OPERATIONS STRATEGIES ADOPTED BY HUMANITARIAN ORGANIZATIONS IN KENYA

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DECLARATION

I declare to the best of my knowledge that this is my original work and has not been presented for a degree in any other university. No part of this project may be reproduced without prior permission of the author and/ or University of Nairobi.

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DEDICATION

I dedicate this project to my dear loving husband, David Kibet Komen and my children, Chepchirchir, Kipngetich and Cherotich, for their love, support, understanding and prayers throughout my studies.

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ABSTRACT

This study sought to bring out agility issues related to operations strategies adopted by humanitarian organizations in Kenya. Key among these issues focused on how humanitarian organizations adopt critical operational strategies such as maintaining low cost, high quality, ability to operate without backorders in a humanitarian crisis situation, as well as maintenance of low inventories while achieving and maintaining maximum overhead absorption throughout a humanitarian operation process. The broader research objective that was addressed here was to establish operations strategies adopted by humanitarian organizations in Kenya; whether these organizations prioritize the operations objectives and whether there exist trade –offs in operations objectives. A descriptive study design was adopted and SPSS tool was used to analyze primary data that was collected by use of closed ended questionnaires. The study found that operations strategies adopted by humanitarian organizations in Kenya are greatly influenced by the choice of human resource and that HOs in Kenya pursue operations objectives collectively without trade-offs, although, quality is prioritized above other factors. The study also revealed that most Humanitarian Organizations in Kenya are mainly UN agencies and are majorly large in size. That majority of its employees are of the view that these organizations are performing in line with their expectation and beyond.

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LIST OF ABBREVIATIONS

AIDS	-	Acquired Immuno-Deficiency Syndrome
ANOVA	-	Analysis of Variance
CRED	-	Center for Research on Environmental Decisions
EHRP	-	Emergency Humanitarian Response Plan
HOs	-	Humanitarian Organizations
HIV	-	Human immunodeficiency virus
ISDR	-	International Strategy for Disaster Reduction
LDCs	-	Least Developed Countries
NGOs	-	Non Governmental Organizations
S.D.	-	Standard Deviation
SPSS	-	Statistical Package for Social Scientists
U. S.	-	United States
UN	-	United Nations
WASH	-	Water Sanitation and Health
WHO	-	World Health Organization

CHAPTER ONE
INTRODUCTION

1.1 Background

Kim & Lee (1993) viewed operations strategy as the effective use of production capability and technology for achieving business and corporate goals. According to Meredith (1992), these goals include profit, innovations, customizations, product flexibility, product reliability, quality, response, delivery reliability and after sales services. The history of operations strategy dates back to pre-world war II. In the period following World War II, corporate strategy in North America was usually developed by the marketing and finance functions within a company. With the high demand for consumer products that had built up during the war years, companies could sell virtually everything they made at comparatively high prices. In addition, there was very little international competition. They could not even satisfy their own market let alone export globally. The main industrial competition at that time, Europe was devastated by war. Within the business environment that existed at that time, manufacturing or operations functions was assigned the responsibility of producing large quantities of standard products at minimum cost regardless of the overall goals of the firm. To accomplish this, the operation functions focused on obtaining low cost, unskilled labor and installing highly automated assembly-line-type facilities.

In the late 1960s, Wicham Skinner of the Harvard Business School recognized this weakness among U.S manufacturers. He suggested that companies develop an operations strategy that would complement the existing marketing and finance strategies. He referred manufacturing strategy as the missing link in the corporate strategy (Skinner, 1978).

Other researchers at the Harvard Business School including Abernathy, Clark, Hayes, and Wheelwright continued to emphasize the importance of using the strengths of firms' manufacturing facilities and people as a competitive weapon in the market place as well as taking a longer-term view of how to deploy them. Though manufacturing strategy has been and remains the main focus of academics and top ranked issue for manufacturing managers, research in the area has focused mainly on

manufacturers and their strategies in the developed economies such as the USA (Wood et al., 1990; Miller and Roth, 1994; Kim, 1996; Boyer and Lewis, 2002; Joshi et al., 2003; Swink et al., 2005), and Japan (Nakane, 1986; Kim, 1996). Most of these studies have dealt mainly with operations strategy from a conceptual point of view and the content of strategy (Anderson et al, 1989; Skinner, 1978; Smith and Reece, 1999). Few studies have been documented on operations strategies in the humanitarian organizations since most research have tended to focus primarily on the number of decision areas and goals of manufacturing in terms of performance criteria (Leong et al., 1990).

1.1.1 Operations Strategy

Kreitner (1992) defines operations management as the process of transforming material and human resources into useful goods and services. According to Jones & George (2011) operations management refers to any aspect of production system that transforms inputs into finished goods and services. It is concerned with activities that enable an organization to transform a range of basic inputs into outputs for the end customer. Hill (2000) traces operations management as having its origin in manufacturing sector, whereby the function was referred to as production management. However, the role had to be enlarged to incorporate other tasks and functions in supply chain such as purchasing and supply. The term operations management is more appropriate with the growth of service sectors unlike in the past when manufacturing dominated the industries.

Hamid and Russell (1995) defined operations as the production of goods and services, the set of value – added activities that transform inputs into outputs. From Operations, another study by Russell and Taylor (2000), defined operations management as the design and operation of productive system. It involves deploying strategy, assuring quality, designing products and services, planning the production process, laying out the facility, designing jobs and work, managing the supply chain, forecasting demand for products and services, and production planning and scheduling. The core process associated with Operations Management are said to be to secure factors of production

and transform them into products and services of value. Operations Strategies are therefore important in this process.

Operations strategy is the total pattern of decisions which shape the long term capabilities of an operation and their contribution to overall strategy (Slack and Lewis, 2002). On the other hand, Lowson (2001) defined operations strategy further as major decisions about, and strategic management of core competencies, capabilities and processes, technologies; resources; and key tactical activities necessary in any supply network, in order to create and deliver products or services and the value demand by customer. Operations Strategy adopted by an organization is to a large extent determined by operations priorities for that organization. According to Oltra, Maroto, and Segura (2005), operations priorities are consistent set of goals, while decision areas attempts to capture the key choices for operations. Humanitarian Organizations in Kenya therefore needs to apply operations strategies in tackling disasters and humanitarian crisis.

According to Wheelwright (1978) the determination of the competitive priorities is the first step in developing and explaining the competitive strategy and for achieving its goals. A strategy entails positioning a company among its competitors and identifying how one competes in the marketplace it involves a decision making process of choosing one or two important competences on which to concentrate on and do well. Ward *et. el*. (1995) say there is a significant relationship between the business environment in terms of competitive hostility and the operation strategy a business chooses in terms of its competitive priorities. Companies that are well positioned have competitive priorities that are strongly supported by its operations strategy and decisions (Kim and Arnold 1996, Boyer and McDermott 1999, Smith and Reece 1999, Acur et al. 2003, Christiansen et al. 2003).

Barnes (2001) points to the debate related to the process of strategy formation. He suggests that a combination of communicated senior management intentions together with on-going decisions and actions carried out by people in an organization result in an unintended and emergency process of strategy formulation. Applying this to

operation strategy, he quotes from Hayes and Wheelwright (1984) it is the patterns of decisions actually made that constitute a functions strategy, not what is said or written in annual reports and planning documents indicating that operations strategy might have emergent rather than deliberate features. He says organization can identify the variables that allow them to compete successfully in different situations instead of analyzing the company's capabilities and identifying the core operational competencies as perceived by upper management.

Trade-off studies by Kim and Arnold (1996) examine the need for companies to prioritize their strategic objectives and devote resources to improving those operational capabilities. It is stressful for a company to try to compete by offering superior performance along all of competitive dimensions, since it will probably end up second best on each dimension to some other company that devotes more of its resources to developing that competitive advantage. The determination of competitive priorities usually starts with an extensive study of company's operations in which strengths and capabilities that create competitive advantage are identified. Creating a competitive advantage requires determining the factors that put a firm in a better position in comparison to what competitors have in the marketplace.

1.1.2 Humanitarian Organizations in Kenya

Humanitarian Organizations provide humanitarian assistance to persons in need. According to WHO (2013) humanitarian assistance is aid to a stricken population that complies with the basic humanitarian principles of humanity, impartiality and neutrality. Assistance can be divided into three categories based on the degree of contact with the stricken population: direct assistance is the face-to-face distribution of goods and services; indirect assistance is at least one step removed from the population and involves such activities as transporting relief goods or relief personnel and infrastructure support involves providing general services, such as road repair, airspace management and power generation that facilitate relief, but are not necessarily visible to or solely for the benefit of the stricken population.

Humanitarian organizations work in reducing human suffering caused by disasters which are a serious disruption of the functioning of a community or a society causing widespread human, material, economic or environmental losses which exceed the ability of the affected community or society to cope using its own resources (International Strategy for Disaster Reduction (ISDR). CRED, defined disaster as a situation or event, which overwhelms local capacity, necessitating a request to national or international level for external assistance (http://www.who.int/hac/about/definitions/en/ downloaded on 10th June 2013).

EM-DAT (2010) reported that despite a history of rather devastating natural and man-made disasters, African countries have not established effective mechanisms to manage disasters either at the national or sub regional level. Atlay and Green (2006) concurs that natural and man-made disasters are fairly routing across the African continent with common disasters being displacements due to civil wars, famine, caused largely by drought; epidemics and such as HIV/AIDS, Ebola cholera, (these are increasing in complexity, frequency and magnitude of impact); technological and industrial accidents (resulting from in-adequate and in-appropriate safety precautions). Atlay and Green (2006) further notes that these disasters cause significant property destruction and loss of lives and means of livelihood and disrupt social structures and relations as the myriad conflicts in the content now demonstrates. Yet there are no apt national level or regional level mechanisms for humanitarian operations and disaster management.

According to Kovacs and Spens (2011), many disasters in Africa tend to be region wide in their causes as well as impact. Drought and famine threat along of adjacent countries in the horn of Africa from Ethiopia to Burundi. The cause of flood in Mozambique is far beyond the Mozambican borders and the flood has impact in South Africa, Malawi, Zimbabwe, Botswana, and as far as north as Tanzania. Similarly, refugees flee conflict and persecution in one country and have far reaching political, social, cultural, and economic impact in several neighboring countries. Typically natural and man – made disasters affect many countries directly and indirectly at the same time because they originate from a common phenomenon (EM-

DAT, 2010). The AIDS epidemic, especially in the least developed countries (LDCs) illustrates yet another aspect of regional dimension of disasters that result from the increased movement and/or displacement of people across the African continent.

Kenya Emergency Humanitarian Response Plan, 2012 is particularly cognizant of the underlying issues influencing humanitarian emergencies in Kenya. Chief among these are: the impact of climate change on productivity; inadequate infrastructure and structures to manage the use of water; the burden of endemic diseases and high malnutrition; inter-communal resource - based conflicts which threaten human security; and low economic security that increases vulnerabilities, reduces the ability to cope against emergencies and is affected in wide spread poverty.

An effective humanitarian response strategy is therefore primary to effective disaster management and humanitarian operations and coordination. The present study intends to bring out how humanitarian organizations tackles agility issues related to operations strategies. The study will in particular, seek to investigate and determine how humanitarian organizations have balanced agility issues such as cost, efficiency, quality, flexibility, and responsiveness while maximizing overhead absorption throughout a humanitarian operations process.

1.2 Research Problem

The challenges of managing and resolving the numerous humanitarian situations around the world today confront different international, regional and national actors: United Nations agencies, bilateral development agencies; regional/ continental organizations; nongovernmental; voluntary agencies; the host of populations and most significantly, victims of these situations. Skinner (cited in Wallace, 1989) highlighted the need for a responsive operations strategy as follows:

> *"On Monday, they want low cost. On Tuesday, they want high quality. On Wednesday, they want no backorders. On Friday, they want maximum overhead absorption, so we have to work the weekend".*

The statement means that all the above are needed simultaneously in any operation, therefore, posing headaches to operations managers charged with the responsibility of

having to deliver all of the priorities at the same time. Skinner (1969, 1978) looks at it from another perspective, the need to have trade-off between cost, quality, delivery and flexibility. Schonberger (1990) stated that world class strategies require chucking the (trade -off) notion. The right strategy has no optimum, only continual improvement in all things.

Sandwel (2011) found out in his qualitative study exploring the challenges of humanitarian organizations, that these organizations face numerous issues/challenges of a higher order. Some of the challenges at the operational level are lack of investment, shortage of expertise/know-how, lack of management systems, no meaningful facts and figures and being unable to quantify importance of logistics. At the organizational level, he points out the lack of strategy, that there is a lot of donor influence, who in many cases are preoccupied with response rather than preparedness that donors focus on outcomes rather than avoidance. A United Nations (UN) report cited by Sandwel (2011) suggested both man-made and natural disasters are seemingly increasing in impact, frequency and scale.

Chandes & Pache (2010) point out that in the world of scarce resources, although humanitarian response has no price. He argues that beyond the destructive effects of natural disasters, and the traumatizing of affected populations, the question of implementing aid to help survivors, and especially the efficient management of logistics associated with the relief chain to avoid further human losses quickly comes into play. In this regard, another scholar, Zhang et al. (2002) suggest that for organizations involved in logistics responses to natural and man-made disasters, it would be ideal to assimilate both the explicit knowledge and the tacit knowledge collected from all situations of crisis experienced in recent history to establish action rules in terms of emergency preparedness and response.

Humanitarian organizations in Kenya are faced with vast challenges that they often have to overcome, such as; language barriers, political instability as well as terrible state of infrastructure, there is need for humanitarian organizations to come up with operations strategies that effectively and adequately supports their overall objectives.

Given the limited resources available, whereby organizations usually do not realize full required funding, humanitarian organizations have to make appropriate strategic efforts to make priorities in their operations in order to achieve their humanitarian response goals (The Kenya Emergency Humanitarian Response, 2012). Effective operations strategies are thus a necessary component of humanitarian operations.

The 2010 Kenya Emergency Humanitarian Response Plan pointed out the need for Humanitarian partners to work together to develop a common humanitarian strategy based on the analysis of the context, humanitarian needs and projected scenarios for the coming year. Overarching strategic priorities were identified to support effective and timely assistance to populations in need in Kenya. The overall strategic objectives for 2010 were to: attain national and international standards in the provision of timely humanitarian assistance and protection to all vulnerable groups affected by emergencies; achieve an aligned and inclusive coordination environment, and strengthen linkages between sectorial, national and sub-national coordination structures; improve monitoring and information management to influence decision-making and effective humanitarian action; integrate Disaster Risk Reduction approaches and early recovery into humanitarian action to improve preparedness, enhance resilience to shocks and ensure linkages to development priorities. However, it does not give specific operations strategies that will be adopted in order to achieve the set goals.

This study, therefore, the researcher sought to find answers to the following questions;

a) What operations strategies are adopted by humanitarian organizations in Kenya?
b) What are the competing operations objectives in the management of humanitarian operations in Kenya?
c) Do trade - offs in operations objectives exist in the management of humanitarian organizations in Kenya?

1.3 Research Objectives

i. To establish the operations strategies adopted by humanitarian organizations in Kenya.
ii. To determine whether humanitarian organizations in Kenya prioritize operations objectives.

1.4 Value of the Study

Every day we come in contact with abundant array of goods and services, all of which are produced under the supervision of operations managers. In humanitarian organization environment, the work of an operations manager is extremely vital as it is the engine that drives the process, functions and productivity of the organization. The study will therefore be vital to Operations Managers of Humanitarian Organizations in Kenya and beyond as it will help inform and guide their choices and decisions in planning and executing their vital operational tasks.

The research is significant to the literature on operations strategy of humanitarian organizations, as it contributes to the vast body of knowledge in validating the need for trade-off on the operational performance objectives that focus on five key strategies; cost, efficiency, quality, flexibility and responsiveness to customers. In addition, the current and future scholars will find the findings from this study useful in filling the gaps identified. The study is also important to various stakeholders in the various humanitarian sectors, especially the donor community who will get on in-depth knowledge and insight on how the implementing organizations have put in place operations strategies to effectively utilize resources. The humanitarian organizations find the study useful for the purposes of efficient and effective project management.

CHAPTER TWO
LITERATURE REVIEW

2.1 Need for Operations Strategy

Mintzberg *et al.* (1998) pointed out that all business organizations are concerned with how they will survive and prosper in the future. A business strategy is often thought of as a plan or set of intentions that will set the long-term direction of the actions that are needed to ensure future organizational success. However, no matter how grand the plan or how noble the intention, an organization's strategy can only become a meaningful reality, in practice, if it is operationally enacted. An organization's operations are strategically important precisely because most organizational activity comprises the day-to-day activities within the operations function. It is the myriad of daily actions of operations, when considered in their totality that constitute the organization's long-term strategic direction.

Mintzberg *et al.* (1998) further argue that the relationship between an organization's strategy and its operations is a key determinant of its ability to achieve long-term success or even survival. Organizational success is only likely to result if short-term operations activities are consistent with long-term strategic intentions and make a contribution to competitive advantage.

Johnson *et al.* (2005) argued that the relationship between operations and the other business functions is similarly important. The objective of the operations function is to produce the goods and services required by customers whilst managing resources as efficiently as possible. This can lead to conflicts within an organization. Conflicts between the operations and the marketing functions are likely to centre on the desire of marketing to ensure that operations concentrate on satisfying customers. Whilst this may seem desirable, marketing will usually want operations to be able to meet customer needs under any circumstances. This is likely to lead to demands to produce greater volumes, more variety, higher quality, a faster response, and so on, all of which are likely to lead to less efficient operations.

Conflicts between the operations and the accounting and finance functions, on the other hand, are likely to centre on the desire of accounting and finance to want operations to manage resources as efficiently as possible. This will tend to pull operations in exactly the opposite direction of that desired by marketing. Conflicts between operations and the human resource management function are likely to centre on issues of recruitment, selection, training, management and the reward of those employed within operations. For example, operations managers may want to vary organization-wide policies in order to meet local needs; a move likely to be resisted by human resource managers. The operations function lies at the heart of any organization and interacts with all the other functions. As such, achieving agreement about what decision areas lie within the remit of operations, and what should be the basis of decision-making within operations is an essential part of ensuring the consistency of action over time necessary for a successful organizational strategy.

Strategy is one of the most over-used words in the business dictionary yet, surprisingly, there is no agreement on what the term actually means. No-one challenges its military origin, used with regard to how a commander might deploy his resources (i.e. armed forces) throughout a campaign aimed at achieving a particular objective (e.g. conquering territory or thwarting an invasion). The idea that a business organization could have a strategy seems to have first emerged in the 1960s, when the techniques of long-term business planning were first popularized. Since then many different interpretations of the concept and practice of strategic management have been developed. Indeed, entire books have been given over to contemplating the nature of strategy. For example, Mintzberg *et al.* (1998) characterize ten 'schools of thought' in their consideration of what constitutes strategy. A widely accepted definition is offered by Johnson *et al.* (2005), who define strategy as 'the direction and scope of an organization over the long-term, which achieves advantage in a changing environment through its configuration of resources with the aim of fulfilling stakeholder expectations'. In its determination of the long-term direction of an organization, strategy involves the interplay of three elements: the organization's external environment, its resources and its objectives (in meeting the expectations of its stakeholders).

Operations management is principally concerned with the organizational resources. However, the way the operations function manages resources will impact both the way that the organization interacts with its external environment and its ability to meet the needs of its stakeholders. Thus, operations management is an integral part of an organization's strategy that is designed at three different levels: corporate level strategy; business level strategy and functional level strategy. The remainder of this chapter will consider in more detail what constitutes an Operation Strategy, the objectives of operations strategy, schools of thought in operations strategy, content and form of operations strategy and review some of the available empirical studies on operations strategy. As Hayes *et al.* (2005) point out, effective operations strategies need to be consistent and contribute to competitive advantage of an organization.

2.2 Operations Objectives

The overriding aim of an operation strategy is to help the organization achieve its purpose. This purpose is passed down from the mission, through the corporate and business strategies, on to the operations strategy and then to operations. So the operations strategy according to Waters (2006) forms a link between the more abstract and fuzzy higher strategies and more precise details needed by operations. On the other hand, Slack et al (2004) observed that strategy in a business organization is essentially about how the organization seeks to survive and prosper within its environment over the long-term. The decisions and actions taken within its operations have a direct impact on the basis on which an organization is able to do this. The way in which an organization secures, deploys and utilizes its resources will determine the extent to which it can successfully pursue specific performance objectives. Slack *et al.* (2004) argue that there are five operations performance objectives: Cost; Quality; Efficiency/Speed; Customer Focus/Dependability/Responsiveness; and Flexibility. Waters (2006) explained the operations performance objectives as follows:

2.2.1 Cost

This is also referred to as price and is usually the probably objectives for operations. Low operating costs give obvious benefits to both the organization (increasing its competitiveness and allowing higher profits) and customers (who pay low prices).

Organizations can reliably measure their costs, so objectives are commonly phrased in terms of low unit costs, prices, total operating costs, asset value, profitability, interest rates, transaction charges, discounts, terms of payment, and many other financial ratios.

2.2.2 Quality

This shows how good the products are, and making products with no defects again brings benefits to both the organizations and their customers. Contrary to the traditional view, high quality usually reinforces the aims of low costs. Quality objectives are commonly phrased in terms of percent defective, percent conforming to specifications, number of customers returns, cost of reworking, customer complaints, warranty costs, surveys of customer satisfaction, product usefulness, and a range of similar measures.

2.2.3 Speed/Efficiency

With organizations generally aiming to do operations faster or to meet specified targets such as "Just-In-Time" delivery, there can be trade-offs here, with a faster service perhaps costing more and increasing errors. Common objectives for speed relate to the Process-Time (Lead-Time) reduction, proportion of on-time deliveries, time to develop new products, time that customers have to wait in queues, number of people in queues, fast payments against invoices raised by suppliers, time to complete administrative transactions etc.

2.2.4 Flexibility

This is more difficult to measure and covers broader areas such as volume, customization and new product development. Volume flexibility shows an organization's ability to deal with variations in demand. Organizations can approach volume flexibility by: hiring temporary staff, holding stocks, forming queues, and so forth. Related objectives of volume flexibility include: capacity utilization; proportion of sales lost; variable cost per unit; peak production; variation in capacity and average size of order. Customization shows how well an organization can deal with individual demands for specific features in its products. Objectives for customization may

include width of product range, number of features, proportion of customers satisfied, variety of features (sizes, color packaging etc), time needed to customize products and average size of order. Finally, New Product Flexibility shows how innovative operations are and how they bring new products from concept to market. Related objectives here refer to the number of new products introduced, time taken to develop new products, new technologies used, response to customers' demands etc.

2.2.5 Customer Service

This emphasizes the external view of quality, with customer requirements the main input to the process and customer satisfaction as the primary aim of the process. Operations must understand the current and future customer needs, convert these requirements into viable products, make these products using efficient processes and generally strive to exceed customer expectations. Then operations should continually monitor customer satisfaction to see that their requirements are being met, and look for improvements to solve any problems.

According to Waters (2006), these operations objectives draw their common sources of distinctive capabilities in operations that define an organization's operations strategy effectiveness. These include: Products – Distinctive capabilities are derived from product quality, reputation, innovation, differentiation and range; Facilities – The Organization's capability in-terms of its facilities are concerned with capacity of the facility, flexibility of the facility to perform and accommodate different functions, location of the facility and its accessibility, age of the facility and its reliability; Processes – Waters views organization's distinctive capability in processes as being connected to the uniqueness of the processes, experience, flexibility, economies of scale and process quality; Technology – this include technology in products design and production process, proprietary technology, research and development in processes and expertise; Performance – Waters considers an organization's distinctive capability as being low cost, able to realize high productivity with minimum inputs utilization as well as that which incorporates continuous improvements; Employees According to Waters, employees availability, skills, expertise, loyalty and motivation plays a vital role in defining distinctive capabilities in operations of an organization.

2.3 Trade-Offs Theory

It is unlikely that any single organization can excel simultaneously at all of the five operations performance objectives. Trying to do so is likely to lead to confusion if operations managers pursue different objectives at different times. This lack of clarity is likely to lead to suboptimal performance and result in a failure to excel in any of the operations performance objectives. Consequently, organizations need to choose which performance objectives they will give priority to. This may result in having to 'trade-off' less than excellent performance in one aspect of operations in order to achieve excellence in another.

The concept of trade-off in operations objectives was first proposed many years ago by Skinner (1969). He argued that operations could not be 'all things to all people'. What was needed was to identify a single goal or 'task' for operations; a clear set of competitive priorities to act as the objective. The task would then act as the criterion against which all decisions and actions in operations could be judged. The Kenya Red Cross Society offers an example of an organization that has a clearly defined task for its operations, namely achieving the lowest possible operating costs while responding adequately and precisely to humanitarian crisis in Kenya. It is worth noting, that some operations management scholars reject the concept of the trade-off. They point to the ability of some organizations to outperform their competitors on multiple dimensions. They appear to have better quality, greater dependability and a faster response to changing market conditions and lower costs.

Ferdows and de Meyer (1990) argue that certain operational capabilities enhance one another, enabling operations excellence to be built in a cumulative fashion. In their 'sandcone' model of operations excellence, they maintain that there is an ideal sequence in which operational capabilities should be developed. The starting point, the base of the sandcone is excellence in quality. On this should be built excellence in dependability, then flexibility (which they take to include speed), then cost. They emphasize that efforts to further enhance quality should continue whilst commencing efforts to build dependability. Similarly, actions on quality and dependability need to continue whilst building flexibility. Finally efforts to reduce costs take place

alongside continuing efforts to improve quality, dependability and flexibility. They claim that operational capabilities developed in this way are more likely to endure than individual capabilities developed at the expense of others.

2.4 Humanitarian Operations

Lewis (2003) distinguishes humanitarian organizations from their public and private sector counterparts, that they act autonomous, in the sense that they do not seek governmental or economic power. They also adopt a normative technique for gaining worker compliance rather than remuneration or coercion (Etzioni, 1961, as cited by Lewis, 2003). Common themes binding humanitarian organizations can be found in the 'Code of Conduct' for the International Red Cross and Red Crescent Movement and NGOs in Disaster Relief, and the Sphere Project (Hilhorst and Schmiemann, 2002 as cited by Sandwell 2011). Common themes centre on humanity, impartiality and neutrality.

Humanitarian organizations deal with situations that are aimed are aimed at alleviating human suffering caused by natural disasters such as tsunamis, earthquakes and floods, or man-made disasters such as civil wars. These organizations receive funding from donors who according to Murray (2005) tend to insist their money be used to help the victims of disasters after the event has occurred rather than before the event.

Pache & Chandes (2010) define humanitarian actions as situations of crisis characterised by a necessary high level of reliability and adaptability to the victims' needs. The increasing numbers of stakeholders (manufacturers, service providers, governmental agencies, international organizations, etc) poses coordination challenges, given that these actors are different in nature, size and specialization. Thomas (2003) suggests that the emerging competition for funding is to blame by discouraging organizations from realizing the benefits of collaboration. In addition, these organizations are involved in emergency situations that are mostly unpredictable disasters, short time scale of relief missions and high staff turnover rates.

It has been observed that humanitarian organizations tend to compete with one another for money instead of collaboration. The main goal of humanitarian operation is to optimize and deliver quality and timely services of saving lives and to rebuild destroyed infrastructure, they are not in the business of making profits (Thomas 2003).

2.5 Content & Process of Operations Strategy

What then are the key decision areas of operations management that need to be considered when an organization is developing an operations strategy? Although there are a number of classifications in use, operations management scholars generally agree (e.g. Leong et al., 1990) that the major strategic decision areas in operations can be conveniently divided into ten categories under two broad headings: structure (the physical attributes of operations; the hardware) and infrastructure (the people and systems of operations; the software). According to Leong et al., (1990), the structural decision areas comprise:

(a) Facilities: the location, size and focus of operational resources. These decisions are concerned with where to locate production facilities, how large each facility should be, what goods or services should be produced at each location, what markets each facility should serve, etc.

(b) Capacity: the capacity of operations and their ability to respond to changes in customer demand. These decisions are concerned with the use of facilities, for example through shift patterns, working hours and staffing levels. Decisions about capacity will affect the organization's ability to serve particular markets from a given location.

(c) Process technology: the technology of the equipment used in operations processes. For example, the degree of automation used, the configuration of equipment, and so on.

(d) Supply network: the extent to which operations are conducted in-house or are outsourced. Decisions about vertical integration are also concerned with the choice of suppliers, their location, the extent of dependence on particular suppliers, and how relationships with suppliers are managed.

Structural decisions, according to Leong et al., (1990), often involve major capital investment decisions, which once made will set the direction of operations for many years to come. They invariably impact the resources and capabilities of an organization, determining its potential future output. It may be prohibitively expensive to change such decisions once implemented, and hence these must be considered to be truly strategic decisions for the organization. It may be much easier to change the organization's marketing strategy (e.g. its target markets, or its promotional activities) than it is to change its operations strategy with respect to the structural decision areas. Infrastructure decision areas comprise:

(a) Planning and Control: the systems used for planning and controlling operations.
(b) Quality: quality management policies and practices.
(c) Work Organization: organizational structures, responsibilities and accountabilities in operations.
(d) Human Resources: recruitment and selection, training and development, management style.
(e) New Product Development: the systems and procedures used to develop and design new products and services.
(f) Performance Measurement: financial and non-financial performance management and its linkage to recognition and reward systems.

These issues are also important to an organization, involving the use made of the operating hardware discussed above. It is possible to change aspects of operations infrastructure more quickly and easily than is the case for operations structure. Nonetheless the difficulty of so doing should not be underestimated; neither should the impact of making inappropriate infrastructural decisions. Slack and Lewis (2002) also outlined Operations strategy decision areas as including four decision categories that are important. They are: Capacity; supply networks; process technology; Development and organization. The above decision areas are not totally separate and mutually exclusive. For example, no company can make choices of which process technology it will invest in without considering how it will impact on its suppliers and customers elsewhere in the supply network.

2.6. Empirical Studies in Operations Strategy

The topic of operations strategy is typically viewed as involving two main aspects: the content of strategy (Porter, 1980) and the process of Review of the Literature on Strategy Cascading, Context, and Leadership strategy (Mintzberg 1985, 1991; Mintzberg et al. 1998). The content literature stream is mostly concerned with the so-called nucleus of strategy (Porter 1996) "operational effectiveness is not strategy" or, in other words, the intention of a firm's strategic direction (Hamel and Prahalad 1989). Much of this research has concentrated on the development of typologies and taxonomies of operations strategies; see, for example, Mart´ın-Pe˜na and Diaz-Garrido (2008). In short, this work has identified three generic operations strategies: those that concentrate on cost savings, those geared to creating high-quality products, and those that seek to implement the latest technologies and processes. The literature describes strategy as the "pattern of matching the different elements—some within the organizational boundaries (competences and resources) and others dealing with the environment (opportunities and threats)" (Venkatraman and Camillus 1984). Strategy has also been defined as "a pattern in a stream of decisions" (Mintzberg 1978).

In an empirical study, Swamidass et al. (2001) present "alternative forms of manufacturing strategy processes" that demonstrate new approaches (e.g., core manufacturing competences) as distinguished from the conventional top-down planning approach. Although there appears to be a link between a firm's manufacturing strategy and its strategic priorities, Mintzberg (1978) acknowledges that "a company's strategy may not be always completely planned but may consist of both planned and emergent components."

In their review of the literature on operations strategy, Anderson et al. (1989) address four issues: a strategic versus a tactical view of operations; the synergies between integrating business and operations strategic issues; how operations decisions demonstrate strategic opportunities; and how conceptual structures define operations strategy. The authors agree to a large extent with Skinner (1969) that operations strategy should be an integrated and vital part of business strategy yet often is "the missing link". It is worth mentioning that Anderson et al. do not find a widely

accepted definition of operations strategy, although most definitions agree that operations strategy is part of a firm's overall strategy and should involve both planning and organizing operations. These authors find little research on the process of operations strategy, which they argue is in need of further empirical exploration. According to Venkatraman and Camillus (1984), strategy research must consider the "concept of fit"—that is, aligning organizational resources with external opportunities in order to implement the chosen organizational strategy effectively. Gavetti and Levinthal (2004) analyze the past 50 years of strategy research published in Management Science while developing their "strategy map". Their study concludes that the organizational aspects of strategy making are not well developed. Burgelman (1983) is an example of seminal work in this field.

The research reviewed by Gavetti reveals that strategy often emerges ex post from behavioral patterns within the researched units of analysis. The topic of *alignment* is a central issue in the research of Schroeder et al. (1986), who report—after surveying 39 manufacturing companies—that only a third of these firms have an explicit manufacturing strategy. Those that do have sought to align it with their business strategy, from which the operations strategy is typically derived. These authors describe operations strategy as consisting of four principal elements: "mission, objectives, policies, and distinctive competence". They find that, for most firms, business strategies are "growth oriented, market directed, and emphasize quality and service". With respect to business strategies, Schroeder et al. offer their own perspective on Porter's (1998) "generic" strategies (i.e., focus, low cost, and segmentation) but argue that this trio is not jointly exhaustive. Similarly, Schroeder *et al* (1986). expand the generally accepted list of manufacturing objectives (cost, quality, delivery, and flexibility). Another finding of their research is that the term "manufacturing strategy" does not seem to be well understood. The Surveyed managers often mention manufacturing conditions when responding to questions about manufacturing strategy. This result is in line with the findings of Hayes and Pisano (1994), who address basic questions about operations strategy— for example, how they are defined in practice and how business strategy differs from operations strategy.

In their literature review of operations strategy research Boyer et al. (2005) show that "this body of work is dominated by papers that draw upon theoretical perspectives enabling a more holistic scope of inquiry." Hence the research that they review focuses on both the content and process of operations strategy. Their paper thereby reveals the need for more empirical case study research that specifically addresses operations strategy. As a result of their survey on operations strategy process, Boyer *et al* (1999) postulate that a well-defined operations strategy leads to a "group-oriented organizational culture with coordinated decision making, decentralized authority, and loyal work force".

Another example of strategy process implementation is described by Sterman et al. (1997). They present the case of Analog Devices, Inc., a company that successfully implemented a "total quality management" program (Deming 2000) that yielded outstanding achievements in quality and productivity. At the same time, however, the company's financial performance declined; it underperformed the market and was forced to lay off personnel. The authors use case evidence to devise a system dynamics model that might explain this seeming paradox. They find that one cause was the unbalanced impact of the improvement initiatives on different parts of the organization: it was not enough to make operational improvements on simple product lines alone. In particular, improvements that address indirect costs (e.g., for product development) must receive the same attention as does process improvement. Therefore, improvement must reflect an approach that is attuned to the different individual processes. Sterman et al. (1997) conclude that "the more successfully an organization improves its manufacturing operations, the more intense the trade-off (with business strategy) will be."

Skinner pioneered the research field of manufacturing strategy, beginning with the "advanced production problems" program (later to become the "manufacturing policy" program) at Harvard Business School. In one of his early papers, Skinner (1969) describes the tensions between manufacturing strategy and organizational strategy. Manufacturing objectives should consist of more than low costs and/or high efficiency; a viable manufacturing strategy also involves *trade-offs* (Porter 1996), a

fact that is underappreciated. The relevant trade-offs involve such generic capabilities as cost, quality, dependability, and flexibility. For example, it is difficult (if not impossible) for a company to compete in terms of cost, quality, *and* delivery. Top executives are often not involved in production—either because they delegate extensively or do not feel comfortable handling such matters.

Skinner (1978) defines the essence of good strategy as follows: "a manufacturing strategy is a set of manufacturing policies designed to maximize performance among trade-offs among success criteria to meet the manufacturing task determined by a corporate strategy." Skinner postulated that only focused factories can be consistently successful. Such manufacturing processes are rare, however, because firms usually have too much complexity in their product portfolio or too many immature process technologies. It is therefore difficult for them to compete solely in terms of cost, so trade-offs are inevitable. The research of Ferdows and Meyer (1990) explores whether such trade-offs can be avoided. These authors view manufacturing capabilities as being cumulative rather than circumscribing, and they elaborate (but do not prove the validity of) a potentially useful model based on survey data. Ferdows and Meyer argue that successful companies seem to follow a sequence of improvement programs whereby new capabilities are built upon previous ones. This sequence (described by their "sand cone" model) is: quality, dependability, speed, and cost efficiency. The authors argue that trade-offs are not entirely irrelevant but that the theory of trade-offs is not valid under all circumstances. They also propose that "slack" may be an option for companies that seek simultaneous improvements in more than one capability.

2.7 Summary

This research study was motivated to investigate the operations strategies adopted by humanitarian organizations in Kenya.

These operations strategies support the overall goal of delivering quality services to the people of concern. According to Skinner (1978) Top managers' job is to ensure that there is a coherent operations strategy in which all manufacturing policies are designed as a whole to support or lead the corporate strategy. Hayes and Wheelwright

(1984) stress the firm's need to align its operations and business strategies, pointing out that an operations strategy consists of criteria that are linked to business strategy.

Atlay and Green, (2006) point out humanitarian situations as complex, multi-dimensional, cross-cutting, and dynamic and tend to originate from common phenomenon. According to Kovacs and Spens (2011) disasters and by consequence, the ensuing humanitarian crises tend to be region-wide, therefore, humanitarian organizations may adopt different operations strategies depending on the sectors and scope of their operations.

Generally, the effectiveness of an operations strategy is determined by the degree of consistency between competitive priorities and corresponding decisions regarding operational structure and infrastructure (Leong, Snyder and Ward 1990 cited by Boyer and Lewis 2001).

CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Introduction

This chapter provides the methodology of the study. It gives the specific procedures that were followed in undertaking the study. The research design, population, sampling design, data collection methods and data analysis are described in this chapter.

3.2 Research Design

The research design that was employed in this study was the descriptive research design in form of a census survey. A descriptive survey was selected because it provides an accurate portrayal or account of characteristics, for example behavior, opinions, abilities, beliefs, and knowledge of a particular individual, situation or group. The major purpose of descriptive research design is to describe the state of affairs as it is at present. The design was considered appropriate for the study because according to Kothari (2003), survey is concerned with describing, recording, analyzing reporting conditions that existed or exist. Gay (2004) argues that survey method is widely used to obtain data useful in evaluating present practices and in providing basis for decisions. Questionnaires were used and administered to one staff from each humanitarian organization. Closed ended questions were predominantly administered to gather for subjective answering.

3.3 Target Population

The population of interest of this study was the humanitarian organizations operating in Kenya. According to EHRP (2013) fifty three such organizations operating in Kenya participated in 2013 response plan (Appendices II – Participants in 2013 Emergency Humanitarian Response Plan). According to Ngechu (2004), a population is a well-defined or set of people, services, elements and events, group of things or households that are being investigated. Population studies, also called census are more representative because everyone has equal chance to be included in the final sample (Mugenda and Mugenda, 1999). The study being a census survey, data was collected from all the 53 organizations in Kenya.

3.4 Data collection

Primary data was collected using closed ended questionnaire, see Appendix I. A drop and pick method was used with follow ups by use of telephone and email. The questionnaires were used to collect mainly quantitative data.

The researcher administered a survey questionnaire to each member of the target population. The questionnaire was carefully designed and tested with a few members of the population for further improvements. The researcher exercised care and control to ensure all questionnaires issued to the respondents were received and carefully handled. To achieve this, the researcher maintained an accurate register of all questionnaires, that were sent, and which were received.

3.5 Data Analysis

Quantitative data collected was analyzed using the statistical package of social scientist (SPSS). Descriptive statistics were presented by drawing descriptive statistics tables and pie charts. The basis of using descriptive approach was to give a basis for determining the weights of the variables under the study. This was done by tallying up responses, computing percentages of variations in response as well as describing and interpreting the data in line with the study objectives and assumptions through use of SPSS. Content analysis was also used to test data that is qualitative in nature or aspect of the data collected from the open ended questions. According to Baulcomb, (2003), content analysis uses a set of categorization for making valid and replicable inferences from data to their context.

CHAPTER FOUR
DATA ANALYSIS, RESULTS AND DISCUSSIONS

4.1 Introduction

The research design employed in this study was the descriptive research design in form of a census survey. Data was collected using questionnaires administered through the drop and pick method. A staff member from each of the humanitarian organizations in the target population was randomly selected to complete the questionnaire.

4.2 General Information

Out of the 53 dropped questionnaires to the targeted 53 organizations, 28 questionnaires were well completed and picked. This indicates a 52.83% response rate. Mugenda and Mugenda (1999) scales 50% as an adequate response rate as suitable and representative enough for analysis, 60% as good response rate while 70% and higher is excellent. To this extent, this chapter presents the analysis findings of data randomly collected from an adequate and representative sample.

HOs in Kenya from which data was collected from were either public, private or UN agencies whereby some are large while others are medium. Various humanitarian services offered by these organizations include; fighting gender violence, drought mitigation, settlement of refugees and displaced persons, health and nutrition, peace keeping, livelihood and micro financing among others. The sample of staff members from the 28 organizations constituted of 60.7% and 39.3% male and female respondents respectively. This ensured that gender biasness on opinions and ratings of various variables is minimized, since each gender had over 30% representation.

Further, periods of experience for the respondents ranged from 1 year to 20 years, while their job titles cut across different cadres of job groups. All this went a long way in to randomizing the attitudes influenced by level of experience and level of job groups and therefore randomized the responses. The job titles of the respondents included among others; security officers, accountants, finance officers, human

resource managers, project coordinators, community service officers, disaster response officers and training managers.

4.3 Decision Areas Influencing operation strategies

Numerous decisions generally influence the selection and mode of implementation of operations strategies in Humanitarian organization in Kenya but the extent of influence varies.

A Likert scale of measurement was used as follows:

1: Very great extent 2: Great extent 3: Uncertain 4: Little extent 5: Not at all

Table 1 shows key decision areas that influence the operations strategies, ranked in order of its extent of influence.

Table 1: Decision Areas that influence operations strategies

Decision Factor	**Mean**	**S.D**
Choice of human resource	2.04	1.20
Location of facility	2.07	1.30
Level of process technology	2.25	1.04
Planning and control strategies	2.25	1.29
Methods of performance measurement	2.29	1.01
Capacity	2.32	1.06
Choice of supply network	2.32	1.28
Ability to organize work	2.36	1.39
Ability to manage quality	2.50	1.35
Choice of facility	2.57	1.32
Rate of new product development	2.82	1.12
Age of the facility	3.00	1.36

An analysis of variance was performed to test for the significance of the difference between the twelve means obtained in table 1.

Hypothesis;

H_o: $\mu_1 = \mu_2 = \mu_3 = \mu_4 ..... = \mu_{12}$ (There is no significant difference between all means)

The results of the ANOVA were as shown in table 2.

Table 2: ANOVA- Decisions areas that influence operations strategies

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	24.917	11	2.265	1.487	0.135	1.818
Within Groups	493.643	324	1.524			
Total	518.560	335				

Significance level, α = 0.05

Since F-computed (1.487) is less than F-critical (1.818) and the p-value (0.135) is greater than the significance level, the null hypothesis H_o is not rejected. This implies therefore that the means are not significantly different. This leads to the conclusion that; generally, the listed factors influence the operation strategy almost to an equal extent. However, it is observed that the choice of the human resource had the smallest mean of 2.04 with very low variation (S.D = 1.2) hence ranked top. On the other hand, choice of human resource is closely followed by the location of the facility (Mean = 2.07, S.D = 1.3) in rank 2, which is the proximity of the facility to the community or population that needs the humanitarian aid. Level of process technology (Mean = 2.25, S.D = 1.04) as well as planning and control processes (Mean = 2.25. S.D = 1.29) are significant factors in the selection and implementation of operations strategies. Other factors follow in the order of ranking in table 1. It is important to note that none of the factors got a mean of 1.00, implying that there is no factor that is considered to influence the operations to a very great extent.

According to Leong et al (1990) human resource fall under infrastructural decisions which can quickly and easily be changed in the case of operations structure. In light of the study by Thomas (2003) humanitarian organizations are involved in emergency situations that are mostly unpredictable disasters, short time scale of relief missions and high staff turnover. Chandes and Pache (2010), defined humanitarian actions as

situations of crisis characterized by a necessary high level of reliability and adaptability. It is therefore important to note from the study that Hos in Kenya consider both structural decision which are more strategic in nature as well as infrastructural decisions in their response to emergency situations.

4.4 Competitive priorities

The choice of the operation strategy for any organization, and the prioritization of the operations objectives may be significantly interactive.

Table 3: Competitive Priorities

Competitive Priority	**Mean**	**S.D**
Customer trust	1.75	0.75
Low vendor cost	1.82	0.77
Reliable customer information	1.89	0.88
High efficiency	1.93	1.25
Fast provision of services	1.93	1.09
High product/service quality	1.96	0.79
Agreed time of service delivery	2.00	0.90
Agreed amount and terms of service	2.00	0.77
High rate of responsiveness/customer service	2.07	0.86
Broad range of products/services	2.11	0.83
High reliability of services	2.18	0.98
After service follow-up	2.18	0.98
High performance of products	2.25	0.93
Low operation cost	2.29	0.94
Low waste resources cost	2.36	0.99
Dependable promises	2.36	1.03
High rate of flexibility	2.43	1.00
High rate of product/service customization	2.50	1.26
Low product installation error rate	2.54	0.84
Broad range of technologies	2.82	1.06

The study sought to find out the extent to which humanitarian organizations in Kenya have achieved various operations objectives, which gave an indication of how they prioritize the operation objectives.

A Likert scale to measure the extent of achievement was used and results shown in table 3 above:

1: Very great extent 2: Great extent 3: Uncertain 4: Little extent 5: Not at all

An analysis of variance was performed to test for the significance of the difference between the twenty four means obtained in table 3.

Hypothesis;

H_o: $\mu_1 = \mu_2 = \mu_3 \ldots\ldots\ldots = \mu_{24}$ (No significant difference between all means)

The results of the ANOVA were as shown in table 4.

Table 4: ANOVA - Achievement of various operation objectives

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	40.007	19	2.106	2.310	0.001	1.606
Within Groups	492.214	540	0.912			
Total	532.221	559				

Significance level, α = 0.05

Since F-computed (2.310) is greater than F-critical (1.606) and the p-value (0.001) is less than the significance level, the null hypothesis H_o is rejected. This implies that the means are not all equal, some could be significantly different. Paired samples t-tests were conducted to investigate the significance of the difference between any two consecutive (non-tying) means in the rankings. (No significance of difference can be tested between tying means)

Hypotheses;

H_o: $\mu_1 = \mu_2$

H_1: $\mu_1 \neq \mu_2$

Table 5 shows the results of the paired samples t-tests.

Table 5: Paired Samples Test

	Paired Differences *(Significance level α = 0.05)*				t	df	Sig. (2-tailed)
	Mean	Std. Deviation	95% Confidence Interval of the Difference				
			Lower	Upper			
"low vendor cost" - "customer trust"	.07	.940	-.29	.44	.402	27	.691
"low vendor cost" - "reliable customer information"	-.07	1.152	-.52	.38	-.328	27	.745
"reliable customer information" - "high efficiency"	-.04	1.374	-.57	.50	-.138	27	.892
"high product/service quality" - "fast provision of services"	.04	1.170	-.42	.49	.162	27	.873
"high product/service quality" - "agreed time of service delivery"	-.07	1.120	-.51	.36	-.338	27	.738
"high rate of responsiveness" - "agreed amount and terms of service"	.07	.716	-.21	.35	.528	27	.602
"broad range of products/services" - "high rate of responsiveness"	-.04	1.036	-.44	.37	-.182	27	.857
"high reliability of services" - "broad range of products/services"	.14	1.353	-.38	.67	.559	27	.581
"high performance of products" - "after service follow-up"	.04	1.347	-.49	.56	.140	27	.889
"low operation cost" - "high performance of products"	.07	1.086	-.35	.49	.348	27	.731
"low operation cost" - "low waste resources cost"	-.07	1.086	-.49	.35	-.348	27	.731
"high rate of flexibility" - "dependable promises"	.07	1.538	-.52	.67	.246	27	.808

From the analysis of variance, the objectives are achieved to significantly different levels as shown by the order in table 3. However, it is noted from the paired t-test results that for every pair of objectives, the 95% confidence interval includes zero, and all the p-values (sig. 2-tailed) are greater than the test significance level for a two-tailed test $\left(\alpha/2 = 0.025\right)$. This implies that there is no significant difference in the extent to which any two consecutively ordered objectives have been achieved, but the difference is significant between the top ranked and the bottom ranked objectives. To this extent, the findings in table 5 indicate that customer trust objective has been greatly achieved with a mean of 1.75 and a very low dispersion of 0.75. The objective of low vendor cost (Mean = 1.82, S.D = 0.77) comes second in achievement, while that of reliable customer satisfaction (Mean = 1.89, S.D = 0.88) ranks the third position. Other objectives were achieved in the order shown in the table, where broad range of technologies was the least achieved objective.

Thomas (2003) mentioned the main goal of humanitarian operations being able to optimize and deliver quality and timely services of saving lives, as the findings clearly indicate humanitarian organizations in Kenya have prioritize their operations objectives to be able to win Customer Trust. This prioritization is determined through evaluation of various trade-offs that influence the operation objectives.

4.4 Trade-offs in operations objectives

Prioritization of an operation objective ahead of another may be as a result of evaluation of various trades-offs between the two options. To this extent, the study sought to find out the extent in which operations objectives have been prioritized. Table 6 shows the ranking in order of priority for the operation objectives.

A Likert scale to measure the rating of the trade-off factors was used as follows:

1: Very high priority 2: High priority 3: Uncertain 4: Somehow important 5: Not a priority

Table 6: Ranking of operation objectives in Order of Priority

Trade-off factor	**Mean**	**S.D**
Quality	1.61	0.63
Responsiveness/customer focus	1.68	0.86
Cost	1.71	0.94
Know-how	1.75	0.65
Flexibility	1.89	0.79
Efficiency/service provision	1.93	1.02
Dependability	2.14	1.3
Innovation	2.21	1.1

An analysis of variance was performed to test for the significance of the difference between the eight means obtained in table 6.

Hypotheses;

H_o: $\mu_1 = \mu_2 = \mu_3 \ldots\ldots\ldots = \mu_8$ (No significant difference between all means)

The results of the ANOVA were as shown in table 7.

Table 7: ANOVA- Rating of the trade-off factors influencing prioritization of the operation objectives

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	9.554	7	1.365	1.564	0.147	2.052
Within Groups	188.429	216	0.872			
Total	197.982	223				

Significance level, α = 0.05

Since F-computed (1.564) is less than F-critical (2.052) and the p-value (0.147) is greater than the significance level, the null hypothesis H_o is not rejected. This implies that the means are not significantly different. Therefore there is no prioritization of

operation objectives by HOs in Kenya, because the variables have been rated to approximately to equal extents. However, Quality rank first as popularly prioritized among the operations objectives. Responsiveness or customer-focus ranks second while cost comes third. Other factors are considered in the order shown in table 7, with innovation being the last factor that can be considered as a priority to the least extent. This imply that given two or more operations strategies, the strategy that guarantees highest quality is accorded first priority, followed by the strategy that ensures best responsiveness/ customer focus and that which minimizes cost in that order.

The findings of the study support Ferdows and Meyer (1990) who argue that successful companies build capabilities upon previous ones. In their "sand cone" model, other factors such as dependability, speed, cost and efficiency are built on quality in a certain level of priority. They also argue that the theory of trade-offs, as advanced by Skinner (1978), cannot be valid under all circumstances.

4.5 Correlation between the variables

This far, the variables under study seem to be interactive in the sense that the operations objectives influence the operations decisions and the operations decisions influence the choice of operations strategy to be adopted by Humanitarian Organizations in Kenya. To get a deeper and clear insight of the nature as well as the degree of these interactions, a correlation analysis was performed on the variables. Table 8 shows the Pearson's moment product correlation coefficients matrix obtained.

Table 8: Correlation matrix

	Choice of operations strategy to be adopted	*Competitive priorities*	*Trade-offs in Operations Objectives*
Decision on operations strategy to be adopted	1	*	*
Competitive priorities	0.9793	1	*
Trade-offs in Operations Objectives	0.9572	0.8877	1

The influence of competitive priorities on the choice of operations strategy is very strong and direct correlation (r = 0.9793). This implies that the higher an operation objective is prioritized, the more it influences the choice and the adoption of operations strategies, and vice versa. Also, the relationship between the trade-offs in operations objective and the choice of operations strategy is significantly strong and direct in nature (r = 0.9572). This implies that the higher a trade-off factor is prioritized, the more the associated factor influences the decision on the operations strategy.

Lastly, there exist a strong direct relationship between the trade-offs in operations objectives and the competitive priorities (r = 0.8877). This implies that the higher the trade-off factor the more it is prioritized.

Skinner (1969) argued that operations could not be all things to all people, that operations needed a clear set of competitive priorities that will set the criteria of making operations decision. To this extent therefore the study finds the literature relevant in the context under study, since the variables are strongly and directly related.

CHAPTER FIVE
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

For a brief but comprehensive report on the outcome of the study, this chapter summarizes the findings of the study and draws conclusion based on the analyzed data. Further, the chapter gives recommendations arising from the conclusions of the study. Lastly, the chapter gives suggestions for further research in relation to the findings of this study.

5.2 Summary

The purpose of the study was to establish operations strategies adopted by humanitarian organizations in Kenya and whether they prioritize on operations objectives. The findings of the study indicate that Humanitarian organizations in Kenya consider both structural as well as infrastructural operational areas in adopting their strategies. Ranked top was the consideration on human resource followed by Choice of facility location. Study also revealed that there is no significant trade-offs in operation objectives by HOs in Kenya, because the competitive operations objectives were rated to approximately equal extents. However, Quality ranked first as popularly prioritized among the operations objectives. Responsiveness ranked second while cost came third.

Therefore, humanitarian Organizations pursue operations strategies that emphasize on quality by putting great emphasis on human resource, that is, ensuring competent and professional staff are recruited and selected, consequently ensuring training as well as development is offered to staff. This strategy is greatly achieved by adopting a responsive management style that motivates staff to offer quality services.

5.3. Conclusion

Operations function is responsible for producing goods and services required by customers while managing resources efficiently as possible (Johnson *et al* 2005). Operations strategy is therefore very crucial to any operation that is in business of producing goods or services. According to Slack and Lewis (2002), Operations strategy is the total pattern of decisions which shape the long term capabilities of an operations and their contribution to overall strategy. The strategy to a large extent is determined by the operations priorities that an organization has consistently adopted.

Humanitarian organizations provide humanitarian assistance to persons in need, they usually work in reducing human suffering caused by disasters which seriously affect the society. Therefore, a dynamic and responsive operations strategy is needed in the response to disasters. Atlay and Green (2006), notes that such disasters cause significant destruction and loss of lives, that usually stretches the local capacity hence unable to deal with. It is important therefore that priorities are put in place under such circumstances in order to achieve the goal of alleviating human suffering.

This study was motivated to investigate the operations strategies adopted by various humanitarian organizations in Kenya. Specifically it provides insights into the operations objective priorities by these organizations. One implication of this study for operations managers of humanitarian organizations is the reassurance of knowing that their emphasis on certain operations objectives is in line with the expectation in global operations management.

In the Kenya context, this study revealed that operations objectives have been collectively pursued without trade-off unlike the case of Analog Device presented by Sterman (1997), who successfully implemented “total quality management” but the organization ended up collapsing. The hypotheses on trade-offs was not rejected statistically reason being there is no significant difference in the means. Though quality was ranked top as popularly prioritized among the operations objectives, followed by responsiveness or customer-focus while cost minimization came third.

It implied that given two or more operation strategies, the strategy that guarantees highest quality is accorded priority, followed by the strategy that ensures best responsiveness or customer focus and that which minimizes cost in that order.

5.4 Recommendations

This study contributes to the body of knowledge of operations strategies adopted by humanitarian organizations; it should thus help other researchers and practitioners in adopting responsive operations strategies. It informs operations managers and humanitarian organizations who seek to competitively manage their operations in ensuring that they consider pursuing all the operations objectives collectively, however, if they want to prioritize, then quality should be highly regarded.

Humanitarian organizations form a critical pillar of the stability, welfare and development of people. Their services are of great importance to persons of concern. As such, their operations need to be planned, directed, supervised and controlled in a manner that ensures quality services are delivered. It is therefore recommended that all humanitarian organizations evaluate the operations priorities and formulate an operations strategy that will support the overall goal of the organization. The operations strategy should be communicated widely to staff involved so that all resources can be directed towards its achievement.

5.5 Limitations

The researcher encountered challenges during the research period which included wide-spread organizations that posed locational challenges as the researcher was unable to travel to most parts of the country due to work constraints. The researcher at some point was forced to use email contacts to send the questionnaires which most of the respondents could ignore thus delaying data collection.

5.6 Suggested areas of Further Research

7.1% of humanitarian organizations have been found to perform below the expectations of the staff members. It is recommended that similar research be carried out bringing other stake holders (such as donors, government, churches e.t.c) on board, so as to get a more greater view of what proportion of the humanitarian organizations perform below the expectations of all stakeholders. Lack of prioritization of operational objectives and lack of evaluation of trade-offs may not be the only cause of organizations performing below the expectations in their operations. A research is thus recommended to investigate other causes and the extent to which they affect the operational performance of these humanitarian organizations.

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APPENDIX I: QUESTIONNAIRE

Dear participant,

I am currently undertaking an academic research project investigating the Operations Strategies adopted by Humanitarian Organizations in Kenya. Your response is extremely important to the success of this study. I would like to assure you that your response will be treated as "Strictly Confidential "and it will be used for research purposes only. Please answer the questionnaire from the perspective that defines your organization's operations strategy from the humanitarian operations segment within which your organization operate. Thank you very much for your help and co-operation

Section A: **About the respondent**

1. **Gender:** Male: …… Female: …….
2. Please specify your job title ----------
3. Please specify how many years of working experience do you have in your company? _____ years.
4. Name of the Organization ……

Section B: General Organizational Profile

Tick one in each column that applies to your organizationSector	**Legal Status**	**Type**	**Size**
1. Public	1. NGO	1. National	1. Small
2. Private	2. CBO	2. Regional	2. Medium
3. United Nations Agency	4. Statutory Body	3. International	3. Large

5. Please indicate the classification of your major humanitarian activities (e.g. WASH, Health & Sanitation, Education, Drought Mitigation, Human Settlement etc), locations where they are implemented in Kenya and their percentage contribution to the total organizational humanitarian intervention log:

Classification of Humanitarian Activity	**Percentage**	**Location (s)**
TOTAL	100%	

6. When did this Organization start its operations in Kenya? _____ (year)
7. How do you rate this Organization's current operations performance compared to your expectations

Well below (1)	Below (2)	In line with (3)	Above (4)	Well above (5)
❑	❑	❑	❑	❑

Section C: Content & Process of Operations Strategy

8. To what extent do the following factors affect your operations strategy? Use the scale below to tick the most appropriate response)

(1 = to a very great extent, 2 = to a great extent; 3 = Uncertain; 4 = to a little extent 5 = Not at all)

	Description	1	2	3	4	5
01	Choice of Facility					
02	Availability of Capacity					
03	Level of Process Technology					
04	Choice of Supply Network					
05	Choice of Human Resource (e.g. age, level of education					
06	Methods of Performance Measurement					
07	Planning and Control strategies (Level of Disaster					
08	Rate of New Product development					
09	Ability to manage Quality					
10	Ability to organize Work					

9. From the List above state the factor that should best determine your operations strategy ……

Others (Specify ……

Section D: Competitive priorities

This section is concerned with predicting the relationship between the competitive priorities and organization's operations strategy success. For the following set of priorities, please use the following scale ranging from:

(1 = to a very great extent, 2 = to a great extent; 3 = Uncertain; 4 = to a little extent 5 = Not at all:

10. To what extent has your organization been able to achieve the following operations objectives:-

	Variables & Description	**1**	**2**	**3**	**4**	**5**
01	Low Operational Cost					
	Low vendor costs					
	Low waste resources cost					
02	High Product/service Quality					
	Low product installation error rate					
	High Performance of products					
	High Reliability of services					
03	High rate of flexibility					
	Broad range of products/services offered					
	Broad range of technologies					
04	High rate of Responsiveness/Customer Service					
	After-service follow-up					
	High rate of service/product Customization					
	Reliable Customer information					
	Customer trust (Contractual agreement)					
05	High Efficiency Efficiency/Service Provision					
	Fast provision of services					
	Agreed time of service delivery					
	Agreed amount and terms of service					
	Dependable Promises					

Section E: Competitive Priorities and Trade-Offs/Prioritization

11. Rank the following in order of priority for your humanitarian operation

*(1 = Very high priority, 2 = High Priority; 3 = Uncertain; 4 = Somehow important 5 = Not a priority)**:***

COMPETITIVE PRIORITY/ TRADE-OFF	**01**	**02**	**03**	**04**	**05**
COST					
QUALITY					
FLEXIBILITY					
RESPONSIVENESS/CUSTOMER FOCUS					
EFFICIENCY/SERVICE PROVISION					
KNOW-HOW					

Thank you very much for your help and co-operation

APPENDIX II: Participants in 2013 Emergency Humanitarian Response Plan

1. Action Against Hunger
2. Agency for Technical Cooperation and Development
3. Caritas Switzerland
4. Centre for Human Rights and Governance
5. Centre for the Poor International
6. Christian Aid
7. Concern Worldwide
8. Cooperazione Internazionale COOPI
9. Danchurchaid
10. Deutsche Welthungerhilfe e.V. (German Agro Action)
11. Development Initiatives Access Link
12. Finnchurchaid
13. Food & Agriculture Organization of the United Nations
14. Food for the Hungry
15. GOAL
16. HelpAge International
17. International Labour Organization
18. International Medical Corps
19. International Organization for Migration
20. International Rescue Committee
21. International Strategy for Disaster Reduction, Africa
22. Islamic Relief Worldwide
23. Kenyan Red Cross Society
24. Lay Volunteers International Association
25. Medical Emergency Relief International
26. Mercy USA for Aid and Development,
27. Mubarak for Relief and Development Organization
28. Northern Kenya Caucus
29. Norwegian Refugee Council
30. Office for the Coordination of Humanitarian Affairs

31. Okoa Mtoto Initiative Kenya
32. Pastoralists Against Hunger
33. Plan International
34. RedR UK
35. Refugee Consortium of Kenya
36. Samaritan's Purse
37. Save the Children
38. Southern Aid
39. Terre Des Hommes
40. United Nations Children's Fund
41. United Nations Dept of Safety and Security
42. United Nations Development Fund for Women
43. United Nations Development Programme : gordon.onyatta@undp.org
44. United Nations Educational, Scientific and Cultural Organization
45. United Nations High Commissioner for Refugees –
46. United Nations Population Fund
47. Vétérinaires sans Frontières (Germany)
48. World Cares Association
49. World Concern Development Organisation
50. World Food Programme
51. World Health Organization (Paul Ngugi) gitaup@ke.afro.who.int
52. World Vision International
53. World Vision Kenya

Appendix III : Raw Data Extract

Male	community servic	UNHCR	United Nations Ag	Large	In line with	Very great extent	Very great extent	Uncertain	Very great extent	Uncertain	Uncertain	Very great extent	Great extent
Male	finance Assistant	UN WOMEN	United Nations Ag	Large	In line with	Great extent	Very great extent	Uncertain	Very great extent	Very great extent	Very great extent	Very great extent	Great extent
Male	Human Resource	UNDP, KENYA	United Nations Ag	Large	In line with	Great extent	Great extent	Uncertain	Great extent	Great extent	Little extent	Very great extent	Great extent
Male	Admin Assistant	WFP, KENYA	United Nations Ag	Large	Above	Not at all	Little extent	Not at all	Uncertain	Great extent	Not at all	Little extent	Little extent
Male	Finance Associat	UNOPS - ILO	United Nations Ag	Large	Above	Very great extent	Very great extent	Not at all	Very great extent	Great extent	Great extent	Great extent	Very great extent
Female	Security Officer	UNDSS	United Nations Ag	Large	In line with	Little extent	Not at all	Little extent	Not at all	Little extent	Little extent	Not at all	Little extent
Male	HR BUDGET FIN/	WHO	United Nations Ag	Large	In line with	Little extent	Very great extent	Not at all	Very great extent	Very great extent	Very great extent	Very great extent	Little extent
Female	Training Manager	RED R, UK	Private	Medium	In line with	Great extent	Great extent	Great extent	Great extent	Uncertain	Uncertain	Uncertain	Uncertain
Male	National Prog. Off	UNESCO	United Nations Ag	Medium	In line with	Great extent	Great extent	Great extent	Great extent	Great extent	Great extent	Great extent	Great extent
Male	Project Officer	Concern Worlwid	Private	Large	In line with	Very great extent	Little extent	Little extent	Little extent	Little extent	Not at all	Very great extent	Very great extent
Male	Associate Operati	World Vision Ken	Public	Large	In line with	Very great extent	Very great extent	Great extent	Great extent	Great extent	Great extent	Uncertain	Great extent
Female	Human Resource	Islamic Relief Ken	Public	Medium	Below	Little extent	Little extent	Uncertain	Uncertain	Uncertain	Uncertain	Little extent	Uncertain
Male	Business Develop	Pastrolist A. Hung	Public	Medium	Below	Uncertain	Great extent	Very great extent	Great extent	Great extent	Very great extent	Very great extent	Very great extent
Female	Admin Officer	Mubarak Relief &	Public	Large	Well above	Not at all	Little extent	Uncertain	Little extent	Little extent	Little extent	Little extent	Little extent
Male	Tech. Lead Opera	Help Age Intl.	Private	Medium	Above	Very great extent	Very great extent	Not at all	Great extent	Very great extent	Uncertain	Very great extent	Great extent
Male	Finance Officer	NRC	Public	Medium	Above	Great extent	Very great extent	Great extent	Great extent	Great extent	Great extent	Great extent	Great extent
Male	Disaster R. R. Off	UNDP - OCHA	United Nations Ag	Large	Above	Little extent	Great extent	Not at all	Great extent	Very great extent	Great extent	Very great extent	Great extent
Male	Operations Assist	Kenya Red Cross	Public	Large	Above	Little extent	Great extent	Great extent	Great extent	Great extent	Great extent	Great extent	Great extent
Female	Accountant	Christian AID	Public	Large	Above	Great extent	Great extent	Little extent	Great extent	Little extent	Great extent	Great extent	Uncertain
Male	Office Messenger	UNHCR MED. EM	United Nations Ag	Large	Above	Not at all	Not at all	Not at all	Little extent	Little extent	Little extent	Little extent	Little extent
Female	Accomodation As	IOM	Private	Medium	Well above	Very great extent	Very great extent	Very great extent	Great extent	Very great extent	Very great extent	Very great extent	Great extent
Male	Snr. OPS Oversig	UNHCR - IRC	United Nations Ag	Large	Above	Great extent	Very great extent	Little extent	Very great extent	Very great extent	Very great extent	Very great extent	Very great extent
Male	Admin Assistant	Save the Children	United Nations Ag	Large	Above	Great extent	Great extent	Great extent	Great extent	Very great extent	Great extent	Great extent	Great extent
Male	Accountant	Plan international	Public	Large	Above	Great extent	Great extent	Great extent	Uncertain	Great extent	Very great extent	Great extent	Very great extent
Male	Manager	Refugee consorti	Public	Medium	In line with	Uncertain	Very great extent	Great extent	Little extent	Great extent	Very great extent	Great extent	Uncertain
Female	Personnel officer	UNPF	United Nations Ag	Large	Well above	Great extent	Very great extent	Great extent	Great extent	Great extent	Very great extent	Great extent	Great extent
Male	Project cordinator	Mercy USA for Aic	Public	Large	In line with	Uncertain	Great extent	Very great extent	Great extent	Great extent	Very great extent	Very great extent	Very great extent
Female	Procurement offic	Kenya Red cross	Public	Medium	Well above	Great extent	Very great extent	Great extent	Great extent	Uncertain	Great extent	Very great extent	Great extent

Appendix IV: Extract of Data used for Paired t-test

lwopcost	lwvdcost	lwwrcost	hipdtql	lwprter	hiperf	hirels	hiflexty	rangepr	ranget	hirespo	aftsflw	hirser	recustin	custrust	hieffic	fastserv	agrdtime	agrdterm	depdpr
4	4	4	2	3	3	1	1	2	2	2	2	2	2	3	2	3	3	2	3
3	2	3	2	3	4	2	2	3	3	2	2	3	2	1	1	1	2	2	2
2	1	4	2	3	2	2	4	4	4	2	2	4	1	1	2	3	2	2	4
4	1	4	4	2	5	3	4	2	1	3	1	2	4	3	1	2	3	1	2
4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	2	2	2	2
1	2	2	2	2	3	1	2	3	4	1	4	4	2	2	2	1	1	2	2
2	2	3	3	3	3	2	2	2	2	2	4	1	1	2	1	1	1	2	3
1	1	1	3	3	2	3	2	2	3	3	3	2	2	3	2	1	1	1	2
3	3	3	3	3	3	3	3	3	3	3	1	1	2	1	3	2	1	2	3
1	1	1	1	1	2	2	2	2	2	1	1	1	2	1	1	2	2	2	2
3	2	2	2	2	2	2	2	1	2	2	2	2	2	2	4	2	2	2	2
2	1	2	1	4	1	4	4	1	4	1	4	4	1	1	1	1	2	1	1
2	2	3	3	2	3	4	2	2	3	4	3	5	4	3	4	4	4	4	4
2	1	4	2	2	2	2	2	1	4	2	2	2	2	2	1	1	2	2	4
2	3	2	1	4	2	1	1	2	1	1	1	1	2	2	1	1	3	2	2
2	2	2	2	2	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2
2	2	4	2	4	2	2	4	2	4	2	2	4	2	1	1	4	2	2	1
2	2	2	1	2	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1
2	1	2	2	2	2	1	1	4	4	1	2	2	2	1	1	1	1	1	1
4	3	2	2	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3
1	2	1	1	1	1	1	2	3	2	2	1	1	1	1	4	1	1	2	2
2	2	2	1	2	2	2	3	3	3	2	2	4	1	1	1	1	3	3	3
2	2	2	2	2	3	2	3	2	2	3	3	3	2	2	3	3	3	3	3
3	1	2	1	3	1	3	4	2	4	2	1	2	2	1	1	4	2	2	1
3	2	1	2	3	2	1	3	2	4	3	1	2	1	2	5	2	1	2	2
1	1	2	1	4	1	4	4	1	4	1	4	4	1	1	1	1	1	1	1
2	2	3	3	2	3	4	2	2	3	4	3	5	4	3	4	4	4	4	4
2	1	1	2	2	2	2	2	1	4	2	2	2	2	2	1	1	2	2	4
2.285714	1.82142	2.3571428	1.9642	2.5357	2.25	2.178	2.4285	2.1071	2.821	2.0714	2.1785	2.5	1.89285	1.75	1.9285	1.9285714	2	2	2.3571
0.937180	0.77237	0.9893614	0.7926	0.8380	0.9279	0.983	0.9973	0.8317	1.055	0.8575	0.9833	1.261	0.87514	0.7515416	1.2450	1.0862293	0.9026709	0.7698003	1.0261
2	2	2	2	2	2	2	2	2	4	2	2	2	2	1	1	1	2	2	2
28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28

lwopcost	Extent to which the organization has achived the "low operation cost" objective
lwvdcost	Extent to which the organization has achived the "low vendor cost" objective
lwwrcost	Extent to which the organization has achived the "low waste resources cost" objective
hipdtqly	Extent to which the organization has achived the "high product/service quality" objective
lwprterr	Extent to which the organization has achived the "low product installation error rate" objective
hiperf	Extent to which the organization has achived the "high performance of products" objective
hirelser	Extent to which the organization has achived the "high reliability of services" objective
hiflexty	Extent to which the organization has achived the "high rate of flexibility" objective
rangeprd	Extent to which the organization has achived the "broad range of products/services" objective
rangetec	Extent to which the organization has achived the "broad range of technologies" objective
hirespon	Extent to which the organization has achived the "high rate of responsiveness/customer service" objective
aftsflw	Extent to which the organization has achived the "after service follow-up" objective
hirservc	Extent to which the organization has achived the "high rate of service/product customization" objective
recustin	Extent to which the organization has achived the "reliable customer information" objective
custrust	Extent to which the organization has achived the "customer trust" objective
hieffic	Extent to which the organization has achived the "high efficiency" objective
fastserv	Extent to which the organization has achived the "fast provision of services" objective
agrdtime	Extent to which the organization has achived the "agreed time of service delivery" objective
agrdterm	Extent to which the organization has achived the "agreed amount and terms of service" objective
depdprom	Extent to which the organization has achived the "dependable promises" objective