

Managing Market Fire Outbreaks in Somalia: Case Study of Bakara Market in Mogadishu

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Abstract

In Somalia, market fire occurrences have become regular incidents, with a loss of millions of dollars and possibly loss of lives. It is a severe threat to the fragile economy of a country recovering from a devastating civil war. It disrupts economic activities and deteriorates the problem of poverty. Somalia markets suffer from ineffective fire management, and their layouts need to be designed better, because they are always congested and susceptible to fire. Anytime fire breaks out in the market, it becomes complicated for fire tenders to mitigate and control the fire; hence, the fire destroys many goods in the markets.

This study describes fire management in the Bakara Market and identifies some challenges. It proposes several recommendations to build effective fire management for preventing fire outbreaks and minimizing losses in Mogadishu markets.

Keywords: Market fire, fire outbreaks, fire management, Somalia markets.

1. Introduction

In Africa, the frequent occurrence of major fire accidents in commercial buildings, shopping malls, and markets has become a severe threat to the fragile economy of most countries. In Somalia, major markets and commercial buildings have been gutted by “market fire”, destroying properties worth several million dollars, and even causing losses of lives. These market fires have continued to render many jobless, damage the environment, disrupt economic activities and worsen the problem of poverty.

Decades of civil hostilities have virtually destroyed Somalia’s economy and infrastructure and split the country into areas under the rule of various entities. The Somali economy heavily relies on livestock and agriculture, which have greatly suffered from drought and conflict. Mass internal displacement has overpopulated the cities. As a result, traditional markets have been heavily disrupted by insecurity, fire and critical infrastructure such as roads. Huge fires have engulfed Mogadishu markets differently, including the primary market in the city's center. The lost properties are worth millions or billions of dollars in every incident.

This study discusses the recurrent fire incidence in the Bakara Market in Mogadishu from time to time. It examines the fire management capabilities in preventive measures and firefighting preparedness and identifies the causes and main challenges. Finally, it proposes several recommendations to build effective fire management to prevent and mitigate fire outbreaks and minimize losses in Mogadishu markets.

The Primary data was collected from a sampled population of market traders using unstructured questionnaires. Key informant interviews were also utilized to know the causes and effects of the fire on the traders. A review of secondary data sources, including books, articles, journals,

newspapers and internet sources to review literature was also used and found relevant information.

2. Fire Risk Management

Fire breakouts usually occur in houses and markets based on four elements: fuel, ignition source, oxidizing agent and mechanism of the reaction. The most common energies that cause fire breakouts include electricity, flammable gases used for cooking, furniture, clothing, and solvents used in our daily activities, such as kerosene and gasoline, and combustible dust such as toners used in offices and starch sold in markets (Sirt, 2016). According to the respondents, in Bakara Market fire outbreak is caused by several factors. The possible causes of fire outbreaks include using substandard electrical materials, improper electrical fittings, poor knowledge of electricity appliance users, and power fluctuations resulting from frequent power outages. The rise in fire outbreaks could be traced to intense wind, overloading electrical appliances on the same fuse and improper electrical installation, or cooking with naked fire are some of the major causes of frequent fire outbreaks.

Fire Consequences

The fire can devastate everything and causes huge losses in the markets. We can take two recent incidents as an example the *Madina* Market Fire and *Benadir* Market Fire in Mogadishu. In April and June 2022, a huge fire broke out in both markets and caused massive losses.

Madina Market in Mogadishu is the third largest in Mogadishu. It draws sellers and shoppers from the city and surrounding communities. In addition to providing for the livelihoods of thousands of residents, the marketplace was a significant source of revenue for Wadajir district municipality and Benadir Regional Administration revenue. The National

Chamber of Commerce and Industry estimates that fire accounts for 20 to 30 percent of the regional economy. With an estimated 2,000 businesses – ranging from large stores to small stalls – once located in the marketplace. A fire broke out in the market on 9 April 2022. The Firefighters were having problems accessing the blaze because squatters of hundreds of small-scale retailers had been blocking streets leading to the market for decades. The fire destroyed the livelihood and businesses of communities struggling with poverty and unemployment. According to the respondents, the cause of fire may have been an open fire left in the market at night and windblown or an electric shock (Team, 2022).

On June 2022, a massive fire tore through the Benadir Market in Mogadishu too. The flames raged for over four hours, injuring dozens of people and leaving the market in ruins. The loss in stock and infrastructure is estimated at around \$2 Million, which is a massive blow to the economy. The effects of the fire have been particularly hard on the vendors who had traded there for years. They lost their sole source of income, and their families are feeling the effects (Somalia, 2022). However, this tragedy could have been prevented or mitigated in losses. So, the big question is, how can we prevent fire breakouts in the market, workplace, offices, or houses? Is it preventable? Is it manageable?

Types of Fire and its Prevention

There are various types of fires, including open fire, electric fire and smoke fire. While fires can start anytime and anywhere, below are descriptions of the four most common types (Otenga-Ababio, 2015).

- a) **Kitchen Fire:** The most common type of fire is the kitchen fire. The kitchen is the source of many fire hazards because the kitchen is where heat, water, electricity and grease come together.

- b) **Electrical fires:** This type of fire is caused by several factors, including faulty appliances, worn or defective electrical wiring, improper use of electrical outlets and worn-out breaker boxes.
- c) **Smoking-Related Fires:** These fires are caused by cigarettes or wildfires. Most smoking fires are started by embers igniting on furniture, bedding and trash cans.

Several methods prevent domestic and other types of fires, as described in the following discussion (Kime, 2011).

Electricity: Preventive measures include keeping facilities in good condition to avoid overcharging, poor contact, and short circuits, not using worn-out plugs and wires, and lowering the recommended gauge. Consumers should not overload electrical outlets by connecting multiple devices simultaneously because the wires become hot and can catch fire. It is never safe to leave an electric fan while leaving on and closing the building, as this has been linked to fires. Always ensure that holes and air vents of home appliances (such as televisions and microwave ovens) are not near any clothing or decorative covers. Provision of utilization public awareness will be highly beneficial in this regard.

Gas Cylinder: Gas cylinders should be handled cautiously to avoid falling or suffering from a stroke. Gas cylinders should be kept in clean, well-ventilated, oil-and-grease-free areas, away from rain, sun, and other heat sources. Domestic gas cylinders should be held in a different room than the stove but kept outside and connected to metal pipes. If the gas is installed inside the house and leaks occur, do not light a match or turn on or off the lights.

Open fire in the kitchen or Outside the Kitchen: Cooking over an open fire is the oldest and most primitive method of cooking known, with glowing red flames and smoky ambers mostly lending them to frying,

grilling and boiling. Open fire is common in Somalia restaurants, and small teashops use brick stoves that cook. This type of fire is preventable, and risks can be minimized. This can be prevented by locking up any items that can start a fire (matches, lighters, cigarettes, etc.)

Fire Management

Over the years, the profession has assessed the effectiveness of safety programs by measuring failures such as accident frequency and severity. The rates of property loss measuring safety programs based on failures are ineffective. Managers needed to be more present to implement activities that could have prevented those failures. While the safety profession has never established a direct correlation between various safety program activities and positive program outcomes, safety managers strive to identify possible relationships. The safety program's effectiveness should be measured by the quality, rigor, and utility of these activities and their impact on the bottom line. Developing and implementing an effective fire management program can: reduce property loss insurance premiums, demonstrate why certain practices are being used, help minimize the financial impact of business interruptions, boost customer service and public image, foster an efficient work environment to help realize quality gains, impact favorably on the profitability of an organization and evaluate building construction (Daniel E. Della-Giustina, 2014).

There are various best practices in fire prevention that have been recognized and put into practice. Identifying and analyzing high-risk homes, expanding and educating on fire prevention programs, performing home safety visits, and running substantial school and youth programs are just a few of the eight main areas into which the best practices were divided (Khan, 2001). The remaining tasks included targeting high-risk older populations with programs, creating safer consumer goods,

expanding the use of fire stations for neighborhood fire safety initiatives, and organizing both national and local fire safety campaigns. The British Fire Service identified and utilized a few chosen local radio stations and newspapers to broadcast fire safety messages to the public. The campaigns' objectives were to argue that people with knowledge about fire disasters will acquire equipment such as fire extinguishers, fire blankets, and smoke detectors, among others, to support response activities. They must also educate their families and employees to take immediate action to prevent property loss, destruction, and casualties whenever disaster strikes. Safety regulations in the government impose mandatory fire safety training on all employees working within a building, a construction area, or any other busy area. This helps provide employees with crucial information and drills, such as those used in operating fire extinguishers and proper escape behavior (Dwomoh, June 2015).

Furthermore, fire outbreaks can adequately be managed using a risk analysis model. According to Khan and Abbasi (1995), risk analysis is systematic hazard identification and assessment method. It is a process that includes qualitative and quantitative determination of risks and their social evaluation. Adequate fire safety management requires recognizing the potential risks associated with the premises and effectively assessing the adequacy of the measures provided or needed to combat the threat. Risk analysis indicates the proneness of theatre outbreak and spread of fire and thus decides what steps must be taken to provide suitable artists for protecting people on the premises from fire, and should ensure that the risk of fire occurring is reduced to the absolute minimum as well as the risk of fire spreading is minimized. (Buchanan, 2001).

3. Bakara Market and Fire Breakouts

Mogadishu city has seven main markets: Bakara Market, Suuq-Bacad, Siinaay, Hamar Weyne, Suuqa Madina, Suuq Boocle, and Suuqa Xoolaha. The Bakara Market, which once served as a storage facility for farmers' annual harvests, is now the primary market in Mogadishu and Somalia. It feeds the city markets; other markets in Somalia and neighboring countries.

From 1991, Mogadishu markets encountered various fires that have affected uncountable supplies, products, buildings and other personal and family products. Huge fires have engulfed Mogadishu markets differently, including the primary market in the city's center. As witnesses reported, the fire usually starts from somewhere in the market and winds spread rapidly through the market, razing multistore buildings, tea shops, groceries, food stores, restaurants and electronics stores. Open fire is common in Bakara or Somalia markets and restaurants, and small teashops use brick stoves that cook. This type of fire is preventable, and risks can be minimized.

According to the respondents' awareness, there is a market committee, but it needs to be functional and organized as expected. Hence, it needs to be energized to work as an effective entity to develop strategies for hazard prevention and responses. However, the committee has built small interlock roads in the market.

Nearly every year, a fire outbreak hits the Mogadishu Bakara market. The business people reported that the market has experienced over 13 fire breakouts in Mogadishu alone in the last three decades. For example, in 2018, an inferno started at the gold bazaar, and winds rapidly spread through the market, demolishing large buildings, shops, and food stores. The store owners reported a massive loss of properties due to the fire,

which sent plumes of smoke into the air. Mogadishu's then mayor, Sheikh Yusuf Hussein, visited the burned-out marketplace and said the narrow streets hampered firefighters' response (News B 2017).

The causes of the fire are not officially identified, but most pointed out market fires are caused by electrical problems such as; faulty wiring, misuse of electrical gadgets, improper electrical fittings, power fluctuations, storing of flammable substances such as charcoal, open fire left in the market. Additionally, most fires may occur out of ignorance and negligence on the part of the residents.

Several contributing factors help it spread quickly and become more destructive when a fire occurs. Some of these factors include poor knowledge among fire users, wood shingle/thatched roofs, high wind, blocked access, lack of exposure protection, inadequate public protection (i.e., fire department inadequacies), unusually hot and/or dry weather conditions, delay in discovery of fire, insufficient fire protection, and absence of fire alarm, lack or misuse of the notice. There is a need to assess fire breakout preparedness strategies against fire for any possible outbreak. Despite the frequency and magnitude of the fire disasters, the market is not prepared to deal with a potential next fire.

Challenges Facing Bakara Fire Management

To sum up, various challenges are hindering the achievement of effective fire management in Bakara Market, including; poor market design and structure for the buildings, deficiency in firefighting equipment, lack of allocated funds for running the fire management department, lack of commitment to fire prevention and fighting regulations.

The market site suffers from poor design and infrastructure. The Bakara market is served by fourteen roads (two tarmacs and twelve unpaved) and

seventeen roads (three tarmacs and fourteen unpaved) running south to north (SIPAM Report, 2019). Due to semi-permanent structures made of iron sheets and squatters of hundreds of small-scale retailers blocking the streets, market pathways have become narrow, making free movement nearly impossible. It is challenging for fire brigade teams to get to the site in the time since vendors obstruct the streets with their merchandise. Hence, fire fighters and ambulance services are forced to use bulldozers to clear the way because of the goods & businesses on the road. In addition, plastic bottles, plastic bags, and takeout containers are all over the place. These waste piles have the potential to cause a market fire incident.

The market lacks firefighting supplies and equipment. It also lacks a specialized unit for this purpose. Hence, if a fire breaks out in the market, the firefighters are not available near sites, knowing that the capital lacks an effective firefighting unit. The inaccessible roadways make it more difficult for the fire brigade crew to reach the burning site and perform their jobs effectively and efficiently. Additionally, obvious no market fire management, prevention, or response plan.

4. Conclusions and Recommendations

The findings of the study have indicated that the Bakara market is indeed vulnerable to fire due to poor, or lack of, fire management practices and poor fire safety awareness. The lack of access routes due to overpopulation has contributed to, and coupled, this vulnerability.

There are different possible ways to prevent fire in the market. Proper fire prevention practices are the best fire management and can ensure the facility does not go up in flames as quickly; fire management can be achieved by strictly implementing regulations. In this regard, I

recommend some ways to develop these measures in Bakara Market as follows:

- a. **Market Committee Training:** Providing relevant training for the market committee is key to successfully implementing market fire management. The committee will have the ability to plan fire prevention, response and manage the market issues systematically.
- b. **Fire Management policy, regulation, and reporting:** Fire management policy, regulation, and reporting are important to develop and implement urgently. The regional or national fire incident reporting system has never been implemented in Somalia and has never collected data on fires. This will facilitate several fire safety activities, including supporting the building and fire regulation development and characterizing the fire problem for resource allocation purposes.
- c. **Fire safety awareness:** It is important to achieve public awareness and intensify the dissemination of fire information among the market community regarding fire prevention and safety measures to avoid incidents due to negligence. Understanding may help reduce or even eliminate the risk of starting a fire and managing it effectively if ignited.
- d. **Every building should have accessible fire equipment:** The relevant authority must endorse the Act of fire protection laws to abide by at the design and construction stage. The equipment quality must also be ensured, and people must be trained in the building. For example, the provision of portable fire extinguishers and installation of fire and smoke detectors and fire alarms, the markets should have wide roads for the supplies and firefighters.
- e. **Precautionary accessible equipment:** The inhabitants must ensure all fire equipment (i.e., fire extinguishers, control panels, fire sprinklers, fire alarms, fire protection services, etc.) are easily

accessible. Fire safety demonstrations can go a long way regarding building occupants' safety and how to react to a fire and use a fire extinguisher, along with other fire protection devices, and prevent a fire from spreading if it occurs in a building.

- f. **Proper disposal:** People must timely discard hazardous waste in a container with a lid. Hazardous waste can include anything from oils to chemicals. To prevent fire hazards, even flammable and combustible materials should be appropriately disposed of.
- g. **Safe storage:** Any chemicals, flammable materials, or other hazardous substances, in or outside the market, must be stored in a dry and safe place. It is also a good idea to keep fire protection equipment for flammable substances near the storage area, just in case.
- h. **Regular emergency plan:** People must know that emergency and evacuation plans are essential to prevent further damages or issues if there is a fire. Someone needs to call for help, what must do, how to find the building address quickly, and what the next steps should be. Therefore, home numbering and street naming with directions will be helpful. Fire prevention is just as important after a fire has already started because it can reduce the risk. A special firefighting team should be allocated to the market.
- i. **Removing flammable kiosks and bushes in the market:** There are small kiosks and bushes selling goods or services in the Bakara market, and also most other markets in Somalia, built in front of buildings. The local government should remove these kiosks and bushes because they may help ignition or spread the fire and challenge firefighters. Market sanitation is also important to consider.
- j. **Security & Fire Management Fund:** The market committee should have mechanisms to collect funds and have a bank account for market safety. This fund will also help the committee to provide incentives for the security personnel in the market.

- k. **National Education Curriculum:** Topics of fire management awareness better include national education curriculum from primary to secondary schools. This will help people learn and adopt systems early in childhood.

Attaining these recommendations and compliance with the necessary standards and regulations in fire preventive and controlling measures contribute to achieving effective fire management in the Bakara market and other markets in Somalia, and minimize the expected losses.

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Somali Studies: A Peer-Reviewed Academic Journal for Somali Studies is a broad scope multidisciplinary academic journal specialized in Somali studies, published annually, in print and online forms, by the Institute for Somali Studies at Mogadishu University. The journal aims to promote a scholarly understanding of Somalia, the Horn of Africa and the Somali diaspora communities around the globe. It is an open access journal, and all articles are freely available to access, print and download from the website of the institute, www.isos.so.

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Published by Institute for Somali Studies

Hodan District, Near Km4 Square

Website: www.isos.so

Email: isos@mu.edu.so

Tel/Fax: +252 1 858118

Mogadishu, Somalia