

**SUPPLY CHAIN MANAGEMENT PRACTICES IN DISASTER
RESPONSE AMONG INTERNATIONAL HUMANITARIAN
ORGANIZATIONS IN KENYA**

BY

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DECLARATION

Declaration by Candidate

This research project is my original work and has not been presented to any other institution. No part of this research should be produced without the author's consent or that of the University of Nairobi.

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Declaration by Supervisor

This research project has been submitted with my approval as the University of Nairobi supervisor.

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Dedication

I dedicate this research project to my late mum, Patricia, who on February 1998 saw the need of her son to join high school, and which to me was the pivotal point for my long journey towards achieving academic excellence, may her soul rest in eternal peace, and; to my grandmother, Penina Wambua, who has done her family great spiritually, morally and materially, may the Almighty God bless her.

Abstract

The world has been prone to various disasters, both natural and man-made, which have left devastating effects to the human population. Amongst the many key players in the process response are international non-governmental organizations. Just like the business world, NGOs are required to adopt various management concepts, to help in making informed decisions, and more importantly, to help them undertake their operations in more profound manner. Given this understanding, the objectives of this study are; to determine the relationship between supply chain practices and disaster response among international humanitarian organizations in Kenya, and, to establish the supply chain practices and disaster response among international humanitarian organizations in Kenya. The study involved the use of primary data that was collection through the use of questionnaires which had both closed and open ended questions. Data collection was by dropping and picking the questionnaires at a later date, to the supply chain/logistics managers or their equivalents, for all the sampled international non-governmental organizations that provide humanitarian support in Kenya. The population of the study was 27 such NGOs. Responses were however received from 19 NGOs, which translated the response rate to stand at 70% of the targeted population. The data that was collected was then analyzed by the use of descriptive statistics. According to the study findings, it was revealed that most of the NGOs used various supply chain practices in their disaster response operations. However, it was notable that the absorption rate of such supply chain practices in these organizations is still low. Many of the organizations had in place practices such as assessment of the needs of the vulnerable population, ordering of services and other materials, management of donations to an optimal level, practices that promote best warehousing, documentation, cataloging, consolidation and recording practices, practices that enhance adequate flow of products enhanced flow of finances and cash, and, inventory management practices. However, the organizations showed a poor response with regard to how they have adopted practices such as supply chain cost management, practices that promote adequate flow of information, investment in technology and supply chain partnership practices. The research study was however subject to certain limitations such as, the fact that response rate for the questionnaires was relatively low, the study was based only on a sample of international NGOs, which limited information from other set of NGOs, the size of the sample was relatively small, which could have affected the accuracy of the findings, and, the fact that the data collection was done through sampling which could have meant significant impact on the kind of data so collected. Given these shortcomings, there is therefore need for a future research study which may bridge the gap in these limitations

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ABBREVIATIONS

ALNAP- Active Learning Network for Accountability and Performance in Humanitarian Action

AMREF-African Medical and Research Foundation

GNI-Gross National Income

KRCS-Kenya Red Cross Society

NGOs-Non Governmental Organizations

PAHO-Pan Africa Health Organization

SC-Supply Chain

SPSS-Statistical Package for Social Sciences

UN-United Nations

UPS-United Parcel Service

USAID-United States Agency for International Development

WFP-World Food Programme

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

There has been an increasing state of disasters, both natural and human instigated, which has called for humanitarian support by various non-governmental organizations such as UNESCO, The Red Cross and USAID among others. Despite the wide support which governments levy to their people during disasters, many challenges still arise, making it difficult for them to have well facilitated frameworks and support during disaster management (Tatham & Houghton, 2011). It is true that many world governments have enacted and established structures and programs that support the society while in disaster. National governments “set the regulatory and legal frameworks governing relief assistance” and “they are responsible for ‘calling’ a crisis and inviting international aid” (ALNAP, 2010, p.2). Given this however, critics have developed many arguments with respect to the state of concern with which humanitarian organizations help to deliver their humanitarian support to people that are affected by disasters.

Humanitarian organizations have come out actively at various instances such as during droughts, during terrorist attacks, floods, earthquakes, tribal clashes, road accidents, and other instances of hazards (Oloruntoba, 2006). As much as they try to provide some assistance during disasters, these organizations should deliver even better results. There has been lack of a well elaborated framework for delivery of humanitarian services by these organizations. Pointing of fingers due to the shortcomings embraced by these organizations has been prevalent.

Many factors, both within and outside the scope of humanitarian organizations, have been credited with the manner in which these organizations deliver their services to vulnerable communities during times of need. Critics and scholars have also developed various theories and arguments, to explain the factors that influence the functionality by these organizations (Tatham & Houghton, 2011).

1.1.1. Supply Chain Practices

Ross (1998) defines supply chain as ‘the management philosophy that seeks to unify the collective productive competencies and resources of the business functions found both within the enterprise and outside in the firm’s allied business partners located along intersecting supply channels into a highly competitive, customer-enriching supply system’. The most important part in a disaster supply chain is mapping the relationship between the demand and supply of the products and services which are required in an ideal disaster situation (Ergun, et al., 2009).

According to the Council of Logistics Management (1991) logistics is “part of the supply chain process that plans, implements, and controls the efficient, effective forward and reverse flow and storage of goods, services, and related information between the point of origin and the point of consumption in order to meet customers’ requirements”. Humanitarian logistics refer basically to the concept of procuring, mobilizing, storing and even distribution among other aspects that are aimed at delivering material assistance to the people that have been hit by disaster.

It refers therefore to the set of a system which helps to deliver humanitarian assistance effectively and promptly based on the optimal use of resources. The basic aim of logistics in humanitarian assistance is to create an art of strategy with which material assistance can be delivered to those that have been hit by disasters. It is important to highlight two important concerns in this regard as provided by the Pan Africa Health Organization (2001). One, that it is difficult to improvise the logistic structures during an emergency, and thus, there is need to ensure well planned and prepared framework for such kind of emergencies long before they occur. Either, there is need to use the resources at hand in an appropriate manner which can optimize the benefits that the beneficiaries get. Two, that the different stages that designate the flow of material supplies basically from the source to the beneficiaries constitutes of very closely interrelated linkages (Pan Africa Health Organization, 2001). The logistics management practices include needs assessment practices (Selda & Emmett, 2010), material and service ordering practices (Mungatia, 2010), optimal donations management practices (Cozzolino, 2012), best warehousing practices (Americas Relief Team, 2012), documentation, cataloging,

consolidation and recording practices (Oloruntoba, 2006), and, transportation and delivery practices (Moeiny & Mokhlesi, 2011)

The main aim of logistics in a humanitarian context is to implement operations and responses that promote efficiency and timeliness in delivering assistance (Cozzolino, 2012). This can only be achieved when staff is mobilized, organize goods and equipment for providing the support, evacuating those in problems, resettling those in need of such an assistance, and more importantly helping the beneficiaries get back to a life free of the disaster.

On the other hand, the importance of supply chains in disaster situations is basically to create a link between those demanding the assistance and those supplying the services. Generally, NGOs and the government are the two major parties that are involved in a humanitarian supply chain. The government has the power of control while the NGOs act as the main hub with which support can reach the people. Other significant players in a humanitarian supply chain include the media, donors and in some cases, the military. The supply chain management practices include practices that enhance adequate flow of products and services (Nyamu, 2012), adequate flow of information (Mohamed, 2012), enhanced flow of finances (Kovacs & Spens, 2011), investment in technology (Moeiny & Mokhlesi, 2011), cash and inventory management practices (Burcu, et al, 2010), supply chain cost management practices (Boin, Kelle & Whybark, 2010), and supply chain partnership practices (Mungatia, 2010)

In most of the international humanitarian organizations however, there lacks professionals that have good specialization in this area. The performance metrics and the goals of regular and humanitarian supply chain however have a big difference. For humanitarian supply chains, they do not have a profit making incentive and thus rely more on donors and volunteers. On the other hand however, regular supply chains have their focus on activities that maximize profits. Despite this difference however, humanitarian supply chain can regularly apply the basic profit maximizing models either directly or indirectly to ensure effectiveness and efficiency in what they do (Ergun, et al., 2009).

1.1.2 Disaster Response and Management

A disaster can be described as a disruption in the normal functioning of a society or a community which causes a widespread material, environmental, human and economic losses that exceed the potential scope available for the community affected in coping with while using their resources at disposal (Ministry of Special Programmes, 2009). On the other hand, disaster management refers to the process which aims at using operational skills, organizational skills, administrative directives and operational capacities in implementing strategies, improve capabilities and create policies aimed at lessening the adversely negative impacts brought by these hazards or even the chances of a disaster (Ministry of Special Programmes, 2009).

As much as it is difficult to predict any possible occurrence of a hazard, it is only the well prepared community that can sustain the impact that is brought about by such disasters. Amongst the many constituent components of a well instituted disaster management framework is the logistic and supply chain process. This helps to acquire, manage, and deliver the required components to the beneficiary population at the scene of a disaster (Tysseland, 2009).

However, conflict(s) usually arise between one or more key players. If such is the case, the ultimate objective of supplying humanitarian aid to vulnerable community if largely affected; Ties that would have accustomed a smooth flow of activities across the chain of the process is cut down, inefficiencies and disruptions occur, conflicts of interests emerge up and discontents become the order (Kovacs & Spens, 2011). Finally, the objective of the process is compromised. The vulnerable society is left hanging without the aid and support it ought to have got. Blame game emerges; however, the most interesting thing is that the logistic and supply chain framework is cut down (Ergun, et al., 2009).

1.1.3 International Humanitarian Organizations in Kenya

International humanitarian organizations are key source of humanitarian assistance in Kenya. As of 2012, there was an approximate 27 international NGOs, operating and proving humanitarian aid in Kenya. The main role international NGOs in Kenya is to mobilize resources for humanitarian assistance to the community. They also act as a watch to the inhuman acts as well the shortcomings by the governments in its service

delivery to the people. The growing demand for humanitarian aid in Kenya has called for more support from the international community, much of which is supported by humanitarian organizations. More importantly, these organizations have played a key role in checking on the check and balances on the state of governance by the government to its citizens (Omondi, Ombui & Mungatu, 2013).

The NGO Council is tasked with the mandates for guiding the leadership of all the NGOs in Kenya. The NGO Board, which falls under the NGO coordination of 1990 registers and regulates all the NGOs. The initial application for registration is done by the first three officials. The responsibilities and functions by these organizations are guided by the 1995 NGO Code of Conduct (Kameri-Mbote, 2000). In Kenya, international humanitarian organizations are broadly classified into two groups: Operational NGOs, those that are involved in the designing and implementing of projects related to developments; advocacy NGOs, are those that engage in promoting or defending a specific cause. All international NGOs in Kenya have a hierarchy of operations, with strategic operations such as budgeting, reporting, project planning as well as communication and information control to other institutions been done from the main headquarters (ICNL, 2009).

In their process of giving assistance however, these organizations have been faced with various challenges. These include; insecurity in conflicts and harsh zones, low funding from their mother organizations and other donors, poor strategic planning, conflicting interests between them and that of the Kenya government, hostility from the from the community especially in the North Eastern Part of Kenya, poor governance, harsh climatic conditions which derail their operations at times, corruption, political upheavals, limited capacity and, religious and cultural conflicts from the areas they are required to deliver humanitarian assistance (Omondi, Ombui & Mungatu, 2013).

1.2. Statement of the Problem

There is an emerging trend of interest in the logistic and supply chain management as applied in humanitarian disaster management. This comes from the realization of the role played by these issues in humanitarian organizations. Scholars have conceptualized the need for aligning these concepts in humanitarian organizations. International humanitarian organizations have been very proactive in providing aid to the people affected by disasters. Both logistic and supply chain practices and the management issues that arise from them have become central in these organizations, from the realization of the role they play in the overall performance of the organizations. There has been lack of a clear organizational relationship between the different stakeholders, perhaps giving a roadmap of guidance on what each should observe. This has ultimately led to compromised service delivery by these organizations (Tysseland, 2009). All these are very significant issues that call for their study.

The Global Humanitarian Assistance (2013) has classified Kenya as a fragile nation in terms of humanitarian aid. The country's demand for humanitarian aid has been on a sharp rise, which has been attributed to the increasing state of disasters such as droughts, foreign refugees, especially in Kakuma refugee Camp, floods, terrorist attacks, accidents, and disease outbreaks among other disasters. There have been various active conflicts in the country, which have increased the vulnerability of instabilities that call for humanitarian support. As of 2010, Kenya received an approximate US\$290m in humanitarian aid. This was an equivalence of 5.1% of its gross national income (GNI) Global Humanitarian Assistance (2013). The Global Humanitarian Assistance (2013) reports that, the country was ranked 8th largest humanitarian aid recipient in the world.

Various studies have been done in relation to humanitarian assistance. In the aftermath of the 1994 Rwanda genocide, John Borton et al (1996) in their study found that the international community was very significant in helping people during this circumstance. However, this study did not basically touch on the logistic and supply chain issues that might have been influential in the whole process. Jahre, et al (2012) research study was significant in addressing the context of supply chains in drug management in the developing countries. They found out that supply chain that is less complexity has a

better customer satisfaction because it enhances lower costs and fewer shortages of stocks. However, their study did not address the supply chain practices used by international organizations in providing humanitarian aid in general. Additionally, Salvage, et al (2007) did a study, on the risks associated with corruption in humanitarian aid support. The findings were basically affirmative that there is a negative correlation between corruption and the level of donor support in humanitarian aid. However, the study could not divulge other issues that are related to humanitarian aid such as logistics. Either, the environment of study, Afghanistan, is way far different from the Kenyan context.

Nyamu (2012) carried out another significant study. He found out that there is a positive correlation between the nature of the supply chain and the scope of service delivery to the people by humanitarian organizations. His research however dealt purely on the supply chain management challenges that affect humanitarian organizations in Kenya. His work was limited to the scope of logistics and supply chain practices though. Mungatia (2010) study established that World Vision Kenya was responsive to disasters based on the evidence of the many cases that the organization helped in disasters. However, the use of World Vision Kenya as the only case study of disaster response by NGOs limited the way other NGOs responded.

Mohamed, (2012) study was pivotal in that it expunged how supply chain management practices help in the service delivery by humanitarian organizations. However, his study was limited to the performance relationship between supply chains and the service which humanitarian organizations deliver to the people. Moeiny & Mokhlesi, (2011) study established that the success of any humanitarian aid support is only through a properly endowed supply chain. However, the economic and political setting of their study was benchmarked on a developed nation, unlike in a developing nation like Kenya.

Given the above shortcomings in the scope and context therefore, this intended study aims at addressing these questions: What are the main logistic practices that are used in disaster management among international humanitarian organizations in Kenya? What are the supply chain practices commonly used in disaster management among international humanitarian organizations in Kenya? What is the relationship between

supply chain practices and rapid disaster response among international humanitarian organizations in Kenya?

1.3 Objectives of the Study

The objectives of this study are:

- (i) To establish the supply chain practices used in disaster management among international humanitarian organizations in Kenya
- (ii) To determine the relationship between supply chain practices and disaster response among international humanitarian organizations in Kenya

1.4 Value of the Research

This research will be of value to various groups such as:

The government is one important partner in humanitarian aid provisions; this research will help it in creating governance modalities that can help boost service provision by the international humanitarian organizations. It is important for the community to know its roles when it comes to humanitarian aid. Since suppliers and transporters play a significant role in supplying and delivering material and other aid services, the research brings some light to them on exactly what is required of them during such circumstances

It should be realized that humanitarian aid is a partnership of many humanitarian organizations such as UN, USAID, and AMREF, Kenya Red cross, and Flying Doctors among others. They have critical roles that they play in humanitarian aid assistance. The research findings will help such organizations have a rich knowledge on what they are required of them. Local institutions such as health centers, schools, churches, and police posts among others will also benefit a lot from this research

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter covers the concepts of supply chain practices that are used in disaster management by humanitarian organizations. It also describes the scope of disasters and disaster management processes that have been employed in Kenya by humanitarian organizations.

2.2 Supply Chain Practices

There exist various logistic and supply chain problems, which affect the process of providing humanitarian support to the communities. We can thus ask one big question, “What exactly hinders the supportive structure by such organizations, in the course of action of providing help and refuge to people held in disasters?” Why don’t things move as expected? These among other rhetorical questions may perhaps help us to establish the set of logistic and supply chain rigidities that operate at various stages of the aid delivery process to vulnerable communities by these humanitarian organizations. A smooth flow of activities between all the parties is required if things have to go on smoothly. Humanitarian logistics involves many players that differ in terms of their interests, logistic expertise, purpose, capacity and culture. They include aid agencies, governments, companies from the private sector, donors, non-governmental organizations, military and other social institutions such as schools, churches and hospitals (Howden, 2009).

A supply chain refers to a network of a well-coordinated and related network with which material and other form of substances such as services, information, finances and supplies flow between the supplies, various units within these organizations, suppliers, for the ultimate use by the final consumers. According to Howden (2009), “humanitarian supply chains include functionalities which do not typically fall into the field of humanitarian logistics” (p.2). The responsibility of non-logistics program units is to perform needs assessment, manage donor relationship, plan for the right supplies and evaluate as well as monitor and evaluate the impacts levied by the distributed networks.

Humanitarian organizations are required to provide aid and other human assistance in times of disasters. People struck by disasters expect assistance from all quotas of life. Burcu, et al (2010) state that the abrupt and unforeseen nature of disasters cannot call for pre-planning. However, the impact of such disasters can only be addressed through well set disaster management and planning processes (Kovacs & Spens, 2011). Given such situations, well formulated supply chain practices for providing support to such vulnerable people is important.

A research study done by the ministry of Special Programmes, Government of Kenya (2009) has revealed that “the successful implementation of disaster management policies will require the allocation of substantial human, material, financial, technological and other resources, it is imperative that a justification be made for allocation of such resources, supported by the positive results and impacts of the National Disaster Management system, particularly, in relation to those vulnerable communities and households, likely to be affected by disasters” (p.41).

At the center stage, we have the humanitarian organization versus the vulnerable community engulfed in a disaster, and which should be given the support. Allied to the two are other stakeholders such as the government, suppliers, procurement and distribution personnel and centers, other institutions such as churches, health centers as well as the external society which may not necessarily be affected by the disaster (Tysseland, 2009). All these are important components of a well-functioning disaster management framework.

Howden (2009) argues that the role of logistics in humanitarian operations is basically to procure, store as well as to distribute the supplies to those esteemed as the beneficiaries. He continues to provide that the ultimate functionality of the logistic and supply chain process in such humanitarian logistics should “coordinate with other actors and be considered throughout the lifespan of humanitarian operations” (p.1). He further suggests for the need to integrate humanitarian information systems into the whole urgent of supplying and delivering assistance to the vulnerable community. He is of the opinion that the success of any supply and logistic framework in humanitarian thresholds be benchmarked in three key areas; (i) integrating logistic units within the wide

humanitarian supply framework in the organization, (ii) should promote activities enhancing logistics as well as providing continuous support with all areas of concern response, such as the “preparedness, transition, recovery and mitigation phases of disaster management cycle” (p.1), and (iii) creating an enabling environment for new possibilities aimed at creating collaboration amongst these humanitarian organizations (Howden, 2009).

The work of Cozzolino (2012), has received much attention on how it explains the relevancy of the logistic practices that humanitarian organizations use during disaster. With the complex and uncertain nature of disasters however, properly management should be instituted to implement and address more responsive course of actions. These practices are basically aimed at rallying support across all the stakeholders, in order to meet the demand and the supply needs of a disaster situation (Selda & Emmett, 2010). Though there lacks a common image of the major practices that can be incorporated into a humanitarian logistic platform, scholars have harmonized their views into more or less the same arguments. Below are some key logistic and supply chain practices embodied in a humanitarian supply chain

2.2.1. Needs Assessment Practices

According to Gartfield, et al (2011), “needs assessment is a ‘time-bound, multi-sectoral, multi-stakeholder process of collecting, analyzing and interpreting data to assess needs and inform decisions on humanitarian and early recovery responses” (p.3). Initially, international humanitarian organizations carry out an assessment of the humanitarian needs to bridge the gap between the supply and the demand sides of the situations (Selda & Emmett, 2010). The importance of the needs assessment is to establish the possible equilibrium between the supply of the products and services from the supplies, and what is required by the beneficiaries of the disaster.

The success of any humanitarian assistance is based on the assessment of the needs that the vulnerable population requires before the provision of the aid. Humanitarian logistics should thus invest more efforts in establishing such needs in order to provide what is best required. Scholars argue that the best mode to do need assessment is through a close focus on the “programme lens”. It has also been observed that multi-sectoral needs

assessments done rapidly are not so good at making good decision (Pan Africa Health Organization, 2001). This means that each disaster should have its own needs assessment and not based on a universal perception.

2.2.2. Material and Service Ordering Practices

Upon establishing the level of demand and supply, orders are placed, which may both come either locally and internationally. In most cases however, orders are placed in a rapid manner to address the emergency of disaster situations which erupt without any foreseen attribute. Most of the international NGOs create a platform of pre-planning and assessments, with which they can gather information for ordering material and other substances that might be needed in general disaster situation (Mungatia, 2010).

Existing literature show that organizations such as Kenya Red Cross, AMFEF, USAID, WFP, The Flying Doctors, and the United Nations among others, have in their warehouse various humanitarian aid substances such as food, blood banks, rapid evacuations services, and temporary accommodation facilities and products among others, which they can use in the event of emergencies and rapid disasters (Nyamu, 2012). For disasters that have longer gestation periods such as drought however, these organizations can place orders both locally and internationally, which also happens on and above the donations from the community and other organizations.

2.2.3. Optimal Donations Management Practices

Donors, both local and overseas play a significant role in any humanitarian aid process. According to Cozzolino (2012) for example, US companies alone mobilized more than US\$565 million (cash and in kind), and the role of logistics companies (e.g., UPS, FedEx, and DHL)- together with their existing aid agency partners—was also crucial in providing free or subsidized transportation and logistics. The world responded by donating more than \$13 billion and initiating the largest relief effort in history (Thomas and Fritz 2006 as cited in Cozzolino, 2012, p.5, 6).

In 2010 for example, USAID/Food for Peace provided 72,000 MT of emergency food assistance valued at \$69 million to 3.8 million Kenyans affected. USAID Food for Peace also provided 26,250 metric tonnes of emergency food assistance - worth to

approximately 330,000 refugees primarily from Somalia in Kakuma and Daadab camps. USAID/Office of Disaster Assistance provided more than \$10 million for water, sanitation, and hygiene- benefitting up to 89,000 people” (USAID, 2013). The extensive nature of disasters requires the input of all people irrespective of the magnitude of donation that one can have.

2.2.4. Best Warehousing Practices

Warehousing is important, as it facilitates coordination, sorting, possible packaging and other assorted activities that enable easier and more efficient delivery to the needy. Warehousing can both be local or international. When donations and other material components for humanitarian aid are received, they are stored in warehouses, before which delivery activities are done to the vulnerable populations struck by a disasters. For international warehouses, products are stored as they wait for shipment. For local warehouses, goods are stored before that can be dispatched to where they are needed (Americas Relief Team, 2012).

A logistics warehouse is one important aspect in every humanitarian disaster response. The design of the warehouse should be done in a precautionous manner to avoid wastes or even contamination of what is stored. The warehouse helps in times of making deliveries as activities can be coordinated from there. Either, distribution centers should be done correctly for ease of distribution and maximization of other important cost elements. Logisticians can use various techniques therefore ensure the right placement of warehouse and distribution centers (Roh, Jang, & Han, 2013).

2.2.5. Documentation, Cataloging, Consolidation and Recording Practices

Supplies and donations should be consolidated for recording, assortment, cataloging and documentation. This is to ensure that records of what has been received are documented, for addressing inventory management issues. According to Oloruntoba, (2006), donors require that the donations they give towards humanitarian aid be delivered to the esteemed beneficiaries without any shortcoming

Humanitarian organizations, just like profit making organizations should engage themselves in activities that promote consolidated information on all the receivables and

dispatches from their distribution centers and warehouses. They do this to safeguard the interests of the different stakeholders that seek transparency and accountability in all the products received and released. These organizations are investing in information technologies such as cataloging systems, biometrics, and other technologies that aid in monitoring the movement of products within and outside their borders (Oloruntoba, 2006).

2.2.6. Transportation and Delivery Practices

This is an important component of any humanitarian aid process. It seeks to deliver the products and other commodities to the beneficiaries of emergency disasters. Transportation can be done by trucks, airplanes, ships, and other methods that can be deemed adequate for the respective situations (Oloruntoba, 2006).

Transport is done from warehouses or distributions centers to the areas where they are needed. Humanitarian organizations are currently using various transport optimization models to help in the delivery of the aid, with the most minimal cost possible (Moeiny & Mokhlesi, 2011). Since transportation and delivery are such important cost centers in humanitarian organizations, their management is becoming an integral part to ensure that they are done in the most efficient and cost effective manner.

2.2.7. Practices that Enhance Adequate Flow of Products and Services

The upstream and downstream flow of product and other services that are made to directly and indirectly benefit people held in disasters is very important. Research studies have revealed that international humanitarian organizations, both in Kenya and the world generally, are very keen to implement strategies that cater for smooth flow of material and other services from their sources (such as donors, or other procured sources) to the beneficiaries (Nyamu, 2012).

An important concept that is quickly being absorbed in the humanitarian supply chain modalities is that of forward and reverse logistics. Forward logistics, which is a bit easier to manage, refers to the flow of material and other services from the source to the end users. On the other hand, reverse logistics taken care of the return back of the end product

and other components from the users to the original source, generally the humanitarian organization.

2.2.8. Practices that Promote Adequate Flow of Information

A key important issue is that of information flow within the supply chain. This consists the flow of information, either upstream or even downstream the supply. On and above the internal communication platforms of the humanitarian organizations undertaking the process of providing humanitarian aid, the media has been an influential element, helping to dispatch information, to the respective parties (Mohamed, 2012).

Further according to Mohamed (2012), information flow, both in the humanitarian organization and general business world has been seen as a significant tool, which helps to address the way stakeholders and different parties exchange important information. Humanitarian organizations are currently investing in assistive technologies that can support their operations and flow of information in time of disasters.

2.2.9. Enhanced Flow of Finances

In supply chain, the flow of finances means making payments. This incorporates all sets of credit terms for supplies, installments paid and generally all what encompasses the flow of finances either in lieu of making purchases or emanating from donors, with the sole aim of benefiting the population held in disasters (Oloruntoba, 2006).

Finances flow through accounts, which should reflect all issues relating to aid order processing, automation of activities that are to be paid, and all that includes finances within the broad outlay of humanitarian aid (Kovacs & Spens, 2011). Adequate management of funds in all humanitarian activities in one important practice which helps to strengthen the relationship between all the stakeholders involved in the process.

2.2.10 Practices that Promote Investment in Technology

The concept of technology has been one important issue in every supply chain. This implies the broad set of activities that are backed by a body of knowledge, that help bring efficiency and effectiveness, with cost reduction been at the center stage.

Technological adventure, just like in any other business activity in the conventional world has been significance in humanitarian organization. More importantly, the concept of information technology is rapidly gaining significance, as an important tool which helps in decision making process in almost all activities in humanitarian assistance. Thus, these organizations are currently using technology as a tool for competitive advantage in their operations (Moeiny & Mokhlesi, 2011).

2.2.11 Cash and Inventory Management Practices

In all cases, inventory and cash flows should be well managed. The main objective of any humanitarian aid is to provide supply, either material in kind or other services. According to Burcu, et al (2010), the loyalty of the donors can only be won when humanitarian organizations can account for all the donations, whether in material or finances. Humanitarian organizations should thus apply the rule of integrity while using the cash and other aid components donated by donors.

Donors expect that all the donations in kind reach the right beneficiaries, failure to which would be cancellations of such future donations, withholding, or even asking for returns to them from the humanitarian organizations. It has been observed the corruption, mismanagement and embezzlement among other malpractices have been key impediments towards winning donor loyalty on humanitarian aid support (Moeiny & Mokhlesi, 2011).

2.2.12 Supply Chain Cost Management Practices

This involves the management of the costs that arise from the activities involving the supply and distribution of goods and services to the consumers. Just like the general business supply chain, cost management should be an important issue for humanitarian organizations (Mohamed, 2012). Just like commercial businesses, it is required that humanitarian organizations observe the costs which they incur in their operations. Cost optimizations in therefore one of the important practices which these organizations are looking forward to addressing (Moeiny & Mokhlesi, 2011).

Management of the costs incurred involves issues such as management of the order costs, IT costs, planning and supply chain finance costs, human resource costs, inventory

carrying and management costs and all other forms of costs that are associated with the supply chain process (Boin, Kelle & Whybark, 2010). Humanitarian organizations in Kenya and the work at large have embarked on various cost cutting incentives. The significance of this is to limit the amount of finances that are used to deliver humanitarian aid to the beneficiary community as much as possible.

2.1.13 Supply Chain Partnership Practices

One of the key issues relating to a supply chain is that of managing its partnerships with its partners/stakeholders. In a humanitarian context, these include donors, government, the military, the media, suppliers, third party transport agents, distributors and other organizations. However, each of these organizations has an important role to play, all for the benefit of the humanitarian aid delivery process. There has however been a wide state of conflict of interests between different parties, where each is at loggerhead with the other due to conflict interests (Mungatia, 2010).

Boin, Kelle & Whybark (2010) are of the opinion that for smooth functionality of such humanitarian supply chains, modalities to address such conflicting interests has been one such important concept, that has called even for shared decision making process between the humanitarian organizations and the set of stakeholders in questions. It should be noted that a smooth and functional humanitarian supply chain should address the individual needs of all the stakeholders involved, which is however difficult to address from a literally perspective.

2.4 Response and Management

According to the Center for Emergency & Disaster Preparedness (2013), communities are predisposed to disasters by a combination of factors such as poverty, aridity, settlement in areas prone to perennial flooding or areas with poor infrastructure and services such as the informal urban settlements or even living in poorly constructed buildings. It continues to argue that the rapidly population growth rate without structures and plans to accommodate such growth, creates greater vulnerability of the population towards disasters. “The economy and by extension its population could be classified as highly vulnerable to natural and man-made disaster risks, the country does not have a

comprehensive disaster management framework and strategies guided by appropriate policy and legislative provisions” (Center for Emergency & Disaster Preparedness, 2013).

The measure of disaster responses can be done by a set of variables as follows: First, the assistance for emergency which is provided to individuals in order to alleviate distress or personal hardships emanating from a natural disaster; second, the assistance provided to the vulnerable community for “restoration or replacement of certain essential public assets damaged as a direct result of a natural disaster, and counter disaster operations for the protection of the general public” (Australian Government, 2011); third, recovery package for the community for supporting “a holistic approach to the recovery of regions, communities or sectors severely affected by a natural disaster” (Australian Government, 2011); fourth, the relief or recovery for alleviating distress or damage in a disaster circumstances (Australian Government, 2011).

Cozzolino (2012) states that a disaster management process constitutes of four phases; mitigation, response, preparation and reconstruction. The mitigation phase encompasses the set of mechanisms and laws that are aimed at reducing the social vulnerability of disasters. This stage has no direct participation of the logisticians, but the government. The preparation stage comprises the set of various operations which arise before the occurrence of a disaster. It includes the set of strategies which are enacted for implementing successful response in humanitarian assistance operations. It involves developing crucial systems for communications technology, network designs and other processes that guide during the logistic process. The response stage comprises of the operations that are put in place when a disaster occurs. The reconstruction stage is what comes in the aftermath of the disaster (Cozzolino, 2012).

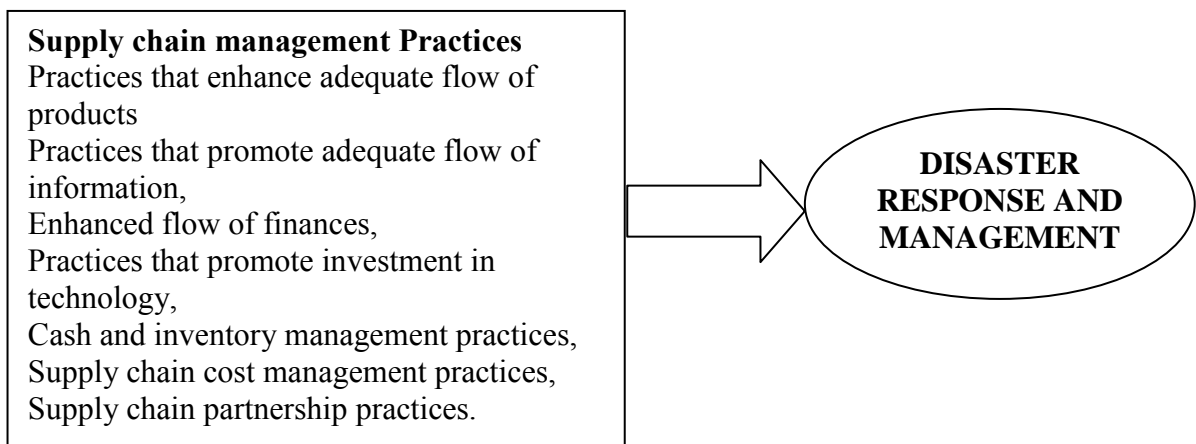
Generally, international humanitarian organizations have emphasized on the need for ensuring that logistic modalities are set up to standard to ensure that the procurement, resources allocations, storage, tracking, planning and coordination meets the most optimal concern as possible. This indeed has been achieved through the development of structures that embody their framework for material procurement, storage and transport,

as well as distribution, during disaster management in humanitarian concerns (Mungatia, 2010).

According to the Ministry of Special Programmes (2009), “Disaster Risk Management encompasses a full continuum from preparedness, relief and rehabilitation, mitigation and prevention” (p.5). Despite the high vulnerability towards disasters, there is however lack of a comprehensive framework for strategy and disaster management, which may give clear legislative provisions and appropriate policies. Both humanitarian organizations and the government are estimated to have spent a total of 340 million shillings to address the 1999-2001 drought. Only the same note however, in a study dubbed “the cost of delayed response” carried out by disaster management experts in 2002 estimated that only USD 171million was required to effectively respond to this drought had there been an effective disaster management system in place (Ministry of Special Programmes, 2009, p.8).

2.5 Conceptual Framework

Rapid disaster response and management (dependent variable) in international humanitarian supply chain is as a result of a set of two independent variable; logistics management practices and supply chain management practices. However, the success of each of these two independent variables is as a result of a subset some practices, which relate to each of them. Below is a conceptual representation of this argument, Independent variables



Independent variable

Dependent variable

(Source: Author, 2013)

2.6 Summary of the Literature Review

International humanitarian organizations have therefore recognized the need for functional logistic processes that can help deliver aid assistance to the people that have been affected by disasters. It is from the efforts of a functional logistic model where such aid can be delivered to the people, within the timeframes that they require. Since it is difficult to improve the logistic processes when a disaster has occurred, it is important that pre-planning and coordination activities be done well to address the aid requirements when such disasters happen. Of significance also is the role played by the scope of the supply chain practices that humanitarian organizations enact in the service delivery

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The chapter describes research design, survey population, methods of data collection and data analysis to be used in the study.

3.2 Research Design

A descriptive survey design was used for this study. With such a study, information was obtained, which substantially met the underlying purposes and objectives of the study. Descriptive survey thus helped to investigate the existing relationships among the variables that were captured in the study.

3.3 Population of Study

The population of study included 27 international humanitarian organizations in Kenya (appendix I). Given that the population was relatively small, a census was conducted for this study.

3.4 Data Collection

This study targets were achieved by using both primary and secondary data. The respondents for this study primarily comprised the logistic/supply chain managers or their equivalents from each of these international humanitarian organizations which the research intended to study. For the purpose of this study, the primary data was collected on supply chain management practices applied by these organizations. Secondary data was on rapid disaster response (appendix II).

Questions on section B of the questionnaire were used to answer the first objective, to establish the supply chain practices used in disaster management among international humanitarian organizations in Kenya, while section B & C were used to answer the second objective, to determine the relationship between supply chain practices and disaster response among international humanitarian organizations in Kenya. The questionnaire was administered by dropping them to the procurement and logistics managers or their equivalents, and picking them later at a time agreed between me and the respondents.

3.5 Data Analysis

The completeness and accurate response of the questionnaires was checked upon completion of the data collection process. Grouping and arranging of data with respect to specific questions was done. Descriptive statistics such as standard deviation, media, mean and mode were applied for analyzing the Likert scale questions. Factor analysis was conducted on supply chain practices and logistics management practices to test whether new grouping can be exhibited through data reduction.

Regression analysis was used to establish the relationship between supply chain management practices and rapid disaster response. The relationship below applied:

Rapid disaster response= f (supply chain management practices); which can be described as:

$$\text{RDR} = \beta_0 + \beta_1 \text{Product flow} + \beta_2 \text{Information flow} + \beta_3 \text{Financial flow} + \beta_4 \text{Technology} + \beta_5 \text{Cash and inventory management} + \beta_6 \text{Supply Chain Cost Management} + \beta_7 \text{Supply chain partnership} + \varepsilon$$

From what will be established, conclusions and henceforth recommendations will be drawn.

CHAPTER FOUR

DATA ANALYSIS, FINDINGS AND DISCUSSION

4.1 Introduction

This section will be a presentation of the analyzed and the findings obtained from the primary data that was gathered from the set of the respondents. In order to check for consistency and completeness, all questions that had been responded were cross-checked to ensure that they were done well. The data analysis was done by the use of Statistical Package for Social Sciences (SPSS) version 20.0. In this chapter, data for analysis, regression analysis, and interpretation were evaluated.

4.2 Response Rate

Utilization of the primary data collected through the questionnaires that were dropped and picked by the researcher was emphasized. The target of the questionnaires was the logistic and procurement officers of some international humanitarian organization that are involved in disaster response and management. The response rate of the questionnaires that were dispatched and completed by the respondents was 19 out of 27. This was a 70% response rate, a good level for making appropriate decisions.

Table 4.1 Number of Respondents

Target Respondents	Actual Respondents	Response rate (%)
27	19	70.37%

Source: Research Findings (2013)

As per the above table, there was an estimated 70% response rate (19 out of 27 respondents). This was however deemed an adequate response, which would sufficiently be appropriate in the data analysis process.

4.3. General Information

This section comprises of the general information regarding the NGOs as it was respondent by the respondents. It includes information such as the year in which the NGO was established, the category of the NGO, how various activities are controlled from the headquarters and a set of some challenges that affect the NGOs

4.3.1 Year of Establishment

The number of years which an organization has been in operation can determine the number and scale of supply chain practices it can be able to implement and also the most efficient practices based on its experiences. This will in turn affect their response time and the ability to handle various humanitarian disasters. The respondents were asked to indicate the number of years which the NGO has been in operation. The results are as reflected in table 4.2 below.

Table 4.2 Year of Establishment

Period of establishment	Frequency	Percent	Cumulative Percent
Before 1969	2	10.5	10.5
1970-1979	4	21.1	31.6
1980-1989	4	21.1	52.6
1990-1999	7	36.8	89.5
2000-2009	2	10.5	100.0
2010 and today	0	0	100.0
Total	19	100.0	

Source: Research Findings (2013)

From the research results above, most of the organizations (52.6%) were established between the year 1969 and 1989, which is almost 20 years. The rest were established between the year 1990 and 2010 (47.4%). This is an indication that the organizations that participated in this study have experience in dealing with humanitarian disasters, and in the management of extensive supply chains. This finding supports the work of Tysseland, (2009). It can therefore be deduced that the more the number of years in operation by an NGO, the more efficient it is in terms of supply chain and disaster response.

4.3.2 Category of NGO

The category in which an NGO falls into is ideally significant in determining the roles they play to the society. NGOs have different functions depending in their statutory structures and purposes for which they are established to perform. This study aimed at establishing the category in which the different NGO's were categorized into. The respondents were asked to state the category of their respective NGOs.

Table 4.3 Category of NGO

Category of NGO	Frequency	Percent	Cumulative Percent
operational NGO	10	52.6	52.6
Advocacy NGO	9	47.4	100.0
Total	19	100.0	

Source: Research Findings (2013)

According to the research results as per table 4.3 above, 10 respondents (52.6%) indicated that their NGO's were operational while 9 respondents (47.4%) stated that there NGO's were for advocacy. The higher percentage of operational NGOS affirms the work of Moeiny & Mokhlesi (2011) that majority of the NGOs involve themselves with operational activities in the society, in providing services and humanitarian aid during disasters and times of need. However, the small difference in terms of the categorization of the organizations as per the research results indicates that there is small difference in the scope of the activities performed by different categories of NGOs.

4.3.3 Control of Activities from the Headquarters

The scope of control in the operations of any organization, whether centrally (from the headquarters), or decentralized (from the branches), is one critical aspect while looking on the operational framework of an organization. Different organizations tend to use different ways of control for their operations depending on various reasons such as resource dispensations, strategic factors, goals of the firms, and nature of the organization among others. The choice of one method of control in the operation of the activities by one organization can differ variably with another organization even in organizations that fall within the same industry or even in the same geographical zone. The study aimed at establishing how various activities had their control from the NGOs' headquarters or otherwise. The respondents were asked to indicate how various operations were controlled from the NGO's headquarters (on a Likert scale 1= Very small Extent; 2= Small extent; 3=Moderately; 4=Great extend; 5=very great extend). The table 4.4 below shows the relationship that was established.

Table 4.4 The Extend in which Activities are Controlled from the NGO's Headquarters.

Activity	N	Mean	Std. Deviation
Information control	19	3.95	.705
Budgeting operations	19	3.74	.991
Project planning	19	3.53	1.219

Source: Research Findings (2013)

To a great extent (Mean ≥ 3.5), all the three operations; information control, budgeting and project planning are controlled from the NGOs headquarters. This implies that it is only through control from the headquarters on these operations that they can be delivered well. It also implies that control from headquarters gives a better management and monitoring of these operations which can help deliver better results.

4.3.4 Challenges Faced by NGOs in the Day-To-Day Operations

Like any other organizations, NGOs are faced by various challenges in their day-to-day operations. Such challenges occur from different orientations, with their impact to the NGO also having significantly different implications for different organizations. The response to these challenges by specific NGO is also bound to differ depending on various factors. Most of these challenges determine the effectiveness and efficiency of these organizations. Either, different NGOs have put in place different structures to address the impacts which are brought by these challenges. The study sought to establish the extent with which various challenges affected the daily operational framework of the different NGOs. On a on a Likert scale 1= Very small Extent; 2= Small extent; 3=Moderately; 4=Great extend; 5=very great extend, the respondents were asked how various challenges affected their day-to-day operations.

Table 4.5 The Extent with which the NGO is Affected by Various Challenges in Their Day-To-Day Operations

Challenge	N	Mean	Std. Deviation
Poor strategic planning	19	3.95	.970
Insecurity in conflict and harsh zones	19	3.79	.855
Religious and cultural conflicts	19	3.58	.961
Limited capacity	19	3.42	1.121
Poor governance	19	3.37	1.012
Hostility from local community	19	3.37	1.165
Low funding from mother organizations and other donors	19	3.32	1.003
Corruption	19	3.32	1.455
Conflicting interest between your NGO and the government	19	3.11	1.150
Political upheavals	19	2.84	1.259

Source: Research Findings (2013)

To a great extent (Mean ≥ 3.5) as per the findings in the above table 4.5, the organizations were affected by three challenges; poor strategic planning, insecurity in conflict and harsh zones and, religious and cultural conflicts. This was a clear reaffirmation as to why most to the NGO are putting in place various structures to address such challenges. From the research results, it was established to a moderate extent ($2.5 \geq \text{Mean} \leq 3.49$) that all the other challenges under study as per the table above; limited capacity, poor governance, hostility from local community, low funding from mother organizations and other donors, corruption, conflicting interest between your NGO and the government, and, political upheavals affected the NGOs. This was a clear indication that these challenges are of less impact to the daily operations of the organizations. However, this was in contrast to the findings of Selda & Emmett (2010), who established that most of these challenges of such significant impact to the running operations of the organizations.

4.4 Logistics Management Practices

The success of any organization, whether profit making or otherwise, is directly influenced by the logistics management practices that are put in place by the respective organization. Various logistics practices play significant roles in the smooth functionality of the organization. This section of the research study sought to establish the various logistics management practices which are used by the organizations. Though in a varying

degree, the respondents indicated some familiarity with the logistics management concepts and their applicability in the respective NGOs. This was an indication that most of the employees in these organizations were not adequately conversant with this concept. This was a clear contrast to the findings by Cozzolino (2012), who established that most of the international humanitarian organizations have well placed knowledge management structures to their employees in regard to logistics practices.

4.4.1 Whether the NGO has a Logistics Management Department

Adequate logistics management practices can only be operationalized well from the logistics management department within the organization. This department controls all the practices, activities and functions related to logistics. Adequacy of this department is crucial in ensuring that activities are done well and in their right scope. Despite the variance in the structures and endowment of the logistics department among various organizations, the central role of each is basically limited to similar functions and practices, with only a small variance subject to specific parameters from the respective organizations. Given this, the study sought to determine if the NGO had a logistic department which acts as a center of management of all the logistics activities within the organization.

Table 4.6 If the NGO has a Logistics Management Department

Has logistics department	Frequency	Percent
yes	18	94.7
no	1	5.3
Total	19	100.0

Source: Research Findings (2013)

As per the reflections of table 4.6 above, 18 out of the 19 respondents (94.7%) were of the affirmative that their organizations had in place logistics management department. This was a significant reflection which gave a hindsight in the significance attached to the roles of this department in any organization. The findings supported the study findings of Oloruntoba (2006), who overwhelmingly supported the need to logistic and supply chain management framework in NGOs. This is a clear reflection that these organizations use these departments as central points to undertake their operations, which in most cases

involve various logistic issues. However, one respondent was of the contrary (5.35%) to this.

4.4.2 The Scope with which Some Agencies have Participated on the Logistics Activities In The NGOs

There are various organizations that participate in the logistics activities of any NGO. This comes from the realization of the fact that the roles of a NGO within the society can only be fulfilled from a mutual relationship and association between various stakeholders. Each however has a specific and unique role to play. Without such different participant, the roles played by these NGOs within the society would highly be hampered. All the stakeholders therefore relate with each other to ensure that services are delivered to the community in the right way. Given this therefore, the study sought to establish the scope in which various agencies participated/were involved in the various logistics activities of the NGO. The respondents were asked to indicate how each agency rendered its participation (on a Likert scale 1= Very small Extent; 2= Small extent; 3=Moderately; 4=Great extend; 5=very great extend). The table 4.7 below shows the relationship that was established

Table 4.7 Participation of Various NGOs in the Logistics Activities of the NGO

Agency	N	Mean	Std. Deviation
Donors	19	4.21	1.134
Governments	19	4.05	.911
Non-governmental organizations	19	3.79	1.084
Aid agencies	19	3.79	.855
The military	19	3.58	1.017
Social institutions (e.g church)	19	3.16	.834
Companies from the private sector	19	2.16	1.302

Source: Research Findings (2013)

To a great extent (Mean ≥ 3.5) five agencies participated in the logistic activities of the NGOs as per the respondents. These were; donors, governments, non-governmental organizations, aid agencies and the military. This reaffirmed the study by Boin, Kelle & Whybark (2010) who hypothesized on the significant role played by such agencies in the logistics process of any NGO as they try to deliver their humanitarian aid to communities held in disasters. It is indeed true that the role played by these agencies cannot be

downplayed, as they ensure adequate facilitation of activities that promote adequacy and efficiency in all functions by the NGOs. From the same results however, on a moderate extend (Mean <3.5), two organizations; social institutions and companies from private sector participated in the logistics functions of the NGOs. This implies that their contribution to the activities by the NGOs is relatively of less significant and that the NGOs can function optimally even without their participation.

4.4.3 How the NGO Exercised Various Logistics Management Practices in its Logistics Functions

The success of the logistics process in any organization depends on how such an organization puts in place the different logistics management practices in their functions. The role of such practices is to promote efficiency and effectiveness in the activities performed by these organizations. With the importance of the logistics management practices in any organizations, this study sought to establish the extent with which various logistics management practices were exercised in the various logistics activities as established below.

4.4.4 Needs Assessment Practices

The assessment of the needs by the community that requires humanitarian aid is one important logistics management practices. Such an assessment helps to establish the scope of aid which the community would require to be adequately restored to their original situation. Assessment is therefore done to quantify the amount of resources and their nature which should be provided to the vulnerable community held in a humanitarian aid situation. The study aimed to establish the scope with which various needs assessment practices were exercised in the NGOs' wide activities. The respondents were asked to indicate how various assessment needs were deployed in the needs assessment functions by their organization (on a Likert scale 1= Very small Extent; 2= Small extent; 3=Moderately; 4=Great extend; 5=very great extend). The table 4.8 below shows the relationship that was established

Table 4.8 Needs Assessment by the NGO

Needs assessment practices	N	Mean	Std. Deviation
Before procuring any input, the NGO carries out an assessment of need to bridge the gap between its demand and supply	19	4.11	1.049
The NGO carries out needs assessment for each disaster individually as opposed to multi-sectoral needs assessment	19	3.47	.905
The NGO needs assessment is always based on the vulnerable population requirement	19	3.26	.991
The NGO is able to provide the best services based on its needs assessment	19	2.74	1.195

Source: Research Findings (2013)

From the research results as reflected above, it indicated that to a great extent (Mean ≥ 3.5) the NGOs carries out an assessment of the needs to bridge the gap between its demand and supply, and, that the NGOs carries out needs assessment for each individual disaster as opposed to needs based on multi-sectoral parameters. This was a clear indication of the significance of these two functions in the wide needs assessment process by the organizations. From the same results however, to a moderate extent ($2.5 \leq \text{Mean} < 3.5$) the organizations were reluctant in performing two needs assessment functions; basing their assessment on the requirements of the vulnerable community, and, the provision of the best services with regard to the assessment of the needs it undertakes. These results signify that most of the NGOs do not undertake assessment of the needs as per the requirements of the community which is subject to humanitarian needs. Either, the organizations does not provide the best services based on the requirements reflected on the needs assessment, but rather use their own objective reasons to deliver such aids without primary regard to what the vulnerable community requires.

4.4.5 Material and Service Ordering Practices

It is always important that material and services in any organization, whether commercial or non-commercial, be done optimally in order to meet the requirement of optimality in all operations. Significantly, ordering practices ensure that the right quantities and in their right qualities are ordered, to reach the organization in the right time and at the right prices. This is done so that ordering operations are done into scale to ensure that only what is required is ordered. The study also aimed at establishing how the NGOs

undertake material and service ordering practices in their activities. The respondents were asked to indicate how the organization undertook various ordering practices in their operations (on a Likert scale 1= Very small Extent; 2= Small extent; 3=Moderately; 4=Great extend; 5=very great extend). Given below is table 4.9 which reflects the responses that were obtained.

Table 4.9 Material and Service Ordering Practices by the NGOs

Material and service ordering practices	N	Mean	Std. Deviation
The NGO always establishes the approximate level of demand and supply before placing local orders	19	3.84	.834
Order for material and services is done after establishing the level of demand and supply	19	3.58	1.305
In case of disaster emergencies, the organization places required orders rapidly	19	3.53	.905
The NGO places orders both locally and internationally in case of disasters that have a long gestation period	19	3.47	1.264
The NGO carries out pre-planning and assessments before placing its orders	19	3.32	1.057
The NGO has in its warehouse various humanitarian aid substances (such as food, blankets, blood banks, and temporary accommodation) for rapid response during emergency disasters	19	3.265	1.558
The NGO always establishes the approximate level of demand and supply before placing international orders	19	3.263	.991

Source: Research Findings (2013)

From the research findings above, it was evident to a great extent (Mean ≥ 3.5) that the NGO always established the approximate level of demand and supply before placing local orders, that ordering for material and services is done after establishing the level of demand and supply, and in case of disaster emergencies, the organization places required orders rapidly. These three practices were objectively in the affirmation of the research by Burcu, et al, (2010) who places significant importance to the three, from the realization of their roles in ensuring that ordering is done well. From the results also, it can be deduced to a moderate extent ($2.5 \leq \text{Mean} < 3.5$) that; the NGO places orders both locally and internationally in case of disasters that have a long gestation period, the NGO carries out pre-planning and assessments before placing its orders, the NGO has in its warehouse various humanitarian aid substances (such as food, blankets, blood banks, and

temporary accommodation) for rapid response during emergency disasters, and that the NGO always establishes the approximate level of demand and supply before placing international orders. This is a reflection that such practices are of less significance in the material and service ordering process by the NGOs.

4.4.6 Optimal Donations Management Practices

Management of donations should be done optimally, to ensure that they are delivered to the people who require humanitarian aid, and as per the donation requirements of the donor. The loyalty of the donor can only be safeguarded when donations reach the right people. Embezzlement and misuse of such acts to discredit the NGO from receiving future donations from such potential donors. Given the significance of donations to NGOs in their financial stability, this study aimed at establishing how the various NGOs manage the donations they get from various sources. The respondents were asked to indicate how the organization undertook various optimal donation management practices in their operation (on a Likert scale 1= Very small Extent; 2= Small extent; 3=Moderately; 4=Great extend; 5=very great extend). Table 4.10 below reflects the responses that were obtained.

Table 4.10 A Reflection of How the NGOs Manage Donations

Optimal donations management practices	N	Mean	Std. Deviation
The NGO uses logistic companies for subsidized and other transportation services	19	3.53	1.172
The NGO accepts donations for the corporate word and other private sources	19	3.47	1.124
The NGO accepts the donation of all donors irrespective of origin, nationality, amount of donation, religion and other dimensions	19	3.32	1.157
The NGO appreciates both local and overseas donors for its humanitarian aid	19	3.26	.991

Source: Research Findings (2013)

From the table above, it is evident that to a great extent (Mean ≥ 3.5), the NGOs use logistics companies for subsidized and other transportation services. This affirms the findings by Boin, Kelle & Whybark (2010) who found other that optimal management of donations by the NGO can only be safeguarded by involving third party logistic

companies to help in the transportation process of the donations. This is indeed a reflection of the significant role played by transportation of donations to where needed in the right time by the NGOs. From the results also, it was established that to a moderate extent ($2.5 \leq \text{Mean} < 3.5$) the; NGO accepts donations from the corporate world and other private sources, the NGO accepts the donation of all donors irrespective of origin, nationality, amount of donation, religion and other dimensions, and that the NGO appreciates both local and overseas donors for its humanitarian aid. The fact that these three practices fall in this category is a clear indicate of how less significant the organizations employ them in their daily operations.

4.4.7 Best Warehousing Practices

Warehousing is one of core practices done by organizations to management the flow of material from one point to another. The objectives of warehousing are basically divergent, and vary from one organization to another. On an average situation however, these functions are almost similar between one organization and the other. This study aimed at establishing the scope of the best warehousing practices that are applied by these NGOs in the activities. The respondents were asked to indicate how the organization performed within its operations various warehousing practices (on a Likert scale 1= Very small Extent; 2= Small extent; 3=Moderately; 4=Great extend; 5=very great extend). The table below is a reflection of the results that were established.

Table 4.11 Best Warehousing Practices by the NGOs

Best warehousing practices	N	Mean	Std. Deviation
The warehouse is designed well to avoid wastes and contamination of material stored there	19	3.79	1.228
The warehouse is designed well to wastes and contamination of material stored there	19	3.53	1.172
The NGO sorts material in the warehouse whenever received before dispatch to the needy population	19	3.47	1.124
The NGO sorts material in the warehouse whenever received before dispatch to the needy population	19	3.37	1.065
The distribution centers for your organization are well established to ease distribution and minimize cost of operation	19	3.37	1.383
The warehouse in situated in a manner to improve material distribution	19	3.32	1.157
The warehouse in situated in a manner to improve material distribution	19	3.32	1.204
The NGO uses warehousing as a facilitator for coordination, sorting, and packaging activities for easier and efficient aid delivery to the needy	19	3.26	.933
The NGO uses warehousing as a facilitator for coordination, sorting, and packaging activities for easier and efficient aid delivery to the needy	19	3.26	.991

Source: Research Findings (2013)

According to the above table, it can be deduced to a great extent (Mean ≥ 3.5) that; the warehouse is designed well to avoid wastes and contamination of material stored there, and that the warehouse in situated in a manner to improve material distribution. These two practices signify the primary roles of any warehousing process. This is from the fact that reduction of waste and ease in distribution are the most significant factors to consider while planning a warehouse. It can also be established from the results that to moderate extent ($2.5 \leq \text{Mean} < 3.5$); the NGO sorts material in the warehouse whenever received before dispatch to the needy population, the NGO sorts material in the warehouse whenever received before dispatch to the needy population, the distribution centers for your organization are well established to ease distribution and minimize cost of operation, the warehouse in situated in a manner to improve material distribution, the warehouse in situated in a manner to improve material distribution, the NGO uses warehousing as a facilitator for coordination, sorting, and packaging activities for easier

and efficient aid delivery to the needy, and that the NGO uses warehousing as a facilitator for coordination, sorting, and packaging activities for easier and efficient aid delivery to the needy. This signifies that these moderately performed functions are of less consideration, though their significance should not be downplayed in a normal function of any organization.

4.4.8 Documentation, Cataloging, Consolidation and Recording Practices

In order to track down all activities done within an organization, there is an uncompromised need to ensure adequate documentation, cataloging and recording of all activities. Different stakeholders require functions and activities to be well documented for future reference, monitoring and management of operations. With the importance attached to the practices of documentation, cataloging, consolidation and recording in any NGO, this study aimed to establish the significance of such practices as envisaged by the NGOs. On a Likert scale 1= Very small Extent; 2= Small extent; 3=Moderately; 4=Great extend; 5=very great extend, the respondents were asked on the significance of various documentation, cataloging, consolidation and recording practices within their NGOs. The table 4.12 below was the aftermath of the data as provided by the respondents.

Table 4.12 Documentation, Cataloging, Consolidation and Recording Practices by the NGOs

Documentation, cataloging, consolidation and recording practices	N	Mean	Std. Deviation
Supplies and donations are consolidated for recording, assortment, cataloging and documentation	19	3.47	1.073
The NGO documents and records all receivables at the warehouses and distribution centers	19	3.37	.761
The NGO has invested in any kind of information technology to promote movement of material within and outside its borders.	19	3.26	1.240
All documentation of material received is in line with inventory management needs	19	3.16	1.214
The NGO is required by its donors to keep a documentation of their donations	19	3.21	1.475

Source: Research Findings (2013)

As per the table above it was established that to a moderate extent ($2.5 \leq \text{Mean} < 3.5$), all the practices under study; supplies and donations are consolidated for recording,

assortment, cataloging and documentation, the NGO documents and records all receivables at the warehouses and distribution centers, the NGO has invested in any kind of information technology to promote movement of material within and outside its borders, all documentation of material received is in line with inventory management needs, and that the NGO is required by its donors to keep a documentation of their donations, where moderately applied into practice by the NGOs. This was however contrast to the finding by Americas Relief Team (2012) who has placed a wide significance in all this practices in the logistics function of any humanitarian organization as they undertake their provision of humanitarian aid to the communities held in disasters.

4.4.9 Transportation and Delivery Practices

Humanitarian aid is in most cases required to be transported and delivered to respective points where vulnerable communities are engulfed in humanitarian crisis. Adequate transportation and delivery practices are therefore very critical at these times since they create an enabling environment with which communities held in humanitarian disasters can be provided with help. There is therefore a need to create a well functioning transport and delivery framework by all organizations to enable them deliver material and services where required in the most optimal manner and within the right time. This study therefore aimed at establishing the applicability of various transportation and delivery practices in the functions of the NGOs. On a Likert scale 1= Very small Extent; 2= Small extent; 3=Moderately; 4=Great extend; 5=very great extend, the respondents were asked to state how various transportation and delivery practices are carried out by their organization. Table 4.13 below was the summary of the findings.

Table 4.13 Transportation and Delivery Practices Used by the Organizations

Transportation and delivery practices	N	Mean	Std. Deviation
The NGO delivers products and other commodities to where they are required during emergencies	19	3.74	.872
Transport is done from the warehouses or distribution centers	19	3.63	1.065
The NGO uses various transport optimization models to help in product delivery with the least cost possible	19	3.26	1.195
Different modes of transport that best suit the disaster situation are used such as road, ships, airplanes	19	3.16	1.302
The NGO is integrating transportation and delivery as an important cost center in its operations	19	2.95	1.224

Source: Research Findings (2013)

From the above table, it is evident that to a great extent (Mean ≥ 3.5) that two practices; the NGO delivers products and other commodities to where they are required during emergencies, and, that transport is done from the warehouses or distribution centers were significantly done by the NGOs. This reflection implied the fact that the NGOs are very well motivated to have humanitarian aid required by the vulnerable population delivered well during such occasions. It can also be deduced that these organizations have a high preference of making their distributions from the central specifically designated distribution centers. From the results also, it was established that to a moderate extent ($2.5 \leq \text{Mean} < 3.5$), the three other practices as per the table above; the NGO uses various transport optimization models to help in product delivery with the least cost possible, different modes of transport that best suit the disaster situation are used such as road, ships, airplanes, and that the NGO is integrating transportation and delivery as an important cost center in its operations, are practiced by the NGOs. This gives a true reflection of how less these three practices are applied by the NGOs in their operation to provide humanitarian aid to the community.

4.5 Supply Chain Management Practices

Supply chain management plays a critical role in the success and operational framework of any organization. Organizations embody various practices within their supply chain frameworks to help achieve their goals in a more functional perspective. This section

sought to establish the various supply chain practices that are used by these organizations during disaster response. Various responses yielded the following set of practices

4.5.1 Whether the NGO has a Supply Chain Management Department

Many organizations have within their operation framework a supply chain management department which coordinates and manages all the supply chain functions. This department helps to ensure that operations within the supply chain are done optimally in order to reap the greatest benefits in their functions. As a critical issue for redress in this study, the role played by the supply chain departmental framework was a key issues worth of study. Given this therefore, this study aimed at establishing if these organizations had supply chain department within their frameworks. The result reflections were as per the table 4.9 below.

Table 4.14 If your NGO has a supply chain department

Do you have a supply chain department?	Frequency	Percent	Valid Percent
Yes	10	52.6	52.6
No	9	47.4	47.4
Total	19	100.0	100.0

Source: Research Findings (2013)

The results of the data analysis from the respondents showed that 10 respondents (52.6%) were of the affirmative that their organizations had a supply chain department. This is a reflection how most of the organizations have put in their operational frameworks, the need to have supply chain department which can act as a center for managing all the supply chain operations within their organizations. To the contrary, 9 respondents (47.4%), were of the opinion that their organizations did not have supply chain department. However, the small difference in the result reflections between the organizations that have a supply chain management department and those which don't have is clear indication of the almost equal perception which these organizations perceive towards this function.

4.5.2 Adequate Product and Service Flow Practices in the Supply Chain

Management Functions of the NGOs

Product and service flow within and supply chain network is one significance practice which all organizations embody to have. A well functional service and product flow process ensures that activities, resources, information and other important issues within the supply chain are well coordinated and delivered to various destinations. The study aimed at establishing how the NGOs apply various product and service flow practices in their supply chain management. On a Likert scale where 1= Very small Extent; 2= Small extent; 3=Moderately; 4=Great extend; 5=very great extend, the respondents were asked to state how various product and service flow practices are carried out by their organizations. The table 4.15 below shows the results as per the respondents.

Table 4.15 How the NGOs Apply Product and Service Flow Practices in Their Supply Chain Management Functions

Adequate product and service flow practice	N	Mean	Std. Deviation
The NGO exercises both upstream and downstream flow of products and services for the benefit of the people in disasters	19	3.74	1.098
The NGO has implemented good strategies to address the smooth flow of products and services from their sources to the beneficiaries	19	3.11	1.329
The NGO uses both forward and reverse flow of material and other services in relief operations	19	3.05	1.268

Source: Research Findings (2013)

From the above table, it was found that to a great extent (Mean ≥ 3.5), the organizations exercises both upstream and downstream flow of products and services for the benefit of the people in disasters. This is an indication that these organizations have a wide flow of material and service components both upstream and downstream, which of great significance to their roles in providing humanitarian aid to the people requiring such aids. It was also established from the results that to a moderate extent (Mean < 3.5) two functions; the NGO has implemented good strategies to address the smooth flow of products and services from their sources to the beneficiaries and that the NGO uses both

forward and reverse flow of material and other services in relief operations were less envisioned in the functions of the NGOs. This indicates that these organizations were less motivated to incorporate the same into their functions.

4.5.3 Adequate Flow of Information Practices in the Supply Chain Management

Functions of the NGOs

Information flow is one key practice that all organizations are currently engaging in whilst they perform their function. A key concept that arises in the modern world of management is that of knowledge management which encompasses information flow and control as one of its parameters. Organizations can only be well functioning if they incorporate adequate information flow mechanisms within their operations. The study aimed to establish how the NGOs apply various practices that are aimed at ensuring adequate flow of information in the process of delivering services during disasters. The respondents were asked to indicate how the organization performed within its operations various flow of information practices (on a Likert scale 1= Very small Extent; 2= Small extent; 3=Moderately; 4=Great extend; 5=very great extend). Below is a table 4.16 giving the reflections of the findings.

Table 4.16 How the NGOs Apply Adequate Information Flow Practices in Their Supply Chain Management Functions

Adequate flow of information practices in supply chain management	N	Mean	Std. Deviation
The NGO recognizes the significance of the media in its information flow across different frontiers	19	2.47	1.124
The NGO is keen at adequate flow of information in all its operations	19	2.21	1.084
The NGO uses flow of information as an important tool for communication between all its stakeholders	19	2.11	1.049
The flow of information is both upstream and downstream its supply chain	19	2.00	.882.
The NGO has invested in assistive technologies that support the flow of information in its operations and during disasters	19	1.63	684

Source: Research Findings (2013)

As evident from the table above, to a small extent (Mean<2.5), all the five practices supporting information flow; The NGO recognizes the significance of the media in its

information flow across different frontiers, the NGO is keen at adequate flow of information in all its operations, the NGO uses flow of information as an important tool for communication between all its stakeholders, the flow of information is both upstream and downstream its supply chain, and that the NGO has invested in assistive technologies that support the flow of information in its operations and during disasters, were less significant in the operations of the organizations. This was a clear indication that almost all the organizations have low regard to the role of information in their operation. This is however contrary to the research finding by Mungatia, (2010) who found out that NGOs are currently investing in information support infrastructure to help them deliver various information to different stakeholders whenever required.

4.5.4 Enhanced Flow of Finances

Finance control and management is one of the core functions of any functional organization. For NGOs, financial management is one key issue which ensures that their operations are well secured for. Many key players such as donors, governments and social institutions require that finances are well used and managed. The loyalty of donors can only be safeguarded if well formulated policies to safeguard their donations from corruption, embezzlement and optimal use are put into place. With this objective in mind, the study sought to establish how the NGOs apply various practices within their operations to enhance flow of information across their different functions. The respondents were asked to indicate how the organization performed within its operations various financial flow practices (on a Likert scale 1= Very small Extent; 2= Small extent; 3=Moderately; 4=Great extend; 5=very great extend). Below is table 4.17 that shows the result findings from their responses.

Table 4.17 How the NGOs Apply Enhanced Flow of Finance Practices in Their Supply Chain Management Functions

Enhanced flow of finance practices	N	Mean	Std. Deviation
The NGO recognizes the need for adequate management of its finances to secure the goodwill of all the stakeholders	19	4.53	.697
The NGO keeps well informed books of accounts for all its financial receipts and use	19	4.16	.688
The NGO is makes payments for supplies, purchases and other services in its operations	19	2.47	1.020

Source: Research Findings (2013)

From the table, it is evident that to a very great extent ($\text{Mean} \geq 4.5$), the NGOs recognized the need to adequately manage it finances in order to secure the goodwill of its stakeholders. This attribute supports that finding of Selda & Emmett (2010) who is of the opinion that the loyalty of the various stakeholders in a humanitarian supply can only be safeguarded though proper finance management and controls. From the results also, it was evident that to a great extent ($3.5 \leq \text{Mean} < 4.5$) the NGOs keep well informed books of accounts for all its financial use and receipts. This practice can be described as a support practice for adequate financial management to safeguard the good will of the stakeholders. From the same results however, it was established that to a small extent ($\text{Mean} < 2.5$), the NGOs make payments for supplies, purchases and other services in its operations. This can be deduced from the fact that most of these components are provided as donations by donors and other stakeholders, and thus the NGOs have little to do with purchases of humanitarian aid material by their own.

4.5.5 Technological Investment Practices

Technological revolution is one of the most intrinsic management tools which organizations are indebted to make use of in order to achieve efficiency and effectiveness in their operations. Organizations are currently using technology as a tool to aid them in their operations, and to achieve success in their activities. The study sought to establish how the NGOs invest in practices that promote technology development to help in their activities. Given the role played by technology in the current world of management, this study found it important to evaluate how these NGOs have invested in this crucial tool of

management. The respondents were asked to indicate how the organization used various technological practices in their operations (on a Likert scale 1= Very small Extent; 2= Small extent; 3=Moderately; 4=Great extend; 5=very great extend). The table 4.18 below shows the research findings as per the respondents.

Table 4.18 How the NGOs have Invested in Various Technological Practices

Technological investment practices	N	Mean	Std. Deviation
The NGO is using information technology as a tool for helping in its decision making	19	3.32	1.157
The NGO recognizes the significance of investing in technology to aid in its operations	19	3.16	.958
The NGO recognizes the need for technology in increasing efficiency and effectiveness hence reducing costs of operations	19	2.16	1.167

Source: Research Findings (2013)

Despite the growing concern of the need for technology in all organizations, this study however established that these NGOs have not taken into significance on the need to invest in objective technological practices that can help in their management processes. From the results, it was established to a moderate extent ($2.5 \leq \text{Mean} < 3.5$) that the NGO is using information technology as a tool for helping in its decision making, and also that the NGO recognizes the significance of investing in technology to aid in its operations. This is a clear indication that these organizations have on average recognized the need to use technology as a tool to help them in their operations. As deduced from the results also, it was established that to a low extent ($\text{Mean} < 2.5$) that these organizations recognizes the need for using technology in increasing efficiency and effectiveness which would help them reduce the cost of their operations. This is despite the alarming growth in concern for the role in which technology plays in creating organizational efficiency and hence reducing costs. It can also be argued that the organizations are basically using traditional methods to enhance efficiency in their operations, something which perhaps adds on to their costs of operations.

4.5.6 Cash and Inventory Practices

One of the most important management practices by organizations is that of management of their cash and inventory. With the significant role of these two aspects in the success

of any organization, their control and management is important. Given this therefore, another significant aim of this study was to evaluate how the NGOs utilize various cash and inventory practices in the operations. On a Likert scale where 1= Very small Extent; 2= Small extent; 3=Moderately; 4=Great extend; 5=very great extend, the respondents were asked to state how various cash and inventory practices are exercised by their organizations. The table 4.19 below gives the findings of the study.

Table 4.19 How the NGOs Apply Various Cash and Inventory Practices in Their Operation

Cash and Inventory Practices	N	Mean	Std. Deviation
The NGO is keen at avoiding corruption and other forms of financial mismanagements	19	4.53	.841
The NGO is accountable to its donors over all the donations they give towards disaster responses	19	4.37	.761
The NGO exercises proper management of its cash and inventory	19	4.26	.653
The NGO applies high integrity while using cash and other material donations	19	3.47	1.429

Source: Research Findings (2013)

From the above table, it was established that to a very great extent (Mean \geq 4.5) the NGOs were keen on avoiding corruption and other forms of financial mismanagements. This can be internalized from the role played by corruption and such other financial mismanagement methods in affecting the goodwill of the various stakeholders of the NGOs. From the research results also, it can be deduced that to a great extent (3.5<Mean<4.5) the NGO is accountable to its donors over all the donations they give towards disaster responses and that NGO exercises proper management of its cash and inventory. These are equally important practices which promote the goodwill of the various stakeholders. The same results however showed that to a small extent (Mean<3.5), the NGOs applied high integrity while using their cash and other material donations. This was a clear reflection that these organizations are not keen on how they manage their cash and other donations.

4.5.7 Cost Management Practices

Management of cost is equally an important concept in the managerial framework of any organizations. Despite being non-profit making institutions, NGOs ought to establish cost effective practices with which such organizations can use to ensure that all process and activities are done in the most optimal cost possible. Management of costs ensures that activities are done well and in the least cost possible. With this in mind, the study also aimed at establishing the scope in which the NGOs apply in their operations various cost management practices. On a Likert scale where 1= Very small Extent; 2= Small extent; 3=Moderately; 4=Great extend; 5=very great extend, the respondents were asked to state how various cost management practices are exercised by their organizations. Table 4.20 below gives the reflections of the research findings.

Table 4.20 How the NGOs Apply Various Cost Management Practices in Their Operation

Cost Management Practices	N	Mean	Std. Deviation
The NGO is keen at managing all the costs that arise from all its activities in supplying and distributing material to where needed	19	3.47	.905
The NGO applies cost cutting measures to reduce total cost in its operations	19	3.16	.765
The NGO recognizes cost management and optimization as important issues in its operations	19	1.95	1.129

Source: Research Findings (2013)

From the above table, we can deduce that on average all the NGOs depict to a moderate extent ($2.5 \leq \text{Mean} < 3.5$) that they are keen at managing all the costs that arise from all its activities in supplying and distributing material to where needed as well as the fact that they apply cost cutting measures to reduce total cost in its operations. These are indeed substantial practices that cannot be disregarded if the success of any organization it to be safeguarded. From the same results however, it was established that to a small extent ($\text{Mean} < 2.5$), the NGO recognizes cost management and optimization as important issues in its operations. This is a clear depiction of how most of these organizations do not apply cost management and optimization measures, and that they are vulnerable to being victims of financial misappropriations.

4.5.8 Supply Chain Partnership Practices

Supply chain partnership play critical roles in any organizations. Different supply chain partners have different roles in the facilitation of the activities within the supply chain. The roles of each organization cannot be undermined. Each work for the success of the contemporary supply chain process. The study therefore sought to establish how the NGOs apply the various supply chain partnership practices in the various management activities. On a Likert scale where 1= Very small Extent; 2= Small extent; 3=Moderately; 4=Great extend; 5=very great extend, the respondents were asked to state how various supply chain partnership practices are exercised by their organizations. The below table gives the findings from the respondents

Table 4.21 How the Organizations Apply Various Supply Chain Partnerships

Supply chain partnership practices in supply chain management	N	Mean	Std. Deviation
The NGO recognizes the need to ensure good partnerships with its stakeholders/partners such as donors, governments, the media and suppliers, among others etc	19	2.95	1.311
The NGO appreciates the different role played by each of its stakeholders in its humanitarian aid process	19	2.89	1.329
The NGO incorporates all the different stakeholders in decision making if need be	19	2.89	1.487
The NGO has established modalities and structures to address the conflicts that arise from the different stakeholders.	19	2.21	1.316
The NGO is always ready to address the individual need of the different stakeholders to avoid conflict arising among them	19	1.79	.976

Source: Research Findings (2013)

From the table 4.9.7 above, we can deduce that to a moderate extent ($2.5 \leq \text{Mean} < 3.5$), the NGOs practiced these practices; that the NGO recognizes the need to ensure good partnerships with its stakeholders/partners such as donors, governments, the media and suppliers, among others etc, the NGO appreciates the different role played by each of its stakeholders in its humanitarian aid process, as well as the fact that the NGO incorporates all the different stakeholders in decision making if need be. From the same results also, it was established that to a small extent the organizations have established modalities and structures to address the conflicts that arise from the different stakeholders, and that the NGO is always ready to address the individual need of the different stakeholders to avoid

conflict arising among them. This shows that most of these NGOs appreciate these practices as played by various supply chain partners.

4.6. The Relationship between Supply Chain Practices and, Disaster Response and Management

Past studies have revealed some relationships between supply chain practices and, disaster response and management. This comes from the realization of the role played by various supply chain practices when it comes to disaster response and management. The study also sought to establish the relation that exists between various supply chain practices and disaster response and management by the NGOs. The results from the analyzed data were as below.

4.6.1 Rapid Disaster Response

There have been many disasters across the world over the past. The intensity and effect of various disasters have been felt differently across various nations. In Kenya, disasters have been on the verge of increase. With the rise in terrorism attacks, more disasters have been reported. Elsewhere, natural disasters have been on the increase over time. The study sought to establish the numbers of people and communities that were given aid across a period of time ranging between the year 2006 and 2013. The respondents were asked to state the number of disasters in which they had participated by offering some humanitarian services since 2006. The aim of this study was to deduce the trend in the number of disasters in Kenya which called for humanitarian aid by the NGOs. The table below was the summary of the totals that were obtained from the respondents.

Table 4.22 Disaster Response by the NGOs

Measure of rapid response	Unit of measure	Year							
		2006	2007	2008	2009	2010	2011	2012	2013
Number of people provided with emergency assistance while in distress form disasters	No.	2049	13461	34260	15452	8430	4007	2763	2044
Number of communities restored/or given replacement from disaster	No.	34	154	643	411	76	45	39	21
Number of communities, or regions provided with recovery from disaster	No.	114	304	507	452	165	93	122	50
Number of people that have been given recovery or relief to alleviate them from a disaster	No.	11762	66765	45762	28907	18798	12675	8211	1876

Source: Research Findings (2013)

From the table above, there was a certain trend on the manner in which disaster aid and responses were delivered to the communities and people that were struck by disasters was evident. There is basically more of these services in the years 2007 and 2007. As per the above table, these two years reflected an increasing number of the people that were provided with humanitarian aid assistance, number of people that were recovered or relieved to alleviate them from the distress of disaster, the number of communities restored after disasters and the number of communities provide with recovery aid from the aftermath of disasters. This could be deduced to have a direct correction of the 2007 general election which thereafter brought post election violence. It is also noticeable that after 2008, all the measures of disaster response show a decrease in their numbers. We can thus deduce that the number of disaster is perhaps reducing. However, this many not be the case. It could be the fact that these organizations are slowly reducing their efforts

in providing support to the vulnerable populations that are affected by disasters. It is also important to acknowledge that complete conclusions cannot be deduced towards this year (2013), considering that the year is not yet over. Going by the above information also, it is difficult for instance establish the dispersion of the responses to specific areas or even populations from specific geographical circumstances. The information was a general representation of the total responses by these NGOs without the regard to geographic/zoning concentrations.

4.6.2 Regression Analysis Results

In the study, a multiple regression analysis was conducted, with the aim of establishing the relationship which existed between Disaster response (DR) and the supply chain management practices (the independent variables) by the NGOs. This was achieved by utilizing statistical package for social sciences (SPSS Version 20.0), for coding and hence computing the respective measurement in the regression model for this study, whose form was:

$$DR = \beta_0 + \beta_1 PF + \beta_2 IF + \beta_3 FF + \beta_4 T + \beta_5 CIM + \beta_6 SCCM + \beta_7 SCP + \varepsilon$$

Whereby; PF=product flow, IF=Information flow, FF=Financial flow, T=Technology, CIM=Cash Inventory Management, SCCM=Supply Chain Cost Management, SCP=Supply chain partnerships, and ε =error term

In the study, a 95% confidence interval for a T-Test was carried out to establish how the dependent variable could have been explained from the changes in the independent variables.

By use of STATA, the researcher estimated the below regression analysis.

$$DR = \beta_0 + \beta_1 PF + \beta_2 IF + \beta_3 FF + \beta_4 T + \beta_5 CIM + \beta_6 SCCM + \beta_7 SCP + \varepsilon$$

From the results, the fitted regression can be presented as:

$$DR = 6.35103 + 7.002463PF + 9.43204IF + 2.784021FF + 5.21351T + 4.415621CIM + 6.51448(0.0151)SCCM + 5.311449SCP$$

4.6.3 T-Test for Coefficients

Table 4.23 T-Test Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Correlations		
	B	Std. Error	Beta			Zero-order	Partial	Part
(Constant)	-.403	.215	.01904	-2.40	.004	.423	.127	.144
product flow	.203	.024	.01977	2.273	.003	.231	.211	.011
Information flow	.441	.167	.01201	1.405	.001	.327	.341	.035
Financial flow	.348	.034	.01729	3.992	.000	.401	.365	.435
Technology	.256	.213	.01644	2.086	.005	.415	.253	.354
Cash Inventory Management	.361	.109	.0168	3.144	.003	.356	.576	.265
Supply Chain Cost Management	.488	.098	.0151	4.008	0.01	.409	.513	.267
Supply chain partnerships	.542	.106	.0276	3.762	.005	.293	.087	.108

Where; PF=Product flow, IF=Information flow, FF=Financial flow, T=Technology, CIM=Cash Inventory Management, SCCM=Supply Chain Cost Management, SCP=Supply chain partnerships. Using a significance level of 5%, any variable that has significant value greater than 5% is not statistically significant. However from the above table 4.23, all the independent variable are statistically significant where product flow (3%), Information flow (1%), Financial flow (0%), Technology (5%), Cash Inventory Management (3%), Supply Chain Cost Management (1%), and, Supply chain partnerships (5%).

This implies that, all the independent variables are suitable predictors for DR. This means that for every unit increase in measure of product flow, the measure of disaster response increases by 0.203 units, for every unit increase in measure of information flow, the measure of disaster response increases by 0.441 units, for every unit increase in measure of financial flow, the measure of disaster response increases by 0.348, for every unit increase in measure of technology, the measure of disaster response increases by 0.256, for every unit increase in measure of cash inventory management, the measure of disaster response increases by 0.361, for every unit increase in measure of Supply Chain Cost

management, the measure of disaster response increases by 0.488, and, for every unit increase in measure of supply chain partnerships, the measure of disaster response increases by 0.542 units

4.6.4 Coefficient of Determination, R²

Table 4.24 Model Summary

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.798 ^a	.6765	.643	.267	.676	17.309	5	14	.000

From the above Table 4.8, the R² value is 67.65%. This implies that all the seven independent variable explain 67.65% of the variance in the disaster response by international NGOs. According to this reflection, the combination of all the above given supply chain practices had a direct influence on the response variable (Disaster response). Thus, the combination of all the explanatory variables which were captured in this model were indeed significant, meaning that the results of these finding were arbitrary informative, in regard to how they raise questions on the effects of supply chain management practices on disaster response by international NGOs in Kenya.

4.6.5 F-Test for the Full Model

Table 4.25 ANOVA Table

ANOVA ^b						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	8.048	5	1.61	17.309	.000 ^a
	Residual	2.852	14	.0891		
	Total	10.900	19			

For 5% level of significance, the numerator df=5 and denominator df=19, critical F value is 2.151. Table 4.25 shows computed F value as 17.309. Thus, the regression model is statistically significant, which implies that it is a suitable prediction model for explaining how various supply chain practices are applied in disaster response by various NGOs.

From these finding therefore, there is basically a problem by the international NGOs from distinguishing themselves from other local NGOs, with regard to the set of the specific explanatory variables which have been captured in our model. Indeed, the R-square value of our regression model was +67.651%, implying that there were perhaps other factors that contributed to the remaining 34.349%, to explain the various in the disaster response and supply chain management practices by international NGOs in Kenya.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

The aim of the study was to establish the set of supply chain factors that are applied by international humanitarian organizations, as they provide rapid responses during disasters. From a set of the practices that were highlighted in the literature review, there was a need of confirming their implication in a real response from the sample of respondents.

5.2 Summary of Findings

The aim of the research study was to establish the extent in which various supply chain management practices are incorporated by international humanitarian organizations in Kenya, as they provide humanitarian aid during disasters.

The study indeed established that majority of the respondents were conversant with supply chain practices with regard to how they are utilized in their organizations. Despite some of the organizations not having logistics and supply chain departments within their framework, it was remarkable with regard to how most of the respondents fared with regard to application of the various logistics and supply chain practices within their organizations. On average, the respondents showed a positive image with regard to how practices such as assessment of the needs of the vulnerable population, ordering of services and other materials, management of donations to an optimal level, practices that promote best warehousing, documentation, cataloging, consolidation and recording practices, practices that enhance adequate flow of products enhanced flow of finances and cash, and, inventory management practices were adopted by these organizations. However, there was relatively a poor response with regard to how these organizations envisage practices such as supply chain cost management practices, practices that promote adequate flow of information, practices that promote investment in technology and supply chain partnership practices. We can perhaps deduce that the success of these organizations is most likely to be improved if they were to invest more in these areas which they have showed poor response in.

5.3 Conclusion

The study aimed at establishing how international governmental organizations in Kenya embody the application of various supply chain management practices in disaster response for those engulfed in disasters. However much the study projected the applicability of these practices by the organizations, there is still an alarming rate with regard to how certain NGOs embody the application of these practices into their mainstream processes. Significantly, some of the organizations show a trend of not actually envisaging these practices.

Probably, the operational weaknesses which some of these NGOs have depicted with regard to how they respond during times of needs can perhaps be correlated to the lack of application in these practices within their functions. However, with the trend in which these organizations are currently adopting, we realize that they are recognizing the need for them to stay at the age of serious application of various management concepts. From the research, it was established that these organizations despite been unable to fully adopt some of these practices, they had a sense of their appreciation, with some respondents denoting how their organizations are in the path towards adopting such fundamental practices.

5.4 Recommendations

From the findings, it is clear that majority of the international NGOs in Kenya have applied in their operational frameworks various supply chain practices in their process of delivering humanitarian aid to population that have been affected by disasters. However, despite their current state of applying such practices, it is recommended that these organizations embody in a more elaborate manner the same practices. Just like how profit making organizations are rapidly adopting and scaling up these practices in their mainstream activities, it would be widely rational if these NGOs put into their functions these practices with more resilience.

It is also recommended that these NGOs create tools for check-up with which they can use in ensuring that specific practices are well tracked of.

Authorities and perhaps specific personnel, departments or offices should be established within these organizations to help track and manage all the functions under their offices/departments to ensure continuous checks and balances.

Monitoring and evaluation for specific practices should be done occasionally to ensure that all is done, and according to how it should be done.

The organizations should invest in information technology systems which on average help to manage and control almost all other functions within the organizations.

Additionally, these organizations should keep continuous research and study of the most current and crucial management tools in the world of management, so that they always have themselves at par with the rest of the world, in terms of organizational management.

5.5 Limitations of the Study

A set of various limitations were significantly important is the results that were obtained in this study;-

The response rate for the questionnaires was hardly 70%. Some respondents declined to give their responses. Given that the study conclusions were based on those that responded, this could have been a limitation to more conclusive results if there was a 100% response rate, or perhaps a rate close to this.

With the choice of choosing international NGOs that offer response to vulnerable communities during disasters, this was perhaps a limitation. Different results could have been yielded of for instance we generalized the set of the organizations of study from international NGOs, to all other classes of NGOs, as long as they are concerned with delivery of services to populations during disasters.

Given the small sample (27 respondents), the confidence and hence the result projections of the study could have been compromised, which therefore might have implied generalizing certain circumstances.

The choice of survey for the study might have been a significant factor in the responses obtained in the study. Of importance here could also have been the nature of the

questions used for responses, which could have had an impact to the respondents in how they understood them, and consequently on how they delivered their responses.

Sampling was used for data collection. This might have affected the results.

5.6 Suggestions for Further Study

The scope of the research was basically a broad one. There was a wide scope of supply chain practices that were captured in this study. It was perhaps difficult for individual respondents to internalize the nature of these practices as they apply in their organizations as a whole. The suggestion of the researcher at this point is to have a future study which literally concentrates in just some few of these factors, perhaps clustered subject to some specific interests in terms of their roles within the organizational service delivery framework. Either, further studies could dwell on independent or individual study of such practices, in order to provide more concentrated and focused studies in regard to such practices.

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Appendix I: RESEARCH QUESTIONNAIRE

Section A: GENERAL INFORMATION

1. When was your NGO established (Please tick where applicable)

Before 1969 [] 1970-1979 [] 1980-1989 []
 1990-1999 [] 2000-2009 [] 2010 to date []

2. To what category does your NGO broadly fall?

Operational NGO [] Advocacy NGO []

3. To what extent have the following activities been controlled from the headquarters of your NGO? (Use the scale 1= Very small Extent; 2= Small extent; 3=Moderately;

4=Great extend; 5=very great extend)

Activity	Very small extent (1)	Small extent (2)	Moderately (3)	Great extent (4)	Very great extent (5)
Project planning					
Information control					
Budgeting operations					

4. To what extent has your NGO faced the following challenges in the day-to-day operations in Kenya (Use the scale 1= Very small Extent; 2= Small extent; 3=Moderately; 4=Great extend; 5=very great extend)

Challenge	Very small extent (1)	Small extent (2)	Moderately (3)	Great extent (4)	Very great extent (5)
Insecurity in conflict and harsh zones					
Low funding from mother organizations and other donors					
Poor strategic planning					
Poor governance					
Conflicting interest between your NGO and the government					
Hostility from local community					
Corruption					
Political upheavals					
Limited capacity					
Religious and cultural conflicts					

SECTION B: LOGISTICS MANAGEMENT PRACTICES

5. Does your organization have a logistics management department

Yes [] No []

6. To what extent have the following agencies participated in logistic activities for your NGO (Use the scale 1= Very small Extent; 2= Small extent; 3=Moderately; 4=Great extend; 5=very great extend)

Agency	Very small extent (1)	Small extent (2)	Moderately (3)	Great extent (4)	Very great extent (5)
Aid agencies					
Governments					
Companies from the private sector					
Donors					
No-governmental organizations					
The military					
Social institutions (e.g church)					

7. To what extent has your NGO exercised the following Logistics Management practices within its logistic functions (Use the scale 1= Very small Extent; 2= Small extent; 3=Moderately; 4=Great extend; 5=very great extend)

Logistics Management practices	Very small extent (1)	Small extent (2)	Moderately (3)	Great extent (4)	Very great extent (5)
<i>Needs assessment practices</i>					
Before procuring any input, the NGO carries out an assessment of need to bridge the gap between its demand and supply	(1)	(2)	(3)	(4)	(5)
The NGO needs assessment is always based on the vulnerable population requirement	(1)	(2)	(3)	(4)	(5)
The NGO is able to provide the best services based on its needs assessment	(1)	(2)	(3)	(4)	(5)
The NGO carries out needs assessment for each disaster individually as opposed to multi-sectoral needs assessment	(1)	(2)	(3)	(4)	(5)
<i>Material and service ordering practices</i>					
The NGO always establishes the approximate level of demand and supply before placing local orders	(1)	(2)	(3)	(4)	(5)
The NGO always establishes the approximate level of demand and supply before placing international orders	(1)	(2)	(3)	(4)	(5)
Order for material and services is done after establishing the level of demand and supply	(1)	(2)	(3)	(4)	(5)

In case of disaster emergencies, the organization places required orders rapidly	(1)	(2)	(3)	(4)	(5)
The NGO carries out pre-planning and assessments before placing its orders	(1)	(2)	(3)	(4)	(5)
The NGO has in its warehouse various humanitarian aid substances (such as food, blankets, blood banks, and temporary accommodation) for rapid response during emergency disasters	(1)	(2)	(3)	(4)	(5)
The NGO places orders both locally and internationally in case of disasters that have a long gestation period	(1)	(2)	(3)	(4)	(5)
<i>Optimal Donations Management Practices</i>					
The NGO appreciates both local and overseas donors for its humanitarian aid	(1)	(2)	(3)	(4)	(5)
The NGO accepts donations for the corporate word and other private sources	(1)	(2)	(3)	(4)	(5)
The NGO uses logistic companies for subsidized and other transportation services	(1)	(2)	(3)	(4)	(5)
The NGO accepts the donation of all donors irrespective of origin, nationality, amount of donation, religion and other dimensions	(1)	(2)	(3)	(4)	(5)
<i>Best Warehousing Practices</i>					
The NGO uses warehousing as a facilitator for coordination, sorting, and packaging activities for easier and efficient aid delivery to the needy	(1)	(2)	(3)	(4)	(5)
The NGO sorts material in the warehouse whenever received before dispatch to the needy population	(1)	(2)	(3)	(4)	(5)
The warehouse is designed well to wastes and contamination of material stored there	(1)	(2)	(3)	(4)	(5)
The warehouse is situated in a manner to improve material distribution	(1)	(2)	(3)	(4)	(5)
The distribution centers for your organization are well established to ease distribution and minimize cost of operation	(1)	(2)	(3)	(4)	(5)
<i>Documentation, Cataloging, Consolidation And Recording Practices</i>					
Supplies and donations are consolidated for recording, assortment, cataloging and documentation	(1)	(2)	(3)	(4)	(5)
All documentation of material received is in line with inventory management needs	(1)	(2)	(3)	(4)	(5)
The NGO is required by its donors to keep a documentation of their donations	(1)	(2)	(3)	(4)	(5)
The NGO documents and records all receivables at the warehouses and distribution centers	(1)	(2)	(3)	(4)	(5)
The NGO has invested in any kind of information technology to promote movement of material within and outside its borders.	(1)	(2)	(3)	(4)	(5)
<i>Transportation and Delivery Practices</i>					
The NGO delivers products and other commodities to where they are required during emergencies	(1)	(2)	(3)	(4)	(5)
Different modes of transport that best suit the disaster situation are used such as road, ships, airplanes	(1)	(2)	(3)	(4)	(5)

Transport is done form the warehouses or distribution centers	(1)	(2)	(3)	(4)	(5)
The NGO uses various transport optimization models to help in product delivery with the least cost possible	(1)	(2)	(3)	(4)	(5)
The NGO is integrating transportation and delivery as an important cost center in its operations	(1)	(2)	(3)	(4)	(5)

SUPPLY CHAIN MANAGEMENT PRACTICES

8. Does your organization have a supply chain management department

Yes []

No []

9. To what extent has your NGO exercised the following adequate product and service flow practices within its supply chain management functions (Use the scale 1= Very small Extent; 2= Small extent; 3=Moderately; 4=Great extend; 5=very great extend)

Adequate product and service flow practices in supply chain management	Very small extent (1)	Small extent (2)	Moderately (3)	Great extent (4)	Very great extent (5)
The NGO exercises both upstream and downstream flow of products and services for the benefit of the people in disasters					
The NGO has implemented good strategies to address the smooth flow of products and services from their sources to the beneficiaries					
The NGO uses both forward and reverse flow of material and other services in relief operations					

10. To what extent has your NGO exercised the following adequate flow of information practices within its supply chain management functions (Use the scale 1= Very small Extent; 2= Small extent; 3=Moderately; 4=Great extend; 5=very great extend)

Adequate flow of information practices in supply chain management	Very small extent (1)	Small extent (2)	Moderately (3)	Great extent (4)	Very great extent (5)
The NGO is keen at adequate flow of information in all its operations					
The flow of information is both upstream and downstream its supply chain					
The NGO recognizes the significance of the media in its information flow across different frontiers					
The NGO uses flow of information as an important tool for communication between all its stakeholders					
The NGO has invested in assistive technologies that support the flow of information in its operations and during disasters					

11. To what extent has your NGO exercised the following adequate enhanced flow of finance practices within its supply chain management functions (Use the scale 1= Very small Extent; 2= Small extent; 3=Moderately; 4=Great extend; 5=very great extend)

Enhanced flow of finance practices in supply chain management	Very small extent (1)	Small extent (2)	Moderately (3)	Great extent (4)	Very great extent (5)
The NGO is makes payments for supplies, purchases and other services in its operations					
The NGO keeps well informed books of accounts for all its financial receipts and use					
The NGO recognizes the need for adequate management of its finances to secure the goodwill of all the stakeholders					

12. To what extent has your NGO exercised the following investment in technology practices within its supply chain management functions (Use the scale 1= Very small Extent; 2= Small extent; 3=Moderately; 4=Great extend; 5=very great extend)

Technological investment practices	Very small extent (1)	Small extent (2)	Moderately (3)	Great extent (4)	Very great extent (5)
The NGO recognizes the significance of investing in technology to aid in its operations	(1)	(2)	(3)	(4)	(5)
The NGO recognizes the need for technology in increasing efficiency and effectiveness hence reducing costs of operations	(1)	(2)	(3)	(4)	(5)
The NGO is using information technology as a tool for helping in its decision making	(1)	(2)	(3)	(4)	(5)

13. To what extent has your NGO exercised the following cash and inventory practices within its supply chain management functions (Use the scale 1= Very small Extent; 2= Small extent; 3=Moderately; 4=Great extend; 5=very great extend)

Cash and Inventory Practices	Very small extent (1)	Small extent (2)	Moderately (3)	Great extent (4)	Very great extent (5)
The NGO exercises proper management of its cash and inventory	(1)	(2)	(3)	(4)	(5)
The NGO is accountable to its donors over all the donations they give towards disaster responses	(1)	(2)	(3)	(4)	(5)
The NGO applies high integrity while using cash and other material donations	(1)	(2)	(3)	(4)	(5)
The NGO is keen at avoiding corruption and other forms of financial mismanagements	(1)	(2)	(3)	(4)	(5)

14. To what extent has your NGO exercised the following supply chain cost management practices within its supply chain management functions (Use the scale 1= Very small Extent; 2= Small extent; 3=Moderately; 4=Great extend; 5=very great extend)

Cost Management Practices	Very small extent (1)	Small extent (2)	Moderately (3)	Great extent (4)	Very great extent (5)
The NGO is keen at managing all the costs that arise from all its activities in supplying and distributing material to where needed	(1)	(2)	(3)	(4)	(5)
The NGO recognizes cost management and optimization as important issues in its operations	(1)	(2)	(3)	(4)	(5)
The NGO applies cost cutting measures to reduce total cost in its operations	(1)	(2)	(3)	(4)	(5)

15. To what extent has your NGO exercised the following supply chain partnership practices within its supply chain management functions (Use the scale 1= Very small Extent; 2= Small extent; 3=Moderately; 4=Great extend; 5=very great extend)

Supply chain partnership practices in supply chain management	Very small extent (1)	Small extent (2)	Moderately (3)	Great extent (4)	Very great extent (5)
The NGO recognizes the need to ensure good partnerships with its stakeholders/partners such as donors, governments, the media and suppliers, among others etc	(1)	(2)	(3)	(4)	(5)
The NGO appreciates the different role played by each of its stakeholders in its humanitarian aid process	(1)	(2)	(3)	(4)	(5)
The NGO has established modalities and structures to address the conflicts that arise from the different stakeholders.	(1)	(2)	(3)	(4)	(5)
The NGO incorporates all the different stakeholders in decision making if need be	(1)	(2)	(3)	(4)	(5)
The NGO is always ready to address the individual need of the different stakeholders to avoid conflict arising among them	(1)	(2)	(3)	(4)	(5)

SECTION C: DISASTER RESPONSE

Please provide us with the following data to help us determine the rapid disaster response rate over the part period. Please provide us (if possible), all or part of the existing literature with respect to how your organization has responded to disasters over the past, maybe things like journal, magazines, annual reports, and all relevant literature that you may have in your possession and which may deem reputable for us to gather more information relation to our study.

Measure of rapid response	Unit of measure	Year							
		2006	2007	2008	2009	2010	2011	2012	2013
Number of people provided with emergency assistance while in distress situation form disasters	No.								
Number of communities restored/or given replacement as a result of disaster	No.								
Number of communities, sectors or regions provided with recovery aid from the effect of a disaster	No.								
Number of people that have been given recovery or relief to alleviate them from damage or distress as a result of a disaster	No.								

APPENDIX II: The list of International Humanitarian organizations in Kenya

1. Action Against Hunger (AAH)
2. Amnesty International Kenya
3. CARE
4. Caritas International
5. Catholic Relief Services (CRS - USCC)
6. Doctors without Borders
7. Emergency Nutrition Network (ENN)
8. Food for the Hungry International (FHI)
9. International Committee of the Red Cross (ICRC)
10. International Organization for Migration (IOM)
11. International Rescue Committee (IRC)
12. Lutheran World Federation
13. Mennonite Central Committee (MCC)
14. Mercy Corps (MC)
15. Overseas Development Institute (ODI)
16. Oxfam
17. Refugees International
18. Relief International
19. Save the Children
20. The Office of U.S. Foreign Disaster Assistance (OFDA)
21. United Nations Children's Fund (UNICEF)
22. United Nations High Commissioner for Refugees (UNHCR)
23. United Nations Office for the Coordination of Humanitarian Affairs (OCHA)
24. US Committee for Refugees (USCR)
25. World Food Programme (WFP)
26. World Health Organization (W H O)
27. World Vision International

(Source: Global Corps, 2013)