ASSESSMENT OF HUMANITARIAN LOGISTICS PERFORMANCE OF NON-GOVERNMENTAL ORGANIZATIONS IN THE CASE OF SAVE THE CHILDREN INTERNATIONAL ETHIOPIA

By

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A THESIS SUBMITTED TO ADDIS ABABA UNIVERSITY, SCHOOL OF COMMERCE, IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTERS OF ART IN LOGISTICS AND SUPPLY CHAIN MANAGEMENT

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Declaration

I declare that this research project "Assessment of Humanitarian Logistics Performance of Non-Governmental Organizations In the Case of Save the Children International Ethiopia" is my original work and has never been submitted to any other University for assessment or award of a degree, and that all sources of materials used for the study have been duly acknowledged.

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Certificate

This is to certify that Getnet Mamo has carried out his thesis work entitled “Assessment of Humanitarian Logistics Performance of Non-Governmental Organizations In the Case of Save the Children International Ethiopia” under my guidance and supervision. Accordingly, I hereby assure that the study is his own original work and suitable for submission of the award of MA in Logistics and Supply Chain Management.

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Shiferaw Mitiku (Ph.D.)

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Abbreviations and Acronyms

SCE- Save the Children International Ethiopia

HL- Humanitarian Logistics

HLP - Humanitarian Logistics Performance.

FDP- Food distribution point

FFP- Food for peace

JEO Joint emergency operation

HA- Humanitarian agencies

HO- Humanitarian organization

HSCM- Humanitarian supply chain management

NGO- Non-governmental organization

SC- Supply chain

SCM- Supply chain management

SCI- Save the Children International

SCE- Save the children Ethiopia

PDP- Primary distribution point

USAID- United States Agency for International Development

3PL- Third part logistics

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Abstract

The objective of the study was to assess the humanitarian Logistics performance of Save the Children International Ethiopia this study was also intended to explore and empirically test the possible relationships between factors that can affect the humanitarian logistics performance and the Humanitarian Logistics Performance of the company. The researcher carried out a systematic literature review to identify variables and to design a structured questionnaire. Accordingly the researcher identifies Five Humanitarian Logistics Performance measuring variables of Reliability, Responsiveness, Agility, Cost and Asset management. The researcher conducted an empirical study on a sample of 54 respondents who have experience on humanitarian logistics within the company. The relationships proposed in the framework were tested using Pearson correlation and the hypotheses proposed in the research were also tested using regression analysis. From the result of the analysis it was concluded that there is positive and statistically strong relationship between Humanitarian Logistics Performance factors and humanitarian logistics performances. It is also conclude that the humanitarian logistics practices of the company are well practicing and have a positive effect on the performance. Therefore, In order to become competitive and achieve sustainable performance in disaster relief chain operations, Save the Children Ethiopia should give due attention on the strategies to minimize the effect of those factors and to align the practices to the performance.

Key Words: Humanitarian Logistics, Humanitarian Logistics factors and Humanitarian Logistics Performance.

CHAPTER ONE

INTRODUCTION

This chapter presents the background of the study, statement of the problem, basic research questions, objectives of the study, significance of the study, and scope of the study, the definition of key terms, and organization of the study.

1.1 Background of the study

Relief logistics, despite the important role it plays in saving the lives of the victims, has not gained due attention. (Reza, *et al*., 2009) explains for the same token, there is a discrepancy among researchers as to the meanings and concepts thereof. According to Martin logistics can make a difference between life and death (Martin, 2013). He noted that the main distinction of humanitarian logistics from that of business logistics is that unlike business logistics, humanitarian logistics face different challenges in terms of goals, content, and process to those faced by commercial logistics (Martin, 2013). Similarly to commercial logistics operations, logistics in disaster response struggle with conflicting interests of stakeholders and with unpredictable demand. The motivation for private companies comes from being monitored and measured by profitability, but in the case of humanitarian logistics the output of the performance could be measured in human lives (Gyöngyi and Karen, 2012).

The United Nations (UN) World Risk Index, which measures exposure to natural hazards and the capacity to cope with these events across 171 countries, places small developing states at the top of its ranking. In addition to the limited capacity to respond to natural disasters, these countries are more frequently hit by extreme weather events than larger countries and their economic costs are on average much larger (IMF, 2016).

A disaster response operation involves trade-offs of speed, cost, and accuracy concerning the type of goods that are delivered and their quantities. Balancing these trade-offs requires a means of measuring Logistics performance; however, the inability to centrally capture time and cost data related to the procurement and

distribution of goods has prevented a systematic process of performance measurement from being implemented (Phillips, 2014).

Save the Children's response to the massive 2015-2016 drought in Ethiopia has brought timely, life-saving services in food distribution, nutrition, WASH, education, and child protection to more than 1.2m people in 60 'priority one', most affected districts (https://ethiopia.savethechildren.net/)

Communities' resilience to and ability to cope with future emergencies increased; children better protected from harm and able to continue their education during the crisis; and more than 1 million beneficiaries reached through humanitarian response, plus 250,000 refugees (182,000 in Dollo Ado and 68,000 in western Gambella and Beneshangul)

1.2 Statement of Problem

A large number of people migrate or get displaced because of man-made or natural disasters. Save the children work in seven main programmatic sectors in Ethiopia targeting vulnerable children and their families mostly in rural and remote, underserved areas. Save the Children's response to the massive 2015-2016 drought in Ethiopia has brought timely, life-saving services in food distribution, nutrition, WASH, education, and child protection to more than 1.2m people in 60 priority one most affected districts. More than 1 million beneficiaries reached through humanitarian response, plus 250,000 refugees (182,000 in Dollo Ado and 68,000 in western Gambella and Beneshangul).

In most of the relief operations, SCE faces several problems regarding their structures, distribution network configuration, inventory control, disaster assessment, cooperation and coordination, procurement uncertainties and limitations, and performance measurement. In addition to those challenges, one can consider uncertainty in the number, location, and presence of warehouses and distribution centers which pose problems for inventory storage, handling, and logistics support.

According to Kunz and Reiner (2011), study; situational factors that are identified from literature reviews; affecting the performance of humanitarian logistics are; environmental situational factors, government situational factors, socio-economic situational factors and

infrastructure situational factors. In relation with this, (Mebrahtom, 2016) has also examined that supply chain challenges has negative effect on the performance of humanitarian aid organizations in the relief and emergency sectors.

Providing shelter, food, non-food item aid becomes a vital aspect for humanitarian organizations to supply and provide to the vulnerable groups or the needy society, SCE also part of this operation. But it's argued that various possible challenges have the potential to affect the relief aid operations. Some of these challenges (practical problems) are poor infrastructure in the country hindering the logistics activity, lack of information system, lack of coordination among partners, strict governmental custom/duty procedures, the existence of poor quality trucks and vehicles to perform emergency operations, shortage of trucks to transport relief items to beneficiaries, scarcity of warehouse facility during the emergency time, weak & limited. Even if all the above challenges are faces performance measurement of SCE is inadequate and not covering most of the Humanitarian Logistics operations. It seems SCE measures its humanitarian logistics performance using different techniques but many of the reports of the operations are not clearly stated and not included the way of how they measure their performance and the challenges they faced during the measurement process. On the other side, donors are becoming more demanding in the performance improvement and efficient use of the scarce resource.

However, the question about the performance of the organizations to fulfill these tasks is very complex due to volatile conditions and environmental variables in the site of the occurrence of a disaster. The problem of how to measure the performance of an organization in a disaster is much more difficult due to the lack of metrics in the humanitarian sector. The causes are many and varied, ranging from organizational culture to the lack of infrastructure and appropriate technology. However, efforts have been made to obtain standards, indicators, and parameters that can be implemented to measure and improve the performance of organizations in disaster response operations. Therefore this study was tried to assess the Humanitarian Logistics performance of Save the Children Ethiopia.

1.3 Research Question

- How humanitarian Logistics practiced in save the children Ethiopia?
- What are the factors that affect the humanitarian Logistics performance of Save the Children?
- What is the humanitarian logistics performance of Save the children Ethiopia?

1.4 Research Objective

1.4.1General Objective

- The main objective of this study is to assess the humanitarian Logistics performance of save the children in Ethiopia.

1.4.2Specific Objectives

The specific objectives of this study are: -

- To assess the humanitarian Logistics practice of Save the Children Ethiopia.
- To assess the factors that affects the humanitarian logistics performance of the Save the Children International Ethiopia.
- To determine the humanitarian logistics performance of Save the Children Ethiopia.

1.5 Significance of the Study

This research was aimed at assessing the performance of logistics operations. The outcome is helpful to humanitarian organizations that have been currently implementing development and emergency food aid programs in Ethiopia and other organizations that are implementing humanitarian relief operations in the country. Moreover, in Ethiopia, the study of humanitarian logistics management has not sufficiently studied, so the result of this study may help to better understanding the process of Logistics performance measuring practices in development and emergency food aid assistance programs. And also it contributes to the understanding of humanitarian organizations that relation with their operational Logistics activities and

performance of the HSCM in Ethiopia and the proposed study come up with some recommendations anticipated to improve the effectiveness of the system.

1.6 Scope of the Study

Save the Children Ethiopia remains committed to ensuring the realization of Save the Children's dual mandate of equally supporting both development and humanitarian works. They work in seven main programmatic sectors in Ethiopia targeting vulnerable children and their families mostly in rural and remote, underserved areas.
In this study, the geographic scope was limited to head office located in Addis Ababa and specifically on Program Managers, Technical supervisors, Program coordinators, Finance and Logistics coordinators, Commodity supervisors, Commodity officers, and Food distributors of the logistics department. The study was covering the assessment of the logistics performance on humanitarian relief which was performed by the organization.

1.7 Limitation of the Study

The study was carried out solely in Save the Children and the findings may not indicate the general situation in Ethiopia. The study was conducted within the time of the great pandemic (COVID 19) and that challenged the data collection process. Data collection was challenging owing to the fact that the respondents were requested to replay their response through mail and multiple call reminders. There were non-response rates encountered.

1.8 Definition of Terms and Concepts

Humanitarian logistics definition by Thomas: Humanitarian Logistics is defined as the process of planning, implementing and controlling the efficient, cost-effective flow and storage of goods and materials, as well as related information, from the point of origin to the point of consumption to alleviate the suffering of vulnerable people (DoD, 2002).

Disaster Management can be defined as the organization and management of resources and responsibilities for dealing with all humanitarian aspects of emergencies, in particular, preparedness, response, and recovery to lessen the impact of disasters (Kleindorfer and Van Wassenhove, 2004)

Humanitarian aid is material and logistic assistance to people who need help. It is usually short-term help until the long-term help by the government and other institutions replaces it. Among the people in need are the homeless, refugees, and victims of natural disasters, wars, and famines. Humanitarian aid is material or logistical assistance provided for humanitarian purposes, typically in response to humanitarian relief efforts including natural disasters and man-made disaster (Kleindorfer and Van Wassenhove, 2004)

1.9 Organization of the Paper

Generally, the paper organized into five chapters. The first chapter presents the background of the study followed by the statement of the problem, objective of the study and research question, significance of the study, the scope of the study and organization of the paper. The second chapter deals with the literature review which shows a review of related topics for the research and conceptual framework of the study with the operational definition. The third chapter is a research methodology that includes research design, source population, study population, data collection instrument and administration, data management, data processing procedures, and ethical consideration. The fourth chapter handles data analysis, results, and discussion. The fifth chapter wind-ups the paper by summarizing the major findings giving conclusions, recommendations, and limitations of the study, and giving suggestions for further study are also included.

CHAPTER TWO

RELATED LITERATURE REVIEW

This chapter briefly introduced and provided a systematic literature review on the works of various scholars in the area of Logistics performance in the humanitarian organization. It includes definition and concepts such as, humanitarian Logistics, humanitarian logistics performance, and some of the factors that can affect the performance of the company logistics performance also reviewed such as Transportation, internal and external coordination, communication and information this are one part of the review. Empirical review related to the topic of the study and conceptual framework. Based on the literature reviewed, this thesis sought to compose and evaluate those research questions and identifies measurement variables that are used for answering those research questions was designed to assess the humanitarian Logistics performance of Save the Children.

2.1. Theoretical Literature Review

2.1.1 Humanitarian Logistics

Humanitarian aid logistics as it has been in the process of definition for many years has undertaken as only "firefighting" operations because of the lack of planning and budgeting system. Only about a couple of decades ago, humanitarian organizations' were introduced to the "logistics" phenomenon operating with the private sector mentality (Thomas & Kopczak 2005). Indeed in spite of the fact that numerous governmental and nongovernmental organizations (NGOs) have taken part in relief exercises after the Tsunami disaster in the Indian Ocean. They were insufficient due to the need of coordination. The Fritz Institute, in particular, pointed to disturbances within the supply chain, saying that the issue required a coordination conference instead of a charity conference. Appropriately, the Tsunami experience in 2004 was the birth of humanitarian coordination on the scholarly scene (Popa *et al*, 2010).

For a humanitarian aid organization to attain its objectives, the primary thing is to decide which activity has need. For instance, getting products for those who require it within the

occasion of a disaster? Or keep the fore most required materials at the proper sum? Perfect way" the most ideal way to fathom such kind of predicament is to decide the genuine objectives and center competencies of the organizations. Other than, within the nonattendance of an viable crisis administration framework, the comes about of characteristic catastrophes are calculated exclusively by the number of individuals dead, harmed, or misplaced and the financial impacts on the locale. (WHO, 2017).

2.1.2 Humanitarian Logistics Performance

Thinking about performance measurement in humanitarian logistics we first have to define humanitarian logistics. It is defined “as the process of planning, implementing and controlling the efficient, cost-effective flow and storage of goods and materials, as well as related information, from the point of origin to the point of consumption to alleviate the suffering of vulnerable people. The function encompasses a range of activities, including preparedness, planning, procurement, transport, warehousing, tracking and tracing, and customs clearance” (Thomas and Kopczak, 2005 This definition is adopted by several creators and organizations and compares with more common definitions with a view to logistics management and supply chain administration with an uncommon center on “alleviating the suffering of vulnerable individuals (Blecken, 2010).

The aims and goals are part of the definition: “efficient, cost-effective” and “to alleviate the suffering of vulnerable people”. Both, the private and therefore the humanitarian sector, specialize in both logistical aims service and costs. for many humanitarian organizations a high logistic service features a higher priority than the logistics costs (Thomas, 2003 and following publications from the Fritz Institute). With a great or indeed ideal calculated benefit, the supply is fast, secure, and dependable. In case the correct products (e.g. nourishment and non-food things, medicine items) are received by the proper people (the foremost influenced individuals) at the correct place, at the proper time (as quick as conceivable) and with the correct quality (e.g. nourishment things or medication isn't of less quality since of extraordinary climate conditions) than compassionate coordination can contribute to easing the enduring of defenseless individuals. Often it even can save lives. The “right” logistic costs (e. g. for infrastructure, human resources, and food and non-food items) are part of the goals, as

well. If humanitarian organizations lower the logistic expenses they can use the budget for the core tasks of humanitarian aid. With this, the aim for humanitarian logistics can be defined as maximizing logistic service under the restriction of a given logistic budget (Boelsche, 2009). Performance measurement for humanitarian logisticians must be geared to these aims. It opens up possibilities to measure the target achievement and consequently performance measurement provides the necessary information for improvement.

2.1.3 Transport

Transportation makes it possible for assistance to reach those in need (Jane.K *et al*., 2013). Transportation in the emergency area can run the range. It can contain global supplying, drop shipment, armed transport, commercial transport, non-commercial transport, third-party logistics firms, freight forwarders, charter aircraft, or even limited transportation such as mules and donkeys. Properties are often brought into a country at an entrance point and then moved to assortment sites run by relief organizations. In relief work, both in disasters and complex humanitarian emergencies, damaged infrastructure, inaccessible infrastructure, and the lack of infrastructure needed for large-scale assistance lead to bottlenecks, delays and congestion at entry points to the disaster area.

International humanitarian operations may be hindered by administrative and logistical bottlenecks because of poor infrastructure in the aid-receiving region and the multiplicity of agencies and governments (Van Wassenhove and Samii, 2003), and are often in conflict zones, thus hindering efficient delivery and distribution of relief cargoes to the needy.

2.1.4 Coordination

Further, the coordination inside an NGO and outside with the other partners is regarded significant for the victory of humanitarian aid operations. On the sourcing conclusion, the coordination between an NGO and its donors can be requesting due to the significance of donations to an NGO’s operations as well as the heterogeneity of objectives from diverse groups of donors. Within a humanitarian supply chain, the coordination among

different NGOs and other actors (e.g., other NGOs, governments, etc.) is complex due to the unique characteristics of this system. For example, when a major disaster happens, usually there are a number of disaster relief organizations contributing in the relief activities. This would make the coordination very complex. For instance, the number of NGOs working in Haiti after the 2010 earthquake was estimated to be between 3,000 and 10,000; the OCHA directory of registered NGOs and their key contacts is 82 pages long (Tatham and Pettit, 2010). Also, the coordination within the humanitarian supply chain is extended to other fields such as governments, militaries, other NGOs, etc... All these facts have made the coordination very challenging for any NGO that participated during the earthquake. It is worth mentioning that trust and information are two key success factors for the coordination within this system. Both factors have gained academic researchers' attention and there exist two streams of literature focusing on trust (Tatham and Kovacs, 2010) and information (Van der Laan, 2009)

2.1.5 Communication and Information

Nevertheless of the type of uncertainty affecting the humanitarian supply chain, information management can support to decrease the difficulty brought about by uncertainty. That is what several initiatives driven by the humanitarian agencies attempt to do through designing a common language, increasing visibility, and promoting collaboration. Disaster relief operations are carried out by humanitarian agencies who, unlike private companies, do not share the same explicit profit incentives to collaborate and exchange information. Information management can help and increase visibility and foster transparency in the humanitarian supply chain. Overall, agencies investing in information management can help facilitate the response by creating greater visibility of the needs and more accountability among the different actors involved. In the typical commercial supply chain framework, three types of flows occur (i.e., materials or goods/services, information, and finance). This is also the case within the humanitarian supply chain. In Mentzer et al.'s (2001) framework, the information flow is bi-directional while the financial flows occur from the customer to the upstream suppliers, and the goods flow from upstream down to customers. In this study, the aid elements (e.g., goods/services and funds) are

constructed as flowing out to affected areas whereas information and people are bi--directional. The component of "sourcing" which purposely emphasizes generates the unidirectional input flows for the humanitarian supply chain system. Similar to commercial supply chains, bi-- directional information flow is necessary for humanitarian supply chains. It is worth mentioning that "people" is one of the crucial aid flow elements in NGOs' humanitarian operations management. When a disaster takes place, the NGOs' field staff near the affected region would always involve in the aid activities also sometimes NGOs' personnel from other areas (including head office) as well as volunteers are sent to the affected area; while on the other hand, some people in the affected area would be shipped out from the affected region. Most of the volunteers were step away from the affected region sooner or later.

2.1.6 Access and Last Mile Distribution

Distribution management is another essential part of humanitarian aid management. Distributions take place through the entire system and distribution management features aspects ranging from demand management to logistics. However, the affected area becomes the focus of the whole system as soon as disaster strikes.

An NGO involved in the aid activities must forecast the demand from the disaster region; it then needs to expeditiously decide the number of resources needed (aid materials, funds, and people) and how to quickly make delivery. To augment the efficiency and effectiveness of distribution, the NGO is supposed to coordinate with the related stakeholders, including third-party logistics providers (3PLs), suppliers, governments, militaries, volunteers, donors, aid recipients, other NGOs, among others. The humanitarian aid delivery, especially the last mile distribution, during the emergent disaster period has been deemed far more challenging compared to the delivery in commercial supply chains due to factors such as the unreliability of the transportation system in the disaster zone (Beamon and Balcik, 2008).

2.1.7. Actors in Humanitarian Logistics

According to Balcik and Beamon, (2008), humanitarian relief environments involve international relief organizations, host governments, the military, local relief

organizations, and private companies, which each may have different interests, capacity, mandates, and logistics expertise. Thus, typically, no single actor has sufficient resources to respond efficiently to a major disaster. They listed six actors that are involved in the humanitarian aid supply network (Figure 1). These actors are not linked to the benefits of satisfying demand. Suppliers have different motivations for participating in humanitarian supply chains and customers are not generating a voluntary demand and will hopefully not create a repeat purchase.

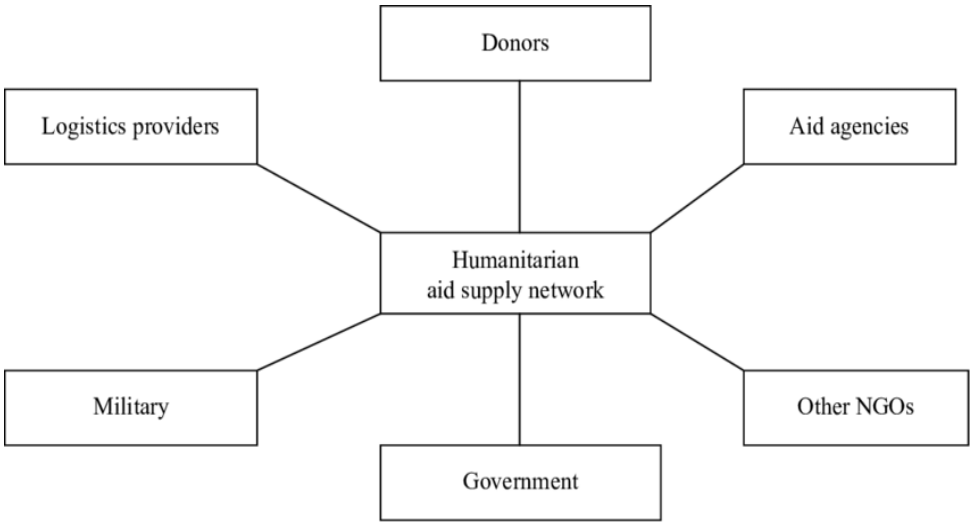

Figure 1: Actors in a humanitarian organization (Source: Arzu T. Toklu, 2017)

2.2. Empirical Literature review

2.2.1 Factors that Affect Humanitarian Logistics Performance

Environmental Situational Factor

The environment is fundamental to humanitarian action for two reasons. First, environmental issues are often underlying and contributing factors to humanitarian crises. Second, humanitarian crises can have negative effects on the environment and exacerbate risk and vulnerability if managed inadequately or addressed too late (https://www.unenvironment.org)

People need to live in a healthy environment, or their well-being is put in danger. This is the case in everyday life and is even more important in humanitarian crises.

Environmental degradation inhibits people's capabilities and resilience in many ways, from incomes and livelihoods to impacts on health, education, and other dimensions of well-being. The systematic integration of environmental considerations throughout response operations makes recovery activities more effective, contributes positively to sustainable development, and lays a foundation for conflict resolution and peace building. Environmental considerations also help mitigate the impact of climate change and support climate change adaptation. The relationship between the environment and humanitarian response is twofold.

H1: Environmental situational factors can negatively affect logistics performance.

Infrastructural Situational Factor

Infrastructural situational factor: An effective and timely humanitarian relief operation can save thousands of lives. However, humanitarian logistics operate in such areas were difficult to reach under normal circumstances because roads are often inadequate (Kunz & Reiner, 2012). The degraded infrastructure concerns on the road network, railway, airports, power supply, warehouses, communications lines, etc. that are damaged in the disaster or were non-existent to begin within the affected region become a great obstacle for the performance of humanitarian logistics (Tomasini & Van Wassenhove, 2009).

They further argue that the existence of well- developed road infrastructure will facilitate the logistical operations, while a poor road network tends to disrupt and slow down the distribution of relief items.

H2: Infrastructural situational factors can negatively affect humanitarian logistics Performance.

Governmental Situational Factor

Broadly speaking, the roles and responsibilities of states about humanitarian aid are four-fold: they are responsible for 'calling' a crisis and inviting international aid; they provide assistance and protection themselves; they are responsible for monitoring and coordinating external assistance, and they set the regulatory and legal frameworks

governing assistance. These functions are of critical importance to the initiation and management of a relief response and are crucial in determining its effectiveness. As the case of Myanmar's response to Cyclone Nargis shows, without state consent in some shape or form relief is very difficult to give, whatever the circumstances and however grave the crisis. In Sudan, the expulsion of aid agencies in March 2009 underlines the extent to which the whole aid enterprise relies on the acquiescence and support of the host government (HPG Policy Brief 37, September 2009)

Definitions of what constitutes 'a disaster' typically include a clause to the effect that events are on such a scale that local capacities have been overwhelmed. This implies a need to analyze the nature and capacity of the state.3 This is more than a technical question: making such an assessment is an inherently political act, and political considerations often weigh heavily as donor governments decide whether and how to intervene. Humanitarian aid to Zimbabwe and Darfur, for instance, is delivered through international organizations, bypassing the state because donor governments are at odds with the regimes in Harare and Khartoum and see them as actively involved in creating the humanitarian crisis. Aid decisions may also be influenced by perceptions of corruption within recipient countries. The growing literature on fragile states provides a useful typology for analyzing state roles in disaster response. Three broad categories or typologies can be tentatively identified

- States where there is an existing or emerging social contract between the state and its citizens, by which the state undertakes to assist and protect them in the face of disasters.
- States that are weak and have extremely limited capacity and resources to meet their responsibilities to assist and protect their citizens in the face of disasters.
- States that lack the will to negotiate a resilient social contract, including assisting and protecting their citizens in times of disaster.

Where states are meeting their citizens' needs in times of disaster, international humanitarian actors are more likely to play supportive roles, building capacity, filling gaps, and advocating for more effective responses. Where states are weak but have some willingness to meet needs, a combination of substitution and capacity-building will probably be appropriate. States that are unwilling to assist their people or who are

themselves actively involved in creating a crisis are the most difficult to deal with; in these circumstances, a combination of substitution and advocacy, to encourage states to fulfill their obligations, is likely to be necessary. Aid agencies are in the main not very good at assessing capacities as well as needs, although some tools for capacity analysis have been developed. These include Save the Children's Child Rights Situation Analysis (CRSA), which provides a foundation for understanding the state's responsibility as a duty-bearer for child rights. Monitoring and evaluation of humanitarian assistance likewise tends to focus on what international aid agencies are doing and neglects government roles (HPG Policy Brief 37, September 2009)

H3: Governmental situational factors can negatively affect humanitarian logistics performance.

Socio-economical Situational Factors.

Socio-economic situational factor: Ramsden (2014 as cited in Demeke, 2016) described the socio-economic challenges as uncertainty in demand and supply, uncompetitiveness of the market economy, the absences of local suppliers, availability stiff competition, absences of financial donors, the culture and language of the host country, high inventory and transportation cost, and lack of trust among the supply chain partners. Therefore, availability of local suppliers, the literacy level of the society, type of market economy, the local culture and religion,

are among other Socio-economic situational factors that affect the performance of humanitarian logistics (Altay et al., 2009 cited in Demeke, 2016; Dowty & Wallace, 2010; Kandiyoti, 2007; Leon et al., 2009; Maon et al., 2009).

H4: Socioeconomic situational factors can negatively affect humanitarian logistics performance.

Lack of donor funding

A study by Van Wassenhove (2006) attested that most humanitarian organizations have a problem with the availability of funds to train and improve the capacity of logisticians. As a result logistics operation would not be better prepared and effective.

Thomas and Kopczak (2005) further ascertained this fact that the huge amount of funds are mostly allocated for direct relief but insufficient amounts of funds are allotted for logistic strategic preparedness and investment on infrastructures and systems development. In the same vein, Maon, Lindgreen, and Vanhamme (2009) argued that the aid organizations obtain short term relief funds from the donors, and they cannot flexibly use the obtained fund. Therefore, organizations are obliged to engage from specific field projects and usually suffer from adopting and using the available strategic position. Moreover, according to Tomasini and Wassenhove (2009) not only lack of funding, but also unsolicited donations is also the other major causes of operation bottlenecks in disasters.

H5: Lack of donor funding can negatively affect humanitarian logistics performance.

Lack of well trained and experienced staffs

The question of logistics skills is relevant to the industry as well as education. In both cases, the skills that are listed are shaped by the definition of logistics in the first place (Sohal and D'Netto, 2004; Trunick, 2007). Logistics professionals may have several possible affiliations to professional organizations, which may focus on particular areas such as warehousing, transportation, or purchasing, take a supply chain and/or an operations view, or be defined by geographical boundaries. Which skills are deemed relevant for logistics, thus depends on who gets their say, in other words, which organization's mailing list a questionnaire may have been sent out to (Trunick, 2007). Setting the question of definitions aside, logistics is thus one borrowed from engineering (Vereeck et al. , 2008; for similar models see e.g. Iansiti, 1993 or Weiss, 2005).

H6: lack of well trained and experienced staff can negatively affect humanitarian logistics performance.

Inefficient use of the resource

Regarding the recognition of the importance of logistics, a study by Van Wassenhove (2006) found that most decisions during a relief operation have been made by the

program staff that controls the budget by neglecting the participation of logisticians. This implies that humanitarian organizations seem to undervalue the role of logisticians. Likewise, disaster-affected population's need assessment team which is organized by humanitarian aid organizations fails to include logisticians (Van Wassenhove, 2006). Given this real practice, how can a logistician understand what to provide in what amount to respond to crisis-affected people's needs? Based on the above-mentioned evidence, it may be logical to infer that logisticians are not still considered as the vital staff members in the operation of emergency relief. Moreover, studies have attested that the logistics function in the humanitarian sector is under-recognized, under-utilized, and under-resourced (Thomas & Kopczak, 2005).

On the other hand, the lack of professional staff has cited as an internal factor that affects the performance of humanitarian logistics. However, Telford and Cosgrove (2007) indicated that humanitarian organizations are defined by their personnel, who share a common value system based on alleviating the suffering of those affected by disasters and humanitarian emergencies. On the contrary, the practical world experiences a lack of available humanitarian logisticians which is considered as another important challenge facing the performance of humanitarian logistics (Fritz Institute, 2005).

Similarly, Kovacs, Tatham, and Larson (2012) strengthen the fact that peoples who are working in the logistics department are coming from diverse and varied backgrounds, and those obtained their knowledge of logistics operation through trial and error experience by doing multiple disaster operations over several decades.
Consequently, Kovacs and Spens (2011 cited in Overstreet *et al.*, 2011) advised humanitarian organizations a need for the establishment of humanitarian-academic partnerships to improve training, education, and research to improve the skill and capacity of logisticians. However, the practical experience in this area shows that majority of people in humanitarian aid organizations with logistics responsibilities do not have proper training in logistics.
Moreover, various studies (Oloruntoba & Gray, 2006; Thomas & Mizushima, 2005 cited in Overstreet *et al.*, 2011) found that logistics operations in different humanitarian aid organizations are still largely manual. Therefore, it is most common for aid agencies to have multiple incompatible information systems about their

responsibilities in the operation of logistics in emergency relief (Maspero & Itmann, 2008 cited in Overstreet *et al*., 2011).

Lack of collaboration among participants in emergency relief activity was ascertained further by Telford and Cosgrove (2007), which observed a very rare trend in sharing resources and information among multiple NGOs involved in the Asian tsunami. Beamon and Kotleba (2006) suggested that organizations still did not develop universally accepted procedures rather they develop their procedures independently. In fact, according to Changes and Pache (2010 cited in Demeke, 2016) after 1999 up to yet there has been an increasing demand for multi-agency collaboration since NGOs are in direct competition for donor funding and other resources such as warehousing and vehicle fleet. However, as to his conclusion lack of coordination affects the performance of humanitarian logistics operations and participants in emergency relief should collaborate to engage in collective action for achieving positi0ve impact on their logistics performance.

2.2.2 Humanitarian Logistics Performance measurement by the Fritz Institute

The following state of the art is an application-oriented state of the art with a special view on performance measurement in humanitarian logistics. It excludes a state of the art concerning more general topics like those with an isolated view on performance measurement or performance measurement in logistics or supply chain management. For this purpose, a reference to basic literature can be given (Arnold *et.al.* 2008).

The first publications considering humanitarian logistics and performance measurement in humanitarian logistics were published by members of the Fritz Institute (Fritz Institute 2012). The initiative started in the year 2003 and has been published in several journals, papers, and conference documentations mainly until the year 2007. The researchers did not only focus on performance measurement but humanitarian logistics as a comprehensive area of research. Since the Asian Tsunami in 2004 and Hurricane Katrina in the U.S. in 2005 logisticians from different countries and branches have drawn attention to the field of humanitarian logistics (Fritz 2007). The researchers from the Fritz Institute analyzed external pressures on humanitarian logistics and worked out the main pain points in humanitarian logistics

as a foundation for new strategies and actions which were named as the path forward (Thomas 2003) Drawing from lessons learned from the commercial world they formed to support the disaster relief chain The Fritz Institute identified

- Three main external pressures increasing needs, increasing donor expectations, and calls for accountability.
- five central pain points: lack of recognition of the importance of logistics, lack of professional staff, inadequate use of technology, lack of institutional learning, limited co-operation and
- Five strategies for a path forward professional logistics community standardized training, performance measurement, communicating about the strategic importance of logistics and technical solutions (Thomas and Kopczak 2005).

2.3 Conceptual framework

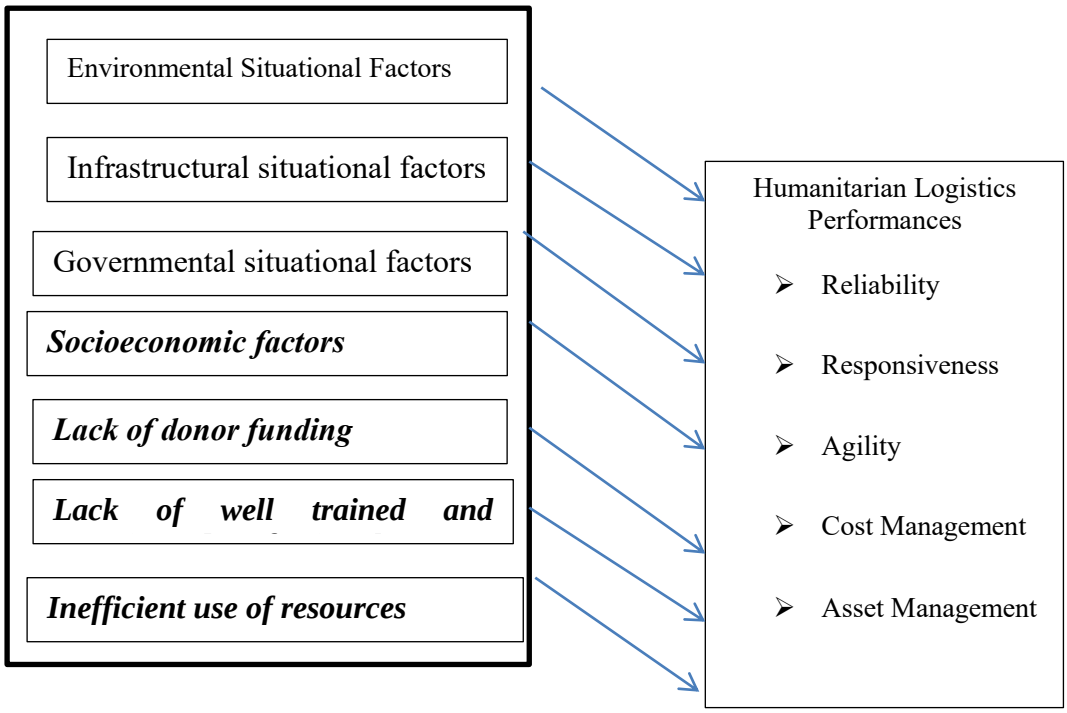

Figure 2: The conceptual framework adapted and modified (Kunz & Reiner, 2012).

2.4 Literature Gap

As mentioned on empirical review part it shows different related researches conducted in Humanitarian logistics performance and disaster response particular issues of the subject matter such as Distribution, Transportation, procurement, coordination, warehouse, information flow (communication) and other humanitarian logistics practices in different countries and different kind of disaster occurs in different countries context.

Nevertheless, there is limited research regarding humanitarian logistics performance measurement in disaster response in Ethiopia case study. Therefore, this study was attempt to address this gap, identify current practices of humanitarian logistics performance measurement techniques applied in humanitarian organization perspectives, and recommend possible in Ethiopian context particularly in save the children Ethiopia.

CHAPTER THREE

3. RESEARCH METHODOLOGY

Introduction

This chapter presents the research design and methodology section discussed the research design, target population, unit of analysis, participants, research instruments, source of data, data collection methods, development of the instrument, data analysis tools, validity, and reliability.

3.1. Description of the Study Area

This study was conducted in Save the Children's international Ethiopian head office which is located in Addis Ababa. The targeted peoples are from the department of Logistics in the humanitarian relief operation. The challenges have revealed deficiencies which prompt the humanitarian relief sector to redefine the logistical activities that can meet the needs of humanitarian relief operations. “the process of planning, implementing and controlling the efficient, cost-effective flow and storage of goods and materials, as well as related information, from point of origin to point of consumption to meet the end beneficiary’s requirements” (Kovacs & Spens 2009).

3.2. Research Approach

The study has been used for qualitative research approaches. This was because the study primarily focused on the data to be collected through questionnaires to give condensed pictures of the data using SPSS version 23. Accordingly, the data collected and presented into two parts, in the first part the study describes the humanitarian logistics practices and factors that can affect the humanitarian logistics performance of the company using frequency and percentage. And in the second part, the study triangulates the interdependence between the dependent and independent variables using explanatory research approaches such as using multiple regression and correlation.

3.3. Research Design

The study has been used both descriptive and explanatory research design. Accordingly, in a descriptive method, the study focused on the determination of the frequency in which an event occurs and how variables are related in a particular context. And in explanatory research design, the study concerned with determining the impact and cause and effect relationships among variables. Hence, this research was undertaken with descriptive and explanatory research design to give an adequate description of the variables and reveal the extent to which the factors of humanitarian Logistics performance of Save the Children.

3.4. The population of the Study

The population of the study is a group of individuals taken from the general population who share a common characteristic. However, the study only considered some of the target population based on department and positional level. According to Hair *et al.* (2010), the target population is said to be a specified group of people or objects for which questions can be asked or observed made to develop required data structures and information. Therefore, in this study, the target populations are employees of Save the Children International in Ethiopia, particularly the staffs who are working in humanitarian logistics operations as well as employees which have a relationship and experience in this operation. This was because the study selects those area respondents. After all, they have adequate knowledge regarding the logistics operation of the organization. Because of the limited and small number of the study population, this study was used a census method and take all 60 employees that include Addis Ababa and the program operational field office staff.

3.5. Data sources and types

There are two sources of data namely, primary and secondary sources. In this study, both primary and secondary sources of data were utilized through questionnaires, interviews, and reviews of reports and manuals. Primary data were defined as the data that a particular organization collects itself to deal with a specific problem (Gates &

Jarboe, 1987). Primary data refer to the data that is collected by agents or ourselves who have known to us. Studies made by others for their purposes represent secondary data to you (Cooper & Schindler, 1998). Primary data has some more evident benefits than secondary data in the aspects of relevance and accuracy.

3.6. Data collection procedures

During Data Collection multiple options are applied for respondents to submit data, which included e-mail submission of the questionnaire, Respondents was ensured that their response is confidential and protected and, Provided information regarding the purpose of the data collection, the importance of their participation and the schedule of processing and publication. To collect the necessary data the researcher followed the following procedures: Develop the questionnaire and interview, distribute the questionnaire to respondents on the position of logistics coordinators, Technical Supervisors, Program Managers, Program Coordinators, Senior Managers and Finance Managers, ask interviews for Head of Humanitarian Operations and Technical Supervisor, and collect the distributed questionnaires from the respondents.

3.7. Method of data analysis

In general, there are two types of data analysis techniques namely: qualitative and quantitative whereby the choice of these methods greatly depends on the type of information the researcher has at hand. If most of the information collected contains numerical, the analysis calls for quantitative tools and descriptive statistics can be used to characterize the data. On the Other extreme, if most of the data collected are in words which mean data gathered using Individual interviews, open-ended questions, and focus group discussion, it is logical enough to apply qualitative data analysis tools (Nunnery *et al*., 1994).

Data were analyzed qualitatively and quantitatively. Firstly, the data were collected, and then checked, coded, and converted into a format that was appropriate for analysis and interpretation. The data were analyzed using inferential and descriptive statistics techniques with the aid of SPSS version 23 software. Descriptive analyses

were applied through mean, standard deviation, frequency, tables, and percentages. Inferential statistics was applied through correlation analysis. The correlation analysis also applied to establish statistical significance and identify the nature of the existing relationship between the dependent variable and the independent variables.

In this study, simple linear regression is used to predict the value of the dependent variable (Y) from the independent variable (X). Regression assumes that the relationship between independent variable and the dependent variable can be represented by the equation:

$$Y=\alpha+\beta 1x1+ \alpha+\beta 2x2+ \alpha+\beta 3x3+ \alpha+\beta 4x4+ \alpha+\beta 5x5+ \alpha+\beta 6x6+ \alpha+\beta 7x7$$

Where:

Y= the predicted/dependent variable

α = constant

β= unstandardized regression coefficient for each independent variables.

X= value of the predicted coefficient for each independent variables

ε = is the error term

3.8. Reliability Assessment

According to Tavakol et al. (2011), Cronbach's Alpha value ranging from 0.70 to 0.95 is acceptable. As can be depicted, all the Cronbach's alpha values of the items were found within the range attesting the good reliability of the instrument.

Table 1: **Reliability table**

Reliability Statistics		
	Cornbrash's Alpha	N of Items
Over all reliability	.997	90
HLM Practice	.989	30
HLM Challenges	.994	35
HLM Performance	.991	25

Source: Collected data (SPSS), 2020

3.9. Validity of Research Instruments

Validity discusses to the extent to which recorded observations correctly reflect the construct they aim to measure (Powell 2003). The researcher used simple, clear and non-ambiguous language in the instruments. The supervisor reviewed the tools to see if they answer the objectives and research questions. After the exercise of data collection, all the questionnaires were verified to check if all the questions were well answered to the end to ensure validity of collected data.

3.10. Ethical Considerations

Regarding ethical issues the purpose of the study is clearly stated before the reactions of respondents and short description about the scope of the study is provided at the top of the questionnaire. To protect their privacy, the researcher is decided to refer them with respondents without revealing their actual names. The respondents are clearly told that this study is just for academic purposes and they are make sure that no manipulation and misuse is done.

CHAPTER FOUR

4. DATA ANALYSIS, RESULTS AND DISCUSSION

Introduction

This chapter presents the analysis and findings concerning the objectives and discussion of the same. Descriptive statistics analysis such as percentages and frequencies were calculated to present the general information about respondents and presented using tables. To assess the relationship between Humanitarian Logistics Practices and Factors that can affect the performance on specific factors (Reliability, Responsiveness agility, Cost and Asset Management) and organizations' Humanitarian Logistics management performance, correlation, and regression analysis was conducted for scale typed questionnaire. A total of 60 questionnaires were issued out. The completed questionnaires were edited for completeness and consistency. Of the 60 questionnaires issued and, 54 of them were returned. This represented a response rate of 90%, which is valid and used for analysis. The collected data were presented and analyzed using SPSS (version 23) statistical software.

As it is mentioned above, the study used correlation analysis to measure the degree of association between different variables under the study. Regression Analysis was also used to test the hypotheses of the study and the influence of the independent variables on the dependent variable.

4.1. General Information of Respondents and organizations.

The General Information of respondents considered in the study was the respondent's, sex, Position, Age educational qualification, experience, in the organization.

Table 2: Demographic Profile of the Respondents

Demographic Profile of the respondent	Dimension	Frequency	Percent
Gender of the respondents	Female	40	74.1
	Male	14	25.9
Age of the respondents	18-24	6	11.1
	25-34	26	48.1
	35-44	16	29.6
	45-54	6	11.1
Work experiences of the respondents	1-2 Years	6	11.1
	2-5 Years	11	20.4
	5-10 Years	31	57.4
	>10 Years	6	11.1
Education Level of the Respondents	Diploma/ Certificate	5	9.3
	BA Degree	36	66.7
	MA Degree	11	20.4
	PHD	2	3.7
Job positions of the respondents	Logistics Coordinators	8	14.8
	Technical Supervisors	17	31.5
	Program Managers	4	7.4
	Program Coordinators	13	24.1
	Senior Managers	6	11.1
	Finance Managers	6	11.1

*Source: Collected data (SPSS), 2020

4.1.1 Respondents Sex

The respondents were asked to indicate their Sex. The results presented in table-2 below shows that 25.9 % of the respondents were females while the rest 74.1 % of the respondents were male.

4.1.2 Respondents Age

The respondents were also asked to indicate their Age. The results presented in table-2 below shows that 11.1 % of the respondents were 18-24 years old, 48.1 % of the respondents were 25-34 years old 29.6 % of the respondents were 35-44 and the rest 11.1 % of the respondents were over 45-54 years old.

4.1.3 Educational Qualification of respondents

Regarding the respondents' Educational Qualification, as indicated in Table-2; 9.3 % of respondents had a diploma/Certificate, 66.7.2% of respondents had a first degree and the rest 24.1 % of respondents had second Degree and above. The result indicates that most of the respondents were qualified professionals so that they can easily understand and provide their opinion on the research questionnaire.

4.1.4 Respondents work Experience in the organization

Respondents were also asked to indicate their work experience in the organization, As the result shows in below Table 4, 11.1 % of the respondents had less than 2 years of work experience, 20.4 % of the respondents had 2-5 Years of work experience, and 57.4 % of the respondents had 5-10 Years of work experience while 11.1 % of the respondents had more than 10 Years of work experience in the organization. The result indicates almost all of the respondents had sound knowledge and experience in HLM of their organization so that they can give good and reliable information to the research question.

4.1.5 Respondents department/work Unit

Regarding the department of the respondents within the organization is presented and analyzed in table 5 below.

The results indicate that 14.8% of the respondents are Logistics Coordinators from the Logistics and procurement department, 31.5% of the respondents were technical supervisors, and 7.4% of the respondents were Program managers, while 24.1% of the respondents indicated that they are Program coordinator. The remaining 22.2% are senior and finance managers equally distributed 11.1%. The results indicate that the respondents were from different department/work unit and thus they gave an independent view of humanitarian logistics practice and humanitarian Logistics performance.

4.2 Descriptive Statistics analysis

In line with the objectives articulated under this section, the effort was made to describe the analysis of the respondent's view regarding the Humanitarian Logistics Practices and Performance of the Save the Children international Ethiopia based on the performance parameters identified by the researcher. Accordingly, primary data were collected about the humanitarian logistics Practices of the Company under Five logistics practice categories namely a) Sourcing/Procurement; b) inventory Management c) Warehouse management d)Transportation management and e)Distribution Management Practices. Based on this, respondents gauge the practices of humanitarian logistics of the organization using five Likert scale responses namely: strongly disagree, disagree, neutral, agree, and strongly agree

Table 3: **Likert scale interpretation and value interval allocation table**

Likert Scale	Interpretation	Value Interval Allocation
1	Strongly Disagree (SD)	1-1.8
2	Disagree	1.81-2.6
3	Neutral (N)	2.61-3.4
4	Agree (A)	3.41-4.2
5	Strongly Agree (SA)	4.21-5

Source: Dawes J, 2008

Table 4: Humanitarian Logistics Practice of SCE data summary

	Humanitarian Logistics Practices		
A	**Sourcing/Procurement**	**Mean**	**Std.dev**
1	Save the Children International Ethiopia established a governing supply chain council for its procurement	3.44	1.06
2	Save the Children International Ethiopia Properly align and staff the supply chain organization	3.81	0.7
3	Save the Children International Ethiopia make technology work for procurement purpose	3.07	0.71
4	Save the Children International Ethiopia established alliances with key suppliers	4.24	1.03
5	Save the Children International Ethiopia engaged in collaborative strategic sourcing	3.06	1.13
6	Save the Children International Ethiopia focus on the total cost of ownership, not price in its procurement decision	2.91	0.88
	Grand Mean	**3.42**	
B	**Inventory Management**	**Mean**	**Std.dev**
1	Save the Children International Ethiopia categorize its Inventory Using ABC Analysis	3.96	1.23
2	Save the Children International Ethiopia optimizes its Pick and Pack Process of inventory management	3.76	0.78
3	Save the Children International Ethiopia established its Inventory MANAGEMENT KPIs	2.69	1.07
4	Save the Children International Ethiopia use an Accurate Reorder Point Formula like EOQ to manage its inventory	3.39	0.72

5	Save the Children International Ethiopia carry safety stock Inventory	3.96	1.21
6	Save the Children International Ethiopia optimizes its Inventory turnover rates	2.72	0.46
	Grand Mean	3.41	
C	**Warehouse management**	**Mean**	**Std.dev**
1	Save the Children International Ethiopia's warehouse use quality inventory management software	3.44	0.99
2	Save the Children International Ethiopia's warehouse use money-saving options like wave picking and cross-docking	2.78	0.8
3	Save the Children International Ethiopia's warehouse links inventory levels and accuracy	3.24	0.97
4	Save the Children International Ethiopia's warehouse reorganizes the floor plan	3.93	1.44
5	Save the Children International Ethiopia's warehouse has a personal identification	4.07	1.55
6	Save the Children International Ethiopia's warehouse uses Tracking and tracing system	3.96	1.23
	Grand Mean	3.57	
D	**Transportation Management Practice**	**Mean**	**Std.dev**
1	Save the Children International Ethiopia delivers relief supplies to where they are required during emergencies	4.02	1.88
2	There are sufficient transport companies that provide transportation services for emergency works with Save the Children International Ethiopia.	3.61	1.21
3	There is a pre-qualified list of transport companies for Save the Children International Ethiopia to choose from during emergencies.	3.94	1.48
4	Save the Children Ethiopia uses different modes of transport depends on the urgency of the required item to be delivered.	4.11	1.56
5	Save the Children Ethiopia uses cold trucks and other suitable trucks depends on the nature of the items to be transported.	3.93	1.21
6	Save the Children Ethiopia properly handle sourcing and outsourcing issues regarding transportation management.	3.98	1.88
	Grand Mean	3.93	
E	**Distribution Management Practice**	**Mean**	**Std.dev**
1	Save the Children Ethiopia properly overseeing the movement of goods from Supplier or manufacturer to beneficiary	4.06	1.689
2	There is pre organized packaging, Inventory, Warehousing, Supply chain and logistics activities and processes.	2.98	0.996

3	Save the children Ethiopia uses outsourcing the distribution management in pick seasons	4.09	1.6
4	Save the children Ethiopia used to adopt a good distribution management strategy.	2.57	0.756
5	Save the children Ethiopia assuring sufficient stocks in channels to minimize stock out crises.	2.7	0.959
6	Save the children Ethiopia measures distribution management practices and take a correction measures.	2.07	1.161
	Grand Mean	3.08	

*Source: Collected data (SPSS), 2020

4.2.1 Humanitarian Logistics Practices of Save the Children International Ethiopia

The descriptive statistics result of the SPSS analysis for the research findings revealed that the overall mean of the sourcing or procurement practice of Save the children international Ethiopia shows that 3.42. to assess the sourcing practice of the company the researcher raised six(6) questions regarding supply chain council for procurement, proper alignment of the staff, implementation of technology for procurement, alliance with suppliers, and consideration of the total cost of ownership of the purchase items. The analysis for this section shows that most of the respondents ‘’Agree” that there is a good procurement practice within the company. The other parameter regarding the HL practice of the company was Inventory management. Under this practice, the respondents were asked that save the children categorize its inventory using ABC analysis, optimization of pick and pack process of IM, the establishment of IM KPIs, using of EOQ formula to manage inventory, about safety stock inventory and optimizes its inventory turnover rates for the IM practice the total mean is 3.41 based on the Likert scale value interval allocation depicted on the above table 7 we can categorize under ‘’Agree’’. Warehouse management practice is another HL practice is considered under this study using of appropriate software, implementation of wave picking and cross-docking, recognition of floor plan, using of IDs for warehouse and tracking and tracing systems of items are checked whether they are implemented or not and the mean value is 3.57 the respondents agree that there is a good practice of warehouse management better than the above two HL practices. The last two practices are Transportation management and Distribution management practices and the total

means are 3.93 and 3.08 respectively. Under TM practice the company delivers relief items as required, availability of sufficient transport companies who work with the company during emergencies, using different modes of transport depends on the urgency and so on such kinds of questions were part of the questionnaire. Under Distribution management minimizing stock out crises, adopting a good distribution strategy, outsourcing distribution management in pick season such questions were asked, and analyzed accordingly other studies (Elias Wako, 2018) and (Thomas and Kopczak, 2005) findings also shows that those humanitarian logistics practices are the indicators of a good humanitarian logistics performance.

Table 5: Humanitarian Logistics Management Performance of SCE data summary

S.N	**Humanitarian Logistics Management performance**		
A	**Reliability Statement**	**Mean**	
1	Save the Children International Ethiopia provides the right quantity of relief items to the beneficiary	0.94	0.94
2	Save the Children International Ethiopia exhibited a strong ability to perform tasks as expected	0.82	0.82
3	Save the Children International Ethiopia provides the right packaging for relief item and deliver with the right condition	1.44	1.44
4	Save the Children International Ethiopia provides relief item of high quality to beneficiaries	1.11	1.11
5	Save the Children International Ethiopia conducts need assessment accurately in disaster-prone areas	1.38	1.38
		3.61	
B	**Responsiveness Statement**	**Mean**	
1	Save the Children International Ethiopia provides humanitarian logistics as per their schedule	0.21	0.21
2	Save the Children International Ethiopia has standard time, the speed at which humanitarian logistics tasks should be performed	1.08	1.08
3	Save the Children International Ethiopia provides humanitarian logistics on time after their requisition	0.8	0.8
4	Save the Children International Ethiopia provides humanitarian logistics within 72 hours of disaster strike	0.94	0.94
5	Save the Children International Ethiopia exhibits responsiveness to donation-to-delivery time to provide humanitarian logistics	0.73	0.73
		3.25	
C	**Agility Statement**	**Mean**	

1	Save the Children International Ethiopia adapt quickly to a system of stock managing when there is stock out	1.15	1.15
2	Save the Children International Ethiopia adapt quickly to a system of stock managing when additional demand is required	1.08	1.08
3	Save the Children International Ethiopia monitor the overall relief supply chain and responds immediately to minimize supply chain risk	0.93	0.93
4	Save the Children Ethiopia can manage if suppliers or partners going out of business	1.34	1.34
5	Save the Children Ethiopia can manage unexpected disaster or situations	0.91	0.91
		3.63	
D	**Cost**	**Mean**	
1	Save the Children Ethiopia has adopted a good cost management strategy	0.97	0.97
2	Save the Children Ethiopia used to apply consolidation of items to optimize transportation cost	1.12	1.12
3	Save the Children Ethiopia used to give attention to the total cost of ownership rather than purchasing cost only.	0.88	0.88
4	Save the Children Ethiopia used to apply initial cost plans towards measuring the actual cost performance	1.16	1.16
5	Save the Children Ethiopia used to proper recording and presentation of cost data to management for measuring efficiency	0.96	0.96
		2.97	
E	**Asset Management**	**Mean**	
1	Save the Children Ethiopia has a practice to Capacity utilization of Inventory	1.03	1.03
2	Save the Children Ethiopia has Reduction of Inventory stocking	0.75	0.75
3	Save the Children Ethiopia has the practice to apply the Consolidation of transportation to efficient utilization capacity.	0.86	0.86
4	Save the children Automate the management of warehouse assets to lower costs, improve utilization, and reduce loss and logistics down-time.	0.95	0.95
5	Save the Children Ethiopia Assets are tracked as they move in and out of areas, and through their warehouse or facility.	1.17	1.17
		3.48	

*Source: Collected data (SPSS), 2020

4.2.2 Humanitarian Logistics Performance of Save the Children International Ethiopia

Five indicators are used to assess the humanitarian logistics performance of Save the Children International Ethiopia such as Reliability, Responsiveness, Agility, Cost, and

Asset management. Based on the data collected and analyzed the first performance indicator which is Reliability has a mean value of 3.61 and it indicates that most of the respondents are Agree for reliability tests. To get the opinion of the respondents the researcher was asked the questions contain the following points such as is the company provide the right quantity of relief items to the beneficiary, the ability to perform tasks as expected, delivering of relief items in the right package and right condition, good quality items for the beneficiary and the ability to get the right need assessment in a disaster-prone area. The second parameter was Responsiveness under this parameter five questions are asked about whether the company provides humanitarian logistics service as per the schedule, setting time and speed HL tasks to be performed, the ability to respond within 72 hours after disaster strike and the grand mean of responsiveness test is 3.25. The third one is Agility and it measures the company able to adapt quickly to a system of stock managing when there is stock out, response for unexpected demand is required, monitor the overall relief supply chain and responds immediately to minimize supply chain risks are the questions which were presented for the respondent to scale 1-5. Cost and Asset management are the last two performance measurement parameters that were used to present for assessment under this study and the result shows that they have a mean value of 2.97 and 3.48 respectively.

Table 6: Humanitarian Logistics Management Challenges of SCE data summary

	Factors affecting humanitarian Logistics performance	Mean	
A	**Environmental situational factors can negatively affect HLP?**		
1	The existence of bad weather Condition decreased the reliability of the humanitarian logistics practices of the organization	2.17	1.02
2	The existing unsuitable topography decreased the responsiveness of the humanitarian logistics practices of the organization	3.04	1.04
3	High level of temperature in desert areas decreased the Agility of the humanitarian logistics practices of the organization	3.15	1.16
4	Rainy seasons in the operation area Increase the cost of the humanitarian logistics practices of the organization	3.44	1.06
5	Other environmental situational factors decreased the asset management of	2.09	0.90

	the humanitarian logistics practices of the organization		
		2.78	
B	**Infrastructural situational factors can negatively affect HLP?**	Mean	
1	The Existing of degraded infrastructure decreased Responsiveness of the humanitarian logistics practices of the organization	3.80	0.98
2	Lack of concerns on logistics infrastructure like road network, railway, airports decreased the Reliability of the humanitarian logistics practices of the organization	4.04	0.88
3	Unavailability of adequate electric power supply increase the cost of the humanitarian logistics practices of the organization	4.11	0.93
4	Unavailability of enough Warehouses decreased the reliability of the humanitarian logistics practices of the organization	3.39	0.83
5	Existing of Poor Communications lines and infrastructures in disaster-prone areas decreased the asset management of the humanitarian logistics practices of the organization	3.98	1.22
		3.86	
C	**Governmental situational factors can negatively affect HLP?**	Mean	
1	Lack of suitable Government policy regarding NGO decreased the reliability of the humanitarian logistics practices of the organization	3.44	1.08
2	The national regulations towards relief organizations decreased the responsiveness of the humanitarian logistics practices of the organization.	3.43	1.11
3	The lack of efficiency of different government office such as customs, municipality, and transport offices and so on increased the cost of the humanitarian logistics practices of the organization.	3.17	0.62
4	The corrupted practice of government offices in the country decreased the asset management of the humanitarian logistics practices of the organization.	3.04	0.89
5	Lack of government willingness to work with the organization decreased agility of the humanitarian logistics practices of the organization.	2.93	1.18
		3.20	

D	**Socio-economic factors can negatively affect HLP?**	Mean	
1	Uncertainty in demand and supply in the country decreased reliability of	3.31	0.75

	the humanitarian logistics practices of the organization		
2	Uncompetitive of market behavior in the local economy decreased the responsiveness of the humanitarian logistics practices of the organization	2.48	0.65
3	The absences of competent local suppliers for relief items decreased the Performance of agility of the humanitarian logistics practices of the organization	3.91	1.03
4	Absences of financial donors increase cost of the humanitarian logistics practices of the organization	4.31	1.22
5	The literacy level of the society of the host country decreased the asset management of the humanitarian logistics practices of the organization	2.96	1.13
		3.40	
E	**Lack of donor funding can negatively affect HLP?**	Mean	
1	Lack of donor funding decreased the responsiveness of the humanitarian logistics practices of the organization	3.46	1.02
2	Lack of donor funding decreased the flexibility of the humanitarian logistics practices of the organization	3.48	0.66
3	Lack of donor funding increased the cost of the humanitarian logistics practices of the organization	2.89	1.47
4	Lack of donor funding decreased the reliability of the humanitarian logistics practices of the organization	3.11	0.71
5	Lack of donor funding decreased the Asset management capacity of the humanitarian logistics practices of the organization	3.80	1.03
		3.35	
F	**Lack of well trained and experienced can negatively affect HLP?**	Mean	
1	Lack of experience and Familiarity of the staffs decreased the reliability of the humanitarian logistics practices of the organization	2.69	0.61
2	Lack of Loyalty of personals for their tasks increase the cost of the humanitarian logistics practices of the organization	2.91	0.99
3	Absence of Competency for the given task decreased the responsiveness of the humanitarian logistics practices of the organization	3.44	0.60
4	Lack of interest of the personals to update themselves to high performance decreased the agility of the humanitarian logistics practices of the	1.41	1.43

	organization		
5	Absence of training for the logistics staffs decreased the asset management of the humanitarian logistics practices of the organization	3.69	0.92
		2.83	
G	**Inefficient use of resources can negatively affect HLP?**	Mean	
1	Inefficient use of daily operational resources increase the cost of the humanitarian logistics practices of the organization	3.09	1.38
2	Lack of Implementation of resource management tools decreased the asset management of the humanitarian logistics practices of the organization	3.33	1.23
3	Lack of How to manage resource training for employees decreased the reliability of the humanitarian logistics practices of the organization	2.70	0.83
4	Duplication of effort for the same output decreased the responsiveness of the humanitarian logistics practices of the organization	2.39	1.09
5	Frequent Non-proactive activities decreased the agility of the humanitarian logistics practices of the organization	2.37	1.32
		2.78	

*Source: Collected data (SPSS), 2020

4.2.3 Factors that can affect the humanitarian logistics performance of the company.

Seven general factors are selected to measure their level of impact on the humanitarian logistics performance of Save the Children International Ethiopia such as environmental, Infrastructural, governmental, socio-economic, Lack of donor funding, lack of well trained and experienced staff, and inefficient use of resources. Based on the data collected and analyzed the first factor is Environmental Situational factors; accordingly the analysis shows a mean value of 2.78; and it indicates that most of the respondents are ‘’Neutral” or moderate for the environmental impact on HLP; under this factor, the researcher tries to cover the questions regarding the weather conditions, the topography of the operation places and other environmental factors are included for the assessment. The second factor is Infrastructure this factor included the availability of degraded rood transport, unavailability of enough warehouses, unavailability of adequate electric power supply and communication

lines can affect the humanitarian logistics Performance of the company and the mean value of this factor shows 3.86 that can be categorized under ‘’Agree’’. The third factor is governmental situational factors this is all about government policy, national regulations towards NGOs, the efficiency level of the state, the corrupted practice of different government offices and lack of government willingness to work with NGOs this all issues are asked for the respondents and the mean value is 3.2 which is ‘’Neutral’’. The fourth factor was Socioeconomic factors the researcher manly relate the uncertainty in demand and supply of the country, uncompetitive market, absence of competent suppliers, and the respondents were ranked all the above issues affecting levels and the mean value is 3.4 this also ‘’Neutral’’ or moderate. The fifth one is lack of donor funding can affect the HL responsiveness, flexibility, cost, reliability, and asset management of the company and the mean value is 3.35 can be interpreted most of the respondents put their opinions on ‘’Neutral”. The sixth factor was the unavailability of well trained and experienced staffs; experience and familiarity with the operation they are engaged, the level of loyalty, the interest of the staff to be on the engaged task, and unavailability training for the staffs this all reasons can negatively affect performance and it was checked by the respondents and the mean value of the analyzed data shows 2.83 this also under “Neutral” category. The last factor was an inefficient use of resource for the detailed understanding of how resource management can affect the HL performance of Save the children Ethiopia the researcher questioned the respondents regarding the daily operation resource utilization, implementation of resource management tools and also the strategy and training regarding how to utilize resources and the mean value is 2.78 which is “Neutral” accordingly other studies from kenya (Nyamwang, S.O & Nyaguthie 2012) and (Oloruntoba, R & Gray, R, 2006) also revailed that those have a great impact on the humanitarian logistics performance of the relief organizations.

4.3 Inferential Statistics for Humanitarian Logistics performance and the factors that can affect the Performance of the Organizations.

4.3.1 Correlation Analysis

Correlations measure the linear relationship between two or more variables. As described by Kothari (2004), a Coefficient of correlation has the value of ‘*r*’ lies between ± 1. Positive values of *r* indicate a positive correlation between the two

variables, whereas negative values of '*r*' indicate a negative correlation. A zero value of '*r*' indicates that there is no association between the two variables.

According to Evan's (1996), the strength of the correlation can be described as, the absolute value of r namely 0.00-0.19 (Very Weak), 0.20-0.39 (Weak), 0.40-0.59 (Moderate), 0.60-0.79 (Strong) and 0.80-1.00 (Very Strong).

In this section, the researcher conducted a correlation analysis according to each research objective and hypothesis developed. The researcher used to apply Karl Pearson's coefficient of correlation (or simple correlation) analysis as it is the most broadly used method of measuring the degree of relationship between variables. The relationship between the Humanitarian Logistics performance of the organization and the influencing factors of the performance and investigated using Pearson's coefficient of correlation analysis. This provided correlation Coefficients which indicated the strength and direction of the relationship. The p-value also indicated the probability of this relationship's significance and accordingly other studies on the same issues (Lombo Desta, 2018) and (Gary P Ramsden, 2014) findings also reveal that there is a correlation among those factors and the humanitarian logistics performance.

Table 7: **Correlation between HL factors and HLP.**

Correlations									
		ESF	ISF	GSF	SEF	LDF	LWTES	IUR	HLP
ESF	Pearson Correlation	1							
	Sig. (2-tailed)								
ISF	Pearson Correlation	.120	1						
	Sig. (2-tailed)	.388							
GSF	Pearson Correlation	.131	.589**	1					
	Sig. (2-tailed)	.345	.000						
SEF	Pearson Correlation	.078	.881**	.619**	1				
	Sig. (2-tailed)	.573	.000	.000					
LDF	Pearson Correlation	.204	.607**	.592**	.722**	1			
	Sig. (2-tailed)	.140	.000	.000	.000				
LWTES	Pearson Correlation	.259	.464**	.285*	.580**	.591**	1		
	Sig. (2-tailed)	.059	.000	.037	.000	.000			
IUR	Pearson Correlation	.904**	.124	.169	.077	.144	.184	1	
	Sig. (2-tailed)	.000	.373	.222	.582	.299	.182		
HLP	Pearson Correlation	.354**	.518**	.335*	.351**	.668**	.527**	.278*	1
	Sig. (2-tailed)	.009	.000	.013	.009	.000	.000	.042	
**. Correlation is significant at the 0.01 level (2-tailed).									
*. Correlation is significant at the 0.05 level (2-tailed).									
Where, ESF=Environmental Situational Factors ISF=Infrastructural Situational Factors GSF=Governmental Situational Factors SESF=Socio-Economic Situational Factor LDF=Lack of Donor Funding LWTES=Lack of well trained and experienced staffs IUR=Inefficient Use of Resources HLP=Humanitarian Logistics Performance									

*Source: Collected data (SPSS), 2020

Hence, in the study, Bivariate Pearson Coefficient (r) was used to examine the relationship between the seven factors using a two-tailed test of statistical significance the correlation between the factors that can affect the humanitarian logistics performance (Environment, Infrastructure, government, Socioeconomic, donor funding, professionals in the area and inefficiency) of the company with HLP presented in the above table and it shows the result of their relationship significance and direction of the relationship and the result of the correlation matrix are analyzed as follows. As it is indicated in the above table-11 the correlation coefficients on the main diagonal are always 1.0, because each variable has a perfect positive linear relationship with itself. There is a significant positive correlation between

Environmental Situational factors and HLP with a correlation coefficient of 0.354 and significance level is less than 0.009. Therefore, Environment and HLP are Weak and positively correlated. The second correlated factor is Infrastructure and the result shows that there is a positive correlation with HLP with a coefficient value of 0.518 and significance level is 0.000 and the value shows the two variables are moderately correlated. The third factors are Governmental situational factors these factors are analyzed and the result indicated that there is a weak and positive correlation with the humanitarian logistics performance with a 0.013 significance level. Socioeconomic situational factors are the fourth factors that can affect the HLP of the company as indicated in the above correlation matrix table the correlation coefficient value is 0.351 with 0.009 significance level and the correlation is weak but positive. One of the priorities in NGOs sector is the availability of Donors funding and the researcher is testing the correlation between lack of donor funds have an impact on the HLP and the collected data were analyzed and the result shows that there is a positive and strong correlation with a correlation coefficient value of 0.668 and the significance level is 0.000. the last two factors are lack of well trained and experienced staffs and inefficient use of resources both factors are properly analyzed their correlation with HLP of the company and the correlation coefficient indicate that there is a Moderate and weak correlation with a correlation coefficient value of 0.527 and 0.278 respectively. Table-11 also shows that there is a significant positive correlation between Infrastructural situational factors and HLP with a Pearson's correlation coefficient of 0.518 and the significance level is 0.000. Therefore the two variables have Moderate and positively correlated.

4.3.2 Regression Analysis

The regression analysis is conducted to see how much the independent variable explains the dependent variable. The regression was conducted among the factors that affect humanitarian Logistics performance which are independent variables and humanitarian logistics performance is a dependent variable. The results of the regression analysis are presented as follows

4.3.2.1 Multi Collinearity Test

Table 8: Multicollinearity test of the independent variables

Coefficients[a]

Model		Collinearity Statistics	
		Tolerance	VIF
1	Environmental Situational Factors	.179	5.595
	Infrastructural Situational Factors	.211	4.729
	Governmental Situational Factors	.520	1.923
	Socio-Economic Situational Factor	.146	6.829
	Lack of Donor Funding	.371	2.692
	Lack of well trained and experienced staffs	.533	1.876
	Inefficient Use of Resources	.188	5.324

*Source: Collected data (SPSS), 2020

a. Dependent Variable: Humanitarian Logistics Performance

The test revealed in the above table 12 the collinearity between independent variables has no problem meanwhile the value of tolerance for all independent variables is greater than 0.1 And all VIF is less than ten.

4.3.2.2 Regression Analysis between HLP factors and HLP

Table 9: **Model Summary independent variables**

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.742[a]	.550	.482	.495

*Source: Collected data (SPSS), 2020

Table 10: **ANOVA Table for the Regression Analysis between HLP factors and HLP**

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	13.776	7	1.968	8.039	.000[b]
	Residual	11.261	46	.245		
	Total	25.037	53			

**Source: Collected data (SPSS), 2020*

a. Dependent Variable: Humanitarian Logistics Performance

b. Predictors: (Constant), Inefficient Use of Resources, Socio-Economic Situational Factor, Lack of well trained and experienced staffs, Governmental Situational Factors, Lack of Donor Funding, Infrastructural Situational Factors, Environmental Situational Factors

Table 11: regression analysis between factors that affect HLP and HLP

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.038	.174		.735	.089
	Environmental Situational Factors	.332	.190	.410	.753	.086
	Infrastructural Situational Factors	.508	.352	.921	.283	.000
	Governmental Situational Factors	.154	.278	.076	.556	.581
	Socio Economic Situational Factor	.482	.320	.198	.638	.000
	Lack of Donor Funding	.554	.123	.729	.496	.000
	Lack of well trained and experienced staffs	.201	.091	.299	.207	.032
	Inefficient Use of Resources	.271	.149	.414	.817	.076

**Source: Collected data (SPSS), 2020*

a. Dependent Variable: Humanitarian Logistics Performance

As shown in the above table 13, there is a causal relationship between the factors and logistics performance. The value of R^2 is .482, which implies that HL factors can account for 48.2% of the variation in Logistics performance. Although there might be many factors that can explain the variable on operational performance, nearly 48.2% of it is explained by HL factors. This means that the remaining 51.8% of the variation in logistics performance cannot be explained by those dimensions of logistics factors. The significant β coefficient also implies that HL factors have a significant influence on HL performance.

The objective of this study is to assess the humanitarian logistics performance of save the children and empirically test the framework identifying the relationships between humanitarian logistics challenges (factors) and logistics performance of the company, and the literature has suggested that there is a relationship between these two variables. Based on the correlation and regression analysis result those factors have a significant effect on the logistics performance of the organization 48.2% of the variability in organizational performance originates from these factors. Environment, Infrastructure, government, socio-economical, donor funding, trained staff, and inefficient use of all these factors have a direct relationship with the performance.

CHAPTER FIVE

5. SUMMARY OF MAJOR FINDINGS, CONCLUSION AND RECOMMENDATION

This chapter presents a summary of the findings of Humanitarian Logistics Practices, challenges, and Performance of Save the Children International Ethiopia. This chapter presents the conclusions of the findings and the recommendations of the researcher based on the analysis results and the suggestions for further research.

5.1 Summary of Major Findings

The major objective of this study is to assess the humanitarian logistics performance of NGOs in the case of Save the Children International Ethiopia. Specifically, this study is intended to assess the HL practices, the possible factors that can affect HLP, and the current HLP of the company and test if there is a possible relationship among HL factors and HL performance. Based on the results of the study the summary of major findings is presented as follows.

The results of the background information of the respondents indicated that the majority of the total respondents were male. In terms of respondents, age majority of them are grouped under the age interval of 25- 34 years. About the education level, the majorities of the respondents are MSc/MA holders. More than half of the respondents are categorized under the experience range of between 5-10 years.

Regarding, the assessment of Humanitarian Logistics performance of the organization, the study was seen the Practices, the factors and the Performances of the humanitarian logistics Section of the company and forwarded a related question whether the organization is performed, how the practices are well or not and how the listed factors are affecting the practices and the performances this all issues are under this study. To get a clear picture of the HLP the researcher included the five logistics practices which are Procurement, Inventory, Warehouse, Transportation, and Distribution management practices. Regarding the challenges seven major factors that can affect most of the industries are Environment, Infrastructure, Government, Socioeconomic, lack of donor fundings, lack of well trained and experienced staffs and Inefficient use of resources and also the HLP measuring

variables of Reliability, Responsiveness, Agility, Cost and Asset Management this all things are the researcher assessed and checked all the results.

The research findings revealed that the humanitarian logistics practice of SCE more than 68% of the respondents Agree (Likert point 3.42) that there is a good ‘’Procurement management’’ practice. The second practice is ‘’Inventory management’’ and 66% of the respondents Agree (Likert point 3.41) that there is also a good inventory management practices. Regarding the ‘’Warehouse management’’ 71,4% of the respondents are Agree(Likert point 3.57) there is a good warehouse management practice within the company. The ‘’Transportation management’’ practice is the fourth one and 78.6% of the respondents are Agree (Likert point 3.93) there is a good transportation management practice. The last practice is ‘’Distribution management’’ practice and 61.6% of the respondents are moderately or Neutral (Likert point 3.08) about the distribution management practices of SCE.

Assessing The humanitarian logistics management performance is one part of this research objective and the researcher interpreted all the five performance measuring factors and the first one is ‘’Reliability’’ and 72% of the respondents are Agree (Likert point 3.61) that there is a good performance regarding the reliability of HL, the second one Responsiveness 65% of the respondents are Agree (Likert point 3.25) that the HL of SCE is responsive. ‘’Agility’’ how the HL performance of SCE is Agile was also one of the performances measuring criteria and 72% of the respondents are Agree (Likert point 3.63) that the HL of Save the children is Agile. Cost and asset management are the last two performance measuring criteria and the finding shows that 59.4% and 69.6% of the respondents agree (Likert point 2.97 and 3.48 respectively) that there is a moderate and good performance regarding these two very important variables.

The Humanitarian Logistics Performance SCE affected by the following major factors and the collected data shows how much the impact of each factor affects the performance and summarized as follows. Environmental situational factors have the first impact on the HLP and the findings show 55.6% of the respondents are under the Likert scale categories of Neutral which means the environment has a moderate impact on the LP. Infrastructural Situational factors and Government factors have an impact on the LP 77.2% and 64% of the respondents are supported it respectively.

Socio-economic factor has an Impact on the HLP of SCE and 68% of the respondents are Agree that this socio-economic factor has a moderate effect on the performance with (Likert point 3.4). as per the finding, the impact of lack of donor funding is very high 86% of the respondents Strongly Agree (Likert point 4.3) that the effect is high. The last two factors are the lack of well trained and experienced staff and the inefficient use of resources both factors have the almost same level of impact on the HLP of the company supported by 56.6% and 55.6% of the respondents.

Regarding the correlation between the seven factors that can affect the HLP and the HLP of SCE is properly analyzed using SPSS Pearson correlation and among the seven factors inefficient use of resource has the smallest correlated with correlation coefficient 0.278 and lack of donor funding is the highest correlated factor and this shows that the HLP of the company highly dependent on the funding from donors. Infrastructural factors and lack of capable staff had almost the same correlation with HLP with a coefficient value of 0.518 and 0.527 respectively.

5.2 Conclusions

- The final analysis result of this study confirmed that the humanitarian logistics practices of Save the children international Ethiopia in terms of addressing the required supplies needed, the way managing inventory, efficient and effective warehouse management the strategies used to deliver supplies to disaster areas, in accessing store for supplies, assessing the situation of the security, its urgency and the extent of damage in the affected area before deployment of logistics staff and supplies were organized.

- Procurement policy of Save the Children international Ethiopia practices quick for the acquisition of supplies but still needs improvement. procurement staffs had experiences in managing goods and required supplies, in most cases the practices in the area of supplies required were matched with supplies that are procured/donated and the existing experience and practices help the humanitarian logistics team at Save the Children international Ethiopia to avail the required supplies timely.

- Concerning transport management the study also found that SCE uses

different modes of transportation in case of emergencies to mobilize supplies and people, third party transport companies were cooperative during emergencies and the deliverance of relief supplies to where they are required during emergencies was appropriate and SCE has prequalified list of transport companies to choose and used various transport optimization models to deliver supplies with the least cost.

- The study also found out that SCE availed and made accessible sufficient and appropriate warehouse to temporarily store supplies, the location of warehouses were accessible for distribution, facilitation for coordination, sorting, and packaging activities for easier and efficient aid delivery. The finding of the study also revealed that the distribution centers used by SCE were well established to ease distribution and minimize the cost of operation.

- The findings of the study revealed that different challenges, both external and internal, were faced by SCE while executing humanitarian logistics practices. The respondents believe that external challenges relatively less affecting the organization than the internal challenges. Among the external challenges, environmental situational factors are the minimum challenges and Lack of donor funding are the most and highly affected factor the performances of Save the Children International Ethiopia overall were also found to be moderately satisfactory.

- However, there are still problems related to different parameters of the performance measures. By looking at the performance measurement indicators it is possible to deduce that SCE is more responsive towards humanitarian activities. Reliability in terms of the right type of supplies delivered. Cost management was also found to be less performed by the organization whenever there are flexible demands. In terms of Asset management, Agility, and Reliability, the organization is perceived to be well-performing as most responses from the respondents favored it. The other parameter of performance responsiveness was revealed to have some defects.

5.3 Recommendations

- Even though the findings of the research, in general, revealed that Save the Children International Ethiopia is operating well in this specific area during emergencies, there are still concerns that need to be taken into account and addressed for better performance especially about factors related to Responsiveness and Cost management.

- The organization performs situation analysis before deployment of supplies and staff to the affected area but not to the level it should be. The situation should be assessed not only for the existing stage but also for the upcoming stages in case the disaster may reoccur in a short while.

- The assessment team should be the first point of contact to provide information to the procurement team to get a matched supply of items between the predicted and the actual items in terms of volume and variety change. It is also good to include staff from the procurement team to be part of the assessment team.

- At times when there are shortages of transport companies willing and capable of providing the service it is also good to discuss with the local and federal government and even with the local community to get support for the shortages.

- The local community may also help by using traditional transportation means for areas that are not easily accessible by modern means of transportation. Save the Children International Ethiopia should consider having very accessible warehouses to facilitate the delivery of supplies to the affected people on time.

- The other thing is also constructing simple temporary warehouses or sometimes renting such a facility from the local community. Whenever appropriate, the “just in time” approach can also be applied.

- Save the Children International Ethiopia should partner with other similar organizations so that they can request support from the local and federal government to provide their service to the affected community well. Requests through associations have the power to influence the government to provide the necessary support for the organizations.

- Documentation of previous practices is very important to learn lessons and hence SCE should document its performances very well. It is also good for the organization to conduct such researches by in house crew, especially by the monitoring and evaluation team, to evaluate their performances progressively.

- The other significant problem related to the organization's performance is its flexibility to absorb volume and variety changes. There should always be a contingency plan to absorb such fluctuations even though the situations are usually unplanned which demands urgent humanitarian responses.

5.4 Future Research Recommendation

This research was conducted in a single humanitarian organization where the scope is very limited. Accordingly, it is advised for future researchers to include similar organizations while perusing researches in similar areas of interest to get a better view of the practices, challenges, and performances of humanitarian logistics. Moreover, future researchers can consider seeing other affecting variables rather than that mentioned under this research.

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APPENDIX

Questionnaire

Addis Ababa University School of Commerce

Department of Logistics and Supply Chain Management

Assessment of humanitarian logistics performance

General Direction: The purpose of this questionnaire is to collect data on the research title **Assessment of Humanitarian Logistics performance**: In the case of Save the Children Ethiopia. Information you provide would be very crucial for the success of the study. Therefore, you are kindly requested to be honest toward all the items provided in the questionnaire. Your response to the questions will be kept confidential.

Dear Respondent, thank you for agreeing to participate in this assessment. Please provide your answer by putting the "**X" mark** on the space provided. Please answer all questions. After completion please re-send the filled questionnaire by email to Getnet Mamo using the following email address:

getnetmamo25@gmail.com

Please Click on the Small Box to Select Your Choices

I. Personal Profile of Respondent

1. What is your gender?

a. Male ☐ b. Female ☐

2What is your current job position within the organization?

a. Logistics coordinator ☐ b. Technical Supervisor ☐

C. C. Program Manager ☐ d. Program Coordinator/ Specialist ☐

e. Finance manager ☐ f. If other, specify ☐

1. What is your age range?

a. 24 & below ☐ c. 35 – 44 ☐

b. 25 – 34 ☐ d. 45 – 54 ☐ e. 55 – 65 ☐

2. What is the highest level of education you have completed?

a. Diploma /Certificate ☐

b. Bachelor Degree ☐

c. Master's Degree ☐

d. PhD ☐

3. How many years have you worked in this organization?

A. < 1 ☐ (years) B. 1-2 ☐ (years)

C.2-5 ☐ (years) E, >10 ☐ (Years)

Section One: Assessing the Humanitarian Logistics Practices

Regarding what extent the humanitarian logistics activities namely; Sourcing/Procurement, Inventory Management, Warehouse Management, and Transportation Management are in practice at the Save the Children, please tick (X) to indicate the extent to which you agree or disagree with each statement.

Where 1=No Extent, 2=little Extent, 3=Moderate Extent, 4=Great Extent, 5=very great Extent

	HUMANITARIAN LOGISTICS PRACTICES					
A	**Sourcing/Procurement**	**1**	**2**	**3**	**4**	**5**
1	Save the Children International Ethiopia established a governing supply chain council for its procurement	☐	☐	☐	☐	☐

2	Save the Children International Ethiopia Properly align and staff the supply chain organization	☐	☐	☐	☐	☐
3	Save the Children International Ethiopia make technology work for procurement purpose	☐	☐	☐	☐	☐
4	Save the Children International Ethiopia established alliances with key suppliers	☐	☐	☐	☐	☐
5	Save the Children International Ethiopia engaged in collaborative strategic sourcing	☐	☐	☐	☐	☐
6	Save the Children International Ethiopia focus on total cost of ownership, not price in its procurement decision	☐	☐	☐	☐	☐
B	**Inventory Management**	**1**	**2**	**3**	**4**	**5**
1	Save the Children International Ethiopia categorize its Inventory Using ABC Analysis	☐	☐	☐	☐	☐
2	Save the Children International Ethiopia optimizes its Pick and Pack Process of inventory management	☐	☐	☐	☐	☐
3	Save the Children International Ethiopia established its Inventory MANAGEMENT KPIs	☐	☐	☐	☐	☐
4	Save the Children International Ethiopia use an Accurate Reorder Point Formula like EOQ to manage its inventory	☐	☐	☐	☐	☐
5	Save the Children International Ethiopia carry safety stock Inventory	☐	☐	☐	☐	☐
6	Save the Children International Ethiopia optimizes its Inventory turnover rates	☐	☐	☐	☐	☐
C	**Warehouse management**	**1**	**2**	**3**	**4**	**5**

1	Save the Children International Ethiopia's warehouse use quality inventory management software	☐	☐	☐	☐	☐
2	Save the Children International Ethiopia's warehouse use money-saving options like wave picking and cross-docking	☐	☐	☐	☐	☐
3	Save the Children International Ethiopia's warehouse links inventory levels and accuracy	☐	☐	☐	☐	☐
4	Save the Children International Ethiopia's warehouse reorganizes the floor plan	☐	☐	☐	☐	☐
5	Save the Children International Ethiopia's warehouse has a personal identification	☐	☐	☐	☐	☐
6	Save the Children International Ethiopia's warehouse uses Tracking and tracing system	☐	☐	☐	☐	☐
D	**Transportation Management Practice**	**1**	**2**	**3**	**4**	**5**
1	Save the Children International Ethiopia delivers relief supplies to where they are required during emergencies	☐	☐	☐	☐	☐
2	There are sufficient transport companies that provide transportation services for emergency works with Save the Children International Ethiopia.	☐	☐	☐	☐	☐
3	There is a pre-qualified list of transport companies for Save the Children International Ethiopia to choose from during emergencies.	☐	☐	☐	☐	☐
4	Save the Children Ethiopia uses different modes of transport depends on the urgency of the required item to be delivered.	☐	☐	☐	☐	☐
5	Save the Children Ethiopia uses cold trucks and other suitable trucks depends on the nature of the items to be transported.	☐	☐	☐	☐	☐

6	Save the Children Ethiopia properly handle sourcing and outsourcing issues regarding transportation management.	☐	☐	☐	☐	☐
E	**Distribution Management Practice**	**1**	**2**	**3**	**4**	**5**
1	Save the Children Ethiopia properly overseeing the movement of goods from Supplier or manufacturer to beneficiary	☐	☐	☐	☐	☐
2	There is pre-organized packaging, Inventory, Warehousing, Supply chain, and logistics activities and processes.	☐	☐	☐	☐	☐
3	Save the Children Ethiopia uses outsourcing the distribution management in pick seasons	☐	☐	☐	☐	☐
4	Save the Children Ethiopia used to adopt a good distribution management strategy.	☐	☐	☐	☐	☐
5	Save the children Ethiopia assuring sufficient stocks in channels to minimize stock out crises.	☐	☐	☐	☐	☐
6	Save the Children Ethiopia measures distribution management practices and take corrective measures.	☐	☐	☐	☐	☐

Section Two: Performance of humanitarian Logistics Management: Please indicate your level of agreement to the items by putting a tick mark (√) in the boxes provided. A scale of 1-5 is used to respond to the questions

where: 5 = strongly agree, 4 = agree, 3= neutral, 2= disagree, 1 = strongly disagree.

S. N	**Humanitarian Logistics Management performance**					
A	**Reliability Statement**	**1**	**2**	**3**	**4**	**5**
1	Save the Children International Ethiopia provides the right quantity of relief items to the beneficiary	☐	☐	☐	☐	☐

2	Save the Children International Ethiopia exhibited a strong ability to perform tasks as expected	☐	☐	☐	☐	☐
3	Save the Children International Ethiopia provides the right packaging for relief item and deliver with the right condition	☐	☐	☐	☐	☐
4	Save the Children International Ethiopia provides relief item of high quality to beneficiaries	☐	☐	☐	☐	☐
5	Save the Children International Ethiopia conducts need assessment accurately in disaster-prone areas	☐	☐	☐	☐	☐
B	**Responsiveness Statement**	**1**	**2**	**3**	**4**	**5**
1	Save the Children International Ethiopia provides humanitarian logistics as per their schedule	☐	☐	☐	☐	☐
2	Save the Children International Ethiopia has standard time, the speed at which humanitarian logistics tasks should be performed	☐	☐	☐	☐	☐
3	Save the Children International Ethiopia provides humanitarian logistics on time after their requisition	☐	☐	☐	☐	☐
4	Save the Children International Ethiopia provides humanitarian logistics within 72 hours of disaster strike	☐	☐	☐	☐	☐
5	Save the Children International Ethiopia exhibits responsiveness to donation-to-delivery time to provide humanitarian logistics	☐	☐	☐	☐	☐
C	**Agility Statement**	**1**	**2**	**3**	**4**	**5**
1	Save the Children International Ethiopia adapt quickly to a system of stock managing when there is stock out	☐	☐	☐	☐	☐
2	Save the Children International Ethiopia adapt quickly to a system of stock managing when additional demand is required	☐	☐	☐	☐	☐
3	Save the Children International Ethiopia monitor the overall relief supply chain and responds immediately to minimize supply chain risk	☐	☐	☐	☐	☐

4	Save the Children Ethiopia can manage if suppliers or partners going out of business	☐	☐	☐	☐	☐
5	Save the Children Ethiopia can manage unexpected disaster or situations	☐	☐	☐	☐	☐
D	**Cost**	**1**	**2**	**3**	**4**	**5**
1	Save the Children Ethiopia has adopted a good cost management strategy	☐	☐	☐	☐	☐
2	Save the Children Ethiopia used to apply consolidation of items to optimize transportation cost	☐	☐	☐	☐	☐
3	Save the Children Ethiopia used to give attention to the total cost of ownership rather than purchasing cost only.	☐	☐	☐	☐	☐
4	Save the Children Ethiopia used to apply initial cost plans towards measuring the actual cost performance	☐	☐	☐	☐	☐
5	Save the Children Ethiopia used to proper recording and presentation of cost data to management for measuring efficiency	☐	☐	☐	☐	☐
E	**Asset Management**	**1**	**2**	**3**	**4**	**5**
1	Save the Children Ethiopia has a practice to Capacity utilization of Inventory	☐	☐	☐	☐	☐
2	Save the Children Ethiopia has Reduction of Inventory stocking	☐	☐	☐	☐	☐
3	Save the Children Ethiopia has the practice to apply the Consolidation of transportation to efficient utilization capacity.	☐	☐	☐	☐	☐
4	Save the children Automate the management of warehouse assets to lower costs, improve utilization, and reduce loss and logistics down-time.	☐	☐	☐	☐	☐
5	Save the Children Ethiopia Assets are tracked as they move in and out of areas, and through their warehouse or facility.	☐	☐	☐	☐	☐

Section Three:

Factors affecting the humanitarian Logistics performance: Please indicate your

level of agreement to the items by putting a tick mark (√) in the boxes provided. A scale of 1-5 is used to respond to the questions where: 5 = strongly agree, 4 = agree, 3= neutral, 2= disagree, 1 = strongly disagree.

	Factors affecting humanitarian Logistics performance					
A	***Environmental situational factors can affect the HLP of SCE?***	**1**	**2**	**3**	**4**	**5**
1	The existence of bad weather Condition decreased the reliability of the humanitarian logistics practices of the organization	☐	☐	☐	☐	☐
2	The existing unsuitable topography decreased the responsiveness of the humanitarian logistics practices of the organization	☐	☐	☐	☐	☐
3	High level of temperature in desert areas decreased the Agility of the humanitarian logistics practices of the organization	☐	☐	☐	☐	☐
4	Rainy seasons in the operation area Increase the cost of the humanitarian logistics practices of the organization	☐	☐	☐	☐	☐
5	Other environmental situational factors decreased the asset management of the humanitarian logistics practices of the organization	☐	☐	☐	☐	☐
B	***Infrastructural situational factors can affect the HLP of SCE?***	**1**	**2**	**3**	**4**	**5**
1	The Existing of degraded infrastructure decreased Responsiveness of the humanitarian logistics practices of the organization	☐	☐	☐	☐	☒
2	Lack of concerns on logistics infrastructure like road network, railway, airports decreased the Reliability of the humanitarian logistics practices of the organization	☐	☐	☐	☐	☐
3	Unavailability of adequate electric power supply increase the cost of the humanitarian logistics practices	☐	☐	☐	☐	☐

	of the organization					
4	Unavailability of enough Warehouses decreased the reliability of the humanitarian logistics practices of the organization	☐	☐	☐	☐	☐
5	Existing of Poor Communications lines and infrastructures in disaster-prone areas decreased the asset management of the humanitarian logistics practices of the organization	☐	☐	☐	☐	☐
C	**Governmental situational factors *can affect the HLP of SCE?***	**1**	**2**	**3**	**4**	**5**
1	Lack of suitable Government policy regarding NGO decreased the reliability of the humanitarian logistics practices of the organization	☐	☐	☐	☐	☐
2	The national regulations towards relief organizations decreased the responsiveness of the humanitarian logistics practices of the organization.	☐	☐	☐	☐	☐
3	The lack of efficiency of different government office such as customs, municipality, and transport offices and so on increased the cost of the humanitarian logistics practices of the organization.	☐	☐	☐	☐	☐
4	The corrupted practice of government offices in the country decreased the asset management of the humanitarian logistics practices of the organization.	☐	☐	☐	☐	☐
5	Lack of government willingness to work with the organization decreased agility of the humanitarian logistics practices of the organization.	☐	☐	☐	☐	☐
D	***Socio-economic factors can affect the HLP of SCE?***	**1**	**2**	**3**	**4**	**5**
1	Uncertainty in demand and supply in the country decreased reliability of the humanitarian logistics practices of the organization	☐	☐	☐	☐	☐

2	Uncompetitive of market behavior in the local economy decreased the responsiveness of the humanitarian logistics practices of the organization	☐	☐	☐	☐	☐
3	The absences of competent local suppliers for relief items decreased the Performance of agility of the humanitarian logistics practices of the organization	☐	☐	☐	☐	☐
4	Absences of financial donors increase cost of the humanitarian logistics practices of the organization	☐	☐	☐	☐	☐
5	The literacy level of the society of the host country decreased the asset management of the humanitarian logistics practices of the organization	☐	☐	☐	☐	☐
E	***Lack of donor funding can affect the HLP of SCE?***	**1**	**2**	**3**	**4**	**5**
1	Lack of donor funding decreased the responsiveness of the humanitarian logistics practices of the organization	☐	☐	☐	☐	☐
2	Lack of donor funding decreased the flexibility of the humanitarian logistics practices of the organization	☐	☐	☐	☐	☐
3	Lack of donor funding increased the cost of the humanitarian logistics practices of the organization	☐	☐	☐	☐	☐
4	Lack of donor funding decreased the reliability of the humanitarian logistics practices of the organization	☐	☐	☐	☐	☐
5	Lack of donor funding decreased the Asset management capacity of the humanitarian logistics practices of the organization	☐	☐	☐	☐	☐
F	***Lack of well trained and experienced can affect the HLP of SCE?***	**1**	**2**	**3**	**4**	**5**
1	Lack of experience and Familiarity of the staffs decreased the reliability of the humanitarian logistics practices of the organization	☐	☐	☐	☐	☐
2	Lack of Loyalty of personals for their tasks increase the cost of the humanitarian logistics practices of the organization	☐	☐	☐	☐	☐

3	Absence of Competency for the given task decreased the responsiveness of the humanitarian logistics practices of the organization	☐	☐	☐	☐	☐
4	Lack of interest of the personals to update themselves to high performance decreased the agility of the humanitarian logistics practices of the organization	☐	☐	☐	☐	☐
5	Absence of training for the logistics staffs decreased the asset management of the humanitarian logistics practices of the organization	☐	☐	☐	☐	☐
G	***Inefficient use of resources can affect the HLP of SCE?***	**1**	**2**	**3**	**4**	**5**
1	Inefficient use of daily operational resources increase the cost of the humanitarian logistics practices of the organization	☐	☐	☐	☐	☐
2	Lack of Implementation of resource management tools decreased the asset management of the humanitarian logistics practices of the organization	☐	☐	☐	☐	☐
3	Lack of How to manage resource training for employees decreased the reliability of the humanitarian logistics practices of the organization	☐	☐	☐	☐	☐
4	Duplication of effort for the same output decreased the responsiveness of the humanitarian logistics practices of the organization	☐	☐	☐	☐	☐
5	Frequent Non-proactive activities decreased the agility of the humanitarian logistics practices of the organization	☐	☐	☐	☐	☐

If any comment you welcome:

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Many Thanks!