

**LOGISTICS MANAGEMENT AND SERVICE DELIVERY IN SELECTED  
HUMANITARIAN ORGANIZATIONS IN MOGADISHU SOMALIA**

**BY**

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UNIVERSITY**

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**DECLARATION**

This thesis report is my original work and it has not been presented for a degree or any other academic award in any humanitarian organizations or institution of learning.

Signature : ..... Date:.....

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## **APPROVAL**

This is to confirm that the work presented in this report is carried out by Ali Ahmed Omar under my supervision and is now ready for submission to the college of economics and management of Kampala International University.

Sign ..... Date .....

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Academic Supervisor

## **DEDICATION**

This research is dedicated to my beloved parents, daddy Ahmed Omar and mum Muslimo Shiekh Omar and my sisters Maryan Ahmed Omar, Saynab Ahmed Omar and Rahma Ahmed Omar and brothers Abdisalam Ahmed Omar, Omar Ahmed Omar and Mohamed Ahmed Omar, who have contributed immeasurably to my studies.

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## **ACRONYMS**

CVI	Content Validity Index
FAO	Food and Agricultural Organizations
NGOs	Non Governmental Organizations
RBV	Resource Based Theory
SCEA	Services in Eastern Africa
SPSS	Statistical Package for social Scientists
UN	United Nations
UNHCR	United Nations High Commission For Refugees
UNICEF	United Nations International Children Education Fund
USA	United States of America
WFP	World Food Program

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## **ABSTRACT**

The purpose of the study was to establish the effect of logistics management on service delivery in humanitarian organizations in Mogadishu Somalia. The study objectives were to analyze the effect of transport management on service delivery in the humanitarian organizations, to evaluate the effect of inventory management on service delivery in the humanitarian organizations and lastly to explore the effect of order process management on service delivery in the Humanitarian organizations in Mogadishu Somalia. The study was conducted in the selected humanitarian organization based on survey research design on a quantitative research approach where the data was collected from 168 respondents using the questionnaires. Data was analyzed using descriptive statistics and regression analysis to determine the effect of logistics management on service delivery. The study findings show that transport management accounts for 9.3 percent of the changes in service delivery, there is a significant relationship between transport management and service delivery in humanitarian organizations in Mogadishu Somalia at 0.000 level of significance. The study findings on the second objective show that inventory management accounts for 3.7percent of the changes in service delivery (Sig=0.012). Order process management accounts for 1.2 percent of the changes in service delivery, not significant (0.163). The study concludes that transport management is fundamental so need to be improved for enhanced decision making. On the second research objective, the study concludes that there was a significant effect of inventory management on service delivery in the humanitarian organizations in Mogadishu Somalia. On the third research objective, the study concludes that there was no significant effect of order process management on service delivery. The study recommends for revolution of logistics operations, there is need for the following to improve the operations of warehousing that the entire logistics function. The study contributes to knowledge that logistics management can improve service delivery in the humanitarian organizations.

# **CHAPTER ONE**

## **INTRODUCTION**

### **1.0 Introduction**

This chapter presents background of the study, statement of the problem, purpose of the study objectives, research questions, hypothesis, scope and significance of the study

### **1.1 Background to the Study**

The background of the study focused on historical, theoretical, conceptual and contextual perspective. The analysis of the background takes these different perspectives.

#### **1.1.1 Historical Perspective**

In a global economy, competitive and dynamic environment, logistics managements is an important strategic factor for increasing competitiveness, (Sezhiyan&Nambirajan, 2010). The significance of logistics management had evolved from a more passive and cost minimization oriented activity to a key success factor for firm competitiveness. There was therefore an emerging consensus about the need for companies to handle logistics issues together with economic and business issues (Tuttle & Heap, 2008). The performance of logistics systems was typically related to delivery service, logistics cost and tied up capital. Customers increasingly expected shorter delivery times and more accurate services and logistics management was perhaps most easily conceptualized in manufacturing, since there was a physical flow of goods.

More recently a World Bank report on logistics performance states that a competitive network of global logistics would be the backbone of international trade and the importance of efficient logistics for trade and growth would be widely acknowledged. Better logistics performance is strongly associated with trade expansion, export diversification, ability to attract foreign direct investments and economic growth, in other words, trade logistics matter (World Bank, 2010). The World Bank acknowledged the importance of logistics performance and initiated a study to measure the logistics competitiveness of countries. The first study was conducted in 2007 and was repeated in 2010 (World Bank 2007 and 2010). The second edition of this report, based on a new dataset for 2010, compared the logistics profiles of 155 countries. The Logistics Performance Index (LPI), which was calculated for each country, was an assessment of logistics performance (ranked on a scale of 1 to 5, with 5 being the best and 1 the worst) and was based on surveys conducted with nearly 1000 global freight forwarders and express carriers.

Logistics management plays a key role in the economy, and the market volume of logistics had already reached a substantial level in many economies as a result. Companies that were successful worldwide had long recognized the critical role logistics management played in creating added value. Logistics management is therefore a critical contributor to the competitiveness of a country. The demand for products could only be satisfied through the proper and cost-effective delivery of goods and services (McLachlin & Larson, 2011). In the years ahead, the significance of global logistics markets could continue to increase in response to economic and social conditions.

Africa continent was not performing well in logistics compared to other continents as the report confirmed that the top four countries were from Europe, the fifth one was from Asia however, the bottom five were all from Africa. The top five logistics performers in 2010 were (in order): Germany (4.11), Singapore (4.09), Sweden (4.08), the Netherlands (4.07) and Luxembourg (3.98), and the bottom five were Somalia (1.34), Eritrea (1.70), Sierra Leone (1.97), Namibia (2.02) and Rwanda (2.04). Shippers Council of Eastern Africa (SCEA) in their Annual Publication of 2013 confirmed that, a country's ability to trade globally could highly depend on the extent to which its international traders have access to competent and high quality logistics services. Majority of the international trader's respondents ranked the quality of logistics services in eastern Africa as average (SCEA, 2013). A survey done by SCEA in 2012, revealed an array of factors that were responsible for the efficiency and cost structure of Kenya logistics chain. They included: logistics cost and efficiency indicator; time indicators related to deliver goods; truck turnaround time; complexity indicators which measured the level of complexity in undertaking trade transactions and customer perception indicators. Comparing the year 2010/2011 with 2012, they came up with the following findings: Increase of 35.2 percent in shipping freight rates was realized in 2012; Aircraft operating costs increased from an average of USD 3.00 per kilogram in 2010/2011 to an average of USD 4.90 per kilogram in 2012; which reduced types of goods transported by air in the year (SCEA, 2013).

The first Logistics Cluster Coordination Meeting dedicated to discussion of the emerging crisis was held on 22nd July 2011. The Somalia Logistics Cluster had at that point been active since 2006; up until the augmentation of the Somalia Logistics Cluster in July 2011, a WFP Logistics Officer had been responsible for managing the coordination aspects of the Logistics Cluster and

had been holding meetings with partner organizations. However, due to the scale of the crisis, the Logistics Cluster deployed a dedicated Coordinator in August 2011 and a dedicated Information Management Officer to the cell in Nairobi, Kenya. A dedicated Somalia Operation Page was also created on the Logistics Cluster Website on 11th August 2011, where all public information relating to the Somalia Logistics Cluster Operation was available (Tukamuhabwa, Eyaa & Derek, 2011).

The history of humanitarian organizations can be traced from a striking paradox about Somalia is how it is so internally divided when in cultural, ethnic, religious, language and historical terms it is highly homogenous (Lewis 2012). The primary division within Somalia is the clan system and between nomadic- and agro-pastoralists. The colonial powers of Italy, Britain and France exploited the geographical areas dominated by clans to split the nation up into an Italian colony (today's South-Central Somalia and Puntland), the British protectorate Somaliland, the French Colony Djibouti, the North Eastern Province in Kenya and Ogaden in Ethiopia. The five-pointed star in the Somali flag today represents these five areas, which are often referred to as Pan-Somalia. In 1960, the Somali Republic was formed by amalgamating the Italian and British territories. However, the Eurocentric state model that was introduced did not last, and in 1969 General SiyadBarre took power in a military coup wherein the army seized control without encountering opposition (Lewis 2012). After a few years, the coup had turned into a military regime.

The conflict caused the massive displacement of more than one million forced migrants, and defeat in the war lead to the gradual weakening of the regime (Ahmed & Green 1995). When state stability including the ability to provide security to its citizens disintegrated, both the regime and the country as a whole became increasingly dependent on clan structures, paving the way for the destructive aftermath that came in the wake of the regime (Bestman 1999). Other parts of the country were also unravelling. In Mogadishu, inter-clan fighting threatened the President's rule and in a desperate attempt, he turned the State's weapons on its own capital city, causing a popular uprising which forced SiyadBarre to flee Mogadishu in January 1991 (Lewis 2008). The severe insecurity of the early 1990s, combined with exceptional drought, lead to an extreme humanitarian crisis where up to 500 000 people are estimated to have died, up to two million people were forcibly displaced, leading to a massive inflow of international aid into the volatile situation (Lewis 2008).

It was in this environment that the UN Security Council, in April 1992, authorized the use of military force so as to be able to use all necessary means to establish a secure environment for humanitarian relief operations in Somalia. In December the same year, the US launched the UNITAF operation known as Operation Restore Hope. After a catastrophic military operation with heavy casualties, especially civilian, the US pulled out in 1994 and the UN withdrew in 1995. Most non-UN aid agencies followed shortly after. The combination of no state authority, extreme insecurity and massive aid inflows created a new type of business people the warlords” (Hartley 2004). A negative circle is a metaphor which aptly illustrates how these warlords gained from the continuation of insecurity: the first crucial part was that the warlords developed an interest in continuing conflict through exploiting aid, selling arms and grabbing land.

### **1.1.2 Theoretical Perspective**

The study is guided by the resource based theory. The theory was propounded by Barney (1991) argued that the internal sources of a firm’s sustained competitive advantage. The Resource Based View (RBV) of the firm postulated that, resources internal to the firm were sources of competitive advantage (Tukamuhabwa, Eyaa, & Derek, 2011). Such resources were valuable, rare, unique and difficult to substitute. Resources believed to be valuable were those that were capable of facilitating conception or implementation of strategies that improved performance, exploited market opportunities or neutralized impending threats. Ganotakis and Love (2010) used the RBV to explain the importance of logistics management to a firm. According to Ganorakis and Love, (2010), logistics flexibility and efficiency was considered to be a source of competitive advantage for entrepreneurial firms. Ownership of firm-specific assets enabled a company to develop a competitive advantage. They also found out that a company's competitive advantage was derived from the company's ability to assemble and exploit an appropriate combination of resources (Ganotakis & Love 2010). In their study, Wong and Karia, (2010), confirmed that, RBV focused on the idea of costly-to-copy attributes of the firm as sources of business returns and the means to achieve superior performance and competitive advantage.

Therefore the RBV provided a theoretical foundation for this research to examine the relationship between logistics resources and capabilities and service delivery for the humanitarian organizations.

The study also adopts the institutional theory according by scot, according to Scott (2004), institutions are composed of cultural-cognitive and regulative elements that, together with associated activities and resources give meaning to life. He further explains the three pillars of institutions as regulatory, normative and cultural cognitive this influence service delivery. The regulatory pillar emphasizes the use of rules, laws and sanctions as enforcement mechanism, with expedience as basis for compliance. The normative pillar refers to norms (how things should be done) and values (preferred or desirable), social obligation being the basis of compliance. The cultural-cognitive pillar rests on shared understanding (common beliefs, symbols, shared understanding). This theory is very important when it comes to the implementation of sustainable service delivery and practice in organizations that serve the public. A clear establishment of an institution responsible for the management logistics is fundamental in attaining the values of the organization work environment necessary for generating the efficiency of a logistics system.

### **1.1.3 Conceptual Perspective**

Stevenson (2009) defined logistics as the part of a supply chain involved with the forward and reverse flow of goods, services, cash, and information. He included the managing of all transportation material handling, warehouse inventory, order processing and distribution, third-party logistics, and reverse logistics in logistics activities (Stevenson, 2009). Logistics encompasses all of the information and material flows throughout an organization. It includes everything from the movement of a product or from a service that needs to be rendered, through to the management of incoming raw materials, production, the storing of finished goods, its delivery to the customer and after-sales service. According to CSCMP (2007), logistics management is that part which implements, and controls the efficient, effective forward and reverses flow and storage of goods, services and related information between the point of origin and the point of consumption in order to meet customers' requirements(CSCMP, 2007)

Logistics management consisted of many activities including orders processing, inventory management, transportation among other activity that were supported by enormous information flow every organization wanted to impress the efficiency on its formation. This could only be achieved when, logistics performance is managed in order to ensure sustainability of the firm (Tilokavichai, Sophatsathit&Chandrachai, 2012). This study is based on order processing,



transportation and inventory management on service delivery. Logistics management in this study is conceptualized as provided below

Inventory management is the process of consistently having the optimal amount of raw materials for transformation and finished products available in order to deliver them rapidly to meet a customer's inventory requirement in a competitive manner (Bowersox, et al., 2010). Order processing is the collective tasks associated with fulfilling an order for goods or services placed by a customer and it forms the basis for the information flow in a logistics system (Christopher, 2010). Transportation management is defined as the process that involve the undertaking of the activities involved in shipping any goods or finished products from suppliers to a facility or to warehouses and sales locations (Kenyon & Meixell, 2010)

The dependent variable of the study is service delivery. Service delivery is getting services as effectively and quickly as possible to the intended recipient. In most instances service delivery implies a degree of excellence on the part of the organization, and is a hallmark of economies that have moved past the production phase. This has the dimensions of quality, cost and timely delivery (Thomas, 2002). Service delivery means provide a given range of requirements to a given society or community according to obligation and needs of the provided, it incorporate all measures designed to embrace the provision of organizational services to community members for the good of society (Scot, 1995)

#### **1.1.4 Contextual Perspective**

The state of service delivery in the Horn of Africa is poor with the countries experiencing severe food crisis in the world today given the situation of armed conflicts that make logistics in the area fundamental issues. Over 12 million people in Djibouti, Ethiopia, Kenya and Somalia are severely affected and in urgent need of humanitarian aid, and there is no likelihood of this situation improving until 2012. This figure of affected people is a 38% increase since the figure recorded in March 2011. The situation is continuing to deteriorate, with famine in the lower Shabelle and Bakool regions of southern Somalia officially declared by the UN on 20 July. Eight other regions of southern Somalia are at risk of famine in the coming 1-2 months unless aid delivery increases in proportion to needs. While the famine declaration pertains to Somalia only, large parts of Ethiopia, Kenya and Djibouti are also suffering from severe food insecurity as a

result of drought and high food prices, and are seeing significant inflows of refugees fleeing the drought in Somalia (SCEA, 2013).

The state of service delivery in Somalia is still volatile; the country experiences the conflict situation that has affected the state of the services level performance. The poor physical state when they begin their journeys, people particularly women and children are arriving in camps in Djibouti, Kenya and Ethiopia in appalling health condition and overwhelming the already-stretched response capacity and resources on the ground. This therefore means that complications in the service delivery has a diverse influence of the management of the services to the people (UNHCR, 2015)

In 2011 UN declared a famine in 5 areas of southern Somalia (Lower Shabelle, Bakool, Middle Shabelle, Modagishu & Afgooye) resulting in a need for a scale-up of humanitarian operations due to worsening drought conditions. Access to service delivery is constrained, a result of the complicated security situation, limited the ability of the humanitarian community to respond quickly. The harsh conditions and limited availability of aid also contributed to a massive displacement of people who sought relief at refugee camps in Ethiopia and Kenya, and drove the displacement of significant numbers of people within Somalia.

Service delivery in the humanitarian organizations in Mogadishu Somalia is coupled with limited access that has a direct result of the complicated security situation have impacted efforts to assess the needs of the affected populations and limited the ability of the humanitarian community to quickly and effectively scale up operations in response to the crisis. In the end of November 2011 16 UN agencies/NGOs were banned by groups controlling major parts of Southern Somalia from implementing their humanitarian programs, with an additional NGO and ICRC being added to the list of banned organizations in 2012. The harsh conditions and limited availability of aid has led to a massive displacement of people who have sought relief at refugee camps in Ethiopia and Kenya, as well as a large number of Internally Displaced Persons (IDPs) within Somalia. Armed conflict persists between anti-government militias on the one side and forces from the Government, African Union (AU) and neighboring countries on the other side. In addition there are local clan conflicts within Somalia (World Bank, 2010).

## **1.2 Problem Statement**

Service delivery in organizations constitute and organization core values that determine and explain the nature of the organization operations. The humanitarian organizations in Somalia are faced with fierce challenges especially in accessing the logistics for the people living in internally displaced people camps (Fugate, Mentzer and Stank, 2016.); this is explained by low level of service delivery in the humanitarian organizations to people (World Bank, 2012). The state of service delivery in the humanitarian organization is poor coupled with limited degree of accessibility to food, health care services, water and sanitation and education services among the people especially those living in the refugee camps (UNHCR, 2016). The service delivery is coupled with late deliveries for the services, inappropriate services and low level of the services mix that has even left the people in the need of the services dead. UNDP, 2016 report that people die while in the refugee camps dues to their limited access to the services especially food. The status quo of the issues signals logistics management constraints, these if not well addressed will lead to worsened service delivery in the humanitarian organizations. It was based on these that the research is set to evaluate the effect of logistics management on the service delivery in humanitarian organizations in Mogadishu.

## **1.3 Purpose of the study**

The purpose of the study was to establish the effect of logistics management on service delivery in Humanitarian organizations in Mogadishu Somalia.

## **1.4 Objectives of the study**

- 1) To analyze the effect of transport management on service delivery in the humanitarian organizations in Mogadishu Somalia.
- 2) To evaluate the effect of inventory management on service delivery in the humanitarian organizations in Mogadishu Somalia.
- 3) To explore the effect of order process management on service delivery in the Humanitarian organizations in Mogadishu Somalia.

## **1.5 Research Questions**

- 1) What is the effect of transport management on service delivery in the Humanitarian organizations in Mogadishu Somalia?
- 2) What is the effect of inventory management on service delivery in the Humanitarian organizations in Mogadishu Somalia?

- 3) What is the effect of order process management on service delivery in the Humanitarian organizations in Mogadishu Somalia?

### **1.6 Research Hypotheses**

H0<sub>1</sub>; Transport management has no significant effect on service delivery in the Humanitarian organizations in Mogadishu Somalia

H0<sub>2</sub>; Inventory management has no significant effect on service delivery in the Humanitarian organizations in Mogadishu Somalia.

H0<sub>3</sub>; Order process management has no significant effect on service delivery in the Humanitarian organizations in Mogadishu Somalia.

### **1.7 Scope of the study**

#### **1.7.1 Geographical Scope**

The study was conducted in three Humanitarian organizations in Mogadishu Somalia, the central business city of Somalia. The Humanitarian organizations are United Nations high commission for refugees (UNHCR), UNICEF and FAO located in Mogadishu is the capital city of Somalia. Located in the coastal Banaadir region on the Indian Ocean, the city has served as an important port for centuries. The study is chosen from the areas due to notable logistics management challenges in that are faced by the Humanitarian organizations.

#### **1.7.2 Content Scope**

The study concentrated on logistics management and service delivery under logistics management, the key concentration was based on transportation management, inventory management and order process management. On the other hand service delivery is measured through the product chain, efficiency in work and lead-times in the services.

#### **1.7.3 Time Scope**

The study covered a period of 7 months that is to say from January 2018 to August 2018. The time chosen is sufficient to enable the collection of required data. The process involved topic approval which as done in February 2018. The proposal preparation and corrections was done from March to May 2018, the defence of proposal was done in June 2018, data collection was done from July to September and data analysis in November 2018. The Work in progress was done in November 2018 and Viva April 2019.

### **1.8 Significance of the study**

The finding and the recommendations of this study should be useful for decision makers of logistics activities and the developers of strategic growth of those organizations because they will rely on concrete knowledge of understanding their logistics decisions to the performance of their respective firm.

To the government, the study may provide greater insight into the relationship between logistics management and performance of manufacturing sector. This may aid in formulation of policies and regulations that can help improve efficiencies and effectiveness in the sector and improved manufacturing sector could increase national GDP and by extension increase job creation. Improved logistics management possibly will boast flow of trade and reduction of cost in exports creating export incentives, improved prices of goods and services, and reliable supply chain.

The study could also benefit the academic community as it may contribute to the increasing body of literature on logistics. It may possibly provide a framework of logistics management dimensions which may be used as a test base for further research. Due to the limited study on logistics in researcher's knowledge that has been carried out in developing world, the researchers in the field may be interested in reviewing the findings of this project and more so those based in Somalia. The research also may present avenues for continuing theoretical and empirical research investigations in the field of logistics, in particular logistics management. In general, this research would contribute towards a theoretical and practical improvement of logistics adoption, implementation and upgrade in diverse cultural and business setting, based on a Somalia.

The researcher also hopes that the study will be benefited by other researchers to get a basis for further research on impact of logistics management on service delivery. This would lead to the generation of ideas for better understanding of logistics decisions and service delivery in the humanitarian organizations.

### **1.9 Operational definitions of Key terms**

Logistics management is that part which implements, and controls the efficient, effective forward and reverses flow and storage of goods, services and related information between the point of origin and the point of consumption in order to meet customers' requirements (CSCMP, 2007)

Transportation management is the activities involved in shipping any goods or finished products from suppliers to a facility or to warehouses and sales locations (Kenyon and Meixell, 2011). It is included because it is a major part of the supply chain due to its power to add value to some goods by moving them from their current location to a more advantageous location

Order processing is the collective tasks associated with fulfilling an order for goods or services placed by a customer and it forms the basis for the information flow in a logistics system

Inventory management is the process of consistently having the optimal amount of raw materials for transformation and finished products available in order to deliver them rapidly to meet a customer's inventory requirement in a competitive manner

Service delivery means provide a given range of requirements to a given society or community according to obligation and needs of the provided, it incorporate all measures designed to embrace the provision of organizational services to community members for the good of society.

Lead time. This is the time that exist between when the order for a good or service is ordered and when the service or product is actually delivered to the organization

Efficiency. This is the degree of ease attained in the provision of a service or a series of services to the people or an organization's groups of people.

Effectiveness. The degree or rate at which the services in the organization are delivered to the organization. It explains the state of the delivered services provided in the work for the organization.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.0 Introduction**

This chapter shows what other scholars have written about the logistics management and service delivery. This section shows all the literature that was used in the study, the section first presents the theoretical review, conceptual review, related studies according to objectives and related studies on the independent and dependent variables plus the assessment or provision of gaps in the study.

#### **2.1 Theoretical Review**

Resource based view aspired to explain the internal sources of a firm's sustained competitive advantage. The Resource Based View (RBV) of the firm postulated that, resources internal to the firm were sources of competitive advantage (Tukamuhabwa, Eyaa, & Derek, 2011). Such resources were valuable, rare, unique and difficult to substitute. Resources believed to be valuable were those that were capable of facilitating conception or implementation of strategies that improved performance, exploited market opportunities or neutralized impending threats.

The two assumptions for RBV theory were, resources and capabilities were heterogeneously distributed among firms; and resources and capabilities were imperfectly mobile, which made firms' differences remained stable over time (Karia, & Wong, (2011). Every firm was different (heterogeneous) from other firms in terms of the resources and capabilities a firm possesses or accesses. These differences differentiated one firm from another and a firm's success was due to its firm-specific (idiosyncratic) resources (Karia, & Wong, 2011). Accordingly, individual

resources, competencies and capabilities of the organization were a bundle of the firm's resources or the essence of the resource-based view (Karia, & Wong, 2011). For instance, in logistics business, a resource is described as a basic element or a prerequisite for the development and operation of logistics; and it is required for building up a firm's capabilities. The resource-based view (RBV) of firms mainly emphasized their internal strengths and weaknesses, in contrast to industrial organization economics which focused on firms' external opportunities and threats Shang & Marlow (2005), because when the external environment is unstable, a firm's own resources and capabilities may be easier to control (Shang & Marlow, 2005). The resource focused perspective contends that a firm was a collection of tangible and intangible resources. This collection was unique to each firm so that each firm could be considered different (heterogeneous) from each other within the same industry i.e. no two companies possess the same experiences, or had acquired the same assets or skills or built the same organizational culture. Such differential endowment of resources among firms was the ultimate determinant of strategic decisions (Shang & Marlow, 2005). Ganotakis and Love (2010) used the RBV to explain the importance of logistics management to a firm. According to Ganorakis and Love, (2010), logistics flexibility and efficiency was considered to be a source of competitive advantage for entrepreneurial firms. Ownership of firm-specific assets enabled a company to develop a competitive advantage. They also found out that a company's competitive advantage was derived from the company's ability to assemble and exploit an appropriate combination of resources (Ganotakis & Love 2010). In their study, Wong and Karia, (2010), confirmed that, RBV focused on the idea of costly-to-copy attributes of the firm as sources of business returns and the means to achieve superior performance and competitive advantage.

The RBV had been used in the strategic literature for the analysis of business performance. It was important to highlight that the RBV had recently been employed in logistics management studies to examine the logistics resources and capabilities on logistics performance (Lai, *et al.*, 2008; Yang, *et al.*, 2009). Lai *et al.*, (2008) from logistics literature, argued that the RBV theory was an appropriate theory for supply chain and logistics management research. These studies found logistics resources and capabilities to be significantly positive related to firm performance. Some literature used RBV theory to examine the impact of information flow on 3PL providers competitive advantage (Lai *et al.*, 2008) while others examined the effects of logistics capabilities on firm performance (Yang *et al.*, 2009). Therefore the RBV provided a theoretical



foundation for this research to examine the relationship between logistics resources and capabilities and logistics information systems on achieving firm performance, in this context hence forth, effective logistics management supports effectiveness in service delivery.

### **Institutional theory**

The study adopts the institutional theory according by scot, according to Scott (2004), institutions are composed of cultural-cognitive and regulative elements that, together with associated activities and resources give meaning to life. He further explains the three pillars of institutions as regulatory, normative and cultural cognitive.

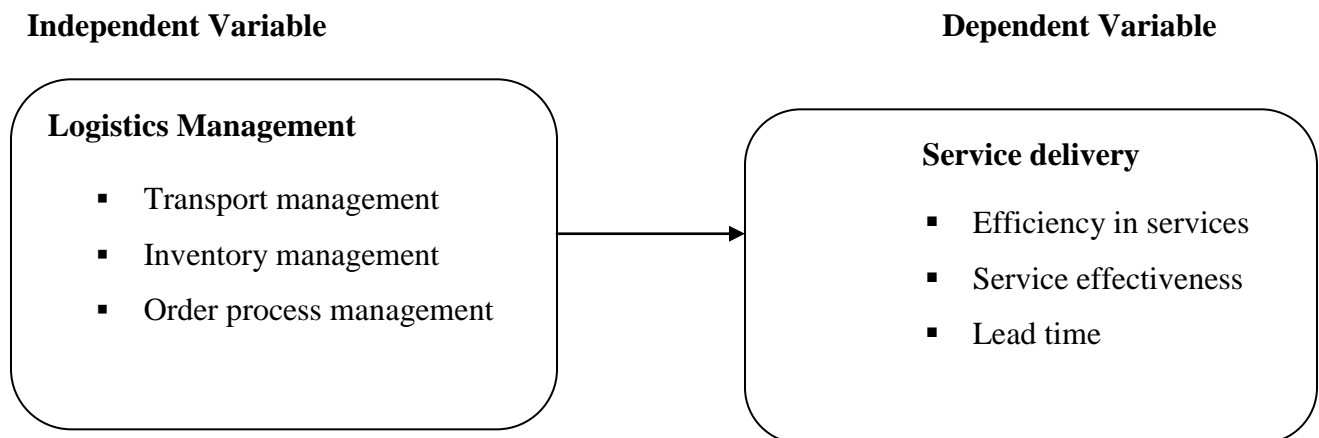
The theoretical scaffolds through which to understand the adoption of sustainable procurement, hence addressing the theoretical deficiencies highlighted in the literature. We draw from the field of management studies as suggested by (Wittig, 2004), examining two leading theories on why business organizations behave as they do Firstly we look to institutional theory, a highly influential framework in terms of explaining shifts to corporate sustainability. On this view, organizations take up positions on sustainability due to normative or other external pressures (Milgrom& Roberts (2004)) can provide an explanation for why organizations shift towards sustainable purchasing practices. Secondly, we examine the possibility that internal capabilities, as suggested by resource-based view (RBV) of the firm, can illuminate why organizations make particular strategic decisions such as around sustainable procurement. This view holds that firms can have capabilities in the form of organizational and human resources that enable them to obtain a competitive advantage in certain external or market conditions. Although institutional theory has to date dominated the literature on drivers to sustainable business, an increasing interest in the role that organizational structures and processes linked to human resource management (HRM) can play in driving the successful implementation of sustainability in

individual firms prompts us to into an additional exploration of the impact of strategic HRM and capability development on purchasing and supply chains to deliver service delivery.

A clear establishment of an institution responsible for the management logistics is fundamental in attaining the values of the organization work environment necessary for generating the efficiency of a logistics system.

## 2.2 Conceptual frame work

**Figure 2.2** Conceptual frameworks showing the relationship between Logistics management and service delivery.



Source: Adapted from CSCMP (2007) and modified by the Researcher

### Explanation of the conceptual framework

The figure 2.2 above indicates researcher's conceptualization of variables, their linkages and how each related to one another amidst other intervening factors. The independent variable presents logistics management which the researcher views as transport, inventory and order process management. On the other hand service delivery is measured through efficiency in services, service effectiveness and lead time of the work environment for the organization. The presence of positive logistics management will enhance the service delivery while the reverse is true. Effectiveness in logistics management in the organizations supports the service delivery in the country as a mode of the assessment for the support of service delivery in the organizations.

### **2.3.1 Effect of inventory management on service delivery**

Stevenson (2009) referred to inventories as a vital part of business, as they were necessary for operations and they also contributed to customer satisfaction. Managing in order to maximize profits and many small businesses could not absorb the types of losses arising from poor inventory management. Clearly inventory management is important to business and vital to logistics success (Laird, 2012).

The inventory requirements of a firm were directly linked to the facility network and the desired level of customer service (Bowersox, et al., 2010). Theoretically, a firm could stock every item sold in every facility dedicated to servicing each customer, but very few business operations could afford such an expensive inventory deployment strategy because the risk and total cost is prohibitive (Bowersox, et al., 2010). In their book on supply chain logistics management, they stated that the objective of an inventory management was to achieve desired customer service with the minimum inventory commitment. Excessive inventories would compensate for deficiencies in basic design of a logistics system but ultimately resulted in higher-than-necessary total logistics cost.

Bowersox, et al., (2010), logistical strategies are designed to achieve customer service goals while maintaining the lowest possible financial investment in inventory. They continued to say that; the key to effective logistical segmentation rested in the inventory priorities dedicated to support core customer's goal in order to achieve maximum inventory turns. A sound inventory management strategy was therefore based on a combination of five aspects of selective deployment: core customer segmentation; product profitability; transportation integration; time-based performance; and competitive performance (Bowersox, et al., 2010).

A firm's degree of commitment to deliver products rapidly to meet a customer's inventory requirement was a major competitive factor. If products and materials were delivered quickly, it may not have been necessary for customers to maintain large inventories. Likewise, if retail stores could have been replenished rapidly, less safety stock was required and fewer out of stocks would have been experienced. The alternative to holding safety stock was to receive exact and timely inventory replenishment. While such time-based programs reduce customer inventory to absolute minimums, the savings must have been balanced against other supply chain costs incurred as a result of the time-sensitive logistical process (Bowersox, et al., 2010).

Finally, inventory strategies could not be created in a competitive vacuum. A firm was typically more desirable to do business with the competitors if it could promise and perform rapid and consistent delivery. Therefore, it was necessary to position inventory in a specific warehouse to gain competitive advantage even if such commitment increased total cost (Bowersox, et al., 2010). Selective inventory deployment policies was essential to gain a customer service advantage or to neutralize a competitor. Material and component inventories existed in a logistical system for different reasons than finished products (Bowersox, *et al.*, 2010). Each type of inventory and the level of commitment must have been viewed from a total cost perspective. Understanding the interrelationship between order processing, inventory, transportation, and facility network decisions was fundamental to integrated logistics which provided an open field for firm performance.

### **2.3.2 Effect of order process management on service delivery**

Order processing is the term used to identify the collective tasks associated with fulfilling an order for goods or services placed by a customer and it formed the basis for the information flow in a logistics system (Christopher, 2010). It had three principal functions that are create a flow of information that preceded the goods, accompanied them and followed them (Christopher, 2010). The importance of accurate information to achieving superior logistical performance had historically been underappreciated. While many aspects of information were critical to logistics operations, the processing of orders was of primary importance (Bowersox, *et al.*, 2010).). Failure to fully comprehend this importance resulted from not fully understanding how distortion and operational failures in order processing impact logistical operations. Order processing is the term used to identify the collective tasks associated with fulfilling an order for goods or services placed by a customer.

The order processing system is the communications network which provides information necessary for the management of the interfaces between logistics and the other functional areas of the firm as well as within logistics (Cheung, 2011). The order processing procedure begun with the acceptance of the order from the customer, and it's not considered complete until the customer receives the products and determined that orders have been delivered accurately and completely (Stevenson, 2009). It has three principal functions for a firm it created a flow of information that preceded the goods, accompanied them and followed them (goods).

Bowersox, et al (2010) stated that, it made little sense for a firm to accumulate orders at a local sales office for a week, mail them to a regional office, process the orders in a batch, assign them to a distribution warehouse, and then ship them via air to achieve fast delivery. In contrast, Internet transmission of orders direct from the customer, combined with slower, less costly

### **2.3.3 Effect of transport management on service delivery**

Transportation will be defined as the activities involved in shipping any goods or finished products from suppliers to a facility or to warehouses and sales locations (Kenyon & Meixell, 2011). It was included because it was a major part of the supply chain due to its power to add value to some goods by moving them from their current location to a more advantageous location (Laird, 2012). Through research, (Hofenk, Schipper, Semeijn & Gelderman, 2011) transportation had been found to be a major factor in logistics processes as it was the one which joined the separated activities. It was the most important economic activity among the components of business logistics systems.

Transport management is the planning, controlling and decision making on operational area of logistics that geographically moved and positioned inventory. Because of its fundamental importance and visible cost, transportation had traditionally received considerable managerial attention and almost all enterprises, big and small, had managers responsible for transportation.

According to Croom and R. Johnstone (2016) transport management enhance the logistics costs hence transport management influenced the performance of logistics system immensely. Transporting is required in the whole production procedures, from manufacturing to delivery to the final consumers and returns. Only a good management and coordination between each component would bring the benefits of logistics to a maximum. A good transport management in logistics activities could provide better logistics efficiency, reduce operation cost, and promote service quality on firms.

According to Bowersox et al (2010) speed of transportation was the time required to complete a specific movement. Speed and cost of transportation were related in two ways. First, transport firms capable of offering faster delivery typically charged higher rates for their services. Second, the faster the transportation service was, the shorter the time interval during which inventory

were on transit and the higher the charges. Thus, a critical aspect of selecting the most desirable method of transportation to a firm is to balance speed and cost of service.

Transportation consistency referred to variations in time required to perform a specific movement over a number of shipments. Consistency reflected the dependability of transportation. For years, logistics managers had identified consistency as the most important attribute of quality transportation (Kenyon & Meixell, 2011). When transportation lacked consistency, inventory safety stocks are required to protect against service failure, impacting both the sellers and buyers overall inventory commitment. With the advent of advanced information technology to control and report shipment status, logistics managers had begun to seek faster movement while maintaining consistency. Speed and consistency combined to create the quality aspect of transportation.

Lambert & Burduroglo (2000) pointed that the role of transportation plays in logistics system is more complex than carrying goods for the proprietors. Its complexity can take effect only through highly quality management. By means of well-handled transport system, goods could be sent to the right place at right time in order to satisfy customers' demands. It brings efficacy, and also it builds a bridge between producers and consumers.

Transportation is therefore part of a complex network of interrelated activities both in internal and external supply chains. Kim (2006) argued the process of understanding how these activities are related, influence each other and translate to efficiency improvement is a difficult task. In order to uncover the mechanisms" behind this relationships we are exploring first how transportation interacts with other business operations so as to trace how possible changes in transport supply could affect the efficiency of a transport using organization (shipper). Transport supply can be altered via improvements that have to do with the expansion of transportation capital (infrastructure) or the establishment of new policies and technologies both aiming at the improvement of the transportation system's efficiency (lower cost) and effectiveness (better quality in terms of transit time and its reliability).

Transportation can also affect the image and reputation of a company to a great degree especially in the case of companies selling time-sensitive products or trying to differentiate focusing on specific transport strategies that include transportation quality in terms of speed, frequency,

reliability, safety, flexibility, environmental consideration, energy consumption etc. Konings (2008). In such cases an unanticipated increase in transit times will destroy their competitive advantage and reputation.

#### **2.4 Logistics management and service delivery**

study on logistics performance and the influence it had to firm performance, done in USA by Fugate, et al., (2010) on 150 firms revealed that increase in logistics efficiency, effectiveness, and differentiation decreased expenses, inventory, cash requirements and increased inventory availability, timely delivery, on-time and damage-free deliveries, line-item fill rates and sales which improved net margin and asset turnover, which improved return on assets and overall firm performance.

Liu & Lyons (2011) examined the effect of logistics capabilities on the manufacturing firm's performance in China. They classified logistics capabilities as customer-focused capabilities and information-focused capabilities. The study indicated that customer-focused capabilities and information-focused capabilities respectively significantly affected firm performance directly and indirectly. In their study Vijayaraghavan and Raju, (2008), examined the relationship existing among logistics capabilities, logistics performance and firm financial performance in India. The results were positive that, both logistics capability and performance had a direct influence on the finance performance

Sezhiyan and Nambirajan, (2010), examined various aspects and variables on management of logistics capabilities and firm performance in India. Firm performance was regressed against logistics capabilities and the results indicated that the predictive variable had positive and significant effect on firm performance.

Beer (2017) examined the impact of logistics flexibility on manufacturing firm's customer satisfaction. This was done through a survey of 273 manufacturing firms in USA and the results indicated that logistics flexibility had significant, positive and direct impact on the customer satisfaction. This confirmed that, firms could achieve customer satisfaction by developing logistics flexibility which enabled quick replenishment of incoming materials and rapid delivery of finished products to customers.

Tontini & Zanchett, 2016) empirically investigated the link between logistics performance and organizational performance in US manufacturing sector. Evidence collectively revealed that the logistics function as a whole strived to minimize the ratio of resources utilized against derived results (efficiency), accomplish pre-defined objectives (effectiveness), gain superiority when compared to competitors (differentiation) Fugate, et al, (2010) and ability to meet customer satisfaction (quality). All this confirmed influence logistics had on firm performance. In recent days, a number of researchers had confirmed that improved information exchange could have a substantial impact on overall firm performance and efficiency. A study carried out by Tim (2007) confirmed that through the use of communication tools, such as the web sites, industrial organizations could build value in their supply chain relationships. A study done by Hyvönen (2007), on information technology and logistics management in Finland confirmed that information technology innovations when applied to logistics/supply chain management led to increased customer satisfaction.

Sánchez, and Pérez, (2005) did an Empirical survey of a representative sample of 126 Spanish automotive suppliers during the months of September and October 2003 to analyze the relationship between logistics flexibility dimensions and firm performance dimensions, and between logistics flexibility dimensions and environmental uncertainty dimensions. A multivariate analysis studied the determinants of logistics flexibility. This research found a positive relation between a superior performance in flexibility capabilities and firm performance, although flexibility dimensions were not equally important for firm performance. On the other hand, the results showed that companies enhanced more the basic flexibility capabilities (at the shop floor level) than aggregate flexibility capabilities (at the customer-supplier level). However, aggregate flexibility capabilities were more positively related to firm performance than basic flexibility capabilities. Thus, companies could miss opportunities to improve competitiveness by underestimating customer-supplier flexibility capabilities.

Caldwell, Roehrich and Davies (2017) investigated the creation of customer value through the logistics/supply chain integration alternatives of collaborative closeness and operational excellence. They illustrated models identifying logistics as the unifying link intra-organizationally between the production and marketing functions and inter-organizationally between suppliers and customers. Analyzing data from almost 2,000 firms in the USA, Australia,



Japan, and Korea, they found that efficient logistics exhibit firm operational excellence. In their study, Tracey and Tan (2001), examined the influence of supplier selection and involvement, customer satisfactory and firm performance. The study was based on the perspective of 53 manufacturing firms across United States. The empirical result confirmed that customer satisfaction and firm performance was directly and positively influenced by suppliers with ability to provide quality components and reliable delivery.

In his study on the effects of logistics measurement capability on performance Kuo-Chung Shang (2014) findings revealed that general measurement capability on logistics played a very critical role in not only facilitating firm's benchmarking capability but also enhancing firms' superior performance in Taiwan. (Ellinger, Daugherty, & Keller, 2000), Further confirmed in his empirical research that, logistics performance reflected a key success on firm financial performance, thus, logistics performance was seen to affect financial performance directly. Keebler and Plank (2009) in their case study examined the impacts logistics performance had within the US firms and found seven factors that had demonstrated impact for manufacturing firms. Logistics performance on organization performance in supply chain context revealed that a success of logistics performance brought about manufacturing performance, future growth and new product introduction. Therefore, the competition in manufacturing industry was within the radius of supply chain competence which consisted of logistics strategy.

Rosenzweig (2017) examined the operational and logistical performance in measuring manufacturing performance in US firms which included the aspect of quality, cost of production, finish goods delivery and in addition considered the inventory level of work in production goods. In his study, he related supplier selection and involvement tactics impact and manufacturing performance. As a result, he confirmed that logistics performance had provided a significant influence in achieving manufacturing and business goals. Logistics performance on financial performance of Finish SMEs. The results were that logistics performance had positive link to financial performance of firms.

Tracey and Tan (2011) examined the influence of supplier selection and involvement, customer satisfactory and firm performance. The study was based on the perspective of 53 manufacturing firms across United States. Although their result confirmed that customer satisfaction and firm

performance was directly and positively influenced by suppliers with ability to provide quality components and reliable delivery, 53 firms in United States which had such a large area of coverage and many industries were not appropriate to confirm such research. Tracey and Tan should have considered using a better sample to present their case. Keebler and Plank (2009) in their state on the logistics performance on corporate firm's base USA findings confirmed that there was positive impact on manufacturing firm performance. However, the self-reported survey completed by a single respondent from each firm introduced subjectivity and bias to the study. The sample frame of those organizations would not represent the universe of US companies nor could findings be generalized to other countries (Kayondho, 2017).

## **2.5 Study Gaps**

The study reviewed several studies on Fugate, et al., (2010) on 150 firms revealed that increase in logistics efficiency, effectiveness, and differentiation decreased expenses, inventory, cash requirements and increased inventory availability, timely delivery, on-time and damage-free deliveries, line-item fill rates and sales. Liu & Lyons (2011) examined the effect of logistics capabilities on the manufacturing firm's performance in China. They classified logistics capabilities as customer-focused capabilities and information-focused capabilities. Zhang, Zhang, and Lim, (2005), examined the impact of logistics flexibility on manufacturing firm's customer satisfaction. This was done through a survey of 273 manufacturing firms in USA and the results indicated that logistics flexibility had significant, positive and direct impact on the customer satisfaction. Wisner 2003; Tontini & Zanchett, 2010) empirically investigated the link between logistics performance and organizational performance in US manufacturing sector Sa´nchez, and Pe´rez, (2005), did an Empirical survey of a representative sample of 126 Spanish automotive suppliers during the months of September and October 2003 to analyze the relationship between logistics flexibility dimensions and firm performance dimensions, and between logistics flexibility dimensions and environmental uncertainty dimensions. Morash and Clinton (1998) investigated the creation of customer value through the logistics/supply chain integration alternatives of collaborative closeness and operational excellence. Kuo-Chung Shang (2004) findings revealed that general measurement capability on logistics played a very critical role in not only facilitating firms benchmarking capability but also enhancing firms' superior performance in Taiwan. (Ellinger, Daugherty, & Keller,2000), Further confirmed in his empirical research that, logistics performance reflected a key success on firm financial performance, thus,

logistics performance was seen to affect financial performance directly. Rosenzweig (2009) examined the operational and logistical performance in measuring manufacturing performance in US firms which included the aspect of quality, cost of production, finish goods delivery and in addition considered the inventory level of work in production goods, despite the study reviewing different researches, the studies are conducted in the environment outside the one of Somalia, with even little in the humanitarian situation, these therefore present theoretical and geographical gaps that this current study is set to accomplish.

## **CHAPTER THREE**

### **METHODOLOGY**

#### **3.0 Introduction**

This chapter presents the research design, sampling procedure, research population, sampling approach, Sample size, data collection, validity and reliability of the instrument, data gathering procedures, data analysis, ethical considerations and limitation of the study.

#### **3.1 Research Design**

The study employed the survey design based on quantitative research approach. The study was guided by a research survey design because of various characteristics of the different respondents of the humanitarian organizations. This survey research design according to Amin (2005) is important because it help the researcher attain systematic data on different sample respondents at different times. The design was deemed fit because it provide a ground for descriptive data analysis and simple regression. The design was quantitative because it helped ensure that data collected was critical for analysis and descriptive interpretation.

#### **3.2 Study Population**

The study was conducted in three humanitarian organizations of UNICEF, UNHCR and FAO. The population is the staff, administrative staff and operations managers of the organizations. The population chosen is due to the fact that it has adequate information regarding logistics management and service delivery, these population category chosen interact withthe organization aspects. This focused on 3 humanitarian organizations of international nature. These are chosen because they are majorly involved in logistics management and delivery of services. The study population of 340 employees from all the humanitarian organizations of UNICEF (94), UNHCR (149) and FAO (97).The researcher obtained a number of 340 permanent employees of the three humanitarian organizations (MIA report, 2017) This is in accordance to ministry of Internal affairs report 2017 which reported that these humanitarian organizations have a permanent staff of 340 employees. The organizations are chosen due to their having a high humanitarian and service delivery provisions to the people and employing logistics management

#### **3.3 Sample Size**

To avoid un-guided generalization, the researcher chose to sample as suggested Amin (2005), who suggested that sampling is important in selecting elements from a population in such a way

that the sample elements selected represent the population. The sample was determined using Slovene's formula. The formula states that, given a population, the minimum Sample size is given by:

$$n = \frac{N}{1 + N\alpha^2}$$

Where; n = the sample size

N = total population of respondents, that is 340.

$\alpha$  = the level of significance, that is 0.05

$$n = \frac{N}{1 + N\alpha^2}$$

$$n = \frac{340}{1 + 340 (0.05)^2}$$

$$n = \frac{340}{1 + 340 * 0.0025}$$

$$n = \frac{340}{1.85}$$

$$n = 184$$

$$n = 184$$

A sample size of 184 respondents was selected to participate in the study.

### 3.4 Sampling techniques

The researcher used purposive and convenience sampling techniques to select the respondents for data collection. The researcher used purposive sampling for the selection of staff while convenience sampling will be used for the selection administrative and operational managers. The choice is intended to generate information in an appropriate a timely manner.

### **3.5 Sources of data**

#### **3.5.1 Primary data collection**

The primary data collection method explored the originality of data through gathering information relevant to the study. Primary data was obtained from respondents at Mogadishu from the three humanitarian organizations. By use of the questionnaires and interview manuals, the research will be gather data from the respondents which infact were the primary concern of this survey design approach.

### **3.6 Research instruments**

#### **3.6.1 Questionnaire**

Questionnaires chose because of their ability to reduce any bias and the collection of authentic data important for data analysis. The researcher used both closed ended questionnaires aimed at testing the effects of logistics management and service delivery in the humanitarian organizations. The researcher further note (during the editing process) that most respondents expressed high levels of bias according to their departments. The questionnaire was self made based on the study reviewed constructs in the study for both logistics management and service delivery. The questionnaire were designed according to the objectives and study variables, and responses to the questions were anchored on a five-point Likert's scale of ; Strongly agree – Agree – Not sure – Disagree – Strongly disagree. It takes into consideration the position of respondents who are not sure of their opinion or decision. The questionnaire consisted of two sections; A, B and C; “Section A” questions on demographic background of the respondents, “Section B” questions focused on Logistics management “Section C” was about service delivery. The instrument was closed questions.

### **3.7 Data Quality control**

This section is important in assuring the validity and reliability of the instruments and thus controlling data generated through questionnaires and interviews.

#### **3.7.1 Validity**

Validity is important in determining whether the statements in the questionnaire instrument and interview manuals is relevant to the study. Content and construct validity were obtained by the help of the supervisor's input and three experienced lecturers from school of education who acted as reviewers during the proposal stage of this study. According to Amin (2004), validity

can be and in this case was assured by use of the content validity index (C.V.I) where the following results were obtained (for both the interviews and questionnaires):

$$C V I = \frac{\text{Agreed items by all judges as suitable}}{\text{Total numbers of items being judged}}$$

Total numbers of items being judged

**Table 3.7.1: Determination of the validity of the instrument**

	<b>Relevant items</b>	<b>Not relevant</b>	<b>Total</b>
Rater 1	31	3	34
Rater 2	30	4	34
Rater 3	29	5	34
<b>Total</b>	<b>90</b>	<b>12</b>	<b>102</b>

$$CVI = \frac{90}{102} = 0.882$$

Thus, since the CVI computed is above 0.7, the standard cronbach alpha, the instruments were considered valid this is also in line with Amin (2005) who noted that the overall CVI for the instrument was calculated by computing the average of the instrument and for the instrument to be accepted as valid the average index should be 0.70 or above (Amin, 2005).

### **3.7.2 Reliability**

Reliability aimed at testing for how reliable the instruments to the study (i.e. ability of instrument to test for the same results over time). To ensure reliability, the researcher carried out a pilot study where a few respondents were given questionnaires to rate themselves on the applicability of the instruments. And thus these responses were computed with the cronbach's formula below; thus item statistics were established as noted in the appendices.

This method was selected because it is straight forward and appropriate for likert scale instruments and its ability to measure the reliability of such instruments. And thus the researcher used the above formulae in the SPSS program to generate the reliability product and reliability statistics.

**Table 3.7.2: Reliability**

<b>Variable</b>	<b>Items</b>	<b>Cronbach Alpha Value</b>
Transport management	8	0.832
Inventory management	8	0.782
Order process management	7	0.750
Service delivery	10	0.821
<b>Mean Average</b>		<b>0.796</b>

*Source: Primary data*

The table 3.7.2 above displays the reliability indices/coefficients for all constructs used in the study. All alpha reliabilities ( $\alpha$ ) for all scales computed and be above 0.5, ranging from meet acceptance standards for research (Nunnally, 1978).

### **3.8 Data analysis**

The raw data obtained from questionnaires cleaned, sorted and coded. The coded data was entered into the Computer, checked and statistically analyzed using the Statistical Package for Social Scientists (SPSS) software package 22 was used. Descriptive statistics and simple regression to attain the effect of independent variable on dependent variables. The demographic characteristics were analyzed based on frequency and percentages in frequency tables. The first, second and third objectives were analyzed using descriptive statistics of means and standard deviations, there after simple linear regression was used to determine the effect logistics management on the transport, order processing and inventory management on service delivery in Humanitarian organizations. The following numerical values and response modes was used to interpret the means;

<b>Mean range</b>	<b>Respondent</b>	<b>Interpretation</b>
4.22- 5.00	Strongly agree	Very Good
3.42 - 4.22	Agree	Good
2.62 – 3.41	Not Sure	Fair
1.81 - 2.61	Disagree	Poor
1.00 - 1.80	Strongly disagree	Very Poor



The study adopted simple linear regression to test the significance between Logistics management and service delivery in organizations. The decision rule was based on single tail test at 0.05 level of significance values of regression coefficients below 0.05 was the acceptable to having significant effect between the tested variables. The decision rule will be 0.05 significance level at 95% confidence interval.

### **3.9 Ethical consideration**

Maintaining the privacy and confidentiality of the respondents that is to say keep their personal issues private and non disclosure of response from particular respondents to maintain integrity and also protected them from potential victimization.

Maintaining honesty and avoiding exceptional and deceptive behavior such as creating false impression in the minds of participants through withholding information, establishing false intimacy or telling lies as this can potentially harm research participants.

Reporting what is actually found and not manufacture and publish dream up data and also giving due recognition to any one whose work was used in this research and didn't try to pass it as the researchers original work

### **3.10 Limitations of the study**

Long distance from the institution to the area of the study is one of the anticipated limitations the researcher faced. This hindered free movement during data collection. However, the researcher will try as much as possible to move to the area to collect the data in phases to ease on transport charges.

Non-response to certain questions and providing of false information is another anticipated limitation to the study. This is due to the fear by some respondents that the researcher exposed confidentiality to public. However, the researcher used logical questions so that the respondents could be able to release such information needed by the researcher.

## CHAPTER FOUR

### DATA PRESENTATION, ANALYSIS AND INTERPRETATION

#### 4.0 Introduction

This chapter presents the findings from the study with specific focus on assessing the effect of logistics management on service delivery in Humanitarian organizations in Mogadishu Somalia. The study solicited response for these research questions. The focus was on three objectives which included (1) To analyze the effect of transport management on service delivery in the humanitarian organizations. (2) To evaluate the effect of inventory management on service delivery in the humanitarian organizations and (3) To explore the effect of order process management on service delivery in the Humanitarian organizations in Mogadishu Somalia. This chapter is organized based on the demographic traits of respondents, following by the analysis as per the research objectives presented objective by objective. The data is presented, analyzed and interpreted as shown in the sub-chapters below.

#### 4.1 Response Rate

The study targeted a sample population of 184 respondents who were selected from the humanitarian organizations in Somalia. The research achieved a response rate of 91.3 percent from 168 respondents out of the 184 questionnaires that were administered and distributed to the selected respondents of the study. Even though data was collected from less than the sample size, the information can't be doubted because it is in line with Mugenda and Mugenda (1999) argument which provide that even a 50% response rate is adequate when quantitative data is manually collected.

**Table 4.1: Response Rate**

<b>Respondents Category</b>	<b>Sample Size</b>	<b>Actual returned</b>	<b>Percentage</b>
All respondents	184	168	91.3

**Source: Primary Data, 2018**

Table 4.1 above presents the response rate of the responses to which the research instruments were administered. The findings presented reveal that out of 184 respondents who were targeted 168 responded giving a response rate of 91.3%. The response rate was hence quantitatively and qualitatively viable and provides a representation of the entire sample plus the population.

## 4.2 Demographic profile of respondents

This was based on the gender of respondents, gender, age, education, marital status and time of work in the organization. This was intended to attain a detailed understanding of the respondent's key characteristics influences the result of the study. The general information has an implication on the study variables. The different demographic characteristics are analyzed and presented as below.

### 4.2.1 Gender of respondents

Here the researcher was interested in gathering information on the gender of respondents and information got was presented in the table below.

**Table 4.2.1: Gender of respondents**

<b>Gender</b>	<b>Frequency</b>	<b>Percentage</b>
Male	114	67.9
Female	54	32.1
<b>Total</b>	<b>168</b>	<b>100.0</b>

**Source: Primary Data, 2018**

The study findings on the gender of the respondents reveal that majority of the respondents were male with 114(67.9%) of the respondents, the females were 54(32.1%) of the respondents. The results reveal that though the male dominated the study both genders provided the data, it further imply that data was collected from respondents across the gender, the findings can't be doubted on gender grounds.

#### 4.2.2 Age of respondents

Here the researcher was interested in gathering information on the age of respondents and information got was presented in the table below.

**Table 4.2.2: Age of respondent**

<b>Age</b>	<b>Frequency</b>	<b>Percentage</b>
Below 20 Years	7	4.2
20 - 30	30	17.9
30 – 40	46	27.4
40 – 50	52	31.0
50+	33	19.6
<b>Total</b>	<b>168</b>	<b>100.0</b>

**Source: Primary data, 2018**

Table 4.2.2 above shows that, majority of respondents were aged between 40–50 years 52(31%) respondents followed, by 30-40 years represented by 46(27.4), followed by 50+ represented by 33(19.6%) respondents and those below 20 years represented by 7(4.2%). From the above analysis, it can be construed that majority of the respondents are mature hence the information obtained from them can be trusted and looked at as true and good representation of the information the researcher was looking.

#### 4.2.3 Findings on education of respondents

Here the researcher was interested in gathering information on the education of respondents and information got was presented in the table below.

**Table 4.2.3: Show education of the respondents**

<b>Academic qualifications</b>	<b>Frequency</b>	<b>Percentage</b>
Certificate	17	10.1
Diploma	24	14.3
Degree	89	53.0
others	38	22.6
<b>Total</b>	<b>168</b>	<b>100.0</b>

**Source: Primary data, 2018**

Results in table 4.2.3 indicate that majority of the respondents were degree holders representing 89(53.0%) followed by others who included PhD, Masters and professional qualifications respondents representing 38(22.6%), diploma followed with 24(14.3%) and certificate was 17(10.1%). This implies that the respondents are well educated and therefore the information obtained from them can be relied on for the purpose of this study. It is of no doubt therefore that information is attained from highly educated respondents.

#### 4.2.4 Marital status

Here the researcher was intended to gather information on the marital status of the respondents concerning the way of living. The results attained from this study are presented and analyzed as provided below.

**Table 4.2.4: Marital status of respondents**

<b>Marital status</b>	<b>Frequency</b>	<b>Percentage</b>
Single	37	22.0
Married	110	65.5
Divorced/Separated	21	12.5
<b>Total</b>	<b>168</b>	<b>100.0</b>

**Source: Primary data, 2018**

The study results in table above reveal that majority respondents were married with 110(65.5%) of the respondents. The respondents who were single were 37(22%) of the respondents while those who divorced were 21(12.5%) of the respondents. The results imply that the majority of the study population reveals that the data was collected responsible population of the study.

#### 4.2.5 Time of work

**Table 4.2.5: Time of work of respondents**

<b>Time of work</b>	<b>Frequency</b>	<b>Percentage</b>
1-4 Years	49	29.2
5-9years	26	15.5
10-14years	60	35.7
15 years above	33	19.6
<b>Total</b>	<b>168</b>	<b>100.0</b>

**Source: Primary data, 2018**

Table 4.2.5 show findings on the time of respondents work in the humanitarian organizations in Somalia, the respondents who had worked for 1-4 years were 49(29.2%) of the respondents, 5-9 years were 26(15.5%) of the respondents, those with 10-14 years had been there for 60(35.7%) while those with more than 15 years was 33(19.6%) of the respondents. The results imply that the majority of the study respondents have vast knowledge on situation of logistics management and service delivery for humanitarian organizations implies that they have an adequate understanding on the study.

#### **4.3 Effect of transport management on service delivery in the humanitarian organizations in Mogadishu Somalia.**

The first objective of the study to determine the effect of transport management on service delivery in the humanitarian organizations in Mogadishu Somalia. To determine the effect, the study first sought to measure the level of transport management in the humanitarian organizations. The assessment is based on 8 questions). Each of these questions was based on the five point Likert scale where by respondents were asked to rate of transport management by indicating the extent to which they agree or disagree with each question and their responses were analyzed using SPSS and summarized using means and rank as indicated in table 4.3.1 below.

### 4.3.1 Descriptive Statistics on transport management

Before determining the effect, it was necessary to analyze the descriptive statistics regarding transport management. Table 4.3.1 presents the results obtained from that analysis.

**Table 4.3.1: Descriptive statistics on transport management in humanitarian organizations**

Descriptive Statistics				
Response	Mean	Std. Deviation	Interpretation	Rank
The company has a central collaboration unit that helps coordinate all logical members	3.964	1.294	Good	1 <sup>st</sup>
Our customers don't spend huge amount of in negotiation and bargaining about time of delivery because of their confidence with our services.	3.809	1.104	Good	2 <sup>nd</sup>
We make accurate forecasts for our inventories which match with our customer demand hence deliver accordingly	3.720	1.430	Good	3 <sup>rd</sup>
Logistical officers are always facilitated in the field something which keeps them in touch with the central unit at the head office.	3.690	1.392	Good	4 <sup>th</sup>
The use of modern technologies have been the main driver towards effective logistical collaboration in our organization	2.928	1.391	Fairly good	5 <sup>th</sup>
We offer high time service levels to our customers through transportation	2.904	1.427	Fairly good	6 <sup>th</sup>
Rarely does the company fails to collaborate in the transport arena with its field staff for no good reason	2.839	1.415	Fairly good	7 <sup>th</sup>
We employ the best inventory management systems to manage our inventories to keep the inventory efficiency	2.732	1.328	Fairly good	8 <sup>th</sup>
<b>Transport management</b>	<b>2.827</b>	<b>1.185</b>	<b>Fairly Good</b>	

**Source: Primary data, 2018**

The study findings from the responses provided reveal that transport management in humanitarian organizations in Mogadishu Somalia was on overall fairly good

Concerning the findings the organizations has a central collaboration unit that helps coordinate all logical members, it was good with the mean of 3.964 ranked as 1<sup>st</sup> while customers don't spend huge amount of in negotiation and bargaining about time of delivery because of their confidence with our services had the mean of 3.809, SD=1.104 interpreted as good ranked second in the respondents.

Furthermore the organization make accurate forecasts for our inventories which match with our customer demand hence deliver accordingly, good with the mean of 3.720, SD=1.430 interpreted as good ranked as 3<sup>rd</sup> and Logistical officers are always facilitated in the field something which keeps them in touch with the central unit at the head office had the mean of 3.690, SD=1.392 interpreted as good ranked as 4<sup>th</sup>.

In transport management further, there is use of modern technologies have been the main driver towards effective logistical collaboration in our organization, the mean was 2.928, SD=1.391 interpreted as fairly good ranked as 5<sup>th</sup> while the organizations offer high time service levels to our customers through transportation ranked as 6<sup>th</sup> which was fairly good.

Furthermore, rarely does the company fails to collaborate in the transport arena with its field staff for no good reason, the mean was 2.839, SD=1.415 interpreted as fairly good ranked as 7<sup>th</sup> and finally the organizations employ the best inventory management systems to manage our inventories to keep the inventory efficiency, the mean was 2.732, SD=1.328 interpreted as fairly good ranked as 8<sup>th</sup>.



### 4.3.2 Descriptive Statistics on service delivery

Before determining the effect, it was necessary to analyze the descriptive statistics regarding service delivery. Table 4.3.2 presents the results obtained from that analysis.

**Table 4.3.1: Descriptive statistics on service delivery humanitarian organizations**

<b>Descriptive Statistics</b>				
<b>Response</b>	<b>Mean</b>	<b>Std. Deviation</b>	<b>Interpretation</b>	<b>Rank</b>
There is effective monitoring due to time provision of the services	3.809	1.071	Good	1 <sup>st</sup>
There is effective delivery of the education services to the people	3.732	1.287	Good	2 <sup>nd</sup>
We always supply goods and services at a lower cost to the people	3.702	1.378	Good	3 <sup>rd</sup>
The service providers adequately monitor timely provisions	3.696	1.187	Good	4 <sup>th</sup>
We produce quality services that meet the delivery requirements of the people	3.017	1.297	Fairly good	5 <sup>th</sup>
Our organization effectively reaches suppliers for risks control in the organization	2.970	1.282	Fairly good	6 <sup>th</sup>
There is effective delivery of health services to the people	2.892	1.427	Fairly good	7 <sup>th</sup>
Our organization has fast and speedy delivery mechanisms for the food services	2.886	1.403	Fairly good	8 <sup>th</sup>
Our organization heavily invests in advanced technology to improve its logistics system and that causes high logics costs to the organization	2.535	1.471	Poor	9 <sup>th</sup>
Our organization has the swift delivery and the shortest lead time compared to its competitors due to our smooth logistics system.	2.517	1.344	Poor	10 <sup>th</sup>
<b>Service Delivery</b>	<b>3.175</b>	<b>1.314</b>	<b>Fairly Good</b>	

**Source: Primary data, 2018**

The study results regarding the service delivery humanitarian organizations in Mogadishu Somalia reveal that the service delivery was fairly good. The mean from the results was 3.175,

SD=1.314 interpreted as fairly good. The study findings are backed by the individual responses on the study provided below.

The study findings denote that there is effective monitoring due to time provision of the services, the mean was 3.809, SD=1.071 interpreted as good. There is effective delivery of the education services to the people according to the mean of 3.732, SD=1.287 interpreted as good ranked as 2<sup>nd</sup> while the findings on the organization always supply goods and services at a lower cost to the people, the mean was 3.702, SD=1.378 interpreted as good ranked as 3<sup>rd</sup> in the service delivery.

The findings in the service providers adequately monitor timely provisions has the mean was 3.696, SD=1.187 interpreted as good ranked 4<sup>th</sup>. While producing quality services that meet the delivery requirements of the people by the humanitarian organizations had the mean of 3.017, SD=1.297 fairly good ranked 5<sup>th</sup> and Our organization effectively reaches suppliers for risks control in the organization had the mean 2.970, SD=1.282 interpreted as fairly good ranked as 6<sup>th</sup>.

There is effective delivery of health services to the people with the mean of 2.892, SD=1.427 interpreted as fair ranked as 7<sup>th</sup> while our organization has fast and speedy delivery mechanisms for the food services had the mean of 2.886, SD=1.403 interpreted as fairly good also ranked as 8<sup>th</sup>. The organization heavily invests in advanced technology to improve its logistics system and that causes high logics costs to the organization, had the mean of 2.535, SD=1.471 ranked as 9<sup>th</sup> interpreted as poor. The results on organization having the swift delivery and the shortest lead time compared to its competitors due to our smooth logistics system, the mean of 2.517, SD=1.344, ranked as 10<sup>th</sup> interpreted as poor.

### 4.3.3 Effect of transport management on service delivery in the humanitarian organizations in Mogadishu Somalia.

In this objective, the main intention was to find out the Effect of transport management on service delivery in the humanitarian organizations in Mogadishu Somalia. A regression test was performed and the results are presented in Table 4.3.3 below.

### 4.3.3 Normality test of data

**Table 4.3.3: Showing normal distribution of data**

	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Service delivery	.083	168	.031	.893	168	.389
Transport Management	.080	168	.004	.889	168	.132
Inventory Management	.062	168	.026	.887	168	.079
Order Process management	.070	168	.002	.886	168	.033

a. Lilliefors Significance Correction

**Source: Primary data, 2018**

The study results on the normality tests that were conducted based on Kolmogorov-Smirnov. According to Kolmogorov-Smirnov test the significant values for the variables are all below 0.05, meaning that the data presented is normally distributed. On the same context, the assessment of the Shapiro Wilk shows the values of significant at above 0.05. The Shapiro wilk test is normal when the significant values are above 0.05 level of significance. In this case therefore based on both tests one argues that the data is normally distributed hence findings can't be doubted on distribution grounds.

**Table 4.3.4: Transport management and service delivery**

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.314 <sup>a</sup>	.099	.093	.39981		
a. Predictors: (Constant), Transport Management						
ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.909	1	2.909	18.200	.000 <sup>b</sup>
	Residual	26.535	166	.160		
	Total	29.445	167			
a. Dependent Variable: Service Delivery						
b. Predictors: (Constant), Transport Management						
Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.227	.225		9.907	.000
	Transport Management	.286	.067	.314	4.266	.000
a. Dependent Variable: Service Delivery						

**Source: Primary data, 2018**

From table above; the value of the regression coefficient between transport management and services delivery, the R-Squared coefficient was computed to be at 0.099. This figure indicates that transport management alone have a 9.9% effect on service delivery in the humanitarian organizations in Somalia. The standard error estimate of .39981 shows close scatter of the data.

Table further shows the analysis of variance (ANOVA) explains further the relationship between the independent variable (transport management) and the dependent variable (service delivery). The significance level is 0.00 implying a significant relationship between transport management and service delivery. Therefore, the null hypothesis is rejected and the researcher contends that there is a significant relationship between transport management and service delivery.

The table further illustrates the regression analysis between transport management on service delivery in the humanitarian organizations in Mogadishu Somalia. The regression analysis shows that the rate of service delivery that does not depend on transport management is .2.227. The t values for the constant and  $\beta$  are (9.907) and 4.266) respectively with their respective levels of significances as (.000 and .000) respectively. Since the level of significance is less than 0.05, the researcher rejected the null hypothesis and argues that there is a significant relationship between transport management and service delivery in humanitarian organizations in Mogadishu Somalia.

#### **4.4 Effect of inventory management on service delivery in the Humanitarian organizations in Mogadishu Somalia**

The second research objective of the study to determine the effect of inventory management on service delivery in the humanitarian organizations in Mogadishu Somalia. To determine the effect, the study first sought to measure the level of inventory management in the humanitarian organizations. The assessment is based on 8 questions). Each of these questions was based on the five point Likert scale where by respondents were asked to rate of inventory management by indicating the extent to which they agree or disagree with each question and their responses were analyzed using SPSS and summarized using means and rank as indicated in table 4.4.1 below.

##### **4.4.1 Descriptive Statistics on inventory management**

Before determining the effect, it was necessary to analyze the descriptive statistics regarding transport management. Table 4.4.1 presents the results obtained from that analysis.

**Table 4.4.1: Descriptive statistics on Inventory management in humanitarian organizations**

<b>Descriptive Statistics</b>				
<b>Response</b>	<b>Mean</b>	<b>Std. Deviation</b>	<b>Interpretation</b>	<b>Rank</b>
We store our inventory in warehouses easily accessible by customers	3.452	1.442	Good	1 <sup>st</sup>
We manage our inventories through the use of information systems which enable us manage the inventory levels	3.250	1.352	Fairly good	2 <sup>nd</sup>

There is effective storage of inventory or goods awaiting the clients	2.797	1.482	Fairly good	3 <sup>rd</sup>
We face stock out in inventory which affect our ability to meet customer needs	2.773	1.307	Fairly good	4 <sup>th</sup>
There is proper inspection of the inventory onquality on a periodic basis	2.702	1.549	Fairly good	5 <sup>th</sup>
We always have high inventory turns because our customers are very satisfied with our delivery.	2.648	1.336	Fairly good	6 <sup>th</sup>
There is effective inventory management system in handling the inventory	2.291	1.268	Poor	7 <sup>th</sup>
We employ the best inventory management systems to manage our inventories to keep the inventory efficiency	2.172	1.242	Poor	8 <sup>th</sup>
<b>Inventory management</b>	<b>2.760</b>	<b>1.372</b>	<b>Fairly Good</b>	

**Source: Primary data, 2018**

The study findings on the table 4.4.1 on descriptive statistics on Inventory management in humanitarian organizations. The results reveal that the average mean was 2.760, SD=1.372 which was fairly good. This is guided by the research provisions undertaken below.

The study results show that we store our inventory in warehouses easily accessible by customers, the mean 3.452, SD=1.442 interpreted as good ranked as 1<sup>st</sup>, further more concerning We manage our inventories through the use of information systems which enable us manage the inventory levels, the mean was 3.250 ranked as 2<sup>nd</sup>. The results on there is effective storage of inventory or goods awaiting the clients had the mean of 2.797 the interpretation of fairly good and finally We face stock out in inventory which affect our ability to meet customer needs had the mean of 2.773, SD=1.307 ranked as 4<sup>th</sup> interpreted as fairly good.

There is proper inspection of the inventory onquality on a periodic basis had the mean of 2.702, ranked 5<sup>th</sup> while we always have high inventory turns because our customers are very satisfied with our delivery the mean was 2.648 ranked as 6<sup>th</sup>. There is effective inventory management

system in handling the inventory had the mean of 2.291, SD=1.268 ranked as 7<sup>th</sup> and we employ the best inventory management systems to manage our inventories to keep the inventory efficiency had the mean of 2.172, the mean 1.242 interpreted as poor ranked 8<sup>th</sup>.

#### 4.4.3 Effect of Inventory management on service delivery in the humanitarian organizations in Mogadishu Somalia.

In this objective, the main intention was to find out the Effect of inventory management on service delivery in the humanitarian organizations in Mogadishu Somalia. A regression test was performed and the results are presented in Table 4.4.3 below

**Table 4.4.3: Regression on Inventory management on service delivery**

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.193 <sup>a</sup>	.037	.031	.41328		
a. Predictors: (Constant), Inventory Management						
ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.091	1	1.091	6.390	.012 <sup>b</sup>
	Residual	28.353	166	.171		
	Total	29.445	167			
a. Dependent Variable: Service Delivery						
b. Predictors: (Constant), Inventory Management						

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.809	.149		18.888	.000
	Inventory Management	.133	.053	.193	2.528	.012

a. Dependent Variable: Service Delivery

**Source: Primary data, 2018**

From table 4.4.3 above; the value of the regression coefficient between inventory management and services delivery, the R-Squared coefficient was computed to be at 0.037. This figure indicates that transport management alone has a 3.7% effect on service delivery in the humanitarian organizations in Somalia. The standard error estimate of .41328 shows close scatter of the data.

ANOVA test was also performed where the p value was measured to be at 0.012 which is entirely within the acceptable confidence levels. The F-Value was measured at 6.390 which is high. The implication is that the effect that inventory management and service delivery are significant. Regarding the beta coefficients, the variable of Inventory control seems to be significant in the model as it had at value of 2.528 which is less than the tabulated t value of 18.888. The results indicate that effective inventory management has had a significant effect on the service delivery in the humanitarian organizations.

The researcher rejects the null hypothesis and concludes that there was a significant relationship between inventory management and service delivery in Humanitarian organizations in Mogadishu Somalia.

**4.5 Effect of order process management on service delivery in the Humanitarian organizations in Mogadishu Somalia.**

The third research objective of the study to determine the effect of order process management on service delivery in the humanitarian organizations in Mogadishu Somalia. To determine the effect, the study first sought to measure the level of order process management in the



humanitarian organizations. The assessment is based on 8 questions). Each of these questions was based on the five point Likert scale where by respondents were asked to rate of order process management by indicating the extent to which they agree or disagree with each question and their responses were analyzed using SPSS and summarized using means and rank as indicated in table 4.5.1 below.

#### 4.5.1 Descriptive Statistics on order process management

Before determining the effect, it was necessary to analyze the descriptive statistics regarding transport management. Table 4.5.1 presents the results obtained from that analysis.

**Table 4.5.1: Descriptive statistics on order process management in humanitarian organizations**

<b>Descriptive Statistics</b>				
<b>Response</b>	<b>Mean</b>	<b>Std. Deviation</b>	<b>Interpretation</b>	<b>Rank</b>
The organization has an effective order processing for the clients requirements	3.327	1.587	Fairly good	1 <sup>st</sup>
The orders are managed electronically through computerization	3.154	1.528	Fairly good	2 <sup>nd</sup>
The orders are effectively expedited in the organization	3.059	1.640	Fairly good	3 <sup>rd</sup>
The management of the organization has an effective system development for	2.934	1.472	Fairly good	4 <sup>th</sup>

order process management				
The company makes adequate order for the goods and services	2.892	1.290	Fairly good	5 <sup>th</sup>
The order management is assigned to a specific department for effectiveness	2.803	1.423	Fairly good	6 <sup>th</sup>
The suppliers effectively respond to the emergent orders made in the organization	2.595	1.229	Poor	7 <sup>th</sup>
<b>Order Process management</b>	<b>2.966</b>	<b>1.452</b>	<b>Fairly Good</b>	

**Source: Primary data, 2018**

The study findings on table 4.5 on the descriptive statistics on order process management in humanitarian organizations. The overall order processing was 2.966, SD=1.452 interpreted as fairly good. The mechanisms for the assessment reveal that

The results reveal the organization has an effective order processing for the clients requirements, it was ranked as 1<sup>st</sup>, the mean was 3.327, SD=1.587 interpreted as fairly good. It was further established that the orders are managed electronically through computerization had the mean of 3.154, SD=1.528 interpreted as fair while the orders are effectively expedited in the organization had the mean of 3.059, SD=1.640 interpreted as fairly good ranked as 4<sup>th</sup>.

The study results further reveal that the management of the organization has an effective system development for order process management had the mean of 2.934, SD=1.472 interpreted as fairly good ranked as 4<sup>th</sup> in the assessment provided above.

The study results further show that, the company makes adequate order for the goods and services had the mean of 2.892, SD=1.290 ranked as 5<sup>th</sup> interpreted as good, furthermore the order management is assigned to a specific department for effectiveness had the mean of 2.803, SD=1.423 interpreted as fairly good ranked as 6<sup>th</sup> and finally the suppliers effectively respond to the emergent orders made in the organization had the mean of 2.595, SD=1.229 interpreted as poor ranked as 7<sup>th</sup> in the assessments.

#### 4.5.2 Effect of order process management on service delivery in the humanitarian organizations in Mogadishu Somalia.

In this objective, the main intention was to find out the Effect of order process management on service delivery in the humanitarian organizations in Mogadishu Somalia. A regression test was performed and the results are presented in Table 4.5.3 below.

**Table 4.5.2: Regression on effect of order process management on service delivery**

Model Summary						
Model	R	R Square	Adjusted R Square		Std. Error of the Estimate	
1	.108 <sup>a</sup>	.012	.006		.41870	
a. Predictors: (Constant), Order Process management						
ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.343	1	.343	1.959	.163 <sup>b</sup>
	Residual	29.101	166	.175		
	Total	29.445	167			
a. Dependent Variable: Service Delivery						
b. Predictors: (Constant), Order Process management						
Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.424	.180		19.053	.000
	Order Process management	-.083	.060	-.108	-1.400	.163
a. Dependent Variable: Service Delivery						

**Source: Primary data, 2018**

From table above; the value of the regression coefficient between order process management and services delivery, the R-Squared coefficient was computed to be at 0.012. This figure indicates that transport management alone has a 1.2% effect on service delivery in the humanitarian organizations in Somalia. The standard error estimate of .41870 shows close scatter of the data.

The low R square is caused by the low level of order process management in the organizations that didn't contribute highly to the service delivery.

ANOVA test was also performed where the p value was measured to be at .163 which is not in acceptable confidence levels. The F-Value was measured at 1.959 was low. The implication is that the effect that order process management and service delivery are significant. Regarding the beta coefficients, the variable of order process management seems to be significant in the model as it had a value of -1.400 which is greater than the tabulated t value of 19.053. The results imply that order process management has a low bearing on the service delivery in the humanitarian organizations in Mogadishu.

The researcher accepts null hypothesis and concludes that there was no significant relationship between order process management and service delivery in Humanitarian organizations in Mogadishu Somalia.

#### **4.6 Effect of logistics management on service delivery in Humanitarian organizations in Mogadishu Somalia.**

The purpose of the study was to establish the effect of logistics management on service delivery in Humanitarian organizations in Mogadishu Somalia. In order to achieve this objective, the researcher runs a multiple regression to determine the effect of logistics management and service delivery in humanitarian organizations.

**Table 4.6: Regression on effect of logistics management on service delivery in Humanitarian organizations in Mogadishu Somalia**

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.350 <sup>a</sup>	.122	.106	.39698
a. Predictors: (Constant), Order Process management, Transport Management, Inventory Management				

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.599	3	1.200	7.613	.000 <sup>b</sup>
	Residual	25.845	164	.158		
	Total	29.445	167			
a. Dependent Variable: Service Delivery						
b. Predictors: (Constant), Order Process management, Transport Management, Inventory Management						
Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.185	.328		6.662	.000
	Transport Management	.264	.067	.290	3.916	.000
	Inventory Management	.089	.053	.129	1.664	.098
	Order Process management	-.044	.059	-.057	-.753	.452
a. Dependent Variable: Service Delivery						

**Source: Primary data, 2018**

The effect for all the three independent variables on service delivery was computed to be at an R Squared coefficient of 0.350. It meant that the variables accounted for 35% of the variation in service delivery could be explained by the three variables belonging to logistics management. This denotes a low rate of influence that the variables have on service delivery of the humanitarian organizations. The ANOVA section also offers collaborating evidence to support the fact that there is a significant amount of influence. The p value for the test was established at 0.000 which is below 0.05. The implication was that all the variables combined had a significant influence on service delivery. The study findings imply that logistics management affect service delivery in the humanitarian organizations, though the effect is not so high.

## **CHAPTER FIVE**

### **DISCUSSION OF FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS**

#### **5.0 Introduction**

This final section of the report deals with the discussion of the findings presented in the preceding chapter. The discussion is made with reference to other similar works done in previous studies. The section then draws conclusions from these discussions after which it offers its recommendations. Finally, it suggests areas that are potential grounds for research that could not be completed in the body of this report.

#### **5.1 Discussion of Findings**

This section was further organized into three subsections with respect to the research objectives that guided the study.

##### **5.1.1 The Effect of transport management on service delivery**

The study investigated the effect that transport management has on service delivery. Its findings indicated that there was a significant effect impacted on transport management on service delivery in humanitarian organizations in Mogadishu Somalia. Even though the effect may have been rather weak, its significance was undisputable. These findings are backed by previous research studies that undertook to establish a similar purpose as elaborated below.

According to Croom and Johnstone (2016), transport management enhance the logistics costs hence transport management influenced the performance of logistics system immensely. Transporting is required in the whole production procedures, from manufacturing to delivery to the final consumers and returns. Only a good management and coordination between each component would bring the benefits of logistics to a maximum. A good transport management in logistics activities could provide better logistics efficiency, reduce operation cost, and promote service quality on firms. Even Bowersox et al.,(2010) speed of transportation was the time required to complete a specific movement. Speed and cost of transportation were related in two ways. First, transport firms capable of offering faster delivery typically charged higher rates for their services. Second, the faster the transportation service was, the shorter the time interval during which inventory were on transit and the higher the charges and finally Lambert & Burduroglo (2009) pointed that the role of transportation plays in logistics system is more complex than carrying goods for the proprietors. Its complexity can take effect only through highly quality management. By means of well-handled transport system, goods could be sent to

the right place at right time in order to satisfy customers' demands. It brings efficacy, and also it builds a bridge between producers and consumers. Even Liu & Lyons (2011) examined the effect of logistics capabilities on the manufacturing firm's performance in China. They classified logistics capabilities as customer-focused capabilities and information-focused capabilities. The study indicated that customer-focused capabilities and information-focused capabilities respectively significantly affected firm performance directly and indirectly. In their study Vijayaraghavan and Raju, (2008), examined the relationship existing among logistics capabilities, logistics performance and firm financial performance in India. The results were positive that, both logistics capability and performance had a direct influence on the finance performance

### **5.1.2 Effect of inventory management and service delivery**

The study also examined the effect of inventory management on service delivery Mogadishu Somalia. In this case, the study found out that inventory management is a significant determinant of service delivery. However, because inventory management had constraints, there are limited issues of management. Most previous studies that dealt in this context collaborate these findings as outlined hereunder. Laird (2012) argued that managing in order to maximize profits and many small businesses could not absorb the types of losses arising from poor inventory management. Clearly inventory management is important to business and vital to logistics success. Bowersox, et al (2010) contend that inventory requirements of a firm were directly linked to the facility network and the desired level of customer service. Theoretically, a firm could stock every item sold in every facility dedicated to servicing each customer, but very few business operations could afford such an expensive inventory deployment strategy because the risk and total cost is prohibitive. In their book on supply chain logistics management, they stated that the objective of an inventory management was to achieve desired customer service with the minimum inventory commitment. Excessive inventories would compensate for deficiencies in basic design of a logistics system but ultimately resulted in higher-than-necessary total logistics cost. Even each type of inventory and the level of commitment must have been viewed from a total cost perspective. Understanding the interrelationship between order processing, inventory, transportation, and facility network decisions was fundamental to integrated logistics which provided an open field for firm performance. Even Sezhiyan and Nambirajan, (2010), examined various aspects and variables on management of logistics capabilities and firm performance in

India. Firm performance was regressed against logistics capabilities and the results indicated that the predictive variable had positive and significant effect on firm performance.

### **5.1.3 Effect of order process management on service delivery**

The last objective regarded the effect that order process management have on service delivery in Mogadishu, Somalia. There was no significant effect was also found in this case which underscored the relevance of order process management for service delivery. Just as with the other objectives, other researchers have also looked into this and have presented similar results as those made in this study. Cheung (2011) contend that order processing system is the communications network which provides information necessary for the management of the interfaces between logistics and the other functional areas of the firm as well as within logistics. The order processing procedure begun with the acceptance of the order from the customer, and it's not considered complete until the customer receives the products and determined that orders have been delivered accurately and completely Even Bowersox, et al(2010) stated that, it made little sense for a firm to accumulate orders at a local sales office for a week, mail them to a regional office, process the orders in a batch, assign them to a distribution warehouse, and then ship them via air to achieve fast delivery and finally Hernon & Whitman (2014). Argued that the more quickly an order was transmitted, entered and processed, the more time (lead time) management had for planning transportation and inventory activities while meeting the required customer service levels. The logistics capabilities of a firm could be as good as its order processing competency and more so when managed efficiently. Even Tontini & Zanchett, (2016) empirically investigated the link between logistics performance and organizational performance in US manufacturing sector. Evidence collectively revealed that the logistics function as a whole strived to minimize the ratio of resources utilized against derived results (efficiency), accomplish pre-defined objectives (effectiveness), gain superiority when compared to competitors (differentiation) and Sa'nchez, and Pe'rez, (2005) did an Empirical survey of a representative sample of 126 Spanish automotive suppliers during the months of September and October 2003 to analyze the relationship between logistics flexibility dimensions and firm performance dimensions, and between logistics flexibility dimensions and environmental uncertainty dimensions. A multivariate analysis studied the determinants of logistics flexibility.



## **5.2 Conclusions**

The study on the first objective concludes that there is a significant effect of transport management on service delivery in the humanitarian organizations in Mogadishu Somalia. The study concludes that the means of the transport management is fundamental so need to be improved for enhanced decision making.

On the second research objective, the study concludes that there was a significant effect of inventory management on service delivery in the humanitarian organizations in Mogadishu Somalia. The study concludes that improving avenues of inventory management in the humanitarian organizations can facilitate the provision of the service delivery in the organization.

On the third research objective, the study conclude that there was no significant effect of order process management on service delivery in the Humanitarian organizations in Mogadishu Somalia, the study conclude that improving the functioning of the order processing through technology can enhance the performance of the service delivery through ensuring availability for the goods and services to the people.

## **5.3 Recommendations**

Regarding the first research objective, the study researcher recommend for use of IT techniques in transportation. To improve transportation further, there is need for improved high-tech facilities and systems for example Cameras and bar codes for tracking transportation management. The transport administration needs to be improved to enable timely delivery of relief services to the people in humanitarian needs.

Regarding the second objective, on inventory management, there is need for improving operations of warehousing, the inventory need to be maintained in proper form through thorough checks. The management of inventory need to be stepped up, designed and properly fashioned to reduce spoilage and stock outs through effective surveillance and inventory tracking.

On the third objective, order process management need to be enhanced through computerization and electronic order making so as to satisfy the people under humanitarian need. There is further

need for timely order processing to ensure that the orders are timely responded to and required goods provided.

#### **5.4 Contribution to existing Knowledge**

The study was conducted on the effect of logistics management on service delivery in Humanitarian organizations in Mogadishu Somalia. The study was conducted on the management on service delivery in the humanitarian environment such as Liu & Lyons (2011), Sezhiyan and Nambirajan, (2010), Beer (2017) Tontini & Zanchett, 2016) were not conducted in the humanitarian organizations the results provide evidence those even humanitarian organizations like the profit making organizations need logistics management in enhancing the service delivery for the performance of the organizations, these is fundamental for the humanitarian organizations need a focused management trait of the logistics function in enhancing service delivery.

#### **5.5 Areas of further study**

The results presented in this report may not be conclusive and should be treated as being preliminary. Further analysis of the survey data on logistics management and service delivery to the organization need to be further assessed on the following.

- Forward logistics and organizational performance
- The management competency and performance of the logistics functions

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## APPENDICES

### APPENDIX I: RESEARCH QUESTIONNAIRE

#### Dear Respondent

This questionnaire is designed to seek information from you on the “Logistics management and service delivery in selected humanitarian organizations Mogadishu Somalia”. It is carried as a partial fulfillment of the requirements for the award of Master’s Degree in Business administration of procurement and logistics management of Kampala international University Uganda. Your contribution, opinions and experience will be highly appreciated.

**Thanks for your cooperation.**

#### PART I: Demography of respondents

##### 1. Gender

a) Male

b) Female

##### 2. Age

a) 20 – 29

b) 30 – 39

c) 40 - 49

d) 50 +

##### 3. Qualification academically

a) Certificate

b) Diploma

c) Degree

d) Masters

##### 4. Marital status

a) Single

b) Married

c) Separated/divorced

##### 5. Time period of work

a) 1-4 years

b) 5-9 years

c) 10-14 years

d) 15 and above



**Under the following sections, please tick according to your level of agreement**

5. SA Strongly Agree
4. Agree
3. Not Sure
2. Disagree
1. Strongly Disagree

Please evaluate the statement by ticking in the box with the number that best suits you.

**PART II: Logistics Management in humanitarian organizations**

<b>N0</b>	<b>Scale</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
	<b>Transport management</b>					
<b>1</b>	Rarely does the company fails to collaborate in the transport arena with its field staff for no good reason					
<b>2</b>	We offer high time service levels to our customers through transportation					
<b>3</b>	We employ the best inventory management systems to manage our inventories to keep the inventory efficiency					
<b>4</b>	We make accurate forecasts for our inventories which match with our customer demand hence deliver accordingly					
<b>5</b>	The company has a central collaboration unit that helps coordinate all logical members					
<b>6</b>	Logistical officers are always facilitated in the field something which keeps them in touch with the central unit at the head office.					
<b>7</b>	Our customers don't spend huge amount of in negotiation and bargaining about time of delivery because of their confidence with our services.					
<b>8</b>	The use of modern technologies have been the main driver					

	towards effective logistical collaboration in our organization					
	<b>Inventory management</b>					
<b>1</b>	There is effective inventory management system in handling the inventory					
<b>2</b>	There is effective storage of inventory or goods awaiting the clients					
<b>3</b>	We always have high inventory turns because our customers are very satisfied with our delivery.					
<b>4</b>	We face stock out in inventory which affect our ability to meet customer needs					
<b>5</b>	We employ the best inventory management systems to manage our inventories to keep the inventory efficiency					
<b>6</b>	We store our inventory in warehouses easily accessible by customers					
<b>7</b>	There is proper inspection of the inventory on quality on a periodic basis					
<b>8</b>	We manage our inventories through the use of information systems which enable us manage the inventory levels					
	<b>Order process management</b>					
<b>1</b>	The company makes adequate order for the goods and services					
<b>2</b>	The organization has an effective order processing for the clients requirements					
<b>3</b>	The orders are effectively expedited in the organization					
<b>4</b>	The orders are managed electronically through computerization					
<b>5</b>	The order management is assigned to a specific department for effectiveness					
<b>6</b>	The suppliers effectively respond to the emergent orders made in the organization					
<b>7</b>	The management of the organization has an effective system development for order process management					

**PART III: Service delivery in humanitarian organizations**

NO	Scale	1	2	3	4	5
1	Our organization has the swift delivery and the shortest lead time compared to its competitors due to our smooth logistics system.					
2	Our organization heavily invests in advanced technology to improve its logistics system and that causes high logics costs to the organization					
3	Our organization has fast and speedy delivery mechanisms for the food services					
4	There is effective delivery of health services to the people					
5	We produce quality services that meet the delivery requirements of the people					
6	Our organization effectively reaches suppliers for risks control in the organization					
7	We always supply goods and services at a lower cost to the people					
8	There is effective delivery of the education services to the people					
9	The service providers adequately monitor timely provisions					
10	There is effective monitoring due to time provision of the services					