

IMPROVING FIRE PREVENTION FOR COLLECTION DEVELOPMENT IN LIBRARIES IN NIGERIA

BY

SAMBO ATANDA SALIU

&

**MAHMUD M. MUSTAPHA ,
LIBRARIANS' REGISTRATION COUNCIL OF NIGERIA (LRCN) ABUJA**

ABSTRACT:

An effective library collection is known for information, education, and scholarship. The collection building in a library is a primary activity, the rest of all being secondary as these are directed towards making the collection more accessible. The task of building-up a library collection, however, has never been easy because of some constraint in academic, special and public library in Nigeria. Some damages caused by fire are not replaceable, but are subject to a reorder review process. This paper focuses on the various ways of improving fire prevention and its impact on collection development in Nigerian libraries. The common causes of fire in libraries and fire prevention measures are inclusive in this paper.

INTRODUCTION

Since independence in 1960 and the advent of libraries in Nigeria, fire had been identified as a threat to the development of collection. Many libraries have been engulfed with fire either directly or indirectly. The traditional libraries that house books and other printed documents tend to be more vulnerable to fire attack. According to Evans & Saponaro (2005) most librarians have a fairly good sense of the character of their library's collections, what their users want from their library, and how their collections are used, periodically one must step back and re-evaluate collection priorities and preconceived notions of the community's needs and expectations. This will aid the development of preventive measures against any fire outbreak which will adversely contribute to collection development. Roitman (1985) observed that fire is the rapid oxidation of a material in the exothermic chemical process of combustion, releasing heat, light, and various reaction products. Slower oxidative processes like rusting or digestion are not included by this definition. The flame is the visible portion of the fire. If hot enough, the gases may become ionized to produce plasma. Depending on the substances alight, and any impurities outside, the colour of the flame and the fire's intensity will be different.

Nigerian libraries located within or close to Academic environment are more prone to artificial fire caused by students especially with frequent riot, fight,

protest and other vice activities happening in schools. Khimija (1987) opined that fire in its most common form can result in conflagration, which has the potential to cause physical damage to library resources through burning. Some libraries and archives are either initially designed or constructed as buildings which were originally used for another purpose and later adapted for use as a library or archive. It is obviously more difficult to introduce the proper fire protection measures into a building not designed as a library or archives. The building which has been adapted to its new use may not even meet the requirements for a fire-resistive building in which the structural elements, including walls, partitions, columns, floors, and roofs are of non combustible or limited combustible materials. A fire-control system is a number of components working together which is designed to assist the library system in enhancing protective measures for fire safety. It performs the same task as a traditional human application, but attempts to do so faster and more accurately operations because of the inclusion of Technologies in the libraries.

Glass pool (2004) identify that fire may result from natural phenomena such as lightning or earthquakes, or from such unnatural events as wars, terrorist activities, or arson. However, the primary threat of fire in libraries and archives is caused when fire safety rules are ignored or not adopted in the first place. The cost of restoring documents and books damaged in fire is a substantially greater than what would be spent to store the materials under the best fire protection conditions. For the loss of irreplaceable information, there is no remedy, only the untold damage to society caused by its loss. While it is not possible to assure total fire protection of records and books in archives and libraries, it is possible to provide a very high level of fire protection that would normally limit the potential loss of records in such facilities to a small amount. It is, therefore, important that the archivist or librarian knows the degree of protection available or, conversely, the degree of potential damage from the fire protection systems available for archives and libraries.

According to Thomas (2007) Fire Safety Planning in libraries in Nigeria will prevent the occurrence of fire by the control of fire hazards in the building and ensures operation of fire protection systems by establishing maintenance procedures, and provides a systematic method of safe and orderly evacuation of the building in the event of fire. Building fire safety programmes in Nigeria is essential in protecting the library resources damage resulting from fires and related perils. The Fire Safety Program is intended to ensure reasonable and consistent protection for persons and property including the entire library environment.

According to McCleary (1987) building library collection is measure applied to enable effectiveness and efficiency fire prevention. If fire damages a particular collection, it may take a longer time to rebuild the collection. There are various causes of fire in Nigerian libraries in Academic environment, Government buildings and other information centres across the Nation.

Table 1 below shows the causes of fire in some Nigerian libraries:

S/N	SOME CAUSES OF FIRE IN NIGERIAN LIBRARIES	
1	Overloaded electrical circuits in the library	This include Computer system and other facilities used in the library
2	Unsafe wiring and defective extension cords in the library	Old or obsolete wiring connection
3	Overheated electronic devices and other equipment not maintained properly in the library	The unsafe use, storage, dispensing, or disposal of flammable materials can be a prime source of fires and explosions.
4	Improper use of electrical and non-electrical heating systems in the Library	The buildup of dust from wood, plastic, or certain metal operations can lead to a fire or explosion.
5	Improper disposal of unwanted resources in the library building	When these items are allowed to accumulate, the risk of fire is increased
6	Use and storage of flammable material	Gas, diesel or fuel
7	Careless and deliberate setting of fire on the library by human beings	Riots, Protest etc.

Overheated electronic devices and other equipment not maintained properly in the library is a problem that cause of fire in some Nigerian libraries. Overheating will develop a silent burning that may result to fire to engulf and damaged relevant resources. Fake electronic products purchased in some libraries will adversely cause fire outbreak and other improper disposal of unwanted resources carelessly will also set off fire on the collection or library holding.

FIRE PREVENTION IN NIGERIAN LIBRARIES

According to Shaidurov and Dribinskiy (1976) the goal of fire prevention on libraries is to enable librarians take precautions to prevent potentially harmful fires in libraries, and to educated library clientele on effect of fire on the resources. It is a proactive method of reducing emergencies and the damage caused by fire. Wildfire prevention programs around the world are employed by government and other agencies as techniques prescribed for controlling fire on library buildings. In the course of this study, respondents have indicated various fire preventive measures that can be applied to libraries in Nigeria.

Table 2 **below indicates ways to prevent fire from the libraries in Nigeria:**

S/N	PREVENTIVE MEASURES
1	Keep storage, working areas and offices free of trash and clutter
2	
3	All exit doors shall remain unlocked when the building or a portion of the building served by the exit is occupied.
4	Remove accumulations of combustible dust. Store flammable and combustible liquids in approved storage containers and cabinets.
5	Create space in the library building.
6	Discarded packing material or scrap should not be accumulated. A sufficient number of waste baskets or trash receptacles (non -combustible material) should be placed in accessible location.
7	Regular cleaning of the library should be encouraged.
8	Conduct regular maintenance of all mechanical equipment. Frayed or damaged wires should be replaced immediately.
9	Follow proper storage and handling procedures. Make use of prescribed library manual.
10	Smoking should not be permitted in library environment.
11	Candles/incense/open flames should not be permitted in any setting except under supervision by the library staff.
12	Provide automatic sprinklers in the library building.
13	Use wiring, tools and equipment correctly.
14	Do not use equipment that delivers mild electrical shock or gives off unusual heat or smells odd
15	Funds should be regularly available to support fire prevention on collection building, especially in libraries located in rural communities in Nigeria.
16	Library staff should be trained and retrained in fire prevention systems in libraries.

All librarians and other staff are responsible for reporting potential fire hazards to supervisors and the safety manager immediately. The fire safety section or department in the library is responsible for conducting a quarterly fire hazard inspection as part of its safety audit.

Table 3 below shows the type of fire instrument used in libraries:

S/N	INSTRUMENT
1	Portable fire extinguishers
2	Sprinkler systems including carbon dioxide, dry chemical system.
3	Treated Sand
4	Fire Technologies

Fire extinguishers are used to control fire before the contact of fire fighting service in the community, especially in a situation where the fire is out of control. Fire fighting services are provided in most communities in to extinguish or contain uncontrolled fires. Custer and Bright (1974) identify that trained fire-fighters use fire apparatus, water supply resources such as water mains and fire hydrants. Fire prevention is intended to reduce sources of ignition. Fire prevention also includes education to teach people how to avoid causing fires. The National library of Nigeria and other Academic libraries often conduct fire drills to inform and prepare Staff on how to react to a building fire. Purposely starting destructive fires constitutes arson and is a crime in most jurisdictions (Bryan 1990).

Nigerian libraries must have their own, separate ventilation system, the air conditioning system and technical fire service areas of a building to reduce the amount of particulate dust introduced into a storage area. The emergency smoke-evacuation ducts should have a cross-sectional of the floor space of the room affected. The most common causes of fires in libraries and archives are due to violations of fire safety rules as they relate to the maintenance of the structure itself or personnel operations within the buildings. Older buildings which have been adapted for use as libraries or archives are particularly susceptible to structural problems which leave them at risk to fire. The structural integrity of the building can easily be breached at roofs, windows, basements, walls, and doors. They are also more likely to have electrical wiring in which the insulation has deteriorated and become a fire hazard. Morris (1975) opined that the outbreak of a sudden fire in a library building which appears to have a good fire prevention plan in operation is most often traceable to deficient electrical wiring. It is, therefore, extremely important that defective wiring be replaced quickly and that precautions be taken to ensure that wiring is not damaged when maintenance work is underway close to the wiring. The use of open fire near the library or archives collections is also highly dangerous. Helmenstine (2009) view the risk of fire is greatly increased when maintenance work requires the use of welding or soldering torches. But, less obvious dangers such as portable space heaters, lights on extension cords, hot plates, and coffee makers are also fire hazards.

In the libraries, cables, equipment cords, etc. should not be placed in or run through any permitted opening in a rated fire wall or smoke barrier, such as through a door or within ventilation ductwork. Fire suppression systems are interconnected to the building fire alarm. Begon and Townsend (1996) comment that when a sprinkler

head is activated, it automatically activates the building fire alarm. The building fire alarm can also be activated by smoke detectors or manually without the sprinklers going off. This is how a fire drill is conducted. Automatic fire alarm systems are installed to facilitate notification of building occupants of a fire emergency. Various types of smoke and heat detectors, along with manual pull stations, are linked to the alarm system. When activated, the fire alarm system sends a signal to community fire service centre. If library building is not equipped with a fire alarm system, emergency communication can be done to everyone in the building.

COLLECTION DEVELOPMENT

According to Wikepaedia.com (2012) collection development (also known as collection management, materials management, or information resources management) involves the identification, selection, acquisition, and evaluation of library resources for a community of users. While it is the goal of collection development to meet the information needs of everyone in a user community, this is not ever entirely realized due to financial constraints, the diversity of user information needs, and the vast amount of available information. Nonetheless, public libraries strive to provide the greatest number of library resources to meet the information and recreational needs of the majority of their user community.

Sipe (2006) opined that library collection development is the process of meeting the information needs of the people in a timely and economical manner using information resources locally held, as well as from other organizations. Collections are developed by librarians and library staff by buying or otherwise acquiring materials over a period, based on assessment of the information needs of the library's users. In addition to ongoing materials acquisition, library collection development includes the creation of policies to guide material selection, replacement of worn or lost materials, removal of materials no longer needed in the collection, planning for new collections or collection areas and cooperative decision-making with other libraries or within library consortia.

Stoffle and Allen (1999) examined that collection development is at the heart of what libraries do and it is considered as one of the primary tasks for any library and information centre. It is a dynamic and continuous activity. In order to develop a balanced, user-oriented and active collection, a well planned and thought out system has to be evolved by the library and information managers in close association with the representatives of various user communities. Such a system will not only help develop need based collection but also save money, time and space that would, otherwise, be wasted on developing irrelevant, outdated, and passive collections.

According to Vohra (1999) collection development of all forms of documents like the books, periodicals, CD-ROMs, audio-visual materials, corporate reports, rare materials, electronic databases, etc. are listed in an acquisition policy. Digital technology has made it more easy and comfortable to apply this wisdom and use

the collected information for further development of the library collection. Evans (2000) opined the main task of the librarian was just the material selection but now the same has been extended to the creation and maintenance of web sites, teaching specific references, fund raising and other tasks. Even when libraries have been restructured and divisions have been given new names like computer application division etc., the work is still perceived as belonging either to technical services, reference service or acquisition. Library collection is the pool of achievements of the past preserved for the benefit of present and future generations.

IMPACT OF FIRE PREVENTION ON COLLECTION DEVELOPMENT IN NIGERIAN LIBRARIES

Fire has been the greatest threat to library collection development process in Nigerian. A fire can damaged a collection that took a very long time to build; so it makes it important to build the library on a solid ground with fire preventive facilities. According to Bowman & Balch (2009), one of the advantages of libraries built on concrete over other library building materials is its inherent fire-resistive properties; however, concrete structures must still be designed for fire effects. In the event of fire, the size and timing of the fire growth determined by fire analysis is sensitive to changes in the fuel load over time and changing ventilation conditions during the fire.

The impact of fire prevention on collection development in various libraries across Nigeria can be viewed in retrospective and analysed by comparing availability of preventive measure in relation to the current state of library collection. Libraries have improved their collection by preventing fire outbreak. Various Measures on security have been applied to give a positive acquisition, processing, storage and dissemination of library resources. Addressing collection preservation as part of library building design helps to protect the collection against catastrophic loss and to reduce library expenses by extending the collection's service life. The purpose of collection preservation is to manage risk to an acceptable level, while acknowledging that avoiding risk altogether is impossible.

The collection is the library's single largest asset; designing the building that houses it to maximize protection against major losses, including earthquake, fire, water damage, and theft, is responsible management of public resources. Designing an indoor environment (including temperature, humidity, air quality, and light levels) conducive to preservation extends the collection's service life by slowing down its rate of physical deterioration. Books and documents intended to be kept in the collection permanently will not need to be replaced as often, saving the library money. All library collections represent a large investment of library funds. Consequently, all library building projects should optimize their design to protect the collections against earthquake, fire, water, and theft. Addressing the preservation needs discussed in the sections below will help minimize the risk of catastrophic loss. Some collections have to last forever; many libraries have "special" and "local history" collections they want to last centuries, if possible. These collections

largely are irreplaceable and therefore need additional features from the building design to maximize their service lives. However, most collection materials in most publicly funded libraries are not added to the collection with the expectation that they will continue to be part of the collection indefinitely. These "general" collection materials are expected to be serviceable enough to meet current and anticipated future needs; they will be discarded when they no longer are needed or have been succeeded by more current works.

Friedman (2008) opined that libraries are faced with variety of hazards that cause damage to the collection building. More resources are acquired from time to time which necessitate the adequate preservation and conservation of the collection in libraries across the Nation. Libraries have benefitted from the manual and technological application of fire preventive measures which has adversely improved the gradual development of collection. The threat and danger of fire is now minimal, so collection tends to stay intact and grow steadily. The fire prevention process has made partial improvement on collection development in their libraries. This means that there is a probability of having a natural or artificial fire causing damage on library collection.

CONCLUSION

This paper provides a view of fire prevention and its impact on collection development in libraries in Nigeria. Morris (1975) observed that it is important for archivists and librarians to understand that unless there is a fire prevention system to control the development and growth of a fire, responding to fire outbreak will be less effective, thus an emergency call to fire fighting forces would have to come and attack the fire with other apparatus. If all the preventive measure identified in this paper is applied in Nigerian libraries, the improvement of fire prevention will adversely affect positively on maintaining steady improvement of collection development thereby provide healthy libraries.

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