

STRATEGIES ADOPTED BY THE NAIROBI CITY COUNTY IN MANAGEMENT OF RESPONSE TO EMERGENCIES

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ABSTRACT

The fact that emergencies are inevitable and they can result into significant effects on emergency response, they requires proper planning and formulation of sound strategies to handle them. The study sought to determine the strategies adopted by the Nairobi City County in management of its response to emergencies. The study was guided by the following specific objectives; to establish the effect of employee training on the management of the response to emergencies by Nairobi City County; to determine the effect of policy review on the management of the response to emergencies by Nairobi City County; to examine the effect of strategic collaborations on the management of the response to emergencies by Nairobi City County and to assess the effect of equipment and machinery on the management of the response to emergencies by Nairobi City County. The study was guided by the Management Systems Theory, Advocacy Coalitions Theory and Normative Theory. The study adopted a descriptive research design on a sample size of 200 respondents. Primary data was collected with the aid of questionnaires and the analysis was done using descriptive and inferential statistics. The findings indicated that, an increase in Employee training would in turn increase management of the response to emergencies and has a positive and significant effect on management of the response to emergencies, Policy review would increase management of the response to emergencies and has a positive and significant effect on management of the response to emergencies, Non state

agencies contributed to policy reviews through technical support, Review of their policies on emergency preparedness incorporated diverse non state actors, Strategic collaborations increases management of the response to emergencies and have a positive and significant effect on management of the response to emergencies , the County collaborated with local stakeholders in response to emergencies, Workings tools status increased management of the response to emergencies and has a positive and significant effect on management of the response to emergencies, there was an elaborate functional fire equipment's in the fire department. This study concludes that The County Assembly of Nairobi needs to invest more in undertaking of Employees Training needs analysis to ensure that appropriate training courses are designed for each employee. For the training to be effective, the County Assembly needs to choose the most appropriate Policy for optimal impact on the employees. This can also be improved through designing appropriate content that would promote employee competence. This can also be improved by setting aside adequate financial resources to support the training. The study recommends that all County Assemblies ' top leadership team should enhance on existing training techniques to substantially impact capacity building levels. To enhance capacity building among members, all county assemblies in Kenya should take brief classes on particular fields or abilities for their members.

Key Words: *strategies, Nairobi City County, management, response, emergencies*

INTRODUCTION

Emergencies arise unexpectedly around the world and they may result into significant damage to the given population at the time and place of occurrence. Emergencies are defined as unexpected events whose occurrence may result into significant effect that require immediate action to be undertaken (Canton, 2019). The study views emergencies as situations that may result into immediate risks towards the environment, property, life or health. For most emergencies, urgent interventions are required in order to prevent the situation from getting worse. According to Curnin, Owen, Paton and Brooks (2015), emergencies can strike at any time and in any place. Emergencies can also be viewed as risk of unforeseen circumstances whose occurrences cannot be predicted and estimated with certainty. There are various types of emergencies for instance earth quake, terror attacks, drought, fire, floods and the deadly outbreaks like Ebola.

Emergencies not only affect the population but may also have an effect on the available infrastructures of the area where they have occurred. Emergencies have struck a number of countries around the world for instance the earthquakes that occurred in Chile as well as Haiti in 2010, the earthquake of Japan in 2011 as well as the earth quake of Nepal of 2015 (Deen, 2015). All these emergencies resulted into significant effect on the population from these countries including internal displacements and emergence of refugees. For instance, a total of over 21.3 million refugees and 65.3 million internally displaced people across the world were reported by the United Nations (UN) (UNHCR, 2015).

Terror events and attacks are frequently occurring around the world in various locations for instance in Asia, Europe as well as African countries. Since emergencies do not recognize any borders, the need for formulation of proper strategies to manage them has been a current issue among scholars around the world. According to Haddow, Bullock and Coppola (2017), emergencies are investable and thus require the development of sound strategies and plans in preparation of the possible emergencies. Addressing the emergencies therefore require thorough planning and careful formulation of strategies. Some of the common strategies in response to emergencies include training of employees, review of the policies in place, strategically collaborating with other stakeholders as well as equipment and machinery (Amuna, Al Shobaki & Naser, 2017).

Training of all the stakeholders is believed to be a significant strategy of management and preparation of emergencies. Proper response to emergencies require investment in training of employees using virtual reality, simulations as well as exercises. According to Lin, Spence, Sellnow and Lachlan (2016), organizations should learn to train employees using data and information from actual or real emergencies. It is through training that an organization is able to impart the relevant skills and experience in responding to emergencies whenever they occur. In simulation training method for instance, a given virtual emergency may be presented to employees where they are required to demonstrate how effective they would respond to the same. Emerging disasters require technical skills for management which are best gained through training of employees (Sylves, 2019).

Response strategies to the management of emergencies are guided by clearly established policies and guidelines. Different organizations have various policies that guide and determine their response to emergencies. However, the changing forces of the environment come with completely different emergencies which require organizations to periodically review the strategies and policies of responding to disasters (Haworth, 2016). The increasingly turbulent business environment with advancement in technologies requires organizations to review the policies in order to effectively respond to emergencies when they arise. Emergency response is faced with a number of ethical dilemmas and issues for instance discrimination in the event of a terror attacks. All these ethical issues are well stipulated within the policies that require continuous review for effective response to emergencies when they arise (Booth, 2015).

Effective response to emergencies requires a collaborative approach where all the stakeholders are actively involved in the response process. One unique attribute of emergencies is that they require urgent efforts or actions when they occur (Jung & Song, 2015). Different stakeholders that play an important in response to emergencies include the humanitarian organizations like the Red-Cross, the government agencies, the human rights activists as well individuals within a given establishment where the emergency has occurred. Embracing a collaborative approach in response to emergencies has emerged as an effective and significant strategy and intervention mechanism across the world. A collaborative approach intensifies the degree of coordination of activities and the level of synergy which lessen the losses that may emerge because of a given emergency (Doyle, Paton & Johnston, 2015).

An organization should have in place sufficient machinery and equipment as a strategy to prepare, manage as well as respond to emergencies. Some of the relevant machinery and equipment's required in the event of emergencies include fire extinguishers, alarm responses, Closed Circuit Televisions (CCTV), fire trucks and ambulances. Veenema (2018) insists that organizations should go an extra mile and train staff on how all these machineries is used. Marfai, Sekaranom and Ward (2015) suggest that organizations should always ensure that the machinery and tools for responding to emergencies are kept up to date. According to Radvanovsky and McDougall (2018), sufficient budget should be set aside for carrying regular repair and maintenance of the machinery and equipment that are in place for responding to emergencies. Organizations should have in place a special team in the event of an emergencies and adequate training should be available to them.

Training, collaborative approaches as well as policy reviews have emerged as significant strategies of managing emergencies around the world. In Japan and United States for instance, people are properly trained on how best to respond to emergencies whenever they arise. Training of people in most of the developed countries in response to emergencies is done using modern technologies. Training as a strategy has widely been recognized by the United Nations as an effective intervention of managing and responding to emergencies (Al Shobaki, Amuna&Naser, 2016). This resulted into established of the Emergency Communications Network (ECN) training by World Health Organization (WHO) in 2013.

The ECN training aims at establishing a reservoir of trained and skilled health professionals that would effectively respond to emergencies. It is through the ECN that a total of 230 communication officers within WHO have been trained on how to effectively respond to health emergencies. These individuals trained by ECN have been deployed across the world in countries like Nepal, Iraq, Kuwait, Haiti, Bangladesh, Brazil, Yemen, Syria, Ukraine, Liberia, Somalia, Sierra Leone, Senegal as well as Democratic Republic of Congo (DRC) (World Health Organization 2017).

Africa has experienced reoccurring emergencies majorly brought about by inadequate investment in building of community resilience as well as extreme weather conditions (Khorram-Manesh, Ashkenazi, Djalali, Ingrassia, Friedl, Armin & Komadina, 2015). In fact, across the world, Africa is one of the continents where the community is at high risk of emergencies. Some of the most notable emergencies that Africa has experienced include conflicts especially in Sub-Saharan Africa, cholera and typhoid outbreaks, drought and conflicts, floods as well as Ebola outbreaks. Conflicts across the Sub-Saharan African countries have resulted into an increase in the number of IDPs (McKnight & Linnenluecke, 2016). For instance, UNHCR estimates that 26% of the entire population of the world is hosted by the Sub-Sahara due to internal displacements. Typhoid and cholera as an emergency was reported in Zimbabwe where a total of 50 individuals died. The largest outbreak of Ebola was reported in DRC (Marfai et al., 2015).

A number of emergencies have been reported in Kenya including deadly terror attacks, fire incidences, floods and drought. As of March 2018, floods resulted into 211,000 and 72 IDPs and death sin Kenya respectively. The most affected areas by these floods in Kenya include Narok, West Pokot, Isiolo as well as Tana River (Kenya Red Cross Society, 2018). Turkana, Marsabit as well as Mandera Counties have reported the largest cases of drought in Kenya. Mombasa County has witnessed a large number of reported cases of terror attacks from the deadly Alshabab terror group. The notably emergency in Mombasa was the Mpeketoni attack in 2014 where over 60 people were killed (Pischke&Stefanski, 2016).

Nairobi City County has reported the highest number of emergencies in Kenya ranging from terror attacks to fire infernos. The notable terror attacks witnessed in Nairobi in the recent past include the West Gate Attack (2013) where over 61 people died and the Dusit2 attack (2019) that left 21 people death. As an emergency, fire has affected major parts of Nairobi including the Toy as well as Gikomba markets and the recent occurrence at Malik Heights located along Gong road. All these emergencies require Nairobi City County to strengthen the strategies that are place. Nairobi City County faces a number of challenges in effort to manage and effectively respond to emergencies (Bersaglio, Devlin & Yap, 2015).

With a population of over 4 million people, there are only two functional fire stations that were established before Kenya gained independence in 1963. Nairobi City County is yet to establish its own fire station. At the same time, no significant efforts have been made to restructure the available policies and training programs in response to emergencies (Heaslip, Kovács&Haavisto, 2018).It is therefore against this background that the current study seeks

to determine the strategies adopted by the Nairobi City County in management of its response to emergencies.

STATEMENT OF THE PROBLEM

The fact that emergencies are inevitable and results into significant effect on emergency response, it requires proper planning and formulation of sound strategies. Proper response to emergencies require heavy investment in training of employees, adopting a collaborative approach with other stakeholders, proper communication, review of policies as well as putting in place adequate machineries and equipment (Lin, Spence, Sellnow& Lachlan, 2016).Formulating proper strategies in response to emergencies is a critical step in reducing the adverse effect of the unforeseen event that would have occurred. In fact, the issue of effective response to emergencies has emerged as contemporary theme among scholars because one cannot predict the likelihood of occurrence of an emergency with some degree of certainty (Sylves, 2019). Nairobi City County has recorded the largest number of emergencies in the past decade among the 47 Counties in Kenya. These emergencies range from regular terror attacks and fire outbreaks (Nwakibu, Myers, Hunold, Wangara, Maingi, Mutiso & Martin, 2018).The losses arising from these emergencies have been enormous including deaths of people, displacements as well as damages to properties. Nairobi City County is faced with a number of challenges that affect its ability to respond to these emergencies (Bersaglio, Devlin & Yap, 2015). For instance, there are only 2 fire stations to address the needs of fire emergencies in the whole County. These available machineries and tools including fire trucks in these fire stations are also not sufficient to effectively as well as timely respond to emergencies as and when the arise. All these challenges have ignited a debate among policy makers on whether the available strategies are effective in responding to emergencies within the county. There is a growing body of literature that has focused attention on response to emergencies. For instance, Adini, Ohana, Furman, Ringel, Golan, Fleshler and Reisner (2016) analyzed how to effectively prepare and respond to emergencies. Kirton (2013) used a case of Caribbean countries to establish how the respond to emergencies and disasters. All these studies however were not in Kenya but in other developed countries which creates knowledge gap. Owuor (2015) looked at effective strategies in response to emergencies in Kenya.Mururi (2014) carried out an assessment of the response to emergencies using a case of secondary schools in Kiambu County in Kenya. Using a case of staff at Kenyatta National Hospital, Kiongo (2015) conducted a study to establish their level of disaster preparedness. The study pointed out the need for increased training of staff in matters of disaster management and preparedness. Although these studies were done in Kenya, they were conducted in different contexts. From the aforementioned studies, it is therefore evident that some of them were done in other developed countries. Other studies were carried out focusing in learning institutions and health institutions thus failing how Counties respond to these emergencies. This creates knowledge gaps which the current study seeks to fill by examining the strategies adopted by the Nairobi City County in management of its response to emergencies.

SPECIFIC OBJECTIVES

1. To establish the effect of employee training on the management of the response to emergencies by Nairobi City County
2. To determine the effect of policy review on the management of the response to emergencies by Nairobi City County
3. To examine the effect of strategic collaborations on the management of the response to emergencies by Nairobi City County
4. To assess the effect workings tools status on the management of the response to emergencies by Nairobi City County

REVIEW OF RELATED LITERATURE

Response Management to Emergencies

Emergency response management is the organization and management of the resources and responsibilities for dealing with all humanitarian aspects of emergencies (preparedness, response, mitigation, and recovery). The aim is to reduce the harmful effects of all hazards, including disasters (Arain, 2015). According to World Health Organization (2019), emergency is the state in which normal procedures are interrupted, and immediate measures need to be taken to prevent that state turning into a disaster. Thus, emergency management is crucial to avoid the disruption transforming into a disaster, which is even harder to recover from.

Mohammed (2018) studied on perceived factors influencing humanitarian emergency projects response in Somalia, a case of Muslim aid Somalia. The study acknowledged that over recent decades, emergency response activities have become more effective, resulting in a decline in disaster-related deaths and improved assistance for the victims of conflicts and complex emergencies. This is due to improved national emergency response systems, the professionalization of humanitarian agencies, and the great increase of resources available for humanitarian assistance. A descriptive survey research design was adopted and descriptive statistics used for analysis.

The study found that language barrier greatly affects humanitarian emergency projects response followed by more feedback. The study established that cooperation in decision making greatly affect humanitarian emergency projects response followed by numbers of members involved. The study indicated that government collaboration greatly affects humanitarian emergency projects response and that funding by government affect humanitarian emergency projects response. The study recommends that there is need to increase training and awareness on humanitarian emergency projects' response processes and procedures through formal training and in-service training to keep them updated in the field. The Humanitarian emergency projects' response activities should be allocated enough resources and facilities so as to enhance implementation. There is need to implement the existing humanitarian emergency projects' response framework in carrying out activities so as to align various activities to standard protocols which many county governments have failed to adhere to.

Employee Training and Emergency Response Management

Several studies have been conducted on the effects employee training has on emergency response management. For instance, Nazli, Sipon and Radzi (2014) carried out an analysis of training needs in disaster preparedness in Malaysia. The study acknowledged that disaster management training is meant to build the competencies of disaster relief workers and volunteers in improving the preparedness and response time in all levels before and after disasters. An exploratory research design was adopted and descriptive statistics used for analysis. The study found that there are some problems which faced implementation disaster preparedness training such as lack of funding in training, lack of support, lack of awareness among Malaysian community and more focus in training for job development. The study recommended training should also be given to workers in the focused area where flood usually occurs during rainy season.

Renschler, Terrigino, Azim, Snider, Rhodes and Cox (2016) studied on employee perceptions of their organization's level of emergency preparedness following a brief workplace emergency planning educational presentation. The study recognized that Emergency preparedness, including developing crisis/disaster plans and training employees is crucial for workplaces today. A case study research design was adopted. The study revealed that managers cited safety and emergency-response training regulations as drivers to their choice of educational and training offerings to their employees, but noted that they would provide fewer offerings if mandates were lessened. However, those businesses that do provide emergency and crisis management training are better prepared for both safety and financial stability.

Metzner (2015) investigated on the role of training in your disaster preparedness plan. The study acknowledged that developing an effective disaster or crisis response program will benefit any organization, whether it be a hospital, school, or a manufacturing warehouse. They all need a plan in the event of a disaster or crisis. An exploratory research design was adopted and descriptive statistics used for analysis. The findings of the study revealed that training helps in; responding to any hazards or disasters particular to your industry or location, conducting a risk assessment to prioritize the likelihood of various scenarios, reviewing any existing emergency plans to incorporate what's worked in the past and aligning an internal crisis team and a set of standard procedures.

Nasimiyu (2017) on operational factors affecting disaster management in Kenya: A case study of International Federation of Red Crescent Societies (IFRC) embarked on a study to investigate the effects employee training has on disaster preparedness. The study recognized that organizations can achieve its greatness in disaster management by ensuring that all the operations are standard and the services required are achieved. The study employed a descriptive research design and descriptive statistics for analysis. Analysis showed that employee training enhances responses to disasters management. The study recommendations were that employees are the most important individuals to successfully implement disaster management, therefore the management should invest on training on these employees.

Policy Review and Emergency Response Management

Various studies exist on the effects policy review has on response management to emergencies. For instance, Ochanda (2015) assessed on the role of non-state actors in public policy formulation in Kenya: the case of national disaster risk reduction policy. The study acknowledged that Policy formulation is a critical phase of the public policy process when goals, priorities and options of a policy are decided by a small group of experts. Although public policy formulation is in the domain of the government, the role of non-state actors has become apparent and significant. The study adopted a case study research design. The study found that NSAs contributed in policy formulation through funding, research and data analysis, technical support and lobbying policy makers. Inadequate political will, interruption by political processes, high turnover rates among non-state actors, weak strategies for policy engagement were some of the key challenges facing non-state actors as they engaged in public policy formulation. The recommendations were that Government of Kenya should build capacity of non-state actors in public policy processes to enhance their effectiveness in public policy engagement in disaster management.

Kamota (2019) researched on emergency preparedness in railroad transport: an assessment of the Standard Gauge Railway. The study acknowledged that in the Kenyan rail transportation system, emergency preparedness has been an issue of concern since the construction of the modern railway, after the invention of the steam engines due to lack of proper policies in disaster management. A case study research design was adopted and descriptive statistics used for analysis. The findings showed that Kenya Railways has adopted various policy measures to enhance emergency preparedness. They include: community partnerships; collaboration with local stakeholders; equipping the staff with elementary skills; strategic planning; and public participation.

Kikuvi (2015) assessed on secondary schools' preparedness on disaster management in the provision of education in Nairobi County, Kenya. The study sought to investigate on the adherence to policy guidelines on disaster preparedness. A survey research design was adopted and descriptive statistics used for analysis. The findings revealed that all the schools have permanent classrooms, first aid kits, fire extinguishers, and alarm/warning systems, gate and perimeter fence as well as firefighting equipment. However, regular inspection was not carried out in the schools. Fire drills are conducted in the schools regularly as required by the Ministry of Education. It was further noted that the schools level of compliance to public building requirements for response during disasters was low and that regular inspection by the ministry of works was not carried out often. The study recommended that Ministry of Education in liaison with head teachers to assess the adherence to policy guidelines on disaster preparedness, ensure that collaboration, coordination and dissemination of information on any disaster is accurate, timely and meaningful.

Taking a case of Red Cross Emergency Response Policy (2018), it was established on the basis of Red Cross and Red Crescent emergency response and applies to all types of International Federation emergency response whether carried out by a single branch of a National Society, by an individual National Society or by the International Federation acting

collectively. The policy guides the organization to effectively and efficiently conduct its mandate which include: Seeking to assist the most vulnerable people in emergencies; Recognizing the Red Cross Red Crescent role as auxiliary to government in humanitarian services; Undertaking emergency response according to the Fundamental Principles; Working within the competence of the Operating National Society; Basing their actions on appropriate disaster preparedness programming and planning and Working towards self-reliance and sustainability of programming.

Strategic Collaborations and Emergency Response Management

Response to emergencies requires collaborations among various entities in order to effectively manage any disaster that might occur. Various studies have been carried out in respect to the effects strategic collaborations have on effective response management for instance, Omotoh-Nyaidho (2014) investigated collaborative strategies applied by the humanitarian agencies in the internally displaced persons (IDP) operations in Kenya. The study acknowledged that collaboration is the ability of two or more parties to share complex information over time and space on an ongoing basis for a common goal. A number of organizations were involved in delivery of services to the IDPs in the camps. The study adopted a descriptive survey research design and descriptive statistics for analysis. The results indicated that there were challenges facing the implementation of collaborative strategies that included corruption, lack of government support, and lack of access to funding, lack of cooperation between agencies working in the IDP operations. The study recommended that Humanitarian agencies should ensure organizations have an environment with a zero tolerance to corruption.

Chang (2016) studied on understanding cross-sector collaboration in emergency management in United States: The dynamics of vertical and horizontal networks. The study recognized that Local governments are viewed as key actors in the U.S. to coordinate national counterterrorism efforts and provide functional activities relevant to emergency management in collaboration with the federal government. The study adopted a mixed method approach. The findings of the results revealed that factors related to resource shortage in money and information, mutual understanding, financial resource dependence on higher levels of government, and the adoption of national standard have different impacts on different types of collaboration.

Shoaf, Kelley, O'Keefe, Arrington and Prelip (2014) researched on enhancing emergency preparedness and response systems by investigating on collaboration between local health departments and school districts in United States. The study acknowledged that collaboration between existing components of the public health system is important for protecting public health, promoting community resilience and enhancing response activities between local health departments (LHDs) and school systems. An exploratory research design was employed. The study indicated that local health departments and schools' districts collaborated in form of exchanging information, alter activities, sharing resources, and enhance each other's capacity for mutual benefit and a common purpose by sharing risks, responsibilities, and rewards.

Kapucu (2018) researched on collaborative emergency management: better community organizing, better public preparedness and response. The study discussed that community coordination requires communication and planning of precautions to take when faced with a severe threat of disaster. The findings suggested that collaborative practices in terms of pre-season planning, open communication between emergency managers and elected officials, and the use of technology all had a significant impact on community responses. The study recommended that emergency managers must work vigilantly to keep residents informed of the seriousness of a situation.

Workings Tools Status and Emergency Response Management

Equipment and machinery are at the center stage of any effective and efficient response to emergencies. Several studies carried out on this topic include; Kagiri (2019) investigated on the preparedness and capacity of the Nairobi City Fire service in responding to fire disasters in the City. The study focused on the county government current preparedness focusing on training, tools, equipment, machines, communication gadgets and budgets. Qualitative and quantitative research designs were adopted. The findings indicated that the Nairobi Fire Brigade does not have elaborate functional fire equipment's. The number of firefighting vehicles is not enough. The study recommended that county government should install fire hydrants in major estates to help in times of fire disasters.

Kiongo, Gichuhi, Osero, Yitambe and Kiongo, (2015) investigated the effect of employee's preparedness on performance of the Emergency Response Management. The study concentrated on the effect of paramedics, trained fire personnel and response nurses on performance. The study was conducted on Kiambu county emergency response team. The study used primary data collected through structured questionnaire. The target population of the study was employees of Kiambu emergency response team. The data used both descriptive and inferential statistics. The study identified that employees and contractors participate in emergency preparedness training and exercises to ensure they are prepared to respond regardless of the situation. The study concluded that the level of preparedness of the employees significantly influence how the employees reacted to the emergency and their performance track records.

Haddow, Bullock and Coppola (2017) on introduction to emergency management studied on importance of equipment in emergencies. The study discussed that no one knows when an emergency will happen so it's important that we are ready for it. Whether it is a cardiac arrest, someone fainting, or worse, it is ideal to keep emergency response supplies and equipment on hand for dealing with such occurrences. High traffic areas should look into investing in masks, stretchers, and maybe even some oxygen tanks to assist in reviving or stabilizing the afflicted parties. Augment this with appropriate training for CPR and you should be all set. A small investment in these items now will save lives in the future, so don't skimp on the safety of your crew and pick up some emergency essentials today. The study concluded that emergency response supplies and equipment allows workers to react to emergencies appropriately.

Hashchuk and Sychevskyi (2015) discussed that specialized equipment enables effective response on land or water. Emergency response organizations use a broad array of emergency response equipment so they can effectively respond to an incident, no matter the environment, release size or area. This includes containment and recovery units to wildlife deterrents to skimmers, which are used to contain oil in water. Employees and contractors participate in emergency preparedness training and exercises to ensure they are prepared to respond regardless of the situation. The study concluded that emergency response equipment is one aspect of emergency management plan to anticipate, prevent, manage and mitigate conditions if there are incidents.

Philemon (2015) assessed on factors affecting police officers' effectiveness in disaster scene management in Nairobi Central Business District. One of the specific objective of the study was to assess the extent to which police officers are adequately equipped to manage disaster scene in Nairobi CBD. The study adopted a descriptive survey research design and descriptive statistics for analysis. The findings showed that most of the police officers in the CBD were moderately equipped to manage disaster scene in Nairobi CBD. The study recommended that County government in charge of the CBD make haste and purchase all the necessary equipment that the officers need and increase the number of officers within the CBD.

CONCEPTUAL THEORETICAL FRAMEWORK

Management Systems Theory

The theory was proposed by von Bertalanffy (1972). Systems theory evolved from the basic sciences but is utilized in the social sciences including management theory. A system composed of interrelated and interdependent parts arranged in a manner that produces a unified whole is critical in understanding all parts of the emergency management process. Viewing societies as complex open systems which interact with their environment provides such a critical view of the emergency management system (Barnard, 1938). Systems theory is based on the idea that everything is part of a larger, interdependent arrangement. It is centered on clarifying the whole, its parts, and the relations between them (Bertalanffy, 1972).

Some critical concepts that are applicable to emergency management include some of the following: open system, subsystems, synergy, interface, holism, strategic constituencies, boundaries, functionalism, interface, strategic constituencies, feedback and a moving equilibrium. Emergency management is composed of many parts including: local, state and national public, private and non-profit units. These units interact in many independent ways and each has their own constituencies, boundaries, function, and sub-units. The units may interrelate in emergency management activities in an open environment with few organizational barriers or collaborative and cooperative efforts limited by specific organizational policies, rules and procedures. Emergency managers acknowledge that effective emergency response and recovery efforts require the cooperation of the entire

community; emergency managers do not operate in isolation but as a part of a large open system (Osei, 2017).

Effective emergency response and recovery is dependent on cooperation between local public agencies, business enterprises, and community groups. Shelters are often sponsored by public and private schools and operated by the American Red Cross. Evacuation efforts are often supported by community transportation agencies and school systems. Special needs shelters are often staffed by local medical facilities, volunteers, and community organizations. Traffic control and security is a collaborative effort between numerous local law enforcement jurisdictions. Coordination is critical in linking multiple organizational efforts in a seamless response and recovery effort (Hammond & Vaughan-Lee, 2012). This theory is relevant to this study in that it gives a detailed analysis on the relationship between strategic collaborations and response management to emergencies.

Advocacy Coalitions Theory (ACT)

This theory was designed and promoted by Sabatier & Jenkins-Smith (1980). The theory explains the structure and behavior within policy coalitions, the central role of scientific and technical information, set of beliefs to inform policy change in a particular policy sub-system. According to Sabatier and Weible (2007), ACT assumes that policymaking is a complex process that requires the policy actors to specialize in a specific policy area if they have to influence policy. Such specialization occurs in a policy sub-system where participants have considerably long period of seeking to influence policy in a particular area of interest. A policy subsystem is composed of legislators, agency officials, heads of interest groups, researchers, journalists who specialize in the policy area.

ACT further assumes that participants within a policy sub-system hold strong beliefs that they are driven to translate into actual policy. Universities, policy analysts, consultants and other technical participants' role in policymaking is perceived as crucial given the important role of scientific and technical information in modifying the beliefs of policy participants (Sabatier & Weible, 2007). ACT is interested in policy change that takes place over a long period of time and Sabatier and Weible define this period as ranging from 10 years onwards. It is assumed that the system of beliefs would remain stable over this period. Given this definition of the period of framework, two policy subsystems are distinguished as mature policy subsystems and nascent subsystems.

ACT provides a useful framework in analyzing the role of policy formulation in emergency response management hence it is relevant to this study as it helps in understanding one of this study objective which is the effects of policy review have on the response management to emergencies.

Normative Theories

Normative Theories were first proposed by Siebert, Peterson & Schramm (1956) in their book called "Four Theories of the Press. According to this theory the organization should come up with proper measures on how deal with emergency cases in relation to disasters.

They should have the department that is only designated the duties of monitoring and evaluating the mechanisms on how disasters can be mitigated and train relevant individuals on how it should be done. It is analyzed that how the management is effectiveness will be enhanced when they abide by these prescriptive lessons for other occurrence. Strategies and specific techniques should be an important factor as mentioned in this theory (McLoughlin, 2007).

Specific steps in building a community risk reduction program have been formulated as have tactical management models. Normative Theories is important because it will help Managers in collecting of ideas commonly known as “comprehensive emergency management”. The theory will also assist managers in organizing their day to programs for all hazard approach through implementation of series of broad strategies and specific tactics such as building a commonly risk reduction program. Normative theory was criticized because it was more of authoritarian because the principles and the application suggested that ethical dilemmas can be solved by living by a given set of rules.

This theory is relevant in this study as it helps in understanding the main objective of this study that is response management to emergencies. It gives a brief discussion on how organization management should come up with proper measures on how deal with emergency cases in relation to disasters. It also gives a brief description on specific steps in that can be undertaken during emergencies, for instance, building a community risk reduction program have been formulated as have tactical management models.

RESEARCH METHODOLOGY

Research Design

Research design is the overall structure that determines how the study collects as well as analyzes the data (Bell, Bryman& Harley, 2018). A research design is an outline that determines how a given study is conducted so as to achieve the formulated objectives. The common types of research designs include descriptive, correlational as well as experimental designs (Bryman, 2016). A correlational design is useful in studies seeking to establish the cause effect relation between more than one variable. In experimental designs, some sets of variables are held constant while other variables are examined as elements in the experiment. A descriptive design is the most common type of design used to portray the existence of things in their original state (Lindlof& Taylor, 2017). The study adopted a descriptive research design in order to properly establish the strategies adopted by the Nairobi City County in management of its response to emergencies. According to Sekaran and Bougie. (2016), a descriptive design helps in establishing answers on Why, When, How and who as it regards the research questions of the study. This design supported the collection of primary data with the use of questionnaires.

Variables/Categories of Analysis

The study had the independent as well as the dependent variable. The independent variable was respective strategies while the dependent variable was response to emergencies. The independent variable (strategies) was operationalized into four sub-variables including employee training, policy review, strategic collaboration as well as equipment and machinery.

Site of the Study

The study was conducted in Nairobi City County. Nairobi is Kenya's capital city where major operations of national government are planned and conducted. Nairobi City houses the head offices of most companies operating locally, regionally and international (Multinational Corporations MNCs). Nairobi City County was selected for this study because it accounts for most reported emergencies in Kenya over the past decades. Nairobi City also has the largest population of over 4 million people compared to other cities like Kisumu and Mombasa and thus require clear response strategies in the event of emergencies lest a significant loss would be reported.

Target Population

Target population is the number of subjects that form the basis of generalization of the findings of the study (Thomas, Nelson & Silverman, 2015). There are a total of 400 employees dealing with Emergency and Disaster response employed by Nairobi City County. These employees are classified on the basis of their management levels as Senior Managers, Middle Managers as well as Operational Staff.

Sampling Techniques and Sample Size

Sampling is a mean of selecting a representative group of subjects from the targeted population. Sampling is usually justified on the ground of cost reduction since it is uneconomical to gather data from a large number of people (Coolican, 2017). Stratified random sampling technique was used to select respondents to be included in the study. Respondents were stratified into three categories; Senior Managers, Middle Managers as well as Operational Staff. The selection of respondents was based on each proportion of the target population. Sample size is the small subset of the target population which is selected to be included in the study (Patten & Newhart, 2017). The study adopted the following formula by Yamane (1967) to determine the sample size as shown below;

$$n = N / (1 + Ne^2)$$

Where: n = is the desired sample size (when population is less than 10,000); N = is the target population; e = is the acceptable margin of error estimated at 0.05 (at 95% confidence interval)

Therefore, Sample size (n) = $400 / [1+400(0.0025)] = 400 / [1+1] = 400 / 2 = 200$ respondents

Research Instruments

The study collected primary data with the help of questionnaires. Primary data was used because it represents the first hand source of information for the study which is free from any possible biasness. The questionnaires contained close ended questions to ease the process of analysis of the findings. The questionnaires were divided into sections as informed by the specific objectives of the study. Some of the questions on the questionnaire was structured on a five point Likert scale where 1=strongly disagree while 5=strongly agree.

Data Collection Procedures

The study sought for an introduction letter from the University which shall state the purpose of the study as being for academic reason. The identified real estate firms were notified in advance in written on the study. An authorization letter from the National Commission for Science, Technology and Innovation (NACOSTI) was also sought for the purpose of collecting data in the field from respondents. The researcher administered questionnaires in self to increase on the response rate.

Data Analysis Procedure

Data analysis is the process of generating the findings from the collected data. Data analysis helps in drawing of inferences and making of appropriate deductions (Hair, Wolfinbarger, Money, Samouel& Page, 2015). The collected data was entered into SPSS and the analysis was done with the aid of descriptive and inferential statistics. The descriptive statistics included the use of means and standard deviations. The inferential analysis included the use of regression analysis as modeled below;

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3+ \beta_4X_4+ \varepsilon$$

Where: Y = Management of the response to emergencies; X1 = Employee training; X2=Policy Review; X3 = Strategic Collaboration; X4= Equipment and machinery; β_0 = Constant Term; β_1 , β_2 , β_3 and β_4 = Beta coefficients; ε = Error Term.

The findings were presented using frequency distribution tables as well as pie charts and graphs

RESEARCH RESULTS

The main objective of the study was to determine the strategies adopted by the Nairobi City County in management of its response to emergencies. The study was guided by the following specific objectives; To establish the effect of employee training on the management of the response to emergencies by Nairobi City County, to determine the effect of policy review on the management of the response to emergencies by Nairobi City County to examine the effect of strategic collaborations on the management of the response to emergencies by Nairobi City County, to assess the effect of equipment and machinery on the management of the response to emergencies by Nairobi City County

Employees Training and Management of the Response to Emergencies

The findings indicated that, an increase in Employee training would in turn increase management of the response to emergencies and has a positive and significant effect on management of the response to emergencies, Employee training enhances responses to disasters management, Employees in Disaster emergency response had been trained on usage of emergency equipment, counties that provided crisis management were better prepared for both safety and financial stability, counties that provided emergency training were better prepared for both safety and financial stability, the County sponsors' employees in disaster emergency training as required, training was given to workers focusing on relevant areas in their functions, the training content was normally appropriate to the tasks performed by employees at the County, the methods chosen for training are appropriate for adult learning, safety and emergency-response training regulations are the drivers to the choice of educational and training offerings, the County had adequate funding for employee training on emergency response, the County plans its training based on results from training needs assessment, the County carries out a survey to ascertain the training needed by its employees

Policy Review and the Management of the Response to Emergencies

The study identified an increase in Policy review would increase management of the response to emergencies and has a positive and significant effect on management of the response to emergencies, Non state agencies contributed to policy reviews through technical support, Review of their policies on emergency preparedness incorporated diverse non state actors, County had adopted various policy measures to enhance emergency preparedness, County contributed in policy formulation through funding, research and data analysis, technical support and lobbying policy makers, Non state agencies contribute to policy reviews by lobbying policy makers, Non state agencies contributed to policy reviews through research and data analysis, emergency prepared policy reviews were done in line with public policy that helped enhance effectiveness in disaster management, County senior management was involved in implementation of emergency preparedness policies, county government assess the adherence to policy guidelines on disaster preparedness regularly, limited policies in disaster management are some of the challenges experienced

Strategic Collaborations and the Management of the Response to Emergencies

The study revealed that Strategic collaborations increases management of the response to emergencies and have a positive and significant effect on management of the response to emergencies, the County collaborated with local stakeholders in response to emergencies, the County had adopted community partnerships in emergencies response management, the County collaborated with various NGOs in disaster management, the County manages its relationship with different stakeholders in disaster preparedness, limited government support was one of the challenges facing the implementation of collaborative strategies at the County, the County had adopted different types of collaboration in response to emergencies

Workings Tools Status and the Management of the Response to Emergencies

The findings indicated that Workings tools status increased management of the response to emergencies and has a positive and significant effect on management of the response to emergencies, there was an elaborate functional fire equipment's in the fire department, county government had invested heavily in emergency equipment and tools, the machines necessary to respond to emergencies are well maintained, the County has adequate machinery for emergency response, emergency response supplied and equipment allowed workers to react to emergencies on a timely manner, the county government had installed fire hydrants in all major estates, the County had purchased modern equipment for efficient emergency response ,the machines for responding to emergencies were of latest technology, the machines for responding to emergencies were efficient.

INFERENTIAL STATISTICS

The study conducted regression analysis to determine the effect of these strategies on the management of the response to emergencies by Nairobi City County.

Table 1: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.840 ^a	.705	.702	3.95509

- a. Predictors: (Constant), employee training, policy review, Strategic collaborations, Workings tools status

From the findings, the value of coefficient of R is 0.840 representing 84.0%, this shows that there is a strong coefficient between the study variables. The value of R² is 0.705 which represent 70.5% indicating that there are other factors other than employee training, policy review, Strategic collaborations, Workings tools status that affect the management of the response to emergencies.

Analysis of Variance was conducted at 5% confidence level and a comparison made between the f-calculated and f- tabulated. Findings are shown in Table 2.

Table 2: ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Regression	8912.100	4	2228	776.172	.000 ^b
Residual	3722.979	130	28.638		
Total	12635.079	134			

- a. Dependent Variable: management of the response to emergencies
 b. Predictors: (Constant), employee training, policy review, Strategic collaborations, Workings tools status

From the above ANOVA table, F- calculated is 189.909 and f-tabulated is 2.6425. This indicates that F-calculated >F- tabulated (189.909>2.6425). This finding indicated that the overall regression was significant in determining strategies adopted and the management of the response to emergencies by Nairobi City County. Thus employee training, policy review, Strategic collaborations, Workings tools status affects management of the response to

emergencies. According to Kozak and Piepho (2018), if the F-calculated >F- tabulated, and then the overall regressions was significant.

The study used the p values to determine the significance of independent study variables. The interpretation of the p values was done at 5% level of significance as shown in 3.

Table 3: Coefficients

	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	40.572	.335		121.160	.000
Employee training	.343	.030	.500	11.294	.000
Policy review	.072	.017	.129	4.356	.000
Strategic collaborations	.098	.015	.237	4.125	.001
Workings tools status	.228	.024	.410	9.572	.000

a. Dependent Variable: management of the response to emergencies

From Table 3, the following model is extracted;

$$Y = 40.572 + .343X_1 + .072X_2 + .098X_3 + .228X_4$$

From the overall regression coefficient Table 3, the findings indicated that when other factors are kept constant, management of the response to emergencies would be at 40.572. The finding also indicated that an increase in Employee training would in turn increase management of the response to emergencies by .343. This finding is in line with Nazli et al. (2014) who found that there are some problems which faced implementation disaster preparedness training such as lack of funding in training, lack of support, lack of awareness among Malaysian community and more focus in training for job development.

An increase in Policy review would increase management of the response to emergencies by .072. This finding is in line Ochanda (2015) who found that NSAs contributed in policy formulation through funding, research and data analysis, technical support and lobbying policy makers. Inadequate political will, interruption by political processes, high turnover rates among non-state actors, weak strategies for policy engagement were some of the key challenges facing non-state actors as they engaged in public policy formulation and recommended that Government of Kenya should build capacity of non-state actors in public policy processes to enhance their effectiveness in public policy engagement in disaster management.

Strategic collaborations also would increase management of the response to emergencies by .098 when there is unit increase. These findings are consistent with Shoaf et al. (2014) who indicated that local health departments and schools' districts collaborated in form of exchanging information, alter activities, sharing resources, and enhance each other's capacity for mutual benefit and a common purpose by sharing risks, responsibilities, and rewards.

Workings tools status lastly would increase management of the response to emergencies by 0.228 when there is unit increase in it. This finding is in line with This finding is in line with

This finding is in line with Haddow et al. (2017) who discussed that no one knows when an emergency will happen so it's important that we are ready for it. Whether it is a cardiac arrest, someone fainting, or worse, it is ideal to keep emergency response supplies and equipment on hand for dealing with such occurrences. High traffic areas should look into investing in masks, stretchers, and maybe even some oxygen tanks to assist in reviving or stabilizing the afflicted parties. Augment this with appropriate training for CPR and you should be all set. A small investment in these items now will save lives in the future, so do not skimp on the safety of your crew and pick up some emergency essentials today.

At 5% level of significance, the study documents that Employee training ($p < 0.05$) with a positive beta coefficient. This shows that Employee training has a positive and significant effect on management of the response to emergencies. The finding is consistent with Nazli et al. (2014) who found that there are some problems which faced implementation disaster preparedness training such as lack of funding in training, lack of support, lack of awareness among Malaysian community and more focus in training for job development.

Policy review ($p < 0.05$) has a positive beta coefficient. This can be interpreted to mean that Policy review has a positive and significant effect on management of the response to emergencies. In a study on this finding in concurrent with Kamota (2019) who showed that Kenya Railways has adopted various policy measures to enhance emergency preparedness. They include: community partnerships; collaboration with local stakeholders; equipping the staff with elementary skills; strategic planning; and public participation.

Strategic collaborations ($p < 0.05$) has a positive beta coefficient. This shows that Strategic collaborations have a positive and significant effect on management of the response to emergencies. This finding is supported with This finding is concurrent with Kapucu (2018) who suggested that collaborative practices in terms of pre-season planning, open communication between emergency managers and elected officials, and the use of technology all had a significant impact on community responses. The study recommended that emergency managers must work vigilantly to keep residents informed of the seriousness of a situation.

Workings tools status ($p < 0.05$) has a positive beta coefficient. This shows that Workings tools status has a positive and significant effect on management of the response to emergencies. This finding is supported by Hashchuk and Sychevskyi (2015) who established that that specialized equipment enables effective response on land or water. Emergency response organizations use a broad array of emergency response equipment so they can effectively respond to an incident, no matter the environment, release size or area. This includes containment and recovery units to wildlife deterrents to skimmers, which are used to contain oil in water. Employees and contractors participate in emergency preparedness training and exercises to ensure they are prepared to respond regardless of the situation.

CONCLUSION

From the analysis of findings and summary above, this study concludes that The County Assembly of Nairobi needs to invest more in undertaking of Employees Training needs

analysis to ensure that appropriate training courses are designed for each employee. For the training to be effective, the County Assembly needs to choose the most appropriate Policy for optimal impact on the employees. This can also be improved through designing appropriate content that would promote employee competence. This can also be improved by setting aside adequate financial resources to support the training.

Employees Training and Management of the Response to Emergencies

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RECOMMENDATIONS

The study recommends that all County Assemblies ' top leadership team should enhance on existing training techniques to substantially impact capacity building levels. To enhance capacity building among members, all county assemblies in Kenya should take brief classes on particular fields or abilities for their members.

The research also recommends that all county assemblies in Kenya's senior leadership team should enhance training content by ensuring that training content is applicable to various member responsibilities. All county assemblies in Kenya should align the scope of training with personnel responsibilities.

The research recommends that the County Assemblies senior management team should enhance the training needs evaluation procedures in place to directly impact capacity building levels among employees. To enhance the evaluation of the need for training, County Assembly management must at all times assess the significance of a specified training for its employees on a regular basis.

The study recommends to the management of Nairobi County Assembly to increase the overall budget utilized on capacity building for all the members. All County Assemblies in Kenya should put in place various measures of ensuring that they finance all necessary trainings for its members. All County Assemblies should always set aside sufficient funds to pay for appropriate training venues for members.

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