



Assessment of the Humanitarian Supply Chain Management of Islamic Relief, Ethiopia

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**“ASSESSMENT OF THE HUMANITARIAN SUPPLY CHAIN
MANAGEMENT OF ISLAMIC RELIEF, ETHIOPIA”**

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Declaration

I, Rehima Aliyu declare that this thesis entitled “**Assessment of the Humanitarian Supply Chain Management of Islamic Relief, Ethiopia**” is an outcome of my own work and that all sources of materials used for the study have been duly acknowledged. I have produced it independently except for the guidance, feedback and suggestion of the research advisor.

This study has not been submitted for any degree in this School or any other Universities. It is offered for the partial fulfillment of the requirements for the award of Degree of Masters in **Assessment of the Humanitarian Supply Chain Management of Islamic Relief, Ethiopia.**

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Herewith I state that Rehima Aliyu has carried out this thesis paper on the topic entitled **Assessment of the Humanitarian Supply Chain Management of Islamic Relief, Ethiopia** under my supervision. This work is original in nature and has not been presented for a degree in any university and it is sufficient for submission for the partial fulfillment for the award of MA degree in Logistics and Supply Chain Management.

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The Researcher

List of Acronyms

SC	Supply Chain
HSC	Humanitarian Supply Chain
HSCM	Humanitarian Supply Chain Management
HRSC	Humanitarian Relief Supply Chain
HSCP	Humanitarian Supply Chain Performance
HR	Humanitarian Relief
IRE	Islamic Relief Ethiopia
NGOs	Non-Governmental Organizations

ABSTRACT

The study was titled "Assessment of Islamic Relief's Ethiopia Humanitarian Supply Chain Management." The precise objective was based on four characteristics of performance: responsiveness, flexibility, collaboration, and cost effectiveness. To examine the humanitarian supply chain practice, performance and identify the primary elements affecting the humanitarian supply chain per Giulia S. et al. (1998). The research methodology was used in this study, quantitative technique, descriptive and explanatory research design. As a result of the limited size of the target population, a census survey was employed to develop the population of the study in question. According to the 2020 HR data source, there are 134 employees. From there, 114 questionnaires were distributed to Islamic Relief Ethiopia staff ranging from the assistance level to the level of country director. Due to the understanding level of the questioner's, 20 cleaners, messengers, and guards were eliminated from the study. As a consequence, 100 functional questionnaires were gathered, with an 88% (percent) response rate. Descriptive data analysis with SPSS was used to analyze the data collected from the questionnaire. The investigation found that Islamic Relief Ethiopia performs effectively in the areas of assessment and planning, procurement, warehousing, transportation, distribution, and monitoring and evaluation of humanitarian supply chains. However, the study found that five significant challenges were identified as the most affecting challenges in the humanitarian supply chain, including a lack of a proper procurement plan, contract management, and a lack of sufficient warehouse during an emergency, insufficient resources, and low rate cost performance dimension indicators. As a result, the organization should try to address these significant humanitarian supply chain issues in order to enhance the overall humanitarian supply chain operation, save lives, and be transparent in order to receive more funds from donors.

Key Words: Supply chain, Humanitarian supply chain, Responsiveness, Cooperativeness, Flexibility, Cost and humanitarian supply chain Performance.

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CHAPTER ONE

1. INTRODUCTION

This research is set to assess the humanitarian sector supply chain management by taking the case of Islamic relief, Ethiopia Office. The introduction part of this thesis presents the background of the study, statement of the problem, research question(s), research objectives, and significance of the study, scope of the study, limitation of the study, definition of terms, and organization of the study.

1.1. Background of the Study

In private business, supply chain management usually refers to the flow of goods and services. The sole distinction between supply chains in the business and humanitarian sectors, according to Altay (2020), is what he refers to as the objective function. He explains that the goal function in the business world is to reduce costs. “It could also be to maximize revenue. In the humanitarian sector, the goal of supply chains is to minimize human suffering or minimize response time.

During man made or natural disaster, humanitarian groups sometimes experience difficulties obtaining and transporting various goods such as medicine, medical supplies, food, machinery and clothing, from point of origin to disaster affected area. On the other hand, if the supply is not delivered as quickly and efficiently as possible, the humanitarian response will not be effective, by the time supply arrive people might have died. As a result, humanitarian organization assistance must be provided fast and efficiently in order to maximize the impacted population’s chances of survival. The continual improvements of the humanitarian supply chain competence will have a major effect on the performance of relief organizations and the performance of the organization is directly linked to alleviating the suffering of people. Hence, humanitarian agencies must work hard to fulfill their specific mandates and ensure that beneficiary needs with effectiveness and efficiency in supplying goods necessary for survival which are essential in the event of disasters. To become more efficient in their operation the strong supply chain is crucial. This Strong supply chain management in the humanitarian sector will ensure that disaster-affected people's needs are addressed with effectiveness and efficiency in supplying goods necessary for survival and it will help the humanitarian organization build a strong reputation in the sector and hence attract more donors. Besides this, it helps the humanitarian organization to be seen as an accountable and transparent organization.

1.2. Background of the Organization

Islamic Relief Ethiopia

Islamic Relief Ethiopia is an international aid organization mandated to provide humanitarian relief services and intervenes in development programs. Other than Ethiopia, the organization provides humanitarian relief services and delivers development programs in over 40 countries worldwide, serving communities in need regardless of race, political affiliation, gender, or belief.

Islamic Relief Worldwide is an independent humanitarian and development organization established in Birmingham, the UK in 1984. It has a presence in over 40 countries around the globe. IRW has been responding to humanitarian needs and fighting poverty over the last 40 years. Similarly, it has been operating in Ethiopia since 2004 in Addis Ababa City Administration three sub cities that include Addis Ketema, Kolfe Keranyo, Lideta), Oromia (Miesso woreda), Somali region state (Bare, Hargelle, Dekasuftu, Elkere, Jigjiga, Miesso woredas), and Afar National Regional States (Ewa and Awra woreda).

The organization vision is “A caring world where the basic requirements of people in need are fulfilled”. Islamic Relief globally knows by the name Islamic Relief World Wide while the office in Ethiopia is known as Islamic Relief Ethiopia. The organization is easiest explained by quoting its mission statement:

“Inspired by Islamic values, Islamic Relief Worldwide will be a worldwide role model in:-

- (a) Assisting individuals, groups and institutions to develop safe and caring communities,
- (b) Helping the poor and those who are suffering to enjoy self-reliance, with dignity,
- (c) Making it possible for those who wish to support others to reach those in need of their help. To achieve this, the organization will raise funds, build partnerships and communicate key messages as we work to mitigate the effect of disasters, prepare for their occurrence and respond by providing relief and rehabilitation, promote sustainable development through programs in education, health and nutrition, water and sanitation, and income generation, Advocate on behalf of the poor and suffering communities”.

According to Islamic relief annual report of the office year 2018 and 2019, Islamic Relief’s key areas of work in Ethiopia are humanitarian relief and disaster preparedness, development programs that improve access to sustainable livelihoods, healthcare, education, distribution of food and non-food items, water, hygiene, and sanitation, and advocating on behalf of those in need.

Hence, to fulfill these objectives are achieved through a variety of programmatic actions by providing commodities and also service to the project offices for the use of their respective program operation and also for the final beneficiaries use the organization to carry out the work through its units that have the responsibility of managing SC activities.

1.3. Statement of the Problem

Assessing the supply chain performance humanitarian sector is most important for developing and implementing a successful humanitarian supply chain strategy. According to Tatham (2009), providing assistance to those who are the most exposed people is the core of humanitarian supply. Humanitarian sector supply chain operations are complex that involve several stakeholders including donors, government, aid beneficiaries, other similar actors and individuals, NGOs, and their employees and volunteers (Shiffing and Piecyk, 2014). While aid beneficiaries (victims of the disasters) need immediate life-saving help, the donors are interested in knowing how the supply chain is processed and how their support reached the beneficiaries (Olotoruba and Gray, 2009). On the other hand, the government controls how the organization is processed, who were engaged in the process and why a particular supplier is selected over the other. Beneficiaries on the other hand may indicate their dislike or may not accept certain goods and services. The organization needs to balance all these factors in its supply chain management.

Humanitarian Supply Chain Management has attracted the interest of various scholars, including Ergun et al. (2009), who conducted a study on the subject. The analysis found that the majority of the issues in the humanitarian supply chain are related to material demand and supply. Andreas Wieland and Carl Marcus Wallenburg (2021) conducted a research on SC risks and the connection among risk management practices and strategies to performance, Though the research study were mainly concentrated on SC risk management over the supply chain approaches agility and leanness. Walton (2011), investigated the elements that impact speed perceptions in aid logistics practice and recognized a link between decision-making and perceptions of speed. Whereas, According to Kunz and Reiner (2011) definition aid supply chain elements or factors as socio-economic situational factors, environmental situational factors, funding status, government situational factors, organizational factors, and supply chain decision. These studies have revealed a research gap in the general or practical management of humanitarian supply chains by humanitarian organizations, which must be filled in order to make sure the humanitarian supply chain are accomplished and improved based on real-world or practical evidence.

In connection with this, based on Islamic relief annual review meeting 2018 up to 2020 and pilot interview made with concerned staffs as a preliminary assessment. The researcher discovered that the organization is facing difficulties of materials procurement and delivery of materials on time. This is because most IRE humanitarian response projects are short-term projects, which creates a problem of overlap of many responses within a short period of time, according to three years of project statistics from Islamic Relief, from 2018 to 2020, IRE has conducted a total of 110 projects with a total fund of ETB 765,739,514.00. There were 74 emergency humanitarian response programs among these projects. The shortest duration is six months, and the largest period is up to twelve months. Whereas only 36 projects were in the development stage, the other issue is budget compatibility, which a problem is caused by a lack of cooperation, lack of consultation with the logistics and procurement teams during proposal development, lack of an updated price index data base, and a lack of regular market surveys. Islamic Relief Ethiopia also deals with the lack of a comprehensive procurement plan, which causes the organization to procure unanticipated requests at random. Procurement and delivery of commodities to beneficiaries are delayed due poor country office and field office cooperation and limited field office level threshold capacity, are among the key determinants and causes of major gaps on the organization HSCM performance.

To the best of the researcher's knowledge, no previous research on the HSC's management performance in Islamic Relief Ethiopia has been done. Other international organization, on the other hand, have done studies on the performance of humanitarian supply chains management. The majority of the researchers' research focused on factors influencing humanitarian supply chain perspectives rather than the fundamental activities of the humanitarian supply chain. As a result, this study on Islamic Relief Ethiopia, a humanitarian organization, will be aimed at evaluating the major supply chain management related to assessment and planning, procurement, warehouse management, transportation and distribution, monitoring and evaluation in light of the increasing disaster, and increasing the speed and timeliness respond, the responsiveness of the supply chain services, to strengthen unit and project teamwork, to have a smooth and effective communication with field offices.

This requires a clear understanding and strong supply chain management, the understanding is reflected by the organization's policies and procedures, its flexibility, and the staffing and their capacity and professionalism. As a result, the research formulates the following research questions to be solved in order to address the basic concerns:

1.4. Research Questions

The basic research questions to be addressed in the study are:

- How responsive is the humanitarian supply chain practice of Islamic Relief Ethiopia?
- How flexible is the humanitarian supply chain practice of Islamic Relief Ethiopia?
- How cost effective is the humanitarian supply chain practice of Islamic Relief Ethiopia?
- What are the major factors affecting the humanitarian supply chain performance of Islamic Relief Ethiopia?
- What is the level of cooperation practice of Islamic relief Ethiopia with stakeholders?
- How humanitarian supply chain management is being practices in IRE?

1.5. General objective

The general objective of the study is to assess the humanitarian supply chain management of the Islamic Relief, Ethiopia Office.

1.6. Specific Objectives:

1. To measure the level of responsiveness of humanitarian supply chain practice of Islamic Relief Ethiopia.
2. To measure flexibility of the humanitarian supply chain management practice of Islamic relief Ethiopia?
3. To measure the cost effectiveness of the supply chain management practice of Islamic relief Ethiopia?
4. To identify the major factors affecting the humanitarian supply chain performance of Islamic Relief Ethiopia?
5. What is the level of cooperation practice of Islamic relief Ethiopia with stakeholders?
6. To assess the humanitarian supply chain management practices of Islamic relief Ethiopia?

1.7. Limitation of the study

The study was done on the Assessment of the humanitarian supply chain management of Islamic relief Ethiopia. This study considers exploring Islamic Relief's staff point of view. Other stakeholders like, Beneficiaries, Donors, Government, and other similar actors' points of view are not considered in this study. Aside from that, the study's limitations include a lack of obtaining the field office respondents due to network problem.

1.8. Significance of the Study

This research is set to do an in-depth study by taking the Islamic Relief case. Based on this, the study used for the improvement of humanitarian supply chain management for IRE and other developing humanitarian organization. The research will help the organization's management team better understand the various humanitarian supply chain difficulties and how to address them. Furthermore, the study will benefit or serve as a foundation for practitioners, policymakers, and potential researchers for future studies on humanitarian supply chain management, and it will add to the knowledge base humanitarian supply chain management.

1.9. Scope of the Study

The geographic scope of this study is Head office staffs located in in Addis Ababa administration office and field office staff Oromia, Somali, and Afar National Regional States. The conceptual scope of this study, considering the need and situation of the case company, focused on humanitarian supply chain major practice; assessment & planning, procurement, warehouse, transport and distribution and monitoring and evaluation rather than go through details in the term of humanitarian supply chain activity. This is due to the fact that it was important to conduct a realistic assessment based on the actual organizations practice on the ground during the pilot dialogue with Islamic relief Ethiopia workers. This study does not consider the remaining SC practices. Apart from that, it is planned to provide insight in to the research topic and aims outlined above, and it is not meant to cover all concerns connected to the humanitarian supply chain operated by international non- governmental organization (NGO) in Ethiopia. Furthermore, the temporal scope of the study will be delimited to the research period of year 2020.

1.10. Organization of the study

The study prepared in to five parts. Chapter one address the background of the study, the background of the case company, statement of the problem, basic research questions, objectives of the study, definition of terms, the significance of the study, and delimitation/scope of the study. The second chapter will give a review of the literature related to my research subjects. It also has an introduction, a theoretical review and an empirical review. The research methodology which guides the research study will be presented in chapter three. In chapter four, the collected data from IR analyzed and findings will be presented. The final chapter will include a summary of the findings, conclusions, research limitations, and suggestions.

1.11. Definition of terms

Supply Chain: A group of interconnected participating companies that add value to a stream of transformed inputs from their source of origin to the end products or services that are demanded by the designated end consumers. (Dewei Lu, 2011)

Supply chain management: is simply and ultimately business management, whatever it may be in its specific context, as perceived and enacted through the lens of the relevant supply chain. Dewei Lu (2011)

Humanitarian Relief: Disaster with a sudden offset and onset produce extensive disruptions, causing in large scale human displacement and the collapse of socioeconomic systems in the afflicted countries (Dasaklis and Pappis 2018).

Humanitarian Relief Supply Chain: The humanitarian supply chain is the network created the flow of goods, services, supplies, information and cash among donors, beneficiaries, suppliers, and other humanitarian aid units in order to provide physical assistance to beneficiaries. (Mentzer et al, 2001).

Supply Chain performances: Across humanitarian supply chain members, supply chain performance is defined as the ability of the entire chain to fulfilled end – customer needs by plan and manage all activities related to information, material and financial flows, as well as collaboration and coordination with supply chain partners. Daniel Willner and Stavros Zafeiridis (Daniel Willner and Stavros Zafeiridis, 2013).

Performance measurement: defined the performance measurement in an extended view: through four performances dimensions; responsiveness, flexibility, collaboration and cost performance. The system can be used as a basis to measure performance of humanitarian organizations in terms of response time, service quality, and technical and cost efficiency. (Giulia S. et al. 1998).

CHAPTER TWO

2. REVIEW OF THE RELATED LITERATURE

This chapter examines the current associated literature review on various scholars about humanitarian supply chain practices and supply chain management performance and humanitarian supply chain challenges, as well as the impact they have on operations. Furthermore, the study objective is to collect and analyze data in order to assess Islamic Relief Ethiopia humanitarian supply chain performance.

2.1 THEORETICAL LITERATURE REVIEW

2.1.1 Humanitarian Relief Organization

Disasters produce extensive disruptions, causing in enormous population displacements and the collapse of afflicted countries' socio-economic system. (Dasaklis and Papis 2018). In a time of disruption, people require all the assistance they can receive. In this instance, humanitarian groups ensure that these people's needs are satisfied as soon as possible. According to Van Wassenove (2017), Humanitarian groups likewise follow the values of humanity, neutrality, and impartiality, which allows them to help everyone in need anywhere despite their ethnic, religious, or political affiliation.

2.1.2 Actors in Humanitarian supply chain

Humanitarian help is provided by a number of different actors. The humanitarian procurement\supply process has various stakeholders, among whom donors, NGOs, local bodies, and aid recipients are the most important (John et al. 2012)Tomasini and Van Wassenhove (2009). And also suggest that disasters test the capacity of different actors (e.g. government agencies, military units, and humanitarian organizations) to work together. Hence, no only one actor in humanitarian supply chain network has sufficient resources to respond the efficiently to any disaster.



Figure 1: Humanitarian actors in the supply network (source: Kovács and Spens, 2007)

Donors play an essential role in the humanitarian supply chain since they offer financing for large relief efforts. Donors demand frequently that their funds go toward direct commodities and food, or even a specific disaster site, rather than on critical but indirect services like information system, staff training, and disaster preparedness. As a result, HSC management must manage value to donors and other stakeholders in addition to delivering commodities, materials, or information to the point of consumption in order to alleviate the suffering of vulnerable people. Donors might designate cash for a certain purpose or leave it up to the aid group to decide. Specific commodities or services may also be provided by donors. (Fritz Institute 2012).

2.1.3 Humanitarian Supply Chain

A supply chain is a network of interconnected enterprises that add value to a stream of transformed inputs from their point of origin to the final products or services requested by the specified end users. (Dewei Lu, 2011). The supply chain can have different degrees of complexity related to the numbers of members and the variety of business processes, but always there is a central organization. The central organization can manage the overall supply chain or not and even the supply chain is not managed, the supply chain - as a phenomenon of business -still exists (Mentzer et al., 2001). Over time several organizations involved in this supply chains have increased radically, to provide an advance humanitarian response through the provisions of goods and services more targeted to the needs of those affected by the event. Many organizations involved include aid agencies, NGOs, governments, military donor's supplier's logistic service providers, and media. The humanitarian supply chain is the network created through the flow of services, supplies, information, and finances between donors, beneficiaries, suppliers, and different units of humanitarian organizations, in order to deliver emergency aid to beneficiaries (Mentzer et al., 2001).

2.1.4 Humanitarian supply Chain Management

The HSC management requires managing several interrelated factors that are important for the success of the humanitarian operation system such as commodities, information, manpower, political authorities, available infrastructure & etc. to reduce the influence of a disaster on those who are affected. Torre et al. (2011). Mbohwa (2006) claims that humanitarian organizations with an effective supply chain management system benefit from transparency throughout the procurement process, which is fair and accurately documented.

Humanitarian supply chain management aids to develop solid and dependable business relationships with suppliers, as well as accountability to donors who may have certain criteria that must be followed while using the funds they have contributed. Furthermore, humanitarian supply chain management must work together, collaborate, and manage catastrophe with in the supply chain to ensure the relief organization acquire from the benefits of having supply chain system in place, as well as to make sure that, even in times of emergency, they get value for money when purchasing commodities and services.

2.1.5 Humanitarian Supply chain management practice to be followed to sustain the systematic routes for supply chain during the time of emergency:

Assessment and planning

Planning and assessment are go hand in hand. Assessments allow for a better understand of the impact of a disaster on the environment and how that impact affects the population and how the humanitarian supply services will be given. The finding of an assessments is crucial in enabling adequate decision-making, planning, and organization for effective disaster response and also Planning is largely a decision-making process that involves selecting among alternatives. (Laxhminarayan Das, 2020)

Procurement

Procurement is a critical operation in the supply chain, according to Laxhminarayan Das (2020). Depending on how it is managed, it can have a substantial impact on the overall success of an emergency response. In humanitarian supply chains, procurement represents a very large proportion of the total spending and should be managed effectively to achieve optimum value.

Planning in the procurement process is one activity that has been noted as a challenging area for most procurement entities. The Country Procurement Assessment Report (CPAR) of Tanzania highlighted some weaknesses in the operationalization of the current regulations, among them was poor or the lack of procurement planning in most procurement entities (World Bank, 2003).

The three important principles of humanitarian logistics procurement are: Transparency, Accountability, and efficiency and cost effectiveness. The principles and their importance stem from three key facts: transparency contributes to the establishment of a sound and reliable business relations with suppliers, the efficiency and cost-effectiveness have an immediate effect on operations and ultimately on beneficiaries the procurement function must guard and clearly

understanding the market, building partnership with suppliers, mitigating risk, fulfilled the needs within the expected time, and monitoring performance continually to enhance service provision, hence the need for an organization to have clearly stated policies that are well understood (Laxhminarayan Das, January 2016).

Warehouse

A simple description of a warehouse, according to Laxhminarayan Das (2020), is “a planned place for the storage and handling of commodities and material.” Warehouses, in general, serve as hubs for product and information exchange between suppliers and recipients. Warehouses, on the other hand, play a wide range of roles and have a wide range of characteristics in humanitarian supply chains.

Transportation and Distribution

According to Laxhminarayan Das (2020) Transport is defined as “the activities involved in moving supplies from the point of origin to internal customers or beneficiaries.” The goal of transportation is to physically carry supplies to their destination in a dependable and without any damage, also just in time, efficiently and in cost effective way.

The distribution chain represents the flow of goods or services from the point of purchase to the final user/consumer. This could entail a series of intermediaries passing the product down the chain within the organization before it finally reaches the consumer or end user.

Distribution is evaluated from three angles in the humanitarian context:

- Movement of goods from the point of purchase to the point of final use. This is common in sudden onset emergencies where goods are often taken straight to the end user.
- Movement of goods from one location within the organization to another location within the same organization to use as in the case of preparedness for an anticipated emergency.
- The point at which an organization's commodities are handed over to beneficiaries or a partner organization.

Monitoring and Evaluation

Monitoring and evaluation, according to Laxhminarayan Das (2020), can be defined as follows: Monitoring to review on a continuous basis the degree to which activity is completed and if targets are being met. This allows corrective actions to be taken. Evaluation to analyze progress towards meeting established objectives and goals. It is done on an ad hoc, monthly, quarterly, or yearly basis. Evaluation gives information on whether or not objectives were fulfilled, as well as the reasons for success or failure. It should also provide direction for future plans. Monitoring and evaluation are important aspects of management because they serve as a link between planning and execution. While monitoring focuses on the activities and outputs, evaluation focuses on the outcome and goals. Monitoring is initiated at the beginning of emergency response and built into the design, assessment, and planning phases of the aspect. It focuses on inputs and outputs and basically tracks and assesses implementation of the program, project, or emergency response. It is the continuous process of gathering program information to measure against preset key performance indicators (KPIs), benchmarks, or previously baselined indicators that are aligned to the goals and objectives of the program. Evaluation, like monitoring, is a continuous process. The evaluation of the output quality should be undertaken in such a way that shortcomings can be recognized and corrected. Evaluation should also feed into the planning process on a regular basis so that the planned method of the intervention can be modified to take into account the realities and conditions on the ground. Evaluation provides a tool for management to ensure that focus is maintained. In general, together monitoring and evaluation provide the basis for performance management

2.1.6 Humanitarian Supply Chain Challenges

The humanitarian supply chain faced many challenges from the day it emerged in the world, and the challenge still remains, and it has been mentioned in several articles and researches. Challenges faced by humanitarian supply chain vary from one organization to another, one organization's challenges may not be the challenges of another organization. Due to this complexity, the key types of humanitarian supply chain challenges covered in this study report were internal and external challenges. Each point has its own set of sub categories.

Due to this complexity, the major categories of the humanitarian supply chain challenges enclosed in this research paper dealt with internal challenges, and external challenges. Each point contains list of sub-categories.

2.1.6.1 Internal Challenges

This section contains the challenges that come from within the organization and directly affect the humanitarian supply chain. Internal policy and procedure must include a national or regional plan based on local SC support, infrastructure weaknesses and government emergency response capabilities. Although it is impossible to forecast how crises will play out, having a strategy in place is beneficial. Implementation can be less difficult if good planning and realistic expectations are in place. (J. Balland *et. al*, 2013). Employee turnover, corruption, a lack of a contingency plan, a poor organizational structure and systems, a lack of employee accountability, internal budget constraints, excessive inventory, a lack of top management support and also the complexity of performance measurement by itself are among the internal policy and procedure factors.

2.1.6.2 External Challenges

This section contains the issues that arise from outside the organization and directly affect the humanitarian supply chain. Government and donor variables are included in the external rules and regulations. Government considerations such as the type of regime, national legislation governing relief groups, the state's efficiency and the level of corruption influence organizations' operational decision-making and their ability to carry out humanitarian mission. Similarly, in the aftermath of a disaster, a government that is suspicious of aid organizations' activity, for example, will prohibit the entry of workers and commodities, whereas a cooperative government will welcome relief organizations on its territory (Seekins, 2009; McLachlin and Larson, 2011; Van Wassenhove, 2006). Were as donor's factors, such as whether the donation is required, trusts and foundations, conditions are given by doneors, meeting the budget and dependency on contribution, the donors may control how their funds are to be used (Mc Lachlin and Larson, 2011; Van Wassenhove, 2006). The material supplied donated may aren't exactly what's needed at the time. The donors may have a say in how the funds are spent. Situation may emerge in which particular supplies are required but the funds cannot be used to procure these supplies therefore this is a big challenge in SC operation. (Herzer & Nunnenkamp 2012). Furthermore, the security situation in a country is also influenced by the government (or lack thereof) and has a significant impact on the humanitarian logistical response's effectiveness (Long and Wood, 1995).

2.1.7 Humanitarian supply chain performance measurement

Performance measurement, according to Kovács and Spens (2007), is the process of quantifying the effectiveness and efficiency of an action. Assessing the actual performance in HSC is a key to identify whether an organization is on the right track with regard to attaining HSC objectives. According to, (Beamon and Balcik, 2008). On the other hand performance management in humanitarian supply chains is particularly problematic due to the intangibility of services, the mission's immeasurability, unpredictable outcomes and the diversity of stakeholder's interests and standard. The system can be used to evaluate the success of aid organization in terms of reaction time, quality service and technical and cost efficiency. Furthermore, effective performance measurement tools can help humanitarian relief SC to make better decisions, improve efficiency and effectiveness, and enhance the transparency and accountability on the crisis response. (Kovács and Spens 2007, Kovács and Spens 2007).

The variety and level of performance measurements is highly dependent on the organization's purpose or the characteristics of each particular unit. Many researchers and practitioners have focused on the topic of organizational performance measurements and metrics. According to, Jane K et al., (2013) delays in supply can cost lives in humanitarian efforts. Due to this, supply chain efficiency and reliability are critical success factors because they assure the smooth flow of goods and services. In addition to this, international emergency response must be timely, effective, appropriate, and well organized in order to save lives and alleviate suffering, and they suggested that the performance of the HSC be measured in four aspects: Delivery, Reliability, flexibility and responsiveness. Similarly, Magadi Wanner Brian and Dr. Noor Shale (2017) employed Reliability, Flexibility, and Responsiveness as a performance assessment in their study on Role of humanitarian logistics on SC performance in anon-for-profit, organizations in Kenya. Furthermore, measuring effectiveness in humanitarian supply chains has become crucial for humanitarian relief groups as a whole. Effective performance measurement systems, according to Beamon and Balcik (2008), it can help humanitarian relief supply chains make better decisions, improve efficiency and effectiveness, and boost accountability and transparency.

As a result, the researcher will use the indicators described by Giulia S. et al. (1998) to define performance measurement in a broader sense: Four performance dimensions are identified; Responsiveness, Flexibility, Cooperation, and Cost performance, and a number of key performance metrics are listed respectively so, let's take a closer look at what they mean: -

- A. Responsiveness; the best critical metric of success in an HSC is time. Relief organizations assessment, supplier location, procurement, delivery strategy, and transportation choice are all elements that can affect relief chain response time.
- B. Flexibility: In HSC, the ability to adjust in response to external circumstances (e.g., the number and different typologies of goods to supply, the time it takes to deliver goods, etc.) as well as the consistency of delivery date and assumes quality play a critical role.
- C. Collaboration: In the HSC, cooperation and data interchange amongst parties involved in a disaster are required in order to respond to the emergency successfully. Furthermore, standardization methods could hasten and improve the resolution of the disaster.
- D. Cost Performance: although costs are not the most predominant resource parameter for HSC. Cost evaluation and control are difficult due to the unpredictability of demand. This type of performance matrix can be evaluated only after a disaster has occurred and restoration of normalcy.

2.2 EMPIRICAL STUDY

This section of the paper contains a review of many empirical studies that have been conducted on evaluating humanitarian aid organizations' SC performance. From this, Mamoon Alani June, (2020) did a research on investigative to know the most impacting challenges on the HSC in Iraq. The study used two methods of research, qualitative and quantitative, that included an in-depth interview with managers to know the overall challenges, and the data was collected through a questionnaire and a video call in the in-depth interview method, and use of the internet to deliver the questionnaire to the targeted authorities. With the sample of selected 36 people from various Iraq organizations. The study finding was that, six significant challenges were identified and considered the most affecting challenges in the humanitarian supply chain, including Accumulation of urgent cases due to lack of planning by programs for in connection with procurement plan, Loss of vendor due to payment delay, Absence of cooperation between organizations, the weak banking system is a significant challenge, difficulty of dealing with suppliers during the payment process, lack of specialized suppliers.

Jane Kiende Kinyua, (2013) investigated the elements that influence the performance of the HSC in Kenya. A descriptive research design was used in this study. and for this 40 respondents selected out of the total population of 70 humanitarian organizations through systematic sampling. The variables that have been used to measure the humanitarian supply chain were organizational factors, socio-economic factors, environmental factors, supply chain Decisions, funding status, and government situational factors. The performance measurement were done by using four variables of supply chain that are responsive, meets deadlines, flexible, and reliable. The study finding shows, by means of cross-tabulation and chi square discovered that there is limitation in financial, and challenge of bureaucracy of government, infrastructure, environmental and also delay of procurement indicates a statistically significant link with SC performance.

Performance in the humanitarian supply chain is measured in terms of efficiency according to Beamon and Balcik (2008), and efficiency is dependent by both financial and non-financial factors. The financial factors are resources, deviation from project budget and the non-financial factors are human resource, volunteer hours, actual project time vs. planned, the number of people participated, the number of people served. The study performance measurement analysis was developed through extensions on an existing performance measurement framework. This research shows a comparison of performance measurement in the humanitarian relief chain to commercial supply chain, new performance metrics, and performance measurement framework for the relief chain as result of this research. Facts concerning the relief chain system were acquired using on site and off site interviews with professionals from world vision international organization.

2.3 IDENTIFIED OF THE STUDY\LITERATURE GAP

The existing literature has primarily focused on humanitarian supply chain management challenges faced by humanitarian organizations in various countries, as well as performance measurement and matrices, with many researchers and practitioners focusing on these issues without clearly providing adequate solutions and without acknowledging the major support activities in humanitarian supply chain main activities tasks, including Assessment and Planning, Procurement, Warehousing, Transport and distribution of goods and services as well as other operation supports that can play to enhance the performance of humanitarian organizations. Even in Ethiopia, studies have focused on the challenges and humanitarian supply chain management practices that are being implemented by humanitarian organizations without focusing on humanitarian main supportive activities areas that help in achieving humanitarian supply chain performance.

According to Tomasini and Van Wassenhove (2009), logistics expenditures in the form of procurement and transportation account for almost 80% of the costs for relief efforts. The rising incidence of natural catastrophes, as well as the cause of humanitarian disasters, places burden on humanitarian aid groups to deliver suitable and cost-effective means of humanitarian help (Thomas and Kopczak, 2005; Van Wassenhove, 2006; Oloruntoba and Gray, 2006; Kovács and Spens, 2007). This, leaves a substantial study gap in Ethiopian non-governmental organizations' humanitarian supply chain performance.

CHAPTER THREE

3. RESEARCH METHODOLOGY

This part describes the methodologies that will be engaged in carrying out the current research including description of study Area, research approach, research design, population and sample, Data sources and types, data collection procedures, ethical consideration, and data analysis techniques.

3.1. Description of the Study Area

Islamic Relief Worldwide (IRW) is an independent humanitarian and development organization established in Birmingham, the UK in 1984. It has a presence in over 40 countries around the globe. IRW has been responding to humanitarian needs and fighting poverty over the last 40 years. Similarly, it has been operating in Ethiopia since 2004 in Addis Ababa City, Oromia, Somali, and Afar National Regional States. In relation to this, the study area is located in Addis Ababa administration office and field offices Oromia, Somali, and Afar National Regional States. Key areas of work in Ethiopia are humanitarian relief and disaster preparedness, development programs that improve access to sustainable livelihoods, healthcare, education, distribution of food and non-food items, water, hygiene, and sanitation, and advocating on behalf of those in need.

3.2. Research Approach

According to Creswell (2013), there are three types of the research approach. These are qualitative, quantitative, and mixed research. In this study the researcher employing quantitative research approaches. This is due to the research mainly concentrated on the data collected using a close-ended questionnaire and answers from respondents were composed using a five point Likert scale to fulfilled the mentioned objectives and to give condensed pictures of the study then analyzed by using statistical software SPSS.

3.3. Research Design

The researcher used a descriptive research designs, to assess humanitarian supply chain using frequencies, mean and standard deviation. The descriptive method is selected since it describes the study systematically, factually, and accurately (Suryabrata, 2003). This design also is preferred because it seeks to obtain information that describes existing phenomena by asking individuals about their perceptions, attitude, and behavior or values (Babbie, 2002). The design provides an in-depth and comprehensive inquiry required to be conducted to have a description of the subject

under study. After the information was composed with the help of the designed questionnaire the outcome is organized by descriptive texts, frequency tables and figures.

3.4. Population and Sample

Due to the small size of the target population of the study, a sampling technique was not applied for this study. A Census study was used to develop the population of the research under discussion. The rationale behind using census was that the researcher thinks the sizes of the population of a given organization manageable. According to year 2020 Islamic Relief HR record the organization has a total of 134 numbers of staffs. From this staff, the sample taking focused on assistances, officers, coordinators, managers & Country director from each department and in each office. The sample population will be 114 of Islamic Relief staffs with the exclusion of 20 cleaners, messengers and security guards. The sample distribution will be from Addis Ababa all staffs accounts 40, all 54 staffs of Somali, all 11 staffs of Afar and all 9 staffs of Oromia.

3.5. Data Sources and Types

Primary and secondary data sources were employed in this investigation. In order to obtain primary data, the researcher used questionnaires. Primary data will be collected using questionnaires to obtain the perceptions of the respondents. To achieve the purpose of this research, the researcher developed a questionnaire that covers the research questions of the study. It includes a closed-ended questionnaire with the help of expert views and suggestions. While Secondary data collected from published and unpublished materials through reviewing reports, journals, and relevant documents gathered from the main offices and field areas.

3.6. Method of Data Collection Procedures

For the data collection process, structured questioner used. The questionnaire contains close-ended questions in the form of a Likert scale. With the help of expert views and suggestions, a self-administered questioner was prepared. Then the final questioner distributed after suggested and amendment. A hard copy of questionnaires distributed to Addis Ababa office staffs and the study used email for the field office staff because the field office respondent is located in a remote geographical Somali, Afar, and Oromia regional state.

3.7. Methods Data Analysis

In Research, data analysis is a tool that is very useful in decision making. Interpretation of the analysis will bring about the meaning of the data into useful information which gives us useful information to answer the research objective and overall research problem.

In this study, Descriptive data analysis used by the researcher, in this regard; the researcher employed an analysis of mean, median, percentage, and standard deviation for analyzing the instruments to assess the perceptions and attitudes of respondents. Beside this SPSS statistical software used for all the quantitative data analysis, based on its appropriateness for answering the research question. Moreover, tables and figures, will be essential means of organizing and summarizing some aspects of data.

3.8. Pre-testing the data collection instrument

In pretesting the data collection instrument, the researcher checks the quality or the clearness and the validity of the questionnaire. In general, the qualities of clearly written material include a carefully defined purpose, logical organization, well-constructed sentences, and precise word choice. Richard Nordquist (August 05, 2019). The validity on the other hand refers to "the degree to which a test or examination measures what it purports to measure" (p.13) Ruch, G.M. (1924). The improvement of the written examination. Chicago: Scott, Foreman, and Company. In this study, a pretesting of questionnaires was executed to determine the validity of the questionnaire. The questionnaire was therefore tested on 14 respondents. Out of the 14 questionnaires 10 questionnaires were given for pretesting purposes to Islamic relief officers, coordinators staffs and 4 questionnaires were given to logistic & procurement professionals from the target population. After pretesting work, the questionnaires were reviewed and some comments, amendment and constructive feedbacks were included.

3.9. Ethical Consideration

The source of data for this study is a questionnaire and the respondents will be assured that the information provided to them is confidential and the researcher will use it exclusively for academic purpose. In addition, respondents will be informed to omit anything that mentioned personal identity detail and reference in the given questionnaire. That helps me to decline the biasedness of the response collected from the given respondents. Aside from that, various forms of study of research, articles, and books are cited extensively as reference throughout the study.

CHAPTER FOUR

4. FINDINGS, ANALYSIS, INTERPRETATION AND DISCUSSION OF RESULTS

This chapter deals with findings and analysis, interpretation and discussion of results. It consists of two main parts, the first one is about the background information of the respondents. The second one consists of the collected data from employees of Islamic Relief. In this regard therefore 114 questionnaires were prepared and distributed to the participants of the study. Out of those questionnaires, 100 were responded properly. While the other 4 questionnaires were incomplete and the rest 10 questionnaires were not returned.

Result

4.1 The response rate of Participants

	Number of Questionnaires	percent
Complete	100	88%
Not returned	10	8%
Incomplete	4	4%
Total	114	100

Table 4.1. Questionnaire Response rate

As indicated in the above table, in table 4.1. The ideal sample size was 134. From this 20 of the sample were excluded (office cleaners, office messengers and Security guards). Therefore, 114 questionnaires were distributed accordingly and from these 100 respondents were filled and returned the questionnaires. It means that from the total of 114 questioners distributed to respondents, 100 respondents filled and returned the questionnaires. In this regard, the researcher excluded those 4 incomplete questionnaires from the data entry and analysis. In addition to this, the rest 10 questionnaires which were distributed to 9 officer and 1 coordinator respectively were not returned, this also was excluded from data entry and analysis. Therefore, the response rate of this study is 88%.

I. Socio Demographic Characteristics of Respondents

4.2 Profile of the respondents

		Frequency	Valid Percent	Cumulative Percent
Gender	Male	78	78	78
	Female	22	22	100
Educational Level	Diploma	8	8	8
	First Degree	62	62	70
	Masters	28	28	98
	Other	2	2	100
Position	Director	1	1	1
	Manager	9	9	10
	Coordinator	13	13	23
	Officer	55	55	78
	Other	22	22	100
Years of Experience	Less than 5 years	54	54	54
	6-10years	37	37	91
	11-15years	6	6	97
	16 and above	3	3	100
office location	Addis Ababa	35	35	35
	Oromia	5	5	40
	Afar	6	6	46
	Somali	54	54	100

Table 4.2. Respondent's profile

Gender

As shown in gender respondents, 78(78%) of the respondents are male, 22(22%) of the respondents are female. From this therefore the number of male respondents is higher than that of female respondents.

Levels of Education

From the table showing the level of education of the respondents 8 (8%) of the respondents are diploma holders, 62(62%) are degree holders and 28(28%) of the respondents hold master's degree and the rest 2(2%) are above masters. Therefore, this shows that a higher number respondents are educated and certified from higher institutions.

Position

As shown in table 4.2, the highest number of respondents are officers 55(55%), the rest comprise of other 22(22%), coordinator 13(13%), manager 9(9%) and Directors 1(1%). From this therefore, it could be said that most of the respondents are in a middle level positions.

Years of Experience

As can be seen from the table 4.2 the highest number of respondents have a service year of less than 5 54(54%), followed by 37(37%) respondents having 6-10 years of experience, and 6(6%) also has work experience of 11-15 years. Others who constitute 3(3%) of respondents had greater than 16 years of experience. This shows that therefore, the highest numbers of respondents are within the categories of 1 up to 10 years of experience which highlights that most are well experienced in their work.

Office location

As can be seen on table 4.2, the organization branch office which represents the respondents' location is shown clearly. From the table therefore 54(54%) of the respondents are working on the Somali branch, 35(35%) are in the Addis Ababa branch, 5(5%) of respondents are on Oromia branch and the rest 6(6%) are working on Afar branch. From this therefore, it could be said that most of the respondents are from Addis Ababa and Somali.

4.3 Reliability Test

Measurement Constructs	N	Cronbach's Alpha results
Assessment and Planning management activities	5	0.883
Procurement management activities	9	0.906
Warehouse management activities	4	0.917
Transportation and Distribution management activities	9	0.924
Monitoring and evaluation management activities	3	0.910
Responsiveness	5	0.932
Cooperation	5	0.894
Flexibility	5	0.882
Cost effectiveness	5	0.921

Table 4.3. Reliability Statistic

Reliability

The Most common technique used to assess the reliability is Cronbach's Alpha reliability coefficient. According to George and Mallery (2003), Cronbachs Alpha reliability coefficient normally ranges between 0 and 1. The closer Cronbach's Alpha coefficient to 1.0, the grater the internal consistency of the items in the scale. Apart from this, George and Mallery (2003) suggested Cronbach's Alpha coefficient greater than 0.7 is acceptable. Thus, the researcher will conduct reliability test (internal consistency) for the quantitative data collected through questionnaire using SPSS.

Validity

According to Leary, validity is the extent to which a measurement measures what is intended to measure. In this research, the questionnaire will be developed based on intensive related literature review. According to Malhotra (2010), there are three kinds of validity in a research study: predictive, construct and content validity. The study will address the content validity through the review of literature and adapting instruments used in previous research.

II. Humanitarian Supply Chain Practices of Islamic Relief Ethiopia

4.4 Descriptive analysis regarding Assessment and planning

In the assessment and planning stage, we have to focus on the collection of information, analyze and interpretation for this reason, the researcher prepares 5 questions that indicate humanitarian supply chain practice of Islamic Relief.

In this section the respondents give their level of agreement by numbers ranging from 1 to 5; here those numbers indicate 1 is "strongly disagree (SD)", 2 indicates "disagree (DA)", 3 indicates "no idea (NI)", 4 indicates "agree (A)" and 5 indicates "strongly agree (SA)". Therefore, the mean scores of 0-1.5 means that the respondents strongly disagree with the question, between 1.50 to 2.50 means they are disagreeing, 2.50 to 3.50 means the respondents have no idea, for a mean score of 3.50-4.50 respondents agree by the humanitarian supply chain performance of Islamic Relief Ethiopia. A mean value over 4.50, implies that the respondents strongly agree with the issue raised in each question. Therefore, the following section gives the result of respondent.

Descriptive Statistics

	N	Mean	Std. Deviation
clarify the nature of intervention	100	4.13	.787
collect information analyze interpret and provide repose	100	4.25	.757
the situation to store the supplies temporarily	100	4.14	.792
the security of the affected area	100	4.21	.935
review the result and provide services	100	4.09	.830
Valid N (listwise)	100		

Table 4.4. Assessment and planning

The above table 4.4 shows the respondent's response to those five questions with mean and standard deviation. The mean value of all questions is between 3.5-4.5 so that most of the respondents were agreed in assessment and planning for humanitarian supply chain practice of Islamic Relief Ethiopia. From this we can say that there is a clear assessments and planning for humanitarian supply chain practice in Islamic Relief Ethiopia.

4.5 Procurement

Descriptive Statistics

	N	Mean	Std. Deviation
identify needs of required goods and services	100	4.10	.870
proper summary of procurement plan	100	1.90	.302
supplier selection to improve performance	100	4.23	.874
issue and negotiate reference for quotation	100	4.36	.894
tender evaluation as per the threshold	100	4.39	.764
develop contract administration plan	100	1.90	.302
properly practice supply chain management	100	4.17	.805
proper warehouse management practice	100	1.90	.302
proper asset management practice	100	3.83	.817
Valid N (listwise)	100		

Table 4.5. Procurement

In the above table 4.5, the respondent's response to nine questions regarding procurement practice. For question number 1, 3,4,5,7 and nine the respondent's response lies within the mean value of 3.5 -4.5 which indicate that the respondents were agreed this shows most of procurement activities well done in Islamic Relief Ethiopia. However, for equation number 2,6 and 8 the respondents mean and standard deviation value is Mean (1.90) SD (0.302) respectively. This implies that the respondents were not agreed, from this therefore in Islamic Relief Ethiopia the humanitarian supply chain practice of procurement with regard to proper procurement planning, contract management and warehouse management still needs improvement.

4.6 Warehouse

Descriptive Statistics

	N	Mean	Std. Deviation
uses warehousing for receiving and issuing	100	3.93	.924
sufficient and appropriate warehouse	100	2.06	.600
location is very accessible for distribution	100	3.87	.981
allows quick and easy mapping for unexpected shipment	100	3.74	1.041
Valid N (listwise)	100		

Table 4.6. Warehouse

In the case of table 4.6, the respondent's reply to three questions shows the mean value ranging from 3.5-4.5. This means that most of the respondents were agreed this implies the organization good in performing warehouse management, except for question number two the mean value M (2.06) SD(0.600) which means the respondents were dis agreed, Therefor the organization still needs improvement regarding sufficient and appropriate warehouse during emergency for its great performance of humanitarian supply chain activities.

4.7 Transportation and Distribution

Descriptive Statistics

	N	Mean	Std. Deviation
experienced preparing proper and easy distribution plan	100	3.96	.984
well established to ease distribution and minimize cost	100	3.93	1.085
appropriate training to team	100	3.71	1.047
sufficient information sharing to deliver	100	4.01	.959
uses all possible mode of transportation	100	4.06	.919
uses various transport optimization models	100	3.90	1.020
third party transport companies are cooperative	100	3.98	.921
delivers relief supplies during emergency	100	4.32	.827
sufficient prequalified list of transport companies	100	3.66	1.027
Valid N (listwise)	100		

Table 4.7. Transportation and distribution

As can be seen in the table above 4.7 the respondent's response regarding transportation and distribution of supply chain practice of nine questions have the mean value ranging from 3.5-4.5 which indicates they were agreed with each questions raised. From this we can conclude that humanitarian supply chain practice of transportation and distribution was done in a planned and cost effective way.

4.8 Monitoring and Evaluation

Descriptive Statistics

	N	Mean	Std. Deviation
provide information to users on service level	100	3.67	.933
identify problems and determine measures	100	3.81	.982
motivate the staff members under evaluation performance	100	3.81	1.042
Valid N (listwise)	100		

Table 4.8. Monitoring and evaluation

From the table 4.8 above the result for questions provide information to users on service level, identify problems and determine measures and motivate the staff members under evaluation performance the respondent's response have mean value ranging from 3.5-4.5 indicates they were agreed. So the humanitarian supply chain practice of monitoring and evaluation is well done in Islamic Relief Ethiopia.

III. Humanitarian Supply Chain Performances of Islamic Relief Ethiopia

4.9 Responsiveness

Descriptive Statistics

	N	Mean	Std. Deviation
responsive in its assessment and planning	100	3.86	1.035
responsive in its procurement	100	3.88	1.018
responsive in its warehouse	100	3.78	.811
responsive in its transportation and distribution	100	4.09	.877
responsive in its monitoring and evaluation	100	3.77	1.004
Valid N (listwise)	100		

Table 4.9. Responsiveness

The above table 4.9 shows that the respondent's response to five questions concerning responsiveness of humanitarian supply chain performance. All of the respondent's response have a mean value ranging from 3.5 up to 4.5 indicating the respondents are agreed.

4.10 Cooperation

Descriptive Statistics

	N	Mean	Std. Deviation
cooperation in its assessment and planning	100	3.91	1.065
cooperation in its procurement	100	4.06	.908
cooperation in its warehouse	100	3.74	1.021
cooperation in its transportation and distribution	100	3.95	1.029
cooperation in its monitoring and evaluation	100	3.91	.965
Valid N (listwise)	100		

Table 4.10. Cooperation

The above table 4.10 shows that the respondent's response to five questions concerning cooperation of humanitarian supply chain performance. All of the respondent's response have a mean value ranging from 3.5 up to 4.5 indicating the respondents are agreed.

4.11 Flexibility

Descriptive Statistics

	N	Mean	Std. Deviation
flexible in its assessment and planning	100	3.94	.736
flexible in its procurement	100	3.62	1.003
flexible in its warehouse	100	3.85	.968
flexible in its transportation and distribution	100	3.78	.824
flexible in its monitoring and evaluation	100	3.76	1.016
Valid N (listwise)	100		

Table 4.11. Cooperation

The above table 4.11 shows that the respondent's response to five questions concerning flexibility of humanitarian supply chain performance. All of the respondent's response have a mean value ranging from 3.5 up to 4.5 indicating the respondents are agreed. From this we can say that most of the humanitarian supply chain practice are flexible in Islamic Relief Ethiopia.

4.12 Cost

Descriptive Statistics

	N	Mean	Std. Deviation
cost-effective in its assessment and planning	100	2.00	.000
cost-effective in its procurement	100	2.00	.000
cost-effective in its warehouse	100	2.00	.000
cost-effective in its transportation and distribution	100	1.66	.476
cost-effective in its monitoring and evaluation	100	2.02	.816
Valid N (listwise)	100		

Table 4.12. Cost

The above table 4.12 shows that the respondent's response to five questions concerning cost effectiveness of humanitarian supply chain performance. All of the respondent's response have a mean value ranging from 1.5 up to 2.5 indicating the respondents were disagreed. From this we can say that most of the humanitarian supply chain practice are ineffective with regard to cost effectiveness in Islamic Relief Ethiopia.

IV. Factors affecting humanitarian supply chain performance of Islamic Relief Ethiopia

A. Organizational Internal Factor

4.13 Inadequate resource

Descriptive Statistics

	N	Mean	Std. Deviation
affected by budget unavailability	100	4.16	.368
flexibility and volume of demand is not properly absorbed	100	4.18	.386
does not have sufficient budget for the logistics team	100	3.86	.697
Valid N (listwise)	100		

Table 4.13 inadequate resource

The above table 4.13 shows that the respondent's response to three questions concerning inadequate resource of humanitarian supply chain performance. All of the respondent's response have a mean value ranging from 3.5 up to 4.5 indicating the respondents were agreed which implies that the humanitarian supply chain performance is affected by inadequate resource.

4.14 Lack of coordination among the humanitarian supply chain partner

Descriptive Statistics

	N	Mean	Std. Deviation
lack of coordination among supply chain partner	100	2.35	1.298
lack of assistive technologies	100	2.43	1.121
unsatisfactory ability to disseminate accurate and timely information	100	2.22	1.124
Valid N (listwise)	100		

Table 4.14 lack of coordination

The above table 4.14 shows that the respondent's response to three questions concerning lack of coordination among humanitarian supply chain partner. All of the respondent's response have a mean value ranging from 1.5 up to 2.5 indicating the respondents were disagreed. This implies that the performance of supply chain performance of Islamic Relief Ethiopia is not by coordination among partners.

4.15 Lack of managerial commitment

Descriptive Statistics

	N	Mean	Std. Deviation
top management are not committed	100	1.65	.925
there is no learning and development scheme	100	2.20	1.155
the logistic department structure is not organized	100	1.83	1.064
Valid N (listwise)	100		

Table 4.15 lack of managerial commitment

The above table 4.15 shows that the respondent's response to three questions concerning lack of managerial commitment in humanitarian supply chain performance. All of the respondent's response have a mean value ranging from 1.5 up to 2.5 indicating the respondents were disagreed. Therefore, from this it could be said that the performance of humanitarian supply chain of Islamic Relief Ethiopia is not affected by lack of managerial commitment.

B. Organizational External Factor

4.16 Legal and political factor

Descriptive Statistics

	N	Mean	Std. Deviation
the security situation doesn't allow to operate freely	100	2.21	1.157
the government law and regulation is so strict	100	2.24	1.386
there is conflicting interest between the organization and government	100	1.87	1.089
the federal and state governments are not cooperative	100	1.93	.967
Valid N (listwise)	100		

Table 4.16 legal and political factor

The above table 4.16 shows that the respondent's response to four questions concerning the external factor which is legal and political factor that affect humanitarian supply chain performance in Islamic Relief Ethiopia. All of the respondent's response have a mean value ranging from 1.5 up to 2.5 indicating the respondents were disagreed.

4.17 Infrastructure

Descriptive Statistics

	N	Mean	Std. Deviation
unavailability of all-weather alternative roads	100	3.26	1.177
lack of adequate ict networking	100	2.85	1.086
unavailability of warehouse at project	100	2.97	1.185
Valid N (listwise)	100		

Table 4.17 infrastructure

The above table 4.17 shows that the respondent's response to three questions concerning the external factor which is the infrastructure that affect humanitarian supply chain performance in Islamic Relief Ethiopia. All of the respondent's response have a mean value ranging from 2.5 up to 3.5 indicating the respondents were neutral or not sure.

4.18 Socio-Economic factor

Descriptive Statistics

	N	Mean	Std. Deviation
cultural restrictions or norms	100	2.17	1.198
inability of local suppliers to understand purchase request	100	2.55	1.184
unreliability of local suppliers	100	2.78	1.160
unavailability of quality goods in local market	100	2.76	1.272
absence of potential local suppliers	100	2.73	1.332
Valid N (listwise)	100		

Table 4.18 socio-economic factor

The above table 4.18 shows that the respondent's response to five questions concerning the external factor which is the socio-economic factor that affect humanitarian supply chain performance in Islamic Relief Ethiopia. Most of the respondent's response have a mean value ranging from 2.5 up to 3.5 indicating the respondents were neutral or not sure. But some respondent's response for the first question have a mean value ranging from 1.5-2.5 indicating they were disagreed.

CHAPTER FIVE

5. SUMMARY, CONCLUSION AND RECOMMENDATION

5.1. Introduction

This chapter presents the summary of the finding. The objective of the research was Assessment of the Humanitarian Supply Chain Performance of Islamic Relief Ethiopia. Aside from that, this chapter presents the conclusions and the recommendations of the researcher based on the findings as well as suggestion for further research.

5.2. Summary of Findings

In Islamic relief Ethiopia, there are a variety of humanitarian supply chain practices. The study's main findings revealed that all activities determined to be highly performing in terms of completing assessment and planning. In terms of procurement, all of the stated activities were found to be well-executed, with the exception of adequate procurement planning, contract management, and proper warehouse management, which were found low performing. In terms of warehouse practices, there are four questions that the respondent's replay, out of four, three activates, regarding warehouse uses for receiving and issuing, accessibility of location for distribution, and allow quick and easy mapping for unexpected shipment found well performed in Islamic relief Ethiopia, however regarding the availability of sufficient and appropriate warehouses especially in the case of emergency the respondent give low rate performing. In Islamic relief Ethiopia, humanitarian supply chain practices, transportation and distribution, as well as monitoring and assessment, were all done in an organized and successful manner. In terms of performance indicator elements connected to cost effectiveness, the organization's humanitarian supply chain was judged by the respondent to be underperforming. For the remaining performance measurement indicators including responsiveness, cooperativeness, and flexibility the respondent gives good performing. Furthermore, the organizational internal factors, on the humanitarian supply chain performance of Islamic relief, were also found to be successful, which allowing them to better manage their humanitarian supply chain management. However, internal factors related to inadequate resource, were still seen as a problem when contrasted to external factor influences.

5.3. Conclusion

The study's findings confirmed that the humanitarian supply chain Islamic relief Ethiopia was organized in terms of clarifying the nature of intervention, collecting information, analyzing, interpreting, temporally storing supplies, assessing the situation prior to staff deployment, and responding based on assessment and planning. The Procurement activities of Islamic Relief Ethiopia practices in terms of identifying needs, supplier selection, issue RFQ, tender assessment, practice of supply chain management, asset management is well performing. However, there is still room for improvement in terms of good procurement planning, contract administration, and warehouse management standards. The study was also discovered out that the Islamic Relief warehouse was used as a facilitator for receiving, issuing, coordination, sorting, and packaging activities for easier and more efficient aid delivery. The warehouses' locations were accessible for distribution, allowing for quick and easy mapping for unexpected shipments. However, there is still room for improvement in terms of the availability of sufficient and appropriate warehouse space to temporarily store emergency supplies. The study's findings also confirmed that Islamic Relief Ethiopia's distribution center were good to facilitate distribution and reduce operational costs. In terms of transportation and distribution management, the study discovered that the organization uses a possible or variety modes of transportation in the event of an emergency to mobilize supplies and people, as well as third-party transportation companies were cooperative during emergencies and the deliverance of relief supplies to where they are required during emergencies were appropriate. Apart from this, Islamic relief Ethiopia has list of prequalified transport companies to choose and to deliver commodities. Monitoring and Evaluation activities of Islamic relief were found well organized. According to the respondents, from organizational internal challenges, the respondent confirmed that, inadequate resources are one of the internal difficulties affecting the organization's humanitarian performance. Based on the obtained result, it appears that the organization does not have sufficient budget. Moreover, Islamic Relief Ethiopia's humanitarian performance was satisfactory. When looking at the four performance measurement indicators of the company's Responsiveness, Cooperativeness, and Flexibility, the majority of the respondent responses indicate that the organization is operating well. However, the cost performance metric was given lower rate by the respondent. This shows the organization still needs improvement on cost effectiveness in all humanitarian supply chain operation.

5.4. Recommendations

Based on the findings of the study, the following recommendations are proposed; In order to reduce HSCM challenges, the study recommends that IRE should mainly focus on preparing proper procurement plan, contract management administration, providing sufficient warehouse during an emergency and allocating sufficient resources; -

- ❑ To eliminate humanitarian supply chain management regarding procurement activities, the organization should strengthen its development of appropriate procurement plan for each project.
- ❑ In relation to the lack of adequate/insufficient resources, the study suggests that the IRE management team focus on developing proposals in order to obtain more funds, as well as having a strong supply chain in order to operate efficiently and effectively. This allows the organization to be transparent and attract newer donors, and the study also suggests that the organization allocate adequate budgetary resources towards human resource training to increase employee competence in handling humanitarian supply chain management challenges.
- ❑ To avoid a lack of sufficient and appropriate warehouse space to temporarily store products during an emergency, the IRE management team should consider having easily accessible warehouses to provide timely distribution of aid commodities to those who have been impacted, build temporary warehouses, rent temporary warehouses, or collaborate with the government or other organizations to have temporary warehouse space.
- ❑ Concerned with the organization's cost performance. The respondent gives a low-cost effectiveness in the IRE humanitarian supply chain. for this the researcher suggested, that the organization should maintain an up-to-date pricing index database, share information and experience with similar international organizations, perform frequent market surveys, and collaborate with the logistics and procurement teams to be cost effective in all HSCM activities.
- ❑ In general, the study suggests that IRE's management conduct research into the various relief areas in which they operate to ensure that the HSCM initiatives they are implementing are effective in addressing the specific HSCM challenges they are facing in order to improve their organizational performance, evaluate their performance progressively, and achieve continuous improvement. As a result, the organization must concentrate on these issues.

5.5. Areas for Further Studies

The outcomes of this study can be used to make further studies in the area of humanitarian supply chain performance operation. The demand for humanitarian supply chain is progressive and non-stop issue in ever-increasing issue of emergency, the humanitarian organization understudy should focus on making practical application of this study including technology supported automation systems to improving humanitarian supply chain performance and to save the priceless human life.

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Web resources:

- <https://www.islamic-relief.org/publications/>

ANNEX 1: QUESTIONNAIRE

Questionnaire to be filled by the staff of Islamic Relief Ethiopia

ADDIS ABABA UNIVERSITY SCHOOL OF COMMERCE LOGISTIC AND SUPPLY CHAIN MANAGEMENT DEPARTMENT

Dear Sir\ Madam,

I am student at Addis Ababa University School of commerce attending a Master of Logistics and Supply Chain Management. I am undertaking a research project for the partial fulfillment of the academic requirements on “**Assessment of humanitarian supply chain management of Islamic Relief Ethiopia**”. I kindly request your co-operation in responding the following questions for the successful completion of the study. The overall purpose of this questionnaire is exclusively academic. Your response will not be used for any other purpose; it is confidential.

Your assistance and co-operation will be highly appreciated.

Rehima Aliyu, Rehima.Aliyu1@gmail.com
Addis Ababa University school of Commerce

PART I: BIO- DATA

[Tick were appropriate (✓)]

1. Gender

1. Male 2: Female

2. Educational level?

1. Diploma 2: Degree 3: Masters 4: PhD 5: Other

3. Position in the organization?

1. Director 2: Manager 3: Coordinator 4: Officer 5: Other

4. Year of experience in Islamic Relief Ethiopia (In year)

1. < 5 2: 6-10 3: 11-15 4: 16 and above

5. Your Office location (Field Office):

1. Addis Ababa 2: Oromia 3: Afar 4: Somali

PART II: GENERAL QUESTIONS

II. Humanitarian Supply Chain Management practice in Islamic Relief Ethiopia.

Please indicate your choice by putting a tick mark (√) on the appropriate cell. **Where, 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree.** Please indicate the degree to which you agree with the following statements regarding the supply chain performance of Islamic relief Ethiopia.

Humanitarian Supply Chain Management practice		1	2	3	4	5
Assessment and Planning	Islamic Relief Ethiopia assessment team clarify the nature of intervention, identify, mobilize resources and plan for Assessment					
	Islamic Relief Ethiopia assessment team collect information, analyze and interpret data in the affected area and provide response plan to support the affected area					
	Islamic Relief Ethiopia practice assessment of the situation in the affected area in terms of where to store the supplies temporarily.					
	Islamic Relief Ethiopia practice assessment of the security of the affected area before deployment of staff and supplies.					
	Islamic Relief Ethiopia review the assessment result against program needs, and provides service based on its assessment and planning.					
Procurement	Islamic Relief Ethiopia procurement practice identify needs of required goods and service supplies					
	Islamic Relief Ethiopia team experienced in preparing proper summary of procurement plan with clear specification for any emergency procurement of goods and services					
	Islamic Relief Ethiopia planned and critically assessed supplier selection that to improve humanitarian supply chain performance.					
	Issue and negotiate Reference for Quotation/RFQ					
	Procurement team of Islamic Relief Ethiopia practices tender evaluation as per the threshold					
	Islamic Relief Ethiopia has develop Contract administration plan and manage contract agreements to improve humanitarian supply chain					
	Islamic Relief properly practice humanitarian Supply chain Management practice					
	There is proper warehouse management practice in Islamic Relief Ethiopia					
	There is proper asset management practice in Islamic Relief Ethiopia					
Warehouse	Islamic Relief Ethiopia uses warehousing as a facilitator for receiving, issuing, coordination, sorting, and packaging activities for easier and efficient aid delivery to the beneficiaries.					
	Islamic Relief Ethiopia has sufficient and appropriate warehouse to temporarily store supplies during disasters.					

	Islamic Relief Ethiopia warehouse location is very accessible for distribution.					
	Islamic Relief Ethiopia warehouse allows quick and easy mapping for unexpected shipments					
Transportation and Distribution	Islamic Relief Ethiopia experienced preparing proper and easy distribution plan					
	Islamic Relief Ethiopia's distribution centers are well established to ease distribution and minimize cost of operation.					
	Islamic Relief Ethiopia gives appropriate training to the distribution team to make sure that they execute their duties at higher level of passion and commitment.					
	Islamic Relief Ethiopia distribution team has sufficient information sharing as to whom the supplies should be delivered					
	Islamic Relief Ethiopia uses all possible modes of transportation available for the movements of supplies and people					
	Islamic Relief Ethiopia uses various transport optimization models to deliver supplies with the least cost possible.					
	Third party transport companies are cooperative to Islamic Relief Ethiopia during emergencies to transport supplies and people to the affected area					
	Islamic Relief Ethiopia delivers relief supplies to where they are required during emergency					
	There are sufficient prequalified list of transport companies that provide transportation services for emergency works with Islamic Relief Ethiopia					
Monitoring and Evaluation	Islamic Relief Ethiopia monitoring and evaluation provide information to users on the service level they can expect.					
	Islamic Relief Ethiopia monitoring and evaluation identify problems in the supply chain and determine what measures are needed for improving services.					
	Islamic Relief Ethiopia monitoring and evaluate performance motivates the staff members on the operation under evaluation					

III. Humanitarian Supply Chain Management operational performance in Islamic Relief Ethiopia

Please indicate your choice by putting a tick mark (√) on the appropriate cell. Where, 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree. Please indicate the degree to which you agree with the following statements regarding the supply chain operational performance of Islamic relief Ethiopia.

Variables	Items	1	2	3	4	5
Responsiveness	IRE's humanitarian supply chain performance is responsive in its ASSESSMENT AND PLANNING					
	IRE's humanitarian supply chain performance is responsive in its PROCUREMENT					
	IRE's humanitarian supply chain performance is responsive in its WAREHOUSE					
	IRE's humanitarian supply chain performance is responsive in its TRANSPORTATION AND DISTRIBUTION					
	IRE's humanitarian supply chain performance is responsive in its MONITORING AND EVALUATION					
Cooperation	IRE's humanitarian supply chain performance is cooperative in its ASSESSMENT AND PLANNING with all stakeholders					
	IRE's humanitarian supply chain performance is cooperative in its PROCUREMENT with all stakeholders					
	IRE's humanitarian supply chain performance is cooperative in its WAREHOUSE management with stakeholders					
	IRE's humanitarian supply chain performance is cooperative in its TRANSPORTATION AND DISTRIBUTION with stakeholders					
	IRE's humanitarian supply chain performance is cooperative in its MONITORING AND EVALUATION with stakeholders					
Flexibility	IRE's humanitarian supply chain performance is flexible in its ASSESSMENT AND PLANNING					
	IRE's humanitarian supply chain performance is flexible in its PROCUREMENT					
	IRE's humanitarian supply chain performance is flexible in its WAREHOUSE					
	IRE's humanitarian supply chain performance is flexible in its TRANSPORTATION AND DISTRIBUTION					
	IRE's humanitarian supply chain performance is flexible in its MONITORING AND EVALUATION					
Cost	IRE's humanitarian supply chain performance is cost effective in its ASSESSMENT AND PLANNING					
	IRE's humanitarian supply chain performance is cost effective in its PROCUREMENT					
	IRE's humanitarian supply chain performance is cost effective in its WAREHOUSE					
	IRE's humanitarian supply chain performance is cost effective in its TRANSPORTATION AND DISTRIBUTION					
	IRE's humanitarian supply chain performance is cost effective in its MONITORING AND EVALUATION					

IV. To identify the major factors affecting the humanitarian supply chain Management of Islamic Relief Ethiopia?

Fill the answers by putting a tick mark (“√”) under Key: 1= strongly disagree, 2= disagree, 3=neutral, 4= agree, and 5= strongly agree.

No.	Factors affecting humanitarian supply chain performance of Islamic Relief Ethiopia	1	2	3	4	5
ORGANIZATIONAL INTERNAL FACTORS						
Inadequate Resource						
1	Humanitarian supply chain performance of Islamic Relief Ethiopia is affected by budget unavailability which is committed for the humanitarian supply chain					
2	Flexibility of type and volume of demand is not properly absorbed by Islamic Relief Ethiopia due to lack of budget.					
3	Islamic Relief Ethiopia doesn't have sufficient budget for the logistics team					
Lack of Coordination among the supply chain partners,						
1	Lack of coordination among the supply chain partners affects the organization humanitarian supply chain performance					
2	Islamic Relief Ethiopia hasn't invested in assistive technologies that support the flow of information in its operations and during disaster					
3	Ability to disseminate accurate and timely information is not satisfactory in Islamic relief Ethiopia					
Lack of managerial commitment						
1	Islamic Relief Ethiopia's top management is not committed in supporting the logistics and procurement team.					
2	There is no learning and development scheme in Islamic Relief Ethiopia to support the logistics and procurement staff					
3	Islamic Relief Ethiopia structure is not organized in such a way that facilitates operation of the logistics department.					

EXTERNAL\SITUATIONAL FACTORS					
Legal and political factors					
1	The security situation doesn't allow Islamic Relief Ethiopia to operate freely in the affected area.				
2	The government law and regulation is so strict and challenges the humanitarian supply chain of Islamic Relief Ethiopia.				
3	There is conflicting interest between Islamic Relief Ethiopia and the government that would affect the humanitarian supply chain.				
4	The federal and state governments are not cooperative while executing the humanitarian operations by Islamic Relief Ethiopia.				
Infrastructure Situational Factors					
1	Unavailability of all-weather alternative roads to provide aid to beneficiary's communities negatively affect the delivery of relief (aid) commodities.				
2	Lack of adequate ICT networking infrastructure affect the efficiency of the organization's supply chain service.				
3	Unavailability of warehouses at the project office areas and near beneficiary locations affects the humanitarian supply chain performance of Islamic Relief Ethiopia.				
Socio-economic Situational Factors					
1	Cultural restrictions or norms negatively affect Islamic Relief Ethiopia humanitarian supply chain operational performance.				
2	Inability of local suppliers to understand purchase request or purchase order or specifications affects the Islamic Relief's Ethiopia humanitarian supply chain operational performance.				
3	The unreliability of local suppliers affects the organization's humanitarian supply chain operational performance.				
4	Unavailability of quality goods in local market affect the organization's humanitarian supply chain operational performance.				
5	Absence of potential local suppliers affects the organization humanitarian supply chain operational performance				

Thank you for your time and participation!!