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RESEARCH ARTICLE

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ASSESSING TRADERS' RISK OR LOSS IN FIRE OUTBREAK IN THE KUMASI CENTRAL MARKET OF GHANA

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ABSTRACT

Fire outbreak is particularly rampant in the Kumasi Central Market. Data gathered from Ghana National Fire Service (2016) indicate that, since 1992, there have been multiple occurrences of fire outbreaks each year in the Market. Efforts put in place to curb the menace have proven less successful. There is growing knowledge that the persistence of these fire disasters is as a result of people's noncompliance with fire safety regulations. The thrust of this study is to assess traders' risk or loss in fire outbreak, with emphasis on traders' knowledge on what they need to do against fire risk and disasters. The study directly interviewed 140 traders and three institutions (National Disaster Management Organisation, Kumasi Metropolitan Assembly and Ghana National Fire Service). The selection was done using systematic sampling technique to select 140 respondents with the help of the Slovin's sampling size technique. The study findings showed that traders in the Kumasi Central Market were unaware of what they needed to do in case of fire outbreak. Traders' risk/losses as a result of fire outbreak are on the increase. The architectural nature of the market also makes the market prone to fire outbreak. It also emerged that the haphazard development within the city center serves as a major hindrance to effective fire prevention and control. Based on the above challenges, the study recommends intensive education of traders on how to prevent fire and how to use firefighting tools in case of fire disasters. The study further recommends the need for re-structuring in terms of the buildings and wiring in the market.

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INTRODUCTION

In recent times, at least few countries around the globe such as USA, Russia, Hungary, Singapore, Tanzania, and Ghana have experienced some fire disasters in their homes, markets and trading places. This has become a destructive issue that needs attention from governments and individuals. Fire outbreak is potentially the most serious hazard that Ghana faces at the moment (Antwi, 2013). The rate of fire outbreak in Ghana is increasing and has, over the past few years, been a worry to stakeholders. Apart from the lives and properties usually claimed in these fire outbreaks, the consequence usually affects the economy so critically that, limited resources are used to re-organise what is lost. Ginnetti and Schrepfer (2012) proposed that in order to prevent or reduce disaster-related issues on an economy, emphasis should be on the need to address gaps in both knowledge and capacity by improving research on the awareness of disaster risks and associated human rights, and the capacity to address them should be a major concern. Despite efforts made by successive governments to restructure market centres to modern status and to lead the country's development, most of these facilities are being destroyed by fire outbreak. This can be attributed to government's poor planning processes which did not provide safety measures; such as, easy access to the market by the firefighters in case of fire outbreak.

It is well observed that there is no firefighting equipment such as alarm clocks and fire extinguishers installed at various stores to enable the users detect signs of fire and to prevent it from escalating (Schmutter et al, 2011). Also plans ensuring that the market is allocated to various businesses are appropriately located are not practiced. The management of the market rather gives much attention to collecting revenue with little attention to maintenance which therefore translates into mismanagement. This implies that government provided structures are congested and disorderly arranged by the traders which need effective supervision to ensure safety. This perhaps is not effectively done; allowing user misbehavior in the facilities at a very risky rate; thus, exposing the market to fire destruction. The knowledge of traders on the use of installed facilities such as fire extinguishers is essential in tackling fire emergencies. In this case, these firefighting facilities are lacking except some few shops which are perceived to be owned by private individuals where these firefighting facilities are installed. The absence of these facilities adds up to the problem of frequent fire outbreak; hence, the need for installation of the firefighting facilities to be accompanied with effective education on their use otherwise, the installation becomes meaningless. Lack of such knowledge also could hamper escape from fire hazards and thwart attempts to contain fire outbreaks at their preliminary stage (Kachenje et al., 2010). In recent times, fires that are recorded in the country are alarming

according to Ghana National Fire Service (GNFS) 2016, and as such, needs a serious approach to curb the problem. The fire outbreaks are causing government to divert resources to solving one peculiar problem to fighting fire outbreaks and neglecting some pressing needs of the country (Marjanovic & Nimpuno, 2002). In attempting to delve into fire issues, various studies including: Assessment of Domestic Fire Management in Kumasi Metropolis (Amoako, 2014); and Predicting the Imminence of Fire Disaster Risk on the Ghanaian Economy (Boadi, 2015) have been carried out aimed at minimizing the outbreak of fires, especially in the urban areas, often perceived as the problem from the causes of the fire outbreaks without due regard to the level of compliance with the appropriate fire regulations by users of urban properties as established by (Sarpong, 2013). Moreover, a research by Amoako (2014) paid more attention to residential fire outbreak to the neglect of the business sector. It is a difficult task to account for exact results or outcomes in fire avoidance and as a result, there is the likelihood that work can be abandoned following the inability to achieve results. A sector like the market which contributes immensely to revenue mobilization is faced with fire outbreaks hence, preventive ways are issues that need much attention to protect lives and properties, yet they are not made available for users and therefore produce nothing (Head and Alford, 2015). Ghana's current issue of fire outbreaks in the city centers is blamed largely on negligence of compliance with the appropriate regulations to prevent fire disaster. UNDP (2013), expresses right knowledge in response to disaster risk in an early warning system to improve firms, policy holder's awareness and understanding, so that it can increase their direct tackling to threats or opportunities as some measures to curb fire outbreaks. Against this backdrop, this paper is, "Assessing traders' risk or loss in fire outbreak in the Kumasi Central Market of Ghana. The study will investigate the issues of fatal fires and complying with appropriate regulations provided in the legal framework by the Ghana National Fire Service (institution established to deal with fire issues). It is expected that appropriate recommendations that can be used by key stakeholders and policy makers as a guide to attending to issues relating to fire will be avail from this study.

Theoretical and Empirical Review

Fire Risk: Fire risk is the identification of fire hazards which has the potential of destroying lives and properties and has the tendency of occurring within speculated period. It is defined as the product of the occurrence of fire and the outcome of the damage expected on the occurrence of the fire (Watts and Hall, 2002). The issue of fire has been a long-standing problem that has destroyed properties, caused loss of lives, injured lives and left some devastating effects worldwide (Rubarataka, 2013). Fire risk is a function of three factors: harm to valuables such as life, property, business continuity, heritage and the environment; the scenario that induces the harm and the intention that the harm will occur. Thus, fire hazards call for preparedness of individuals and communities to make provisions to prevent any danger involved in the process as defined by United Nations International Strategy for Disaster Reduction- UNISDR (2009). Fire risk can be detected by an Early Warning System (EWS). This is a system of a set of capacities to form and distribute useful warning information to enable communities and organizations threatened by a hazard to be alert and make provisions to face it sufficiently and on time to prevent the possibility of loss (UNISDR, 2009; IFRC 2013).

Fire Risk Reduction Models: There are models that enable fire risk reduction in the country as well as the market centers, and according to Stojanova et al (2011), fire risk reduction can be successful by estimating the risk involved in fire outbreak and then applying the regulations towards fire prevention. Estimating risk of fire outbreak is done through the use of fire prediction models such as GIS data, remote sensing imagery and the weather prediction model, and the Metrological data or AireLimitée Adaptation Dynamique Development International (ALADDIN). To carry out a successive prediction of fire outbreak, modeling the factors of fire threat and the factors that influence the occurrence are required. Weather conditions such as climate change and the speed of wind could influence fire

threat and because these factors are influenced by location, the model is developed by Geographic Information System (GIS). Preisler et al (2016) also expressed similar idea on predicting wildfire outbreak, Near-term probabilistic forecast of significant wildfire events for the Western United States. They developed a statistical method based on logistic regression technique for estimating probabilities of large fire occurrences and comparing past fire occurrences to forecast conditions in order to predict fire risk.

Fire Risk Assessment: Assessment is a process or a development approach to fire risk to identify certain dangers or losses that occurred or has the likelihood of occurrence in a particular premise. This is done to enable the assessor or assessors to devise means of preventing the fire risk from occurring. Assessing fire risk will aid in determining the possibility of fire occurrence and the dangers that are likely to occur at the premises. According to Management of Health and Safety at Work Regulations 1999, employers must ensure that business places assess risk of fire to protect lives and property in the event of fire occurrence. Under Regulation (3) of the Management of Health and Safety at Work Regulations 1999, the purpose of risk assessment is to identify measures needed to comply with the requirements and prohibitions imposed on employee under the Statutory Provisions. This will enable both Management and users to prioritize and determine risk and to exercise some preventive and control measures to deal with it. The Management of Health and Safety at Work Regulation 1999 recommended that, a successive risk assessment can be achieved by carrying out the following:

- Evaluate the level of risk and then remove or reduce any risk identified. For instance, Combustible or flammable material within the business premises for instance build up waste and display material. The Safety at Work Regulation, 1999 says, things that can easily be combustible should be handled away from fire. Likewise, fire source such as electrical equipment and naked flames should be put off after use. This can materialize effectively with security checks on traders during closing hours to ensure that, fire ignition such as candles, gas cookers are put off before leaving a market place.
- Evaluating the likelihood of a fire outbreak after risk is identified, is done to decide whether there are sufficient measures or available solution to prevent or control the identified risk. For example, the risk of explosive atmosphere occurring will normally be controlled by the ability of ventilation system and a firedamp drainage system to dilute any flammable gas. The likelihood of fire outbreak in the central market is high, since the structures are largely wooden; and a similar situation was observed by Alabi et al, (2017) in "Stakeholders' role in disaster-risk-reduction of fire occurrences in Lagos Metropolis".
- Deciding who might be harmed and how in risk assessment that might occur from fire, managers and users will need to consider most importantly, the effect on the closest persons in the immediate environment. The outcome of this process will determine the right control and protective measures to include in the plan of fire and explosion protection. The assessment will consider potential risk arising from the nature and extent of any flame, heat wave and possible disruption of the ventilation system as a result of overcrowding.
- Employers, in other words management, should review the risk assessment periodically to avoid further risk that might emanate during some ongoing activities. This will help to reduce risk during an outbreak of fire.

Fire Risk Management: Fire starts in three main ways: wrongful use of appliances, deliberate ignition and equipment failure. Fire outbreak starts in various forms and the end result is destruction of human lives (Wahab, 2015). Fire occurrence usually comes unannounced. When there is an issue of fire, affected people struggle to avoid the risk of losing their lives and as such, limited time restricts them from extinguishing the fire outbreak to save properties (Salled & Ahmad, 2009). Fire is regarded as a destructive force and when it occurs without being controlled, people within the affected catchment stand

the risk of getting injuries and at worse die. One other huge effect of fire outbreak is the destruction of properties and the collapse of buildings. This sometimes leaves the affected persons in a condemned state which they may or may not be able to recover from (Spadacni, 1998). As a result of these issues of fire outbreak, it is advisable that safety measures are put in place to manage the situation. Fire safety management has become necessary in order to deal with the series of fires occurring every now and then. This is why institutions in charge of fire safety management saw the need to institute safety measures to reduce the alarming increase of fire risk globally in recent times (Woon & Suleiman, 2015). Fire safety management started in the initial stage with building design which covers all aspects of its occupation, maintenance, modification and decommissioning and demolition. The major objective of fire safety management is to provide fire safety measures that will help to initiate actions in case of fire outbreak which would enable occupants to reach a safe environment; also, to review existing fire safety measures where there is a change of building use and new technology on fire services need installation (Chow, 2001). According to Nadzim & Tab, (2014), fire safety management involves the bringing together of activities and programmes that ensures the prevention of damage from fire. It is also the application of certain policies, standards, tools, information and practices to the task of analyzing, evaluating and controlling of fire (Howarth, 1999). The objective of fire safety or risk management is therefore to reduce risk to life and property to very low levels acceptable to a property owner and society at large. This objective can be achieved by carrying out fire prevention activities such as education and training of users on fire safety which would reduce the frequency of fires significantly and installing passive and active fire protection measures such as the fire extinguishers and fire detectors to give signs and notices of fire outbreak which would minimize the damage when the fire occurs.

For instance, in the University of Glasgow, a fire safety policy has been instituted by Management in compliance with Fire Act 2005 and the Fire Safety Regulations of 2006 to prevent fire occurrence in Scotland of the United Kingdom. In the management of fire safety, it is advised that where any structural or material alterations are carried out within appropriate locations, they are likely to impact on the fire safety provision. Assuch, is the duty of Management Unit or Director of Estates and Buildings, as appropriate, to make sure that important information is made available to the Fire Safety Manager for his or her attention and action. Thereafter, it relies on the Fire Safety Manager to ensure that a review is deemed necessary, for fire safety risk assessment to be carried out. It is also cautious to make sure the Fire Safety Manager is involved in all communications with regard to any proposed material changes or alterations to any of the appropriate buildings. External waste containers refuse bins and industrial skips are a potential fire hazard to all buildings. Fires often occur in such receptacles and where they are placed in close proximity to a building, the potential for fire spreading through radiated and converted heat currents is a realistic possibility; hence, the need to place the bins at a distance away from the building. The Fire Act 2005 of Scotland- United Kingdom, states that every employer must carry out a risk assessment to identify areas or points that are at risk of catching fire to make sure a safety measure is put in place to save lives and property. With effective deals, it is important to make sure that in fire outbreak, all safety measures provided in the process should be used so that an adequate outcome can be achieved (Ramachandran, 1999). This aim can be achieved by carrying out fire prevention activities which would reduce the occurrence of fires significantly and installing passive and active fire protection measures; the use of fire extinguishers which would minimize the damage when the fire occurs. By effective maintenance, it is necessary to ensure that, when fire occurs, all the safety measures provided will be available for use and will perform adequately. According to Della-Giustina, (1999), when an appropriate and effective safety management programme is implemented; such as Insurance cover introduction, there will be prevention of business interruptions which will go a long way to promote customer services and public image and hence, the overall results will be successful.

Safety Regulations: Safety regulations are codes, laws or rules in the legislation that seek to ensure the safety of individuals and properties in the event of fire outbreak. By the legislation, it is mandatory in fire safety that buildings must be installed with Fire Service Installations to protect lives and properties of persons in the event of fire outbreak. Building owners have a responsibility for providing protection of lives and properties from harm by installing fire safety facilities for occupants of their buildings (Scotland Act 2005). A regulation is acceptable if the terms (codes, laws) can effectively achieve quality or safety. Regulation generally aims at preventing fire which poses danger to lives and properties and its effectiveness is of paramount importance (John M. Cobin, 2013). According to Chow & Lui (2001), Fire Safety Regulations for businesses are that Fire Service Installations (FSI) should be installed to minimize fire damage, protect life and property. The installations are used to extinguish fire (fire extinguisher) and set alarm to give warnings and ensure safety of occupants. There are various requirements with different functions to serve different premises which are found under FSI Code. The FSI for existing buildings requires five installations:

Water systems including fire hydrant or hose reel systems and automatic sprinkler. These are used together when there is fire burning to sprinkle water to extinguish the fire. Gas protection systems and smoke management systems. A fire alarm should be installed to provide indication and warning when there is danger so that life and property can be safe. Detection and alarm systems: Activated smoke detectors should sound the alarm throughout the zone of origin. Their location inside the building will determine their role. Others include emergency generators, emergency lighting and exit signs.

Fire Safety Measures: Apart from faulty electric wiring in buildings, studies have shown that building design is one major contributory element causing fire outbreaks in homes and business centres (Tony et al 2016). Poor building designs contribute to fire outbreak in buildings which have severe consequences on safety of life and property (Tony et al 2016). According to Cote & Bugbee (1988), fire is one leading causal element responsible for death apart from falls in buildings. The devastating effect of fire outbreak is twenty (20) times more destructive than that of earth quake and other disasters (Walls, 2007). This is why knowledge of fire safety among architects, electricians and the users must be a subject of study to aid the design of safer buildings in terms of fire protection. The design is expected to be provided in the approved building plan which should include fire safety measures. Association of British Insurers (ABI), (2014) and (Hogendoom, 2016), reported that fire is the leading source of property loss and the most affected in claiming insurance policies. To reduce fire outbreaks in homes and business centres will depend largely on the design of the building. That is, architects must be given education on fire safety and have adequate knowledge about suitable materials building and design construction. According to Cote & Bugbee (1988), a building should have the following: Provision of fire detection and suppression facilities, provision of fire alarm clock to give signs of fire outbreak, designation of escape routes and availability of fire extinguishers. Fire safety is expected to ensure maintainability, functionality, aesthetics, human comfort, structural longevity, cost-effectiveness and sustainability (Kodur, et al 2012; Park, 2014); and that building designers must consider these at the beginning of the building design process (Fire Sector Federation, 2015). This will ensure safety of building users and properties in the event of fire outbreak. Stollard (2014), further added that achieving a fire safety objective depends on the architect doing the right thing in the building design. The safety measure requires the designers to use the right material for building to attain a strong standard.

METHODOLOGY

This study was carried out in the capital city of the Ashanti Region, Kumasi. The study was cross-sectional and employed mainly primary data obtained from one hundred and forty (140) market traders in six sections of the Kumasi Central Market with the use of systematic

sampling technique. The objectives of the study were ascertained with the help of descriptive statistics, Chi-square test and presented in tables, graphs and relevant charts. The data was analysed using the SPSS software, version 22. The study area was Kumasi Central Market. The Kumasi Central Market is a vast and vibrant market located at the heart of Kumasi, the capital city of the Ashanti Region of Ghana. The market was established in the year 1939 and occupies a land size of twenty-five (25) hectares. It is located in between Subin and Manhyia South Constituencies. The Market has the capacity to accommodate about thirty thousand (30,000) people a day which includes buyers and sellers and even window shoppers. Administratively, the market has six offices located at various points within its premises. This is done for effective revenue collection for the Kumasi Metropolitan Assembly and it is headed by supervisors. All the activities of the sub offices are checked by the Central Market Manager. It is a major market where other regions, such as the five regions of the Northern sector of Ghana and other neighboring towns do wholesale businesses. As a result, human traffic is very high posing a lot of threat and destruction to the facility.

RESULTS AND DISCUSSION

Assessing Traders' Risk or Loss in Fire Outbreak: Fire is regarded as a destructive force and when it occurs and not controlled, people within the affected area stand the risk of injuries, loss of properties and at worse, death. As found by Salled and Ahmad (2009), the affected people struggle to avoid the risk of losing their lives and as such, limited time restricts them from extinguishing the fire outbreak to even save properties. This study also assessed the victims' losses from the outbreaks experienced in the market. A total of 120 (85.7%) out of the 140 traders surveyed had been affected by fire outbreaks in the market. A little over 65 per cent of them (65.8%) lost their business operating capital through the fire outbreaks they experienced. The regular business activities of the remaining 34.2 per cent were halted for some period of time until later on when they were able to adjust to the unexpected circumstances they faced. Figure Shows the types of properties destroyed by the fire outbreaks that occurred in the market.

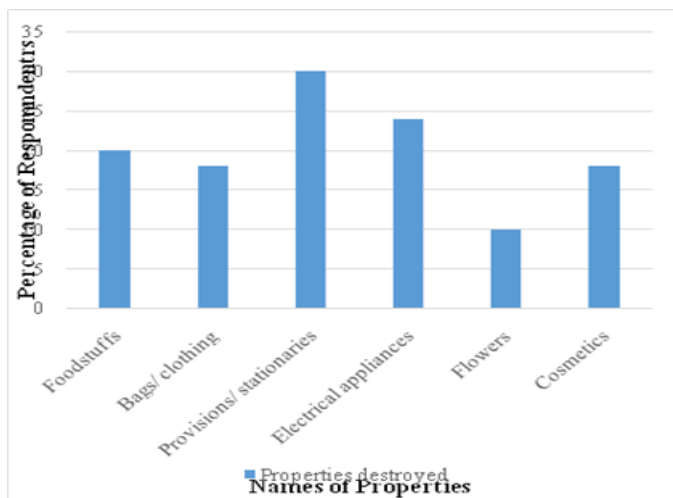


Figure 1. Properties destroyed by Fire Outbreaks that occurred in the Market. {check spelling of stationery in Table}

Properties mostly destroyed by Fire Outbreaks in the Market: The victims among the traders who suffered most from frequent fire outbreaks in the market traded in provisions and stationery. Those who were into selling provisions were mostly women. This was followed by respondents who traded in electrical cables or appliances. A total of 39.2% of the traders who were affected by fire outbreaks had to take a loan (either from a bank or another source) to enable them resume and even continue to remain in business. For 60.8% of the traders, their businesses were either halted or they lost everything after the fire outbreak. Happily, for them, they were able to refund their

businesses themselves. According to Spadacni (1998), the loss of properties during fire outbreaks sometimes leaves the affected persons in a condemned state in which they may or may not be able to recover their real selves. This can render many victims unemployed for a long time. Hence, Spadacni (1998) suggests that, it is advisable that safety measures are put in place to manage this situation. Therefore, the major objective of fire safety management as suggested by Chow (2001) should be to provide fire safety measures that will help to initiate actions in cases of fire outbreak which would enable occupants to reach a safe environment and also to review existing fire safety measures where there is a change in building use and new technology on fire services installation. Even though lives were not lost in many cases of fire disaster in the Kumasi Central Market, most of the properties lost in the fire incidents at the market were as a result of the poor safety measures put in place, hence the need for a review of existing fire safety measures and practices as suggested by Chow. In total, 33.6 percent of the traders interviewed went in for external support to help revamp their businesses. The support came from NADMO, KMA or existing insurance packages. About 20.0 percent of the affected traders received support from NADMO while 13.6 percent of them benefited from their existing insurance coverage to rebuild their businesses. However, about 20.0 percent of the affected traders refused to accept any assistance from the government either through NADMO or KMA for fear of government taking over their shops in later years. Some believed that if they allowed the rebuilding of their burnt shops to be carried out by the KMA or government agencies, then the shops could be sold out to new tenants or they could be made to pay huge amounts of money to the authorities before they will be allowed to operate in their shops again.

New Measures to prevent another Fire Outbreak: The study also revealed that most of the traders who had suffered from the devastating effects of fire outbreaks in their shops had put in various measures to ensure they do not go through the same experience again. About forty-five percent (45.8%) out of the 120 fire outbreak victims in this survey had purchased and installed fire control equipment (such as fire extinguishers) in their shops. Nearly twenty-three percent of them (22.9%) had insured their shops against fire while the rest were keeping strictly to fire safety rules they had learned from their training programmes. Lessons from fire incidences had forced these victims into adopting fire safety measures. This was a step in the right direction as such measures will help them survive the shocks and financial pressure that results from fire outbreaks. According to Della-Giustina (1999), when proper and effective safety management strategies are implemented such as Property Insurance Premium, it leads to the prevention of business interruptions which will go a long way to promote customer services and public image and hence, the overall results will be a success of achieving the overall objective of fire disaster reduction.

Traders' Expectations: It was interesting to note that almost all the traders surveyed (92.8%) were of the view that the fire safety institution/ management of the market does not carry out their duties diligently. This is as a result of several factors known to these traders which include but not limited to; ineffective support programmes organised by management and poor implementation of policies. According to Nadzim and Taib, (2014), fire safety management involves the bringing together of all activities and programmes towards ensuring the prevention of damage from fire. It is also the application of certain policies, standards, tools, information and practices to the task of analyzing, evaluating and controlling of fire (Howarth, 1999). The traders mentioned the following as their expectations from the fire safety institution and the management at the Market. Nearly forty percent (39.3%) of the traders mentioned that they expect authorities to provide them with more education on fire safety. While 30.0 percent of them mentioned that they expect the authorities to provide all the needed facilities (i.e., fire extinguishers, fire buckets and fire alarm systems) to prevent fire outbreak, 21.4 percent of them mentioned that they expect an improvement in the supervision of the activities in the market to ensure lives and properties are safe. Training traders on the use of

firefighting facilities was mentioned by only 19.3 percent of the traders. In order to help reduce the frequency of fire disaster in the market in the near future, 39.3 percent of the traders surveyed suggested that there should be effective monitoring of activities in the market. About 23.9 percent of them also mentioned that effective education and training of traders in the market will help reduce fire disaster in the market in the near future. Correct electrification by qualified personnel and sanctioning of persons who deliberately or carelessly cause fire outbreaks in the market were suggested by a little over 20 percent (20.7%) and 16.4 percent of respondents respectively. The suggestions and expectations of the traders are worthy of note and they revealed that full compliance to fire safety measures in the market is a challenge and this is as a result of the low education and training about fire safety measures. According to the Scotland Act (2005) of fire safety regulation, it is the responsibility of the care takers of the market to design and implement safety regulations. Safety regulations are codes, laws or rules in the legislation that seek to ensure the safety of individuals and properties in the event of fire outbreak. Similarly, in Ghana, the law can be applied in our market centres for users of the facility to be guided in their actions to protect their lives and properties. As part of such regulations, Chow and Gigi (2001) suggest that, Fire Service Installations (FSI) should be installed to minimize fire damage, protect lives and property. These installations should include gas protection and smoke management systems; such as a fire alarm to provide signal and warning when there is danger so that lives and properties can be saved. It should also include water systems such as fire hydrants or hose reel systems and automatic sprinkler for quenching fire when there is an outbreak.

CONCLUSIONS AND RECOMMENDATIONS

The basic fundamental tool for economic development in every country is protection of the sectors which serve as the engine that pull all financial resources together and harness them for development for the benefit of all. Traders are important because they bridge the gap between the producers and the final consumers and also break the bulk into smaller units that can suit the demands of consumers. Without them, workers in the other sectors of the economy will have to stop whatever they are doing and spend time to meet the producers of the commodities they want which can bring the economy to a halt. The traders need to be better equipped in order to be able to fight fire. The study has also revealed that compliance with safety codes in the Kumasi Central Market is also a big challenge to both the traders and the safety authorities. The study has also revealed greater losses as a result of fire outbreaks in the Kumasi Central Market. The efforts of the safety agencies seem to be over shadowed by the large population and overcrowded nature of the Kumasi Central Market. Based on the above conclusions the study recommends that, effective training and education on fire safety measures should be carried out quarterly to enable traders become abreast with the ideas and use of firefighting facilities. Also, it is recommended that traders avoid placing lamps, candles, and heaters near combustible materials. Gas cylinder should be placed in clean and well-ventilated area as well as oil and grease free areas.

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