

DECLARATION

**EFFECTIVENESS OF SUPPLY CHAIN STRATEGY IN DISASTER
MANAGEMENT IN WORLD VISION KENYA))**

I declare that this project is my original work and that it has not been
submitted to any other University or Institution for academic credit.

Mungatia Lucy Kenya

Date 11/11/2010

D61/701/1000000

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**A MANAGEMENT RESEARCH PROJECT SUBMITTED IN PARTIAL
FULFILMENT FOR THE REQUIREMENT OF THE DEGREE OF MASTER OF
BUSINESS ADMINISTRATION**

**SCHOOL OF BUSINESS
UNIVERSITY OF NAIROBI**

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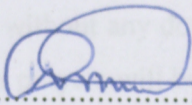


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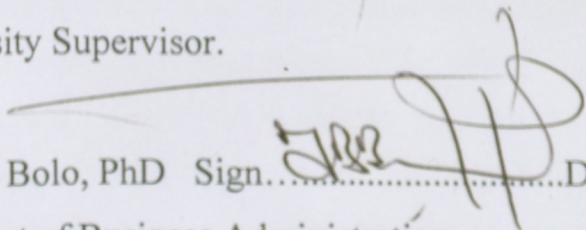
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DEDICATION

First I acknowledge the Almighty God who has enabled me to accomplish this work. I dedicate this project to my husband Joseph and children Ivyn Makena and Kevin Kinoti who encouraged me through the long journey to complete this course and slipped onto my pillow encouraging messages like; “.....continue reading for the exams, I wish you success....Kevo”; “....do your exams well without any doubt because you have read enough (maybe even too much) and I know that our prayers will be answered and that God is on your side (Success)....” Kena.

I love you dearly and cherish our friendship.

My gratitude to the National Director World Vision Kenya, Mr. Gloria Bogachew for granting me approval to use World Vision Kenya as a case study and to use the organization's records for data collection. My appreciation also goes to all World Vision Kenya officers who were particularly instrumental in my effort to access information that enabled success of this study. I particularly wish to thank Mr. Nicholas Wamuna who inspired me to think to study on this topic after talking me through a Disaster Management Workshop and assisted me to get a deep understanding of disaster management and provided me with lots of materials to use for this study.

I appreciate my family members especially my mother Agnes and my sisters Faith and Priscilla who prayed and stood with me in many difficult situations and ways, who played some of my family roles as I attended classes. I love you and may the Lord bless you.

I appreciate my friends and work colleagues who encouraged me to take the MBA course. I thank my study colleagues particularly Francis, Monica, Anna and Patricia whom we teamed up with through out the course and who motivated me even in those days when I felt like giving up. I think, it was worthy wait, and thank you. Finally, I offer my heartfelt appreciation to the teaching and non-teaching staff and the entire student body of School of Business, University of Nairobi.

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First, I acknowledge the Almighty God who has enabled me to accomplish this work. *"I will praise you, O Lord, with all my heart; before the "gods", I will sing your praise."* Ps 138:1.

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LIST OF ABBREVIATIONS AND ACRONYMS

SC	Supply Chain
SCM	Supply Chain Management
DM	Disaster Management
WVK	World Vision Kenya
UN	United Nations
UNICEF	United Nations Children's Fund
WFP	World Food Programme
PSI	Population Services International
NGO	Non Governmental Organization
PLWA	People Living with HIV/AIDS
OVCs	Orphaned and Vulnerable Children
IPAs	Integrated Program Areas
HELB	Higher Education and Loans Board

ABSTRACT

This study was conducted using a case study research design based on World Vision Kenya. The study was aimed at establishing the effectiveness of supply chain strategy in disaster management at World Vision Kenya. World Vision Kenya is a Christian humanitarian development organisation working through communities for transformational development. The scope of the study was limited to the last five years of World Vision Kenya's operations in the country. The researcher conducted in-depth interviews with World Vision Kenya departmental heads who in one way or the other are involved in making strategic decisions particularly to aid in disaster management. Information was also obtained from World Vision Kenya's records. The study confirmed that World Vision Kenya manages and responds to disasters as many examples were provided of disasters that World Vision Kenya managed and/or responded to. World Vision Kenya also has a fully fledged disaster management function and that disaster management procedures and strategies are in place. World Vision Kenya also has funds set aside all the time for a first response to a disaster and a committee that oversee the management of the fund. The study also confirmed that to a large extent World Vision Kenya as a fully fledged supply chain management function that has set procedures. World Vision Kenya manages disasters adequately by pursuing various supply chain management strategies. These strategies include establishment of defined alliances with its stakeholders and partners like the government, suppliers and other aid agencies. World Vision Kenya has also put in place strategic sourcing arrangements to shorten the time taken between recognition of a need and delivery of goods and services to satisfy the need. Clear organizational procedures are also in place and are communicated to all staff. This means that in a disaster World Vision Kenya staffs are aware of the steps to take to manage the disaster. It is also noted that there has been remarkable effort to improve inter-departmental coordination and integration in World Vision Kenya in the last 5 years. Interdepartmental integration and establishment of strategic alliances are two strategies that bring out World Vision Kenya as a supply chain that is very well knit. The results of this study can be used by other non governmental organisations, humanitarian aid agencies, the government and churches that are usually on the fore front during disasters. For academicians and other researchers wishing to carry out further research, the empirical information will contribute to existing literature in the field of supply chain strategy and disaster management.

Key words: *Effectiveness, supply chain, strategy, disaster management, World Vision Kenya.*

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CHAPTER ONE: INTRODUCTION

1.1 Background of the study

During the past two decades, societies around the world have been adversely affected by numerous catastrophic events, including floods, hurricanes, earthquakes, and droughts, (Oxfam, 2007); as a result, disaster relief operations now rank high on political agendas. Worldwide, averages of 400-500 natural disasters strike every year, up from a yearly average of 125 in the early 1980s. The number of people affected by such disasters has risen from some 174 million to more than 250 million per year (United Nations, 2007). Various reasons may explain the growth of disaster events, including increased urban concentrations and environmental degradation. Human-made disasters add to the totals with incidents caused by political instability, such as terrorism, war, and ethnic clashes or social factors, including racism, exclusion, and religious persecutions. This has led to set up of disaster management agencies that work hand in hand with governments in not only responding to disasters but to mitigation, preparedness, response and post disaster repairs. These aid agencies and all other stakeholders that put a hand to disaster management are what this research term as supply chains.

Kenya has been described as chronically disaster prone. The country has over 30 years historical data on disasters. Major historical disasters faced in Kenya include drought, famine, floods, disease epidemics and traffic accidents. Other emerging disasters experienced in the recent past include fires, landslides, terrorism, food poisoning, earthquakes, tribal clashes, and Internally Displaced People (IDPs). The contributing

factors to disaster occurrence in Kenya are climatic variability, population increase, land degradation, and recently global warming. The situation is however compounded by, political instability and/or insecurity that lead to conflict, chronic poverty, low investment levels in diverse livelihood sectors, skewed land (and wealth) distribution, gender inequality in education, poor governance, illiteracy, epidemics like HIV/AIDs and Malaria, and clashes/conflict. About 22 districts in Kenya are considered disaster prone, all of which fall in the Arid and Semi-Arid lands of Kenya. Despite the challenge posed by these disasters, the government and key players in disaster management have come up with institutional framework that can be employed during disaster response, enhanced data information gathering through the Early Warning System (EWS) and disseminations.

1.1.1 Supply chain strategy

A supply chain involves the constant flow of information, product and cash between different stages. Management of the supply chain in itself is a strategy that most organisations have adopted to offer a competitive advantage from other organisation. Supply chain strategy can therefore be said to be the coordination or integration of the activities of all the stakeholders involved in procuring, producing, delivering and maintaining products and services to customers located in geographically different places. It is a process-oriented approach to coordinate all organizations and all functions in the delivery process. The main objective of every supply chain is to maximize the overall value generated.

The value of adopting a supply chain strategy is the difference between the worth of the final product to the customers and the effort behind the fulfilment of the request. Supply chains possess three key qualities: they are agile, adaptable, and aligned in ways that provide companies with sustainable competitive advantage. Supply chains are not just fast and cost-effective, they are also agile and adaptable, and they ensure that the interests of all those involved stay aligned (Lee, 2004).

1.1.2 Disaster management

Disaster management has been defined as the body of policy and administrative decisions, the operational activities, the actors and technologies that pertain to the various stages of a disaster at all levels. There are four primary levels of disaster management. These four primary stages are mitigation, preparedness, response, and recovery. Although there has been a consensus lately regarding the classification of disaster management, there are still many different approaches in terms of classifying activities related to disaster management. Many researchers accept a four-phase comprehensive approach proposed by the Center for Policy Research for the National Governors' Association (National Governors' Association, 1978).

Mitigation is assessing possible sources of crisis and identifying sets of activities to reduce and or eliminate those sources so that crisis never happens or its impact is reduced. Preparedness is developing a crisis response plan and training all the involved parties so that in the case of a crisis people know their roles and will effectively be able to deal with it. Mitigation and preparedness are crucially important to eliminate or reduce the damage caused by disasters. These two stages lead to proactive decisions in crisis

management. A good crisis management plan also has a clear plan for responding to crisis. Response constitutes the set of immediate actions taken after a crisis occurs, and it aims to reduce the impact by utilizing the plans created during the preparedness stage. Recovery is the final set of activities that deals with crisis in the long run. The objective during the recovery stage is to support all involved parties until they resume their normal operations. These two stages constitute reactive decisions in crisis management.

1.1.3 Non Governmental Organisations (NGOs)

As a developing country Kenya receives large amounts of foreign assistance, most of which is distributed through non-governmental organizations. NGOs operate at all levels international, national, regional and grass-roots. NGOs are legally constituted organizations that operate independent from the government of the country. They are entities that have no government status. The term is usually applied to organizations that pursue some wider social aims with political aspects, but themselves are not political organizations. NGOs exist for a variety of reasons, usually to further the political or social goals of their members or funders or supporters. NGOs operate different projects in the fields of emergency relief, health, refugees, environment, human rights, education, and other key aspects of international development. NGOs in the humanitarian and emergency relief have their main aim to assist the suffering populations affected by disasters and other forms of human suffering like poverty, illiteracy or diseases. The primary objective of humanitarian aid provided by these organisations is to save lives, alleviate suffering and maintain human dignity. Humanitarian organisations work with the governments, the UN and mostly rely on donor funds for their operations.

1.1.4 World Vision Kenya

World Vision is a Christian relief, development and advocacy organisation dedicated to working with children, families and communities to overcome poverty and injustice.

World Vision Kenya's mission is to follow our Lord and Saviour Jesus Christ in working with the poor and oppressed to promote human transformation, seek justice and bear witness to the good news of the Kingdom of God. World Vision Kenya's vision statement: "Our Vision for every child, life in all its fullness; Our prayer for every heart, the will to make it so; Kenya in harmony." World Vision summarizes its moral calling in six core values: we are Christian, we are committed to the poor, we value people, we are stewards, we are partners, we are responsive.

World Vision International started operations in Kenya in 1974 during a time of severe drought and famine that affected most parts of the country. After helping to feed the hungry, World Vision Kenya started development work in various communities.

Currently World Vision Kenya operates 64 programmes commonly referred to as Integrated Program Areas (IPAs) which are spread across 42 districts in all the eight provinces of Kenya. For ease of administration and management, the IPAs are organized into seven sub branches namely, Nairobi, Pwani, Eastern, Lake, Central Rift, North Rift and North Eastern. World Vision Kenya's beneficiaries include, Orphans and Vulnerable Children (OVCs), people living with HIV and AIDS (PLWA), farmers, pastoralists, poor households and victims of emergencies. World Vision Kenya does this with support from the support offices like; Australia, Canada, Finland, Germany, Hong Kong, Ireland,

Japan, South Korea, UK and USA. World Vision Kenya is dedicated to working with children, families and communities to overcome poverty and injustice. While working with the communities, World Vision Kenya has been able to provide clean and safe water, access to education, support and care for Orphans and Vulnerable Children, People Living with HIV and AIDS (PLWA) as well as improved household incomes. World Vision Kenya has also advocated for the rights of children especially through the formation and operationalization of Area Advisory Councils (AAC's) in partnership with the government of Kenya. World Vision Kenya is active in humanitarian relief activities within the country. During the post election violence in 2008 World Vision Kenya responded in Naivasha, Nakuru, Rongai, Molo, Bungoma, Cheerengany, Koibatek, Marigat, Gilgil, Kibera, Burnt Forest and Eldoret. WVK has maintained strong partnership with donors, the government of Kenya Civil Society Organizations (CSOs), the Church, communities and Community Based Organizations (CBOs), research institutions and UN Agencies.

1.2 Statement of the problem

Various research studies have been carried out in the area of supply chain and supply chain management and strategy. Lutta (2003) focused on outsourcing of distribution logistics within supply chains of East Africa Breweries limited and he concluded that the company was saving a lot in terms of operations costs and delivery time by outsourcing the distributions of its products. Kirui (2001) did competitive advantage through outsourcing of non core logistics activities within the supply chain of British American Tobacco (BAT) Kenya and found out that there are some activities which require large

amount of resources and its return or contribution to the organizations income is low and also the efficiency of outsourcing the activities was achieved rather than BAT carrying out the tasks. Munei (2009) did an analysis of the key success factors for supply management in Unilever Tea supply chain in Africa and found out that strategic planning, transport and capacity planning, information management and technology utilization, human resource management and continuous improvement and collaboration were cited as the key success factors in supply chain management. Ngugi (2008) studied the practice of supply chain management in UNICEF Kenya and found out that the management of the chain enables the organization to allocate resources equitably based on the necessity of the resources and also enables the organization to run its programs according to plan.

From the above researches carried out, none of them dwelt on supply chain strategy in disaster management which is so crucial for organizations that deal with disaster response as it has to ensure that all activities are carried out in a systematic manner. It is because of these gaps that this research will try to find out the effectiveness of the supply chain strategy in disaster management. This research will seek to answer the question, how effective is the supply chain strategy in disaster management? The study will use World Vision Kenya as a case?

1.3 Objective of the study

The objective of this study was to determine the effectiveness of supply chain strategy in disaster management in World Vision Kenya.

1.4 Value of the study

The study will be important to organizations that in one way or another manage and respond to disasters. These include governments, NGOs, churches and humanitarian organisations. These will be able to know the best supply chain strategy to adopt and the best way to do supply chain management in order to succeed in their area of operation. It will also enable the management of World Vision Kenya to put in place the necessary mechanisms to facilitate efficient disaster management. The recommendations of this study will form part of the action plans that will help in enhancing disaster response by World Vision Kenya. This study will also benefit the government especially the Ministry of Special Programmes for making policy decisions whose overall objective is to respond promptly to disasters. This study is expected to increase body of knowledge to scholars of supply chain management on how they should position their organisations to be able to respond to disasters. It may also encourage further research on other factors that contribute to effective disaster management.

2.2.1 Supply Chain Strategy

Strategies are decisions by which businesses coordinate their decisions regarding their structural and inter-structural elements. Strategy can be seen as a long-term game plan formed on following specific sets of business objectives. Strategy often directs an organization in the long run. It is the organization's plan to ensure that the organization reaches its objectives. Supply chain strategies are business operational strategies that are strategic to

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter reviews existing literature, both theoretical and empirical, on supply chain strategy and disaster management. To be able to position itself for disaster management an organization must draw strategies that will aid in understanding what, how and when to action if a disaster were to occur.

2.2 Theories and concepts of supply chain strategy and disaster management

This section will consider discussions by scholars of supply chain strategy and disaster management. The purpose of this section is to understand supply chain and disaster management and seek to see the relationship between the two and how supply chain then affects performance of a firm doing or tasked with the responsibility of managing and responding to disasters.

2.2.1 Supply Chain Strategy

Strategies are mechanisms by which businesses coordinate their decisions regarding their structural and infrastructural elements. Strategy can be seen as a long-term game plan focused on achieving specific sets of business objectives. Strategy offers direction on what people in the organisation should do now to ensure that the organisation reaches its objectives. Supply chain strategies are business operational strategies that are strategic to

the organisation and define how structural and infrastructural elements in the operations and supply chain will be acquired in order to give support to the overall business strategy of the organisation. Supply chain encompasses three interrelated elements: the management of all activities associated with the flow and transformation of goods, from raw materials stages to the final user, the associated information flows up and down the supply chain and the management of the supply chain relations.

Mentzer (2001) defines supply chain management as the systematic strategic coordination of the traditional business functions within a particular company and across businesses within the supply chain. Supply chain management has evolved from a commercial orientation into a pro active strategic outlook fully integrated into the corporate strategy of the organization. He further notes that Supply chain management is enjoying an increasing economic importance because brought in components are account for the largest share of the total organization economy.

Lysons & Farrington (2006) defines supply chain as network of organizations involved through upstream and downstream linkages in different processes and activities that produce value in the form of products and services in the hands of the ultimate customers or consumer. This definition emphasises that supply chains are networks, with upstream and downstream linkages. It further explains that supply chains have linkages that coordinate supply chain processes and relationships and that supply chain process is a specific ordering work activity across a time and place with a beginning and an end and clearly identified inputs and outputs, a structure of action.

Supply chain management can be simply defined as the integration and management of business processes across the supply chain. The business processes in the supply chain include customer relationship management, customer service management, demand management order fulfilment, manufacturing flow management, supplier relationship, manufacturing flow management, product development and commercialization and returns management of reverse logistics. A supply chain is a higher level recognition of the strategic value of managing operational activities and flows within and across a supply chain.

Supply chain management involves proactively managing the two way movement and coordination of goods, services, information and funds from raw material to end user (Lysons & Farrington, 2006). Supply Chain management is a set of approaches utilized to efficiently integrate suppliers, manufacturers, warehouses, and stores, so that merchandise is produced and distributed at the right quantities, to the right locations, and at the right time, in order to minimize system wide costs while satisfying service level requirement. Supply chains are composed of interrelated activities that are internal and external to a firm (Simchi-Levi et al, 2009).

2.2.2 Disaster management

A disaster can be defined as an occurrence of such magnitude as to create a situation in which the normal patterns of life within a community are suddenly disrupted and people are plunged into helplessness and suffering urgently requiring food, shelter, clothing, medical attention, protection and other life sustaining requirements (Skeet, M. H. 1997). In ancient Egypt the Nile flooded at regular intervals bringing with it a swathe of

devastation involving losses of life and ruined crops. The recent El Nino rains in Kenya did also destroy lives, crops and structures. Nature is not alone in generating disasters. Mans ingenuity and ambitious feats of engineering has also led to disasters. These include nuclear power, faster travel methods like, sea and road, bridges of prodigious height. We should be certain of one thing, disasters are waiting to happen, the questions are what? where? and when?, what devastation will occur?. Many times we avoid such questions choosing instead to hope that disasters will not happen.

Persons entrusted with the vital roles of disaster management most constantly plan to mitigate the carnage and damage which follow disasters. Noah's Ark may be regarded as one of the earliest attempts to effectively plan, integrate and co-ordinate efforts and services of both private and public agencies as they address efforts of major incidents (LexisNexis Group UK, 2004). Disasters are not only tragic events for the victims, but have on a much wider scale negative effect on development. Damage caused by disasters directly impacts economic and economic development and has traumatising effects on the population. Wounds on armed conflicts are felt generations after the disaster event. Natural disasters devastate large regions while industrial hazards are dangerous especially where new productions processes are exported to other regions. Disaster reduction therefore is getting much recognition as an important aspect of development planning (DERC, 1998).

2.2.2.1 Types of disasters

Disasters are classified into two types, natural disasters and manmade disasters. Natural disasters are those caused by acts beyond human control or what are called acts of God. These are further grouped into meteorological disasters like storms (cyclones, hailstorms, hurricanes and tornadoes), cold spells and droughts; topographical disasters like avalanches, landslides and floods; biological disasters like insect worms and diseases; telluric disasters and tectonic disasters like earthquakes, tsunamis and volcanic eruptions. Man made disasters are those disasters caused by human made actions. These include civil disturbances like riots and demonstrations; warfare like terrorism, nuclear, blockades and siege; refugees and accidents.

2.2.2.2 Phases of disasters

The period of time for which disasters affects a country can be divided into warning phase, period of impact, rescue phase, relief phase and rehabilitation phase, while the magnitude of a disaster can be measured or assessed by its effects like size of area of devastation, number of people affected; dead, injured, displaced, number of buildings, roads, railways, bridges, and airports destroyed or damaged, disruption of public services like telephones, electricity, water, sewerage, spread of diseases, loss of crops and livestock, effect on normal activities, psychosocial effects on people and economic effects. An indication on the magnitude of these would provide a direction on the size of the disaster (Skeet, M. H. 1997).

2.2.2.3 Effects of disasters

Disasters have negative effects on those affected; the effects can be psychological or economical. Psychological effects lead to a disaster syndrome similar to a state of shock experienced by people who have just lost a close relative. The first results to a feeling and reaction of abandonment and apathy and one feels like alone sufferer. Psychological effects are most felt by effects and horrors of war than natural disasters. This stage passes gradually on realisation by the affected that they are not the only ones affected and that others are equally involved. The other effect of disaster is economic which involves costs of catastrophes. These include resources of manpower to alleviate the effects, cost of rebuilding or reconstruction the usually uninsured locally built houses (Skeet, M.H 1997).

It should be recognised and appreciated that poverty is the primary root of vulnerability and disaster in the third world countries. Appreciating this is therefore the first step towards developing an understanding of the need for change in the current disaster response strategies and practises. "For if the magnitude of a disaster is an outgrowth of underdevelopment and poverty, how can we expect to reduce the impact with food, blankets, and tents, the traditional form of assistance" (Cunny, F.C 1983, p. 15).

2.2.2.4 Reactions to disasters

Reactions to disasters fall into two main categories: the immediate relief operations designed to save lives endangered by the event itself, the second effect is the long-term process of repairing and rebuilding the damage caused. Usually these two processes are

consecutive but at some point merge into one another. At times the two are intertwined and have to be handled simultaneously. Example of this is the drought situations which affect a region over a number of years (UNA-USA, 1979).

2.2.2.5 Future trends for disasters

Future trends for disasters is that natural disasters may not decrease but that they may increase due to population growth and human movement to urban areas. Effects of disasters will only be minimised when adequate methods of warning and plans for dealing with them have been drafted, notified and understood by those involved in disaster management (Skeet, H. 1997). There are different approaches among humanitarian agencies on to how to carry out relief activities. These differences point to the concept of complementarities, which means that humanitarian agencies use different modes of action or techniques in fulfilling their responsibility. In all contexts though disaster response should support and/or complement government services in terms of structure, design and long term sustainability.

While responding to disasters and in order to maximise the coping strategies of those affected by disasters it is important to acknowledge the differing vulnerabilities, needs and capacities of affected groups. The key vulnerable groups are women, children, older people, disabled people, people living with HIV/AIDs and ethnic minorities (The Sphere Project, 2004). "If sufficient number of management layers are superimposed on top of each other, it can be assumed that disaster is not left to chance" (Norman R. Augustine). WVK and most other humanitarian aid agencies have taken this as key learning and have put in place committees that continually are in position to mitigate, plan, respond and do

recovery during disasters. These committees are tasked with the responsibilities of maintaining strategic oversight and ensuring that the organization has the capacity to save lives, promote livelihoods and secure sustainable transformational development programs.

2.3 Empirical studies on supply chain strategy

Mwirigi carried out a study on green supply chain management practices by manufacturing firms in Kenya. She noted that purchasing plays a role in supply chain by acting as an intermediary step connecting suppliers with internal customers who then supply goods and services to external customers (Mwirigi, 2007).

- ⑧ Lutta (2003) carried out a research on the benefits of outsourcing non core competencies. Lutta concluded that there was large savings in operational costs through outsourcing, employees' time and that of the organization in general was freed to concentrate on core business of the organization. In this research study of supply chain and disaster management, outsourcing of non core activities of disaster agencies is considered one of the strategic options that the agencies should adopt. ✕

Awino (2001) in his dissertation on effectiveness and problems of strategy implementation of financing higher education in Kenya by the HELB, noted that in order to fulfil its mission and objectives it is recommended that an organization should allocate clear responsibilities for successful outcomes. New strategies are selected because they offer opportunities and potential benefits but also come with risks because they involve

changes. Implementation of strategies should seek to maximize benefits while minimizing risks.

Awino (2007) in a thesis study of supply chain management in large private manufacturing firms, defined supply chain as a set of three or more firms directly linked by one or more of the upstream and downstream flows of products, services, finances and information from a source to a customer. Awino goes on to define supply chain management as the implementation of supply chain orientation across suppliers and customers; the systematic, strategic coordination of the traditional business functions in a particular company and across businesses with the supply chain for the purpose of improving the long-term performance of the individual companies and the supply chain as whole. Awino found that there is great need for synergy of the various variables in the supply chain; independent effect of these variables is weaker than their joint effect. SCM provides an environment where core competencies, strategy and strategy implementation process, core capabilities can link effectively within the value chain to enhance corporate performance. SCM practices are universal and studies carried out in Kenya compare well with others carried out globally.

Performance of a supply chain is measured in terms of profit, average product fill rate, response time and capacity utilization. Where response time is crucial it can be improved at the expense of overall costs (Omusebe, 2006). Omusebe concluded that firms should maintain good relations with their suppliers and other stakeholders because this is one way of supporting quality production and enhancing speed and reliability of organizations' operations.

2.4 Knowledge Gap

From above reviews it is observed that supply chain strategy is a vital function in the management of disasters by not only World Vision that is the organization in focus in this study but also by all stakeholders in disaster management. These as noted in the reviews above include governments, aid agencies, affected communities, military departments and donors among others. It is evident also that disaster management is mostly all about moving supplies and services from the suppliers to the consumers or moving affected persons from the disaster area to more safer grounds. Empirical studies reviewed above have not covered studies on supply chain strategy's role or effectiveness of existing supply chain strategy in disaster management or response. It is in this light that this study will seek to show variables that affect effectiveness of supply chain strategy in disaster management. The results of this study would be important for actors in disaster supply chains in improving effectiveness of supply chain in disaster management.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter discusses the research methodology used in this study and covers research design, data collection methods, data analysis and reporting. The chapter provides details on how the researcher collected data useful in getting maximum information related to the subject under study. It also shows the research respondents from whom data was collected and shows data analysis method and rating criteria.

3.2 Research Design

The study was modelled on a case study design. A case study involves careful and complete observation of a social unit be it a person, family, cultural group or an entire community and/or institution (Young, 1960). The study focused on the supply chain strategy in WVK and the results provide an insight in understanding how WVK uses supply chain strategy to manage disasters. Robson (2002) defined a case study as a strategy for doing research which involves an empirical investigation of a particular phenomenon within a real life context using multiple source of evidence. Case study strategy will be of particular interest if you wish to gain rich understanding of the context of the research and the processes being enacted (Morris & Wood, 1991). It is a method of study that drills down rather than casts wide and is used to determine the relationship amongst the variables influencing the current behavior or status of the subject/unit of study.

3.3 Data Collection

The data collected and used in this study was both qualitative and quantitative in nature. Qualitative data collected was mainly ideas and themes that were related to the supply chain management strategies and disaster management. The study allowed in depth exploration of the effectiveness of supply chain strategy particularly in disaster management. Primary and secondary data was used in this research. Primary data was collected from respondents by way of personal interview by use of an interview guide and questionnaire. The respondents were heads of departments in World Vision Kenya both in the National Office in Nairobi and field offices from Pwani, North Rift and Eastern sub branches, a total of nine officers were interviewed. Secondary data was sourced from the World Vision Kenya records like the annual reports.

3.4 Data Analysis

Content analysis method was used to analyse data and report the findings of this study. Being a case study this approach was useful in getting areas of consensus and/or disagreement from various interviews and with already documented data. Content analysis is described as any technique for making inferences by systematically and objectively identifying specific characteristics of messages, Nachamias & Nachamias (1996). According to Cooper & Schindler (2003), content analysis measures the semantic content or the 'what' aspect of the message. Its breadth makes it a flexible and wide-ranging tool that may be used as a methodology or problem-specific technique. It guards

against selective perception of the content, provides for the rigorous application of reliability and validity criteria. The analysis was based on the meanings and implications which emanated from the respondents information and documented data. Quantitative data that was collected using the questionnaires was backed by qualitative data collected by through interviews. The interviews allowed interaction between interviewer and interviewees and provided deeper understanding of the concept and purpose of the data being collected and the study as a whole.

4.2 Respondents of the study

Nine officers were interviewed and filled questionnaires collected from them. The study shows that the respondents have on average worked in WVK for 3.6 years. There are considered good indicators of the study because the scope of this study covers last 5 years of WVK operations in disaster management. These officers being in the management level as well as the respondents in Appendix II are consistent with the strategic direction of WVK.

CHAPTER FOUR: DATA ANALYSIS AND INTERPRETATION OF RESULTS

4.1 Introduction

This chapter presents the analysis of data collected from the interviewees using the interview guide on Appendix I and questionnaire on Appendix II. Interviews were done with nine departmental heads; Branches I and II in the operations division, Finance and Administration division, People and Culture division, Stakeholder Engagement, Resource Development and Crisis Response (EDR) department, Supply Chain Management department and three regional managers from Eastern, Pwani and North Rift sub branches. The interview guide and questionnaire contained several variables that were considered key in measuring effectiveness of a supply chain especially while managing disasters.

4.2 Respondents of the study

Nine officers were interviewed and filled questionnaires collected from them. The study shows that the respondents have on average worked in WVK for 5.6 years. These are considered good informers of this study because the scope of this study covers last 5 years of WVK operations in disaster management. These officers being in the management level as seen on the organogram on Appendix III are conversant with the strategic decisions of WVK.

4.3 Does World Vision Kenya do disaster management?

While seeking to find out how effective WVK supply chain strategy is in disaster management it was important to first confirm that WVK actually does disaster management. It is noted that one of WVK's core values is "we are responsive". This core value states that WVK respond to situations in the country that require attention, aid and alleviation of human suffering. WVK has been responsive to life-threatening emergencies where its involvement is needed and appropriate. For new and unusual opportunities WVK will take intelligent risks and act quickly. WVK has been responsive where deep-seated and often complex economic and social deprivation calls for sustainable, long-term development. This year (2010), WVK is celebrating 36 years of operation in Kenya. It is noted from its historical background that WVK started operations in Kenya in 1974 during a time of severe drought and famine that affected most parts of the country. WVK came in and helped feed the hungry. This is a confirmation that WVK does disaster management. From the primary data respondents also confirmed that WVK does disaster management by giving examples of categories of disasters that WVK has responded to. Respondents to this study stated that WVK has managed disasters resulting from floods, drought and famine, diseases, political instigated violence and cattle rustling.

In 2007 World Vision Kenya responded to disasters caused by conflict related emergencies. Livestock diseases like Rift valley fever and Des Petite Ruminant were mitigated against. World Vision Kenya spent USD 800,000 to respond to the post election violence emergencies in the Rift Valley. In addition to diseases World Vision Kenya also responded to floods and drought in various parts of the country. WVK in the

same year developed water projects that included construction of 18 boreholes in Turkana, Taita Taveta and Samburu and rehabilitated boreholes and water pans in various schools in Moyale, Turkana, Wajir and Samburu. Disaster management trainings were carried out for both staff and community members and food security programs for promotion of sustainable agriculture in agriculturally marginalised areas were started. Food security programs included water harvesting, organic farming and goat rearing. WVK also carried out peace building missions by bringing together various national NGOs to promote peace and security. This was done by creating awareness through campaigns in National Kenya Music Festivals and International Day of Peace celebrations. In 2007 WVK spent about USD 13.7M on food to affected communities and USD 8.3M on emergency response. These are 27% and 16% respectively of WVK annual budget for the year (World Vision Kenya, 2007).

In 2008 WVK responded to the post election violence in 26 districts in Kenya. WVK assisted over 90,000 people by providing food, shelter, safe drinking water, blankets, kitchen sets among other things. It also carried out peace building activities, offered psychosocial support and created children friendly set ups. In 2008 WVK spent USD 5.7M on food distribution and 9M on emergency response. These are 10% and 16% respectively of WVK annual budget for the year. (World Vision Kenya, 2008). Similar works and activities were carried out by WVK in the year 2009. WVK's Humanitarian Emergency Affairs department operated a budget of USD 21,613,781 on food, emergency response, peace initiatives and protection among other humanitarian related activities. Between October 2008 and March 2009 WVK in partnership with WFP

supported over 332,246 people with over 24,055 metric tonnes of food. These were distributed mainly in Turkana, Moyale, Taita Taveta, Kinango, Kilifi and Baringo districts (World Vision Kenya, 2009). To mitigate against disasters WVK carried out 19 trainings in Community Own Vulnerability and Capacity Assessment (COVACA) and facilitation of communities to develop Community Disaster Preparedness Plans (CDPPs).

4.4 Disaster management by World Vision Kenya

Results of this study show that WVK does disaster management. All the respondents also confirmed that WVK has a fully fledged disaster management function and has preset disaster management procedures. These include classification of disasters into categories; category I, II and III. This classification is dependent on the magnitude of the disasters. Further disasters are classified dependent on levels of response; Level I, Level II and Level III. The levels specify who in World Vision International as a whole is responsible for responding to a disaster. The results also confirm that disaster management is done by all in the organisation and not a single department or office in the organisation. The respondents however indicated that responsibility and accountability lies on the National Director followed by divisional and functional heads.

The respondents to this study stated that need for disaster management is informed by the government, WVK field officers and already established disaster management committees like the Integrated Disaster Management Committee (IDMC), National Rapid Response Team (NRRT), Community Disaster Preparedness Planning Committees (CDPPCs). Results of this show that WVK trains its staff on disaster management. The

respondents confirmed that in May 2010 disaster management training was done for staff selected from key functions that play crucial roles in disaster management. These included staff from the operations, people and culture, finance, supply chain and EDR functions of the organisation. The staffs were from cross cutting areas; National Office in Nairobi, sub branches and Integrated Program Areas (IPAs) in the areas across the country. It was noted that similar trainings are also carried out in the field offices for staff and the communities. These trainings are supposed to build capacity of staff and the communities on what should be done in disaster management to mitigate, to prepare for disaster, for response and also for the repairing stage of a disaster.

4.5 Supply Chain Strategy

A supply chain strategy defines how an organisation should operate in order to remain competitive in its area of operation. A supply chain is a network of members formed by autonomous entities by collaborating and collecting efforts to solve a common problem.

A supply chain strategy seeks to evaluate the cost benefit trade offs of the operational activities. A supply chain strategy is owned by the top management. This leads to shared ownership of problems and solutions. A supply Chain strategy has become a way improving competitiveness by reducing the uncertainties and enhancing customer care.

Supply chain provides actual operations of an organisation and supports the organisational business strategy (Happek, S. 2005).

4.5.1 Supply chain strategy at WVK

The results of this study show that all the respondents stated that WVK has a fully fledged supply chain management function. They further stated that the supply chain management function is represented in the sub branch offices. Study results again show that to a moderate extent most respondents agreed that WVK has a common set of SCM operating procedures that are shared by all in the organisation. Majority of the respondents however indicated that only to a low extent are SCM procedures clear to all in the organisation. The respondents however indicated that to a moderate extent clear organisational procedures are in place at WVK.

4.5.2 Strategic supply chain decisions made to aid in disaster management

The results of this study also show that most respondents believe that supply chain management assists in making strategic decisions about sourcing, purchasing and inventory pre positioning to aid in disaster management. Most respondents stated that WVK has made various strategic supply chain decisions that aid in disaster management. WVK management puts the responsibility of drawing up such decisions and implantation to the SCM unit of the organisation. Key strategic decisions made by WVK in the last five years are discussed below.

4.5.2.1 Inter departmental integration

Majority of the respondents to this study indicated that to a high extent WVK has made efforts to do interdepartmental integration. This move shows that the internal supply chain partners have shared values, goals and objectives and also that they work together to support the supply chain strategy and for purposes of this study, in disaster management. This leads to shared efforts by all to manage disasters more efficiently and effectively. Interdepartmental integration means that staffs across the organisation are knowledgeable of the roles played by the other functions and what is required by each function to support in the achievement of overall organisational vision, mission, goals and objectives.

4.5.2.2 Empowered staff

Results from the data collected show that WVK middle level managers are fairly empowered to make supply chain decisions in times of disasters. This therefore means that managers in the disaster areas are able to respond in a speedier manner to a disaster because there are decisions that they are allowed to make at their level. As was noted earlier there exists in the organisation common supply chain operating procedures and organisational policies that to a large extent are shared by all in the organisation. An empowered staff is energised, facilitated and motivated to work and will hence strive to meet organisational goals and objectives more effectively and especially so in times of disaster where response time is of essence.

4.5.2.3 Strategic sourcing arrangements

Study results show that to a high extent the respondents state that there are strategic sourcing arrangements in place at WVK. Strategic sourcing is an institutional procurement process that continuously improves and re-evaluates the purchasing activities of an organization. WVK continuously evaluates its performance and seeks to improve. These strategic decisions include strategic sourcing arrangements such as use of long term framework agreements signed with manufacturers and suppliers of key goods and services, and other agencies like World Food Program, the government of Kenya and Population Services International (PSI). Framework agreements were confirmed to be in place for mattresses, blankets, mosquito nets and cooking sets among others. These arrangements are drawn at the WVK head office in Nairobi and shared by all for use. WVK also carries out supplier relationship management. These are done through vendor rating and evaluation exercises.

4.5.2.4 Outsourcing of non core activities

Outsourcing is often viewed as involving the contracting out of a business function, commonly one previously performed in-house - to an external provider. In this sense, two organizations may enter a contractual agreement involving an exchange of services and payments. Historically this has been referred to as make-or-buy decision. The term outsourcing has taken up the buy side of the issue (Dobler & Burt 1996).

Respondents to the study reported that WVK has outsourced some functions especially transportation services for goods and services to large transport companies. Also

outsourced are security services that are key in times of disasters to ensure safety of WVK personnel, offices, stores and goods.

4.5.2.5 Strategic alliances with stakeholders

Study results show that the respondents to a large extent agree that WVK has alliances with stakeholders. These include the government of Kenya, United Nations Agencies like UNICEF and WFP, churches, corporate bodies like Kenya Airways and Barclays Bank of Kenya. Successful partnerships often create a formal alliance management process that incorporates some form of alliance integration, management, negotiation, and assessment. Self-assessment and partner assessment is critical, and needs to be built into the overall process. Alliances with stakeholders lead to improved supply chain performance, reduced risks and enhanced organizational reputation among other advantages. Collaborative supply chain communities are witnessing the break down of boundaries between businesses. Manufacturers and suppliers are becoming one enterprise. The goal is to transform linear, serial supply chains into parallel collaborative communities. This dramatically reduces cycle times, improves customer relationships and increases productivity (Ince, J. 2001).

4.5.2.6 Pre positioning of goods in personnel at the sub branch levels

This is done mainly in areas where early warning signs show a looming disaster. During the interview several respondents said that in the last referendum of August 2010, a lot of non food items were stocked in the North Rift parts of Kenya, in the Coast, in Nairobi and in Kisumu. This was intended to quicken response in case violence was to occur due to politics. This was mostly picked from the lessons learnt after the post election violence in 2007/2008. Goods often stocked in such cases include tents for shelter in case of displacement, blankets, mosquito nets, kitchen/cooking sets, water treatment chemicals, pharmaceutical materials like ORS, dry foodstuffs like maize, beans and cooking oil.

4.5.2.8 Standardization of requirements

These goods are stored near the areas of need.

From the interviews most respondents stated that goods used at WVK like mattresses,

Some of the goods are pre positioned by suppliers in their factories or warehouses. During negotiations for long term supply agreements WVK negotiates and agrees with suppliers on the response time for delivery for goods. The suppliers agree to stock up some minimum quantities of goods that they can deliver within agreed timelines when called upon in emergencies. This arrangement can be referred as vendor managed inventory (VMI). Traditionally, ownership and physical holding of goods and control of stocks have been within the same organization. VMI means change of this responsibility into three; owning, holding and controlling lies in different organizations or legal entities. VMI means vendor manages customer stocks and continuously plans replenishment. This arrangement is usually regulated by an agreement between the parties defining minimum and maximum limits of quantities to be ordered (Jonsson, P. 2008).

WVK has made efforts to standardize goods that are commonly used in the organization and especially in the disaster management. This is mainly to ensure that the quality goods

4.5.2.7 Positioning of supply chain personnel at the sub branch levels

The results from the interview data show that WVK has supply chain management function at the sub branch offices. These personnel ensure supply chain best procedures are replicated to the regional offices. These also help in capacity building so that other staff understand and use the supply chain procedures in place. They also carry out the duties of sourcing, purchasing and stock management of goods required for disaster management. Capacity building here is key especially because this study shows that the SCM procedures in place are not clear to all in the organization.

4.5.2.8 Standardization of requirements

From the interviews most respondents stated that goods used at WVK like mattresses, tents, blankets, kitchen sets among others are standardized; specifications in terms of size and quality are known by both WVK staff and the contracted suppliers. Standardization is the process of establishing agreements on uniform identification for definite characteristics of quality, design, performance, quantity and service. A uniform identification that is agreed upon is called a standard. Standardization leads to purchase of fewer items, in large quantities and at lower prices; fewer items are received and stocked and processed. This also leads to easier control and management of stocked items. Thus standardization leads to savings in four ways; lower prices, lower processing costs, lower inventory carrying costs and fewer quality issues and complaints handling costs (Dobler & Burt, 1996).

WVK has made efforts to standardize goods that are commonly used in the organization and especially so for disaster management. This is mainly to ensure that the quality goods

supplied even in emergencies is acceptable and also that sourcing of the goods is quick. This results from the shared understanding of the goods required by the users, the supply chain management personnel and the suppliers. Standardization also allows sharing of goods across the need areas. For example the goods that were pre positioned for use during the referendum may be used in case a need arises in another area.

4.5.3 Benefits of use of supply chain strategy in disaster management by WVK

4.5.3.1 Reduction in delivery lead times

Most respondents to this study stated that to high extent use of supply chain strategy at WVK has resulted to shorter delivery lead times. This means that orders for goods and services are raised and suppliers deliver in short lead times. Lead time is the number of days taken from the time a need is identified and notified to supply chain management and the time goods are delivered at the point of need. For goods where contracts exist with suppliers the process involves presentation of an approved purchase request to supply chain management team. SCM team raises an order to approved supplier and supplier delivers goods to a named location as per agreement. During emergencies WVK's plan is to respond in the shortest time possible. In the signed agreements suppliers are given supply timelines and requested to make some quantities stocks of goods ready to ensure the quick response times are met.

4.5.3.2 Efficient management of inventory and promotion of

accountability for goods and services

Most respondents to this study stated that to a moderate extent application of best practise of supply chain strategies has led to better management of inventory. From the interviews the respondents indicated that there is better record keeping and maintenance of documentations on the stocks purchased, issued out to beneficiary communities and any balance of the stocks are accounted for. The strategic sourcing arrangements have also led to less holding of stocks since the suppliers are advised to hold stocks on our behalf and deliver within agreed upon time when called upon through an order. Documents required for receipt and issuance and stock records of goods are pre printed and issued to stock controllers.

4.5.3.3 Inter-departmental integration and a spirit of shared ownership

Respondents stated that the application of supply chain strategies has to a moderate extent led to promotion of interdepartmental integration and more efficient response to disasters. Respondents indicated that WVK has made deliberate efforts to integrate departments so as to have better team work and realise the organisation's vision, mission and objectives. This integration included creation of an overall operations department that oversees the core business of WVK and also integration of other functions like the support services by having ministry partners in each support function who supports each branch. There is also a cross cutting membership in the central tendering and procurement committees so that all departments participate in making sourcing and purchasing decisions.

4.5.3.4 Encourages information sharing among supply chain partners

The respondents stated that to a moderate extent there has been information sharing among WVK's supply chain partners. From the interviews the respondents indicated that this has been done within the internal partners through central tender and procurement committee membership that have representation from various departments, information sharing in the organization's weekly meetings and capacity building sessions that are carried during quarterly review meetings and other organized trainings and workshops. WVK also holds annual consultative meetings with its key suppliers to evaluate working relationship. WVK is also involved in various inter-agency consultative committees and government councils like Area Advisory Committees, District Steering Committees, Community Disaster Preparedness and Planning Committees, Memorandum of Understandings with government training and research institutes like Kenya Agricultural Research Institute (KARI), Jomo Kenyatta University of Agriculture and Technology (JKUAT) and ministry departments like Ministry of Water, Public Works and Health.

4.5.3.5 Spurs WVK to aim at continuous improvement of its processes

The respondents stated that the application of supply chain strategy has led to the organisations determination to continually improve in their work as they carry out disaster management. The respondents indicated that some of the ways WVK has done this is engagement of officers with supply chain experience to carry out supply chain management roles in the sub branch offices. These were engaged in year 2010. There are also deliberate efforts to build capacity of all officers on supply chain matters. It was

reported that recently WVK engaged a consultant to carry out a survey on areas of improvement on supply chain management with a view to seeking opportunities for improvement. Results of this study are now under implementation and on roll out phase to all WVK offices.

WVK also has a strategy on disaster risk reduction in the IPAs that has led to improved disaster management and risk reduction within the IPA communities. These are indicated by the percentage of IPA communities employing integrated disaster risk reduction measures, number of IPAs rolling out Community Disaster Preparedness Plans (CDPP) and number of IPA staff and communities training sessions on disaster management and risk reduction (WV Kenya National Office Strategy FY10 – FY12).

4.6 Overall performance of WVK in disaster management

Majority of the respondents stated that the overall position of performance of World Vision Kenya in disaster management is fair and adequate, only a minimal number indicated that the performance is inadequate. This shows that the majority believe that World Vision Kenya is managing disasters efficiently and effeciently. From the interviews however the respondents felt that WVK can do better to improve on this rating and move to an excellent rating. The respondents felt that WVK has the necessary support from its partners and the government, the resources, both capital and human to achieve this and should therefore strive to get there. The respondents also felt that disaster management is a life saving task and WVK's vision "life in all its fullness" gives it a moral duty of excellent performance in disaster management.

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter gives a summary of the findings of this study in line with the research objectives. The objective of the study was to find out the effectiveness of supply chain strategy in disaster management in World Vision Kenya. The chapter also presents the researcher's conclusions and recommendations on the objective from the findings. Issues that may have limited successful collection of data or detailed study are also highlighted. The researcher also provides suggested areas for further study in line with this study and objective. The chapter closes with the researcher's feelings on the implications this study has on policy and practice in the area of study, both the concept and context.

5.2 Summary of findings

A general summary of the findings of this study is that WVK supply chain strategy has led to its ability to manage and respond to disasters effectively. First it is noted that the respondents to this study have worked in WVK on an average of 5.6 years and are strategically stationed in various functions of the organisation and various geographical locations. This means that they are conversant with the organisation's work especially being that the scope of this study is limited to last 5 years of WVK's operations in Kenya. It therefore means that the results of this study can be relied on. The findings also show that WVK has a fully fledged disaster management function that has strategies and procedures. The function is strategically positioned headed by a Senior Advisor in the

operations department, See organogram on Appendix III. It is evident also that WVK organises trainings for staff and community members on disaster management. The study revealed that WVK's call to disaster management is informed by the government machineries like the Kenya food security steering groups, district steering committees, WVK's staff working in the field, Community Disaster Preparedness Planning Committees, early warning systems and the media.

The findings also show that WVK has a fully fledged supply chain function. WVK has common SC procedures in place that are shared by all in the organisation. Majority of the respondents however indicated that the SC procedures are not clear to all in the organisation. Most respondents stated that WVK organisational procedures are in place and are clear to all in the organisation. WVK has in the last five years made strategic SC decisions that have supported the organisation in its endeavour to efficiently and effectively carry out its business and in particular manage disasters. The respondents gave examples of these decisions that include interdepartmental integration, strategic sourcing arrangements and alliances, empowering staff, pre positioning decisions, recruitment of qualified SC personnel, standardisation of goods, and outsourcing of non core activities.

The study also shows that adoption of SC best practice strategies have led to various benefits that WVK is enjoying; shorter delivery lead times, more efficient inventory management and accountability, information sharing and team work fostering a spirit of shared ownership of problems, solutions, achievements and celebrations. As a whole

these have spurred WVK to aim at continuous improvement and search for better ways of doing things. The general question posed to the respondents on the overall performance of WVK in disaster management showed that WVK's performance in disaster management is above average. Most respondents rated WVK performance in disaster management as adequate and fair. Only a minimal number stated WVK's performance as inadequate.

5.3 Conclusion

It is evident that WVK does disaster management and that it is one of the key agencies in the country appreciated and supported by the government, donor agencies, UN, corporate organisations and churches in managing disasters. It is therefore important that WVK is able to position itself as an effective organisation in managing disasters right from mitigation to the recovery and repairs stage. The study shows that WVK proactively works towards achievement of its vision and mission. This is confirmed by the strategic decisions that the organisation has made towards improving its performance both in supply chain management and disaster management. The study has pointed out areas of improvement like capacity building of staff in supply chain procedures.

5.4 Recommendations

From the findings of this study it is noted that the supply chain concept is not well understood in WVK. In earlier notes it was noted that SC is the whole organisation that includes all functions; human resources, finance, communications, operations, security and all other units of an organisation and also external parties that an organisation works

with like the suppliers, government, other aid and humanitarian agencies, donors and supporters. Some of the respondents to this study seemed to understand SC as the unit in the organisation that does procurement. The researcher took time to explain the concept of SC as the whole organisation. It is noted that WVK has supply chain procedures in place that are shared in the organisation. However these procedures are not well understood by all.

It is therefore recommended that WVK management makes effort to do capacity building so that all staff clearly understand the supply chain and supply chain management concepts. The supply chain procedures shared in the organisation should also be clearly and very well understood by all in the organisation and especially by those who directly use them like the managers and supply chain management team. It is also recommended that WVK works towards improving its overall performance in disaster management from adequate to excellent. This is especially in the understanding that disasters are life threatening and any effort towards improvement to mitigate or respond would mean a life or two saved. It should also be noted that a disaster response involves trade-offs of speed, cost, and accuracy with regard to the type of goods, and their quantities, that are delivered. Therefore, efficient and effective supply chains are critical.

Supply chain management and logistics serve as a link between disaster preparedness and response, between procurement and distribution, and between headquarters and the field. In addition, most disaster relief monies get allocated to supply chain and logistics operations, which means these operations largely can determine whether a disaster relief is successful or not. In this light it is recommended therefore that WVK puts much effort

to strengthening its supply chain strategies and supply chain management teams so that WVK can achieve a lean and agile SC. This will lead to WVK achieving an excellent rating in disaster management and at lean costs.

5.5 Limitations of the Study

Time constraints would be named as the biggest limiting factor in this study. The research was carried out at a time when WVK has an organisation had various operational agendas to realise. WVK's operations also involve a lot of staff travel to the field projects and conducting and participating in workshops for capacity building. It was therefore difficult to get the interviewees to respond to the interview or fill out the questionnaires in a timely manner. The second limiting factor is that most respondents look at supply chain as the unit in the organisation that carries out the duties of procurement. They tended to respond to the interview as seeking to measure the effectiveness of the SCM team of WVK. Time was taken with the respondents to make them understand the concepts of supply chain and supply chain management.

5.6 Suggestions for further Study

This study can be replicated by individual agencies that carry out humanitarian work and disaster management. This would help them measure their effectiveness in doing disaster management. Similar study can be done by the government that bears the full responsibility and is accountable to its citizens for security, safety and care in times of disasters. Similar study can also be done to evaluate effectiveness in disaster management

of all disaster management agencies in Kenya. This would cover a population made up of the government, UN agencies, NGOs, aid and humanitarian agencies and firms that offer first aid and evacuation services. This would give a general position on the preparedness of the country as a whole to management of disasters.

5.7 Implication on policy and practice

Supply Chain and supply chain management concepts are gaining much appreciation as organisations; private, public and not-for-profit organisations realise the need for lean and agile supply chains. Most organisations have appreciated the fact that about 60% of their budget is committed on purchasing of goods and services.

The findings of this study show that even for humanitarian aid agencies a well defined supply chain strategy is key to achieving the organisations goals and objectives. Supply chain management and strategy is not only vital for profit making organisations. The study further reveals that integration of all units in a supply chain is key to enhancement of efficiency and effectiveness of a supply chain. Formation of alliances with key stakeholders is a factor as well. Organisations can no longer work as stand alone entities and remain competitive. Integration of upstream and downstream processes with the internal processes means that suppliers of raw materials and distributors of finished products are informed of the organisations goals and objectives and together work towards their achievement. The study reveals other strategic decisions that if well managed lead to an effective supply chain strategy. These include shared common organisational and supply chain procedures that are well understood by all.

This study being specific to supply chain strategy in disaster management it is worthy noting that disasters are life threatening and therefore require most efficient and effective supply chains. Agility is most important in this case. The current market practise looks at supply chain procedures as processes that only lead to delays in procurement of goods and services. The processes are seen as bureaucratic and tedious and only lead to failure by organisations to achieve set goals and objectives. This has led to supply chain procedures not be observed especially in responding to emergencies. Avoidance of the procedures mostly leads to fraudulent practices and unaccountability.

This study however shows that it is possible to adhere to laid down supply chain procedures through use of longterm supply agreements with manufacturers and suppliers of goods and services. The process of selection and sourcing is done in advance and detailed in a signed agreement and hence eliminating reasons to want to jump the procedures. By doing this bureaucracies are managed and lead times shortened to acceptable times as stipulated in the agreements with suppliers. The supply chain procedures also provide procedures for use in times of emergencies with necessary approvals for their use.

Cost of goods and services during emergencies has also been exaggerated with reasons to consider response time other than cost. The much needed budgets are then quickly depleted not able to reach to as many beneficiaries as desired. This study again shows that cost can also be managed by use of the prearranged agreements where supply prices are negotiated in advance and in agreement with suppliers. At the time of response the suppliers will hold the prices constant and if there is genuine reason to change the same

will approved by the client. Organisations seeking supply quotations during emergencies will receive high prices because the suppliers will take advantage of the situations. Supply lead times will also be long where there are no existing agreements with suppliers because during emergencies suppliers are busy and will tend to supply their main clients first. This study also shows that disaster management reveals need to prepare for response through use of early warning systems. This means that if well managed not all disasters are emergencies. Response mechanisms should be in place to respond in a timely manner when need arises.

Mitigation stage of disaster management is also very important because a looming disaster can be averted. Mitigation was most appreciated during the August 2010 referendum election exercise. Early warning systems and lessons learnt from the 2007/2008 post election violence led to the government and humanitarian aid agencies taking measures to prevent violence and disaster. This was done through peace messages preached through media, churches, communities and government agencies. The government also employed heavy security during the election period. As a result Kenya enjoyed peace before, during and after the referendum election period.

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APPENDICES

APPENDIX I: INTERVIEW GUIDE

Dear Respondent,

I request you to spare a few minutes and allow me to discuss with you the supply chain strategy and disaster management in World Vision Kenya.

This is for an academic study that seeks to find out the effectiveness of supply chain strategy in disaster management in World Vision Kenya. Information collected shall be used for academic purposes only and will be treated with the utmost confidence it deserves.

1. Respondent's Dept _____
2. Respondents Designation _____
3. For how long have you served in World Vision Kenya? _____
4. For how long have you served in the current position? _____
5. Does World Vision Kenya have a fully fledged Supply Chain Management function/department? _____
6. Is the Supply Chain function represented in all the WVK offices/projects or is it at the head office only _____
7. What disasters that you are aware of has World Vision Kenya either managed or responded to in the last 5 years (2006 – 2010)? _____
8. Does WVK's supply chain strategy assist in making strategic decisions about sourcing, purchasing, and inventory pre-positioning in disaster management? If yes please indicate what assistance SC offers _____
9. What, if any, strategic SC decisions have been made to aid in disaster management in World Vision Kenya in the last 5 years? Enumerate a few?

10. Does World Vision Kenya have a disaster management strategy/program/procedure_____

11. Does World Vision Kenya have a fully fledged disaster management function or is it constituted as and when necessary when disasters occur?_____

12. Does World Vision Kenya as a Supply Chain have any preset guidelines on how to management disasters? If yes name some of the strategies in place_____

13. What or who informs WVK of need to respond to disaster or to do disaster management?_____

14. Who is responsible for disaster management? Is it the National Director, Deputy National Director, Divisional heads, sub branch Managers, IPA managers, All in the organisation?_____

15. How would you rate WVK's supply chain strategy's performance in disaster management in the last 5 years? Most inadequate, inadequate, adequate, fair, excellent_____ (Select one).

16. Does WVK carry out any disaster management trainings for its employees?_____ If yes please name any training carried out in the last 5 years that you are aware of and the selection of employees that participated_____

APPENDIX II: QUESTIONNAIRE

1. In a scale of 1 to 5 where (1 means least extent and 5 means highest extent) indicate to what extent Supply Chain Management best practices are being used in World Vision Kenya?

SC strategy's best practices are being used in WVK	1	2	3	4	5
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2. In a scale of 1 to 5 where (1 means strongly disagree and 5 means strongly agree) indicate to what extent the following statements on Supply Chain strategy are true in World Vision Kenya especially in DM.

Supply Chain strategy	1	2	3	4	5
Results to reduction in delivery lead times of goods and services					
Results to more efficient management of inventory					
Promotes inter-departmental cooperation leading to more efficient response in DM					
Encourages information sharing among supply chain partners					
Fosters a spirit of shared ownership of problems and solutions among supply chain partners					
Spurs the WVK to aim at continuous improvement of its processes					

3. In a scale of 1 to 5 where (1 means least extent and 5 means largest extent) indicate to what extent the following statements are true to World Vision Kenya?

3. In a scale of 1 to 5 where (1 means strongly disagree and 5 means strongly agree) indicate to what extent the following statements are true to World Vision Kenya?

Supply Chain strategy	1	2	3	4	5
A common set of SCM operating procedures are shared with all staff of WVK					
There has been remarkable effort to improve inter-departmental coordination in WVK in the last 5 years					
Middle level managers are empowered to make SC operational decisions while responding to disasters					
SC performance measures are tracked					

4. In a scale of 1 to 5 where (1 means least extent and 5 means largest extent) indicate to what extent the following Supply Chain strategies affect WVK in its disaster management efforts?

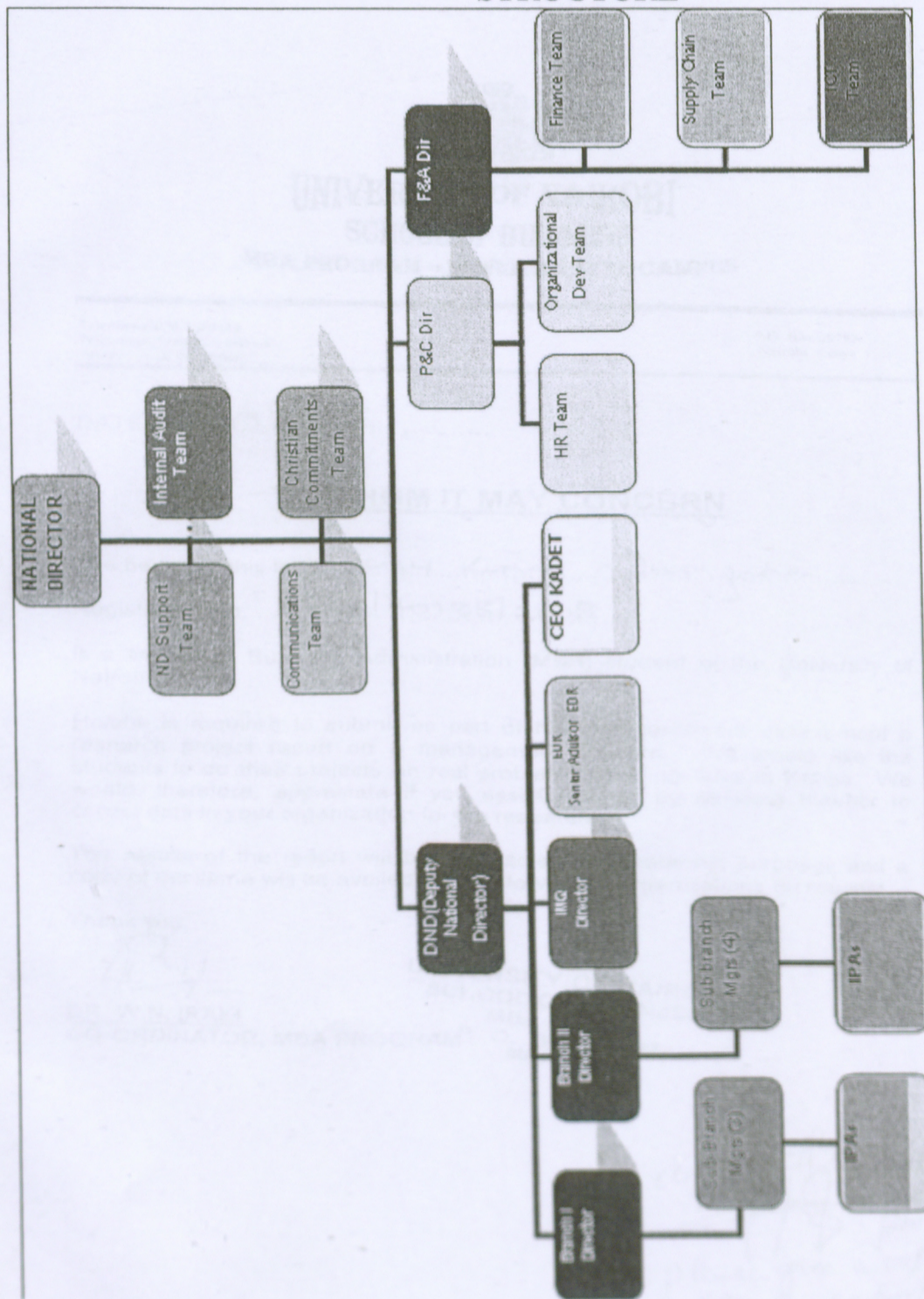
Supply Chain strategy	1	2	3	4	5
Strategic sourcing arrangements					
Defined alliances with other stakeholders					
Adoption of SC management strategies					

5. In a scale of 1 to 5 where (1 means least extent and 5 means largest extent) indicate to what extent the following variables independently facilitate Supply Chain strategies affect WVK in its disaster management efforts?

Supply Chain Variable	1	2	3	4	5
Visionary leadership					
Clear organizational procedures					
Clear SCM policies					

Thank you very much for taking time to fill this questionnaire/respond to this interview.

APPENDIX III: WORLD VISION KENYA, ORGANISATION STRUCTURE



Source: WVK Intranet

APPENDIX IV: INTRODUCTION LETTER NAIROBI UNIVERSITY



UNIVERSITY OF NAIROBI SCHOOL OF BUSINESS MBA PROGRAM - LOWER KABETE CAMPUS

Telephone: 020-2659162
Telegrams: "Varsity", Nairobi
Telex: 22095 Varsity

P.O. Box 30197
Nairobi, Kenya

DATE 06/07/2010

TO WHOM IT MAY CONCERN

The bearer of this letter Lucy King' Dunga

Registration No: D61/701381/2008

is a Master of Business Administration (MBA) student of the University of Nairobi.

He/she is required to submit as part of his/her coursework assessment a research project report on a management problem. We would like the students to do their projects on real problems affecting firms in Kenya. We would, therefore, appreciate if you assist him/her by allowing him/her to collect data in your organization for the research.

The results of the report will be used solely for academic purposes and a copy of the same will be availed to the interviewed organizations on request.

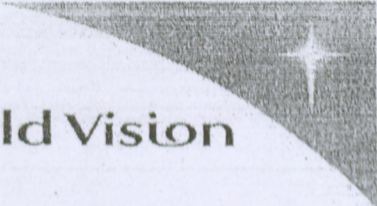
Thank you.

DR. W.N. IRAKI

CO-ORDINATOR, MBA PROGRAM

UNIVERSITY OF NAIROBI
SCHOOL OF BUSINESS
MBA OFFICE
P.O. Box 30197
NAIROBI

approved for research
06/07/2010
Please give a copy of yr
2.2 am at 20.10.10 to W.V.



World Vision

Kenya

Karen Road, Off Ngong Road
P.O. Box 50816, 00200
Nairobi, Kenya
Tel: 254-20-883652

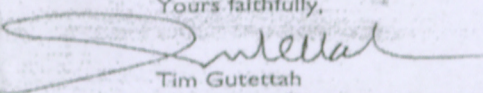
23rd September, 2010

RE: LUCY KINYA MUNGATIA

This is to authorise the above named to do her reaserch project report titled "***A Management Problem***" to enable her to complete her Master of Business Administration Course (MBA) which she is currently doing at the University of Nairobi.

Lucy will be expected to submit a copy of her final report to World Vision Kenya People and Culture Office on completion of the same.

Yours faithfully,



Tim Gutettah

Associate Director, People & Culture