also showed that this could be improved through the formulation of appropriate library policies and planning creation and enhancement of the image of the libraries. However, the researcher discovered from literature consulted that there is no empirical work done or carried out on disaster management in academic libraries in Kebbi State. This lack of empirical works necessitated this study.

III. METHODOLOGY

This study adopted descriptive survey research design. The Area of the study is Kebbi State, Nigeria. Kebbi State is a state in northwestern Nigeria. The population of the study consists of the Eight (8) academic libraries in Kebbi State comprising of forty-five (45) Librarians and One hundred and Eight (108) Library officers totaling 153 respondents. The population distribution of the respondent is shown in

The sample size is 153 respondents. This showed that the entire population was used. This is due to the fact that the targeted population is small (153) as revealed from the researcher's preliminary investigation. The

main instruments for data collection of this study were questionnaire. The questionnaire was titled Disaster Management of Academic Libraries Questionnaire (DMALQ). The instrument was face validated by three lecturers in the Department of Library and Information Science, Kebbi State Polytechnic Dakingari and Federal University Birnin Kebbi. The research instrument was administered personally to the librarians and library officers in the entire academic libraries in Kebbi State. This was carried out by the researcher and the eight trained research assistants. The researcher analyzed and interpreted the responses using frequency, mean and standard deviation. These were presented in such a way that answers to each research question could be obtained. For the responses, they were based on a four-point rating scale to determine mean scores of respondents on disaster management in academic libraries. Thus,

any mean score that is range from 2.5 and above was regarded as positive and accepted while below 2.5 was regarded as negative and rejected.

IV. RESULTS

The results of this study were presented and analysed in consonance with the research questions raised to guide this study. Out of the 153 copies of questionnaire administered to the respondents (librarians and library officers) from the 21 academic libraries in Kebbi state, 128 were duly completed and returned representing 89.70% response rate of respondents. The analysis is therefore based on the correctly filled and returned questionnaires.

Research question 1: What are the disaster threats that have affected academic libraries in Kebbi State?

Table 1: Mean Responses on the types of disaster that have affected academic libraries in Kebbi State (n=128)

SN	Disaster	SA	A	D	SD	X	STD	D
1	Flooding	50	25	25	28	2.76	1.19	Agree
2	Windstorm	46	13	29	40	2.51	1.28	Agree
3	Fire	59	34	20	15	3.07	1.04	Agree
4	Water leakage	27	81	12	8	2.99	.748	Agree
5	Roof leakage	30	82	9	7	3.05	.724	Agree
6	Faulty air conditioner leakage	46	46	20	16	2.95	1.01	Agree
7	Fire extinguisher leakage	48	36	29	15	2.91	1.04	Agree
8	Act of terrorism	18	72	52	13	2.74	.825	Agree
9	Acts of War	54	31	27	16	2.96	1.07	Agree
10	Pests	60	41	17	10	3.18	.943	Agree
11	Data alteration	47	48	25	8	3.05	.904	Agree
12	Viruses' injection	14	71	30	13	2.67	.805	Agree
13	Tempering with password	50	36	32	10	2.98	.980	Agree
14	Server destructions	17	75	22	14	2.74	.825	Agree
	Overall mean					2.90	0.19	

Table 1 shows the mean responses on the types of disasters that have affected academic libraries in Kebbi State. From the table, it is obvious that all the mean scores on the items provided have been rated between 2.51 to 3.18. This means that the items have been rated positively and accepted since none of them

falls below 2.5 mean score. This implies that all the libraries in Kebbi State have experienced one type of disaster or the other.

Research question 2: What disaster management plan does your library have in place?

Table 2: Mean Responses on the disaster Management plan in place in academic libraries in Kebbi State (n=128)

SN	Disaster Mgt. Plan	SA	A	D	SD	X	STD	D
1	Written disaster Management plan	28	89	6	5	3.09	0.65	Agree
2	An oral disaster management plan	50	35	24	19	2.91	1.08	Agree
3	No plan at all	46	12	26	44	2.47	1.29	Disagree
	Overall					2.93	0.33	

Table 2 shows the mean responses of the disaster management plan. The mean scores show that out of three items listed, with the exception of one, no plan at all (2.47) all the rest recorded 2.91 and 3.09 mean score. No plan at all has been negatively rated and rejected while the two items, written disaster management plan and an oral disaster management plan listed with mean score of more than 2.5, that is 2.91 and 3.09 are positively rated and accepted. This means that some of the academic libraries in Kebbi State have a written disaster management plan as seen from the table. Only two (2) libraries indicated having

written disaster management plan. While majority do not have a disaster management plan at all. These libraries developed techniques such as putting sand in buckets, keeping detergent water, having emergency exits and making their security guard to be going round the reading spaces to make sure no user eat in the library.

Research question 3: What are the problems militating against disaster management in academic libraries in Kebbi State?

Table 3: Mean responses on the Problems Militating against Disaster Management in academic libraries in Kebbi state (n=128)

SN	Problems	SA	A	D	SD	X	STD	D
1	No disaster management plan in place	29	79	15	5	3.03	0.71	Agree
2	Lack of budgetary allocation for disaster management	32	12	79	5	3.08	0.71	Agree
3	Lack of fire fighters	25	91	7	5	3.06	0.64	Agree
4	No disaster management committee in place	31	84	7	6	3.09	0.69	Agree
5	Lack of training on disaster management	29	85	9	5	3.08	0.67	Agree
6	Lack of insurance of library personnel, building and collections	35	41	9	4	2.53	1.22	Agree
7	Lack of good passwords on databases	21	47	51	9	2.62	0.84	Agree
8	Lack of good design of library building	12	57	3	24	2.55	0.90	Agree
9	Lack of fire extinguishers in place	20	41	56	11	2.55	0.86	Agree
10	Lack of fire alarms	22	84	15	6	3.27	0.61	Agree
11	No emergency routes	23	43	54	8	2.63	0.85	Agree
12	No phone numbers of fire services to call in times of disaster striking	19	34	65	9	2.50	0.84	Agree
13	No proper electricity installations	14	43	56	15	2.44	0.84	Disagree
14	Lack of proper foundation of Library building and approval by town planning associations	20	31	25	52	2.15	1.12	Disagree
15	No good relationship between the library and the parent institution	19	35	22	51	2.18	1.12	Disagree
16	Lack of bomb detonators and detectors to make sure the bombs do not explode in the library	59	46	16	7	3.23	0.87	Agree
17	Lack of building shields around the library building	21	42	52	11	2.57	0.87	Agree
18	Lack of good windows for air conditioning and lighting system	15	41	56	16	2.43	0.86	Disagree
19	Lack of earthquake indicators or monitoring device installation	62	40	14	11	3.20	0.95	Agree
20	Lack of frequent fumigation of the library	22	86	9	11	2.93	0.77	Agree
21	Lack of improved electronic system in place	2	88	9	9	2.96	0.73	Agree
22	No consortium of libraries	20	50	9	49	2.32	1.14	Disagree
23	No installation of thunder protectors in place	124	4	1	3	3.25	0.50	Agree
	Overall					2.77	0.36	

Key: SA = Strongly Agree A = Agree D = Disagree SD = Strongly Disagree

Table 3 shows the mean response on the problems that militate against disaster management in academic libraries in Kebbi State. The mean scores show that out of the 23 items listed, apart from five items: lack of proper foundation of library building and approval by town planning associations (2.15), no good relationship between the library and the parent institution (2.18), no consortium of libraries (2.32), lack of good windows for air conditioning and lighting system (2.43) and no proper electricity installations (2.44) all the rest recorded between 2.50 mean score to 3.27. the first five mentioned have been negatively rated and rejected while the eighteen (lack of insurance on library personnel, building and collections, no phone numbers of fire services to call in times of disaster outbreaks, lack of fire extinguishers in place, lack of good design of library

building and so on) listed with mean score of more than 2.5, that is 2.53 to 3.27 were positively rated and accepted. This means that all the items listed are agreed to be problem militating against disaster management in academic libraries in Kebbi State as also expressed by the heads of libraries during the interview session. They mentioned fund as a major problem experienced by all the libraries. They emphasised that without fund nothing can be done especially in state owned institution libraries. They expressed that this might be because of the insecurity situation in the state which has worsen things as it has taken over the attention of the state government.

Research question 4: What are the strategies that can be adopted by academic libraries in Kebbi State to help in disaster management?

Table 4: Mean responses on the strategies for the management of disasters in academic libraries in Kebbi State (n=128)

SN	Strategies	SA	A	D	SD	X	STD	D
1	Having a disaster management plan in place	89	30	3	0	3.70	0.51	Agree
2	Budgetary allocation for disaster management	81	37	3	1	3.62	0.58	Agree
3	Have fire fighters in place	80	32	8	2	3.56	0.69	Agree
4	There should be disaster management committee in place	75	45	1	1	3.59	0.55	Agree
5	Enlightenment campaign on disaster	77	40	3	2	3.57	0.63	Agree
6	Ensures the library personnel, building and collections	82	36	3	1	3.63	0.58	Agree
7	Have good password on data base	73	42	6	1	3.53	0.63	Agree
8	Have good design of library building	79	35	7	1	3.57	0.64	Agree
9	Enough fire extinguishers in place	80	5	35	2	3.58	0.65	Agree
10	Identification and adherence to laid down land use policies and building codes	75	34	9	2	3.50	0.74	Agree
11	Enough emergency routes	82	32	5	2	3.60	0.65	Agree
12	Have phone numbers of fire services to call in terms of disaster striking	80	31	8	2	3.56	0.69	Agree
13	Proper electrical installations should be done in the library	87	31	4	0	3.68	0.53	Agree
14	Proper foundation of library building and approval by town planning association	82	38	2	0	3.66	0.51	Agree
15	There should be good relationship between the library and the parent institution	81	31	7	3	3.56	0.72	Agree
16	Bomb detonators and detectors should be in place to make sure the bombs do not explode in the library	85	28	8	1	3.61	0.65	Agree
17	There should be building shields around the library building	80	33	6	3	3.56	0.71	Agree
18	There should be good windows for air-conditioning and lighting systems	82	32	4	3	3.60	0.68	Agree
19	Earthquake indicators or monitoring device should be installed	80	32	9	1	3.57	0.67	Agree
20	Frequent fumigation of library	84	29	8	0	3.63	0.61	Agree
21	Installation of thunder protectors should be done in the library building	84	31	6	0	3.64	0.58	Agree
22	Regular updating of disaster management policy	84	33	3	1	3.65	0.57	Agree

23	There should be regular training, seminars and workshops on disaster management	87	30	4	0	3.69	0.53	Agree
24	Installation of improved electronic systems	80	36	3	2	3.60	0.61	Agree
25	The institution should have its own fire fighters in place	78	36	6	1	3.58	0.63	Agree
26	Form consortium of libraries	77	34	8	2	3.54	0.70	Agree
27	The institution should collaborate with agencies such as NEMA	79	37	4	1	3.60	0.60	Agree
28	The library should have trained personnel who have the knowledge of the improved electronic devices	86	29	5	1	3.65	0.60	
29	There should exist cordial relationship between library management and library staff	97	5	5	0	3.77	0.51 4	
	Overall mean					3.61	0.06	

Key: VA= Very Appropriate A= Appropriate FA = Fairly Appropriate NA =Not Appropriate

Table 4 shows the mean scores of strategies that will enhance disaster management in academic libraries in Kebbi state. The mean scores revealed that all the above listed items were rated positively and accepted as none falls below 2.5 mean score. This means that all the items in the table are considered as strategies to be taken in the disaster management in academic libraries in Kebbi state. The three major strategies considered here include: there should exist cordial relationship between library management and library staff (3.77), having a disaster management plan in place (3.70) and regular training, seminars and workshops on disaster management (3.69). It was revealed that the above mentioned as strong strategies which will enhance disaster management in academic libraries in Kebbi state. It was emphasised that disaster management should not only be the concern of library staff alone but together with the college community and the surrounding community that the library is situated. That by so doing disasters that are preventable would be averted and library materials would be save and available to users whenever in need.

Summary of the Study

This study was designed to investigate disaster preparedness and management in academic libraries in Kebbi State. It looked at the types of disasters that have affected these libraries and the extent of damages. It also looked at the disaster management policies, whether there are policies in place and who the members of the disaster management committee are. The study was guided by five specific objectives and five research questions. The instruments for data collection were questionnaire and interview schedule. The questionnaire was designed with four-point rating

scale. The research design was descriptive survey with a population of 153 librarians and library officers from 8 academic libraries in Kebbi State. Out of the 158 questionnaires distributed, only 128 questionnaires were correctly filled and returned. Data for the study was collected, analysed and interpreted using mean and standard deviation. The findings of the study revealed that the major disasters that have affected academic libraries in Kebbi State are pests, fire, roof leakage and data alteration, followed by water leakage, tempering with password, acts of war, faulty air conditioner, fire extinguisher leakage, flooding, server destruction and act of terrorism. These disasters caused great damages to the library collections, building and personnel. The study also showed that not all libraries were prepared for disaster management with only a few having a written disaster management plan kept in their libraries. The policy should include specialists in the field of disaster management as members of the disaster management committee.

Furthermore, the findings showed that the libraries have the following problems militating against disaster management: lack of fire alarms, no installation of thunder protectors in place, lack of bomb detonators and detectors to make sure that bombs do not explode in the library, earthquake indicators or monitoring devices not installed, no disaster management committee in place, lack of training on disaster management, lack of budgetary allocation for disaster management and lack of fire fighters.

They accepted that the following strategies would remedy the problems: there should be cordial relationship between library management and library staff, having a disaster management plan in place,

regular training of staff, seminars and workshops on disaster management, proper electrical installations should be done in the library, proper foundation of library building and approval by town planning authority, the library should have trained security guards, have trained personnel to work with the improved electronic devices and regular updating of disaster plan. They added that installation of thunder protectors should be done in the library building; insuring the library personnel; building and collections; budgetary allocation for disaster management; there should be good relationship between the library and the parent institution; enough emergency routes; good windows for air conditioning and lighting systems; installation of improved electronic systems; work hand in hand with National Emergency Management Agency (NEMA); disaster management committee in place; enough fire extinguishers in place; having own fire fighters in place, good design of library building; enlightenment campaign on disaster; earthquake indicators be installed; have fire fighters in place; have phone numbers of fire services to call in terms of disaster outbreak and planting of trees that should act as wind breaker. A number of recommendations were put forward for improvement of disaster management in academic libraries but the most prominent suggestion was that libraries should always be prepared for disaster management so as to prevent disasters which are preventable from striking their libraries and to manage those that are not preventable by having a written disaster management plan.

V. RECOMMENDATIONS

Based on the findings from this work, the following recommendations are made:

1. Libraries should always be prepared for disaster management so as to prevent disasters which are preventable from striking their libraries and to manage those that are not preventable. This will be effective by having a disaster management plan and a committee on ground. The plan should be regularly updated.
2. As a means of preparedness and prevention of disasters, the libraries should at any point in time when there are leakages of any sort, whether roof, water pipes, faulty air conditioners, fire extinguishers etc., treated with urgency. Staff

should be told to report leakages or building fault that can cause water damage or wall crack. This should also be followed by regular fumigation so as to eradicate pests such as rats from the library. The use of improved electronic security systems should highly be introduced in the libraries that do not have as they are quit efficient and effective such as fire alarms, etc.

3. Disaster management should be a priority of the library management so as to be able to preserve their materials to meet the information needs of their parent institutions.
4. Frequent training/seminars/workshops should be done to make awareness of the contents of the disaster management policy which will enable the library as a team to fight disasters more efficiently and effectively.
5. There should be maintenance culture as poorly maintained building especially from unattended leakages can cause the building to collapse. Building premises should be monitored diligently to detect signs of termites' encroachment and once detected, they should be exterminated promptly. Library can also enforce prohibition of food eating inside the library as pieces of food that remain can invite termites, cockroaches and rats to the library.
6. There should be collaboration between the library and other essential services, such as state fire service, police, conservators, National Emergency Management Agency (NEMA), ministry of health etc. Telephone and GSM numbers of these essential services and members of the disaster committee should be written and placed where all staff can easily see.

VI. CONCLUSION

Based on the outcome of this study, it was concluded that there should be deliberate effort by the library management towards disaster preparedness and management. This will help in reducing gravity of damages that can occur as result disaster occurrence in the area under study. Libraries should ensure that there is functional disaster management plan and a committee on ground to arrest any unforeseen circumstance. Libraries should at any point in time check through their building for leakages of any sort, whether roof, water pipes, faulty air conditioners, fire

extinguishers and take action urgently. Frequent training/seminars/workshops should be organized for staff to be kept updated on new disaster management techniques and staff should imbibe good maintenance culture for their libraries to stand the taste of time and finally there should be collaboration between the library and other essential services, such as state fire service, police, conservators, National Emergency Management Agency (NEMA), ministry of health etc. Telephone and GSM numbers of these essential services and members of the disaster committee should be written and placed where all staff can easily see as recommended by this study.

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