



**ADDIS ABABA UNIVERSITY  
SCHOOL OF COMMERCE  
GRADUATE PROGRAM**

**Assessment on the Humanitarian Logistics Performances of IRC-Ethiopia  
using Balanced Scorecard**

**(The Case of Somali Region, Jigjiga Humanitarian Response Program)**

**By**

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**Thesis Submitted to Addis Ababa University School of Commerce  
For the Partial Fulfillment of the Requirements for the  
Degree of Master of Art in Logistics and Supply Chain Management**

**Advisor: Birhanu Denu (Ph.D)**

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ADDIS ABABA UNIVERSITY  
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DEPARTMENT OF LOGISTICS AND SUPPLY CHAIN MANAGEMENT

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## Declaration

I declare that this research project “Assessment on the Humanitarian Logistics Performances of IRC-Ethiopia using Balanced Scorecard in the Case of Somali Region, Jigjiga Humanitarian Response Program” 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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This research project has been submitted with my authority as the university Advisor;

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

**Birhanu Denu (Ph.D.)**

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## List of Abbreviations

BSC:	Balanced Scorecard
CP:	Child Protection
DPPA:	disaster prevention and preparedness agency
GBV:	Gender-based Violence
IFRC:	Red Crescent societies I
RC:	International Rescue Committee
IS:	Information System
KPI:	Key Performance Indicator
LPI:	Logistics Performance Indicator
NGO:	Non Governmental Organization
NPOs:	Non-profit Organizations
WASH:	Health, and Water, Sanitation, and Hygiene
WHO:	World Health Organization
UN:	United Nation

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## Abstract

*In order to alleviate the suffering of people, effective and efficient performance of humanitarian organization is important. The balanced scorecard has enabled many organizations to overcome the deficiencies traditional performance assessments that largely focused on financial performance of an organization. This system provides feedback on internal business processes and external outcomes to continually improve organizational performance and results. The clearest benefit of Balanced Scorecard (BSC) approach in the humanitarian logistics performance of humanitarian organization is the importance it places on customer service. In the humanitarian sector, the customer's perception of service and the media's portrayal of this service greatly affect an organization's reputation and potential donations, so the customer perspective is critical in this sector. The purpose of this study was to investigate the performance of humanitarian organizations in Jigjiga and identify the main challenges of the organization that hindered to achieve its intended objectives by the application of the BSC taking IRC as a case organization. It assessed the logistics performances of IRC and ways of improving the logistics performances of the organization in enhancing the beneficiaries' satisfaction in Somali Region, Jigjiga humanitarian response program in four woredas namely; Erer, Shinile, Ayishia, and Dambel in the Siti Zone. Data was collected using a questionnaire from 100 community respondents and 35 IRC staff informants. The data was analyzed using percentages and descriptive statistics such as the mean. The findings were presented in tables and figures. The study findings revealed that the customer perspective as a component of BSC is effective in measuring performance of humanitarian organizations. The customer perspective captures measures regarding IRC operations and processes necessary to meet customers' expectations and increase their satisfaction. There research identified also different challenges on the performance of IRC to reach to its beneficiaries effectively. These include presence of well-defined and functional procurement procedures, Flexibility to revise and improve internal business processes, Corruption, poor governance and Proper control mechanisms over purchases mainly challenged the performance of the organization.*

# Chapter One

## 1. Introduction

Logistics operations have always been an important part of humanitarian aids, to the extent that logistics efforts account for more than eighty percent of disaster relief. Humanitarian logistics includes the planning and preparedness, procurement, transportation, inventory pre-positioning, distribution and recipient satisfaction for which humanitarian relief chains (HRCs) are required to be established with the aim of getting the right relief items to the right places and distribute to the right people at the right time(Phillips, 2014).

Tools and metrics can be used to measure and improve the efficiency of the supply chains. According to literature there are no sophisticated measures of effectiveness for humanitarian logistics and supply chains. While performance measurement has long been recognized as an important competitive advantage (Kaplan and Norton 1992; 1996) and a critical element to improving the efficiency and effectiveness of commercial supply chains, measuring performance in a structured and standardized way unfortunately is still not common in the humanitarian context (Davidson, 2011). As of 2010, only 20 percent of humanitarian organizations consistently monitored and reported their performance (Baruch and Ramalho, 2006).

A disaster response operation involves trade-offs of speed, cost, and accuracy with regard to the type of goods that are delivered and their quantities. Balancing these trade-offs requires a means of measuring supply chain 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).

Against the background of for-profit companies realizing in the late 1980s and early 1990s that financial measures alone are inadequate for measuring performance as they communicate little about long-term value creation, Robert Kaplan and David Norton introduced the Balanced Scorecard model (BSC) (Kaplan 2001, 454). This performance

measurement system retained an emphasis on financial measurements but complemented these with measurements from three other perspectives: customer, internal business processes as well as learning and growth (Kaplan 2001, 354). Today, the BSC has become one of the most commonly used tools in performance management and has been credited by the Harvard Business Review as one of the most important and influential management tools of the 20th century (Baruch and Ramalho, 2006).

Some NPOs are concerned with relief, some with development, and some address both areas. In recent years, several of the larger NPOs have begun devoting greater resources to relief activities ((Davidson, 2011 p. 66). Even though the initial focus and application of the BSC was in the commercial sector, Kaplan (2001, 354) states that: “the opportunity for the scorecard to improve the management of non-profits should be even greater.”

In this paper, it is focused on assessing the performances of the relief activities of International Rescue Committee here after called IRC in Ethiopia responding to large-scale emergencies caused by disasters by developing and evaluating a comprehensive performance measurement framework for humanitarian logistics at Jigjiga humanitarian program using BSC. This implies the identification of appropriate financial and non-financial performance of humanitarian logistics in the context of IRC by giving emphasis to the customers’ perspectives of BSC since enhancing the customers’ level of satisfaction has to be the final achievement of all humanitarian organization. The research addresses the logistics performances challenges of IRC in providing humanitarian assistance in the forms of food, water, medicine, shelter, and supplies in Ethiopian-Somali Region, Jigjiga humanitarian response program.

### **1.1. Background of the Study**

The performances of a humanitarian organization after a disaster, as well as perceptions of organizational performance are key factors in humanitarian logistics. The increase in the frequency and magnitude of disasters; the scarcity of resources, and the need for accountability require efficient, effective and transparent logistic operations. The ability to deliver the proper goods to meet the right people at the right place at the right time and in the right quantities is a core organizational function (Arvis, 2012).

Since logistics is critical for relief operations, performance measurement of the supply chain has become vital for all humanitarian organizations involved in disaster management. The achievement of the organization goals becomes the focus of the government's interest, as it reflects also the government performance, and also donors would like to know how well did the organization actually perform (Davidson, 2011).

Thinking about performance measurement in humanitarian logistics we first have to define humanitarian logistics. Humanitarian logistics can be defined as the planning, implementation and effective control of the process to meet the needs of those who need it, from the starting point to consumption point, by ensuring efficient flow of cost, storage of goods, materials and related information (Thomas & Kopczak 2005). This definition is adopted by several authors and organizations and corresponds with more general definitions with view to logistics management and supply chain management with a special focus on alleviating the suffering of vulnerable people.

Humanitarian performance is the effective collective performance of a complex system of international, national and locally-based organizations, which work to save lives, alleviate suffering and maintain human dignity both during and in the aftermath of man-made crises and natural disasters, as well working to prevent and strengthen preparedness for the occurrence of such situations (United Nations, 2009).

The clearest benefit of performance measurement using the BSC in humanitarian logistics is the importance it places on customer service. In the humanitarian sector, the customer's

perception of service and the media's portrayal of this service greatly affect an organization's reputation and potential donations, so the customer perspective is critical in this sector. Because the BSC incorporates the customer perspective as a significant part of its framework, it follows that the BSC should, in theory, provide a framework of metrics that is consistent with a humanitarian organization's goals (liu, 2014).

Therefore; this study presented the BSC to define key performance indicators by adapting the model to the humanitarian aid logistics, based on an effective performance management tool in non-profit organizations by taking a case study on IRC. It assesses the challenges of IRC humanitarian logistics and ways of improving the performances of the organization and hence enhancing the beneficiaries' satisfaction rate using BSC at Somali Region, Jigjiga humanitarian response program in four woredas of Siti Zone. These woredas are: Erer, Shinile, Ayishia, and Dambel in the forms of nutrition & health, water, sanitation and Hygiene (WASH).

## **1.2. Statement of the Problem**

The study of metrics in humanitarian logistics is an important domain of supply chain management which has received little attention. Effective performance measurement systems would help how performance measurement can be applied in humanitarian logistics and it contributes the ways of the performance measurement contribution to improve the performance in humanitarian aid. By implementing appropriate performance measurements, the humanitarian organizations can limit the impact of the challenges in the supply chain operations, gain more relevant and precise information regarding the humanitarian operations, and enhance supply chain coordination among different stakeholders (Baruch and Ramalho, 2006).

Moreover, donors are becoming more demanding regarding performance improvements in the humanitarian aid sector and this increases the level of customer satisfaction. The humanitarian organizations operated in Ethiopia are characterized by unpredictable demand, degraded infrastructure, lack of adequate and qualified of personnel and complicated funding procedure supplemented by the increase of the frequency and the

impact of the disasters (Ethiopian Response Strategy, 2017). Moreover, the assessments of the humanitarian performance system have not been widely developed and applied systematically in Ethiopian humanitarian operations.

Similarly, the performance assessment systems of IRC are inadequate and not performed regularly. The measurements are performed only by evaluating the report feedbacks by monitoring the visits of IRC field staff, feedback sessions, focus group discussions with beneficiaries, and internal monthly progress reports assessing the project against indicators and target. But there is regular water testing both at water treatment plants and at distribution points since pure water is critical to human life.

According to IRC report (2017), the Somali Region is characterized by weak health system as compared to the national average. As the Jigjiga IRC humanitarian response program report indicate (IRC report, 2017), the Siti Zone is one of the most disastrous area affected by natural disaster repeatedly for the last four years. Because of frequent shocks, health facilities in the zone face shortage of essential drugs and medical supplies, poor capacity of health workers and health extension workers, and inadequately trained health experts at the woreda health office level. This problem was exacerbated with the recent El Nino and Indian Ocean Dipole weather conditions causing significant public health repercussions (O'Neill & Young, 2015).

With the use of BSC metrics, Ethiopian humanitarian organizations have the chance to use actual performance as input into future operational plans, identify and eliminate causes of performance breakdowns, use analysis of current performance to inform about continuous improvement, use actual data to strengthen voice with donors, suppliers and logistics service providers and report performance to enhance the reputation of the organization.

In spite of these, there is no extended research mainly in the field of humanitarian logistics performances. Especially humanitarian organization performances and ways to come out of from difficulties are not sufficiently researched in Ethiopian context to fill the

gap. IRC being one of the oldest and well known NPO working in humanitarian operation in Ethiopia is still challenged by different factors in addressing its mission.

Therefore, this system of humanitarian logistics performances assessment using scorecard method is an important step in Ethiopian relief organizations being able to gauge how well their logistics are performing and how quickly beneficiaries are reached with aid to the affected community by considering the IRC humanitarian response of Jigjiga program at Siti zone in Somali Regional state. Hence researching the performance of international humanitarian organization in Jigjiga by taking IRC as a case organization can be taken as an important step for improvement and closing the identified gaps in humanitarian logistics. Since the bottom line for humanitarian organization is to satisfy their customers, the research a due attention to the customers' perspective of IRC.

### **1.3. Basic Research Questions**

To assess the logistics performances, identify the main challenges and investigate ways of improving the humanitarian logistics Performances of IRC-Ethiopia using BSC, the following research questions are discussed and analyzed.

1. What are the drawbacks of IRC logistics performances at Jigjiga Humanitarian response program?
2. How the customer related factors as a component of the Balanced Scorecard affect the performance of IRC in its humanitarian aid?
3. What are the main challenges of the humanitarian logistics performances of IRC?
4. How humanitarian logistics performances of IRC can be improved?

## **1.4. Objectives of the Research**

### **1.4.1. General Objective**

The general objective of this research is to identify the impacts of customer related factors of BSC on the humanitarian logistics, determine its challenges and specify ways of improving the performance of IRC-Ethiopia at Jigjiga humanitarian response program.

### **1.4.2. Specific Objectives**

The specific objectives of the study are to:

- i. Assess the logistics performance drawbacks of IRC in Jigjiga Humanitarian response program using BSC.
- ii. Determine how the customer related factors as a component of the Balanced Scorecard affect performance of IRC.
- iii. Identify the main challenges of the humanitarian logistics performances of IRC.
- iv. Point out ways of improving the humanitarian logistics performances of IRC.

## **1.5. Significance of the Study**

The significance of this study is help Ethiopian humanitarian organizations to improve the service delivery of humanitarian operations and demonstrate the performance of the humanitarian organization, increasing transparency and accountability in disaster response. It would also help the professionals attending the humanitarian operations to take decisions; Although this research was performed with an international non-profit humanitarian organization-IRC in mind, the principles of measurement that are described are relevant to other organizations which participate in disaster relief operations, such as government agencies or national non-governmental organizations.

## 1.6. Limitation and Scope of the Study

Due to time and financial constraints, the research focused only on the performances of IRC for providing humanitarian assistance in the forms of food, water, medicine, shelter, and supplies to Somali Regional state at the Jigjiga programs of Siti zone affected by large-scale emergencies. This study is expected to give an insight in relation to the research question & objectives specified above and not meant to address all the issues related to the logistics systems of NGOs operations in Ethiopia. In addition, the study is dealt with logistics performance problems of organization, but it doesn't mean it didn't attempt to solve the political and religious issues which acting as barriers in any aid process.

## 1.7. Definition of Terms

**IRC:** (International Rescue Committee) refers here humanitarian aid organization operating in Ethiopia.

**NPO/NGO:** (Non-Profit Organizations) refers here to organizations, both national and international, which are constituted separately from the government of the country in which they are founded (United Nations, 2009).

**Disaster:** is a serious disruption of the functioning of a society involving wide-spread human, material, economic or environmental losses and impacts, which exceeds the ability of the affected community to cope using its own resources. (WHO, 2017)

**An emergency** is a situation that poses an immediate risk to health, life, property or environment.

**Customers:** The primary customers of humanitarian organizations are the beneficiaries (those individuals that receive aid). However, donors are also increasingly being considered as customers in the humanitarian context as aid agencies provide them with the service of delivering aid to aid recipients (Beamon and Balcik 2008, 12). But in this study customer implies beneficiaries not donors.

### **1.8. Organization of the Research Report**

This thesis consisted of five chapters which are summarized as follows: It begin with an introduction chapter (1), consists background of the study, statement of the problem, basic research questions, objectives of the study, significance of the study, and delimitation and scope of the study. Following chapter (2) presented the literature review describing the most relevant literature review including the case organization and additional practical information related to it. Some relevant related fields and notions are critically discussed and gaps are identified here. Thereafter, chapter (3), research methodology is provided to explain type and design of the research and how the data is gathered. Next chapter (4), results and discussion section is summarized the results and findings of the study, and findings are interpreted. Finally, chapter (5) summary, conclusions and recommendations are presented.

## Chapter Two

### 2. Literature Review

#### 2.1. Humanitarian Logistics in Non Profit Organization

The first publications considering humanitarian logistics and performance measurement in humanitarian logistics were published by members of the Fritz Institute. 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 ([www.fritzinstitute.org](http://www.fritzinstitute.org)).

The aims and goals are also a central content of the publication Key Performance Indicators (KPIs), which focuses solely on performance measurement in humanitarian logistics (Davidson, 2006). “A disaster relief operation involves trade-offs of speed, cost, and accuracy with regard to the type of goods that are delivered and their quantities. Balancing these trade-offs requires a means of measuring supply chain performance” (Davidson 2006, p. 1). Four indicators have been developed as key performance indicators which measure logistic performance (Davidson, 2006, pp. 4-5):

- appeal coverage (percent of appeal coverage and percent of items delivered),
- donation-to-delivery time (how long does it take for an item to be delivered to the destination country after a donor donated it),
- financial efficiency (comparing the budgeted prices to the actual prices paid for the items delivered and ratio of the total transportation costs in comparison to the total costs for delivered items),
- Assessment accuracy with a special focus on the first three indicators.

This system of scorecards and metrics has been an initial attempt to place a framework for performance measurement in humanitarian logistics. Since building up the first framework of KPIs and scorecard for humanitarian logistics by Fritz Institute humanitarian logistics has been content of several research activities but in most cases not

with a special view on performance measurement. Important research groups in the field of humanitarian logistics are considered in this second part of the state of the art.

A more general indicator for performance measurement in humanitarian logistics is the Logistics Performance Indicator (LPI) documented by the World Bank every two years (Arvis 2012). The efficiency of a country's supply chain (in cost, time, and reliability) depends on specific features of its domestic economy and logistics performance. It provides a simple, global benchmark to measure logistics performance, filling gaps in datasets by providing systematic, cross-country comparisons.

### **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 couple of decades ago, humanitarian organizations' were introduced to the "logistics" phenomenon operating with the private sector mentality (Thomas & Kopczak 2005). Despite the fact that many governmental and non-governmental organizations (NGO) have participated in relief activities after the Tsunami disaster in the Indian Ocean, they were inadequate due to the lack of coordination. The Fritz Institute, in particular, pointed to disruptions in the supply chain, saying that the problem actually required a logistics conference rather than a charity conference. Accordingly, the Tsunami experience in 2004 was the birth of humanitarian logistics on the academic scene (Popa et al, 2010).

In order for a humanitarian aid organization to achieve its goals, the first is to determine which action has priority. For instance, procuring goods for those who need it in the event of a disaster? Or keep the most needed materials at the right amount? The best way to solve such kind of dilemma is to determine the actual goals and core competencies of the organizations. Besides, in the absence of an effective emergency management system, the results of natural disasters are calculated solely by the number of people dead, injured or lost and the economic impacts on the region (WHO, 2017).

### 2.1.2. 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.

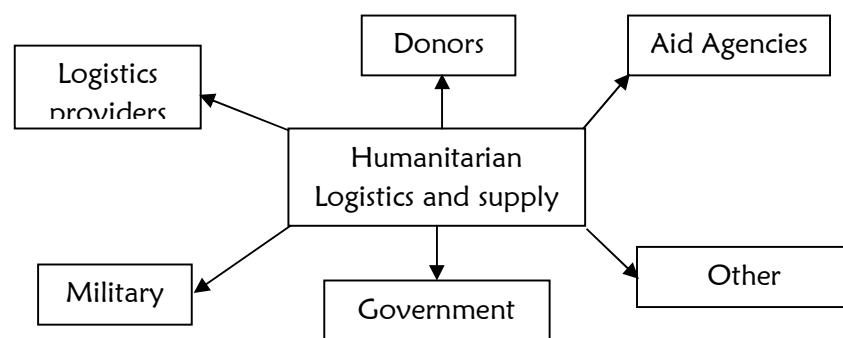


Fig 1: Actors in humanitarian organization (Source: Arzu T. Toklu, 2017)

According to Lagerstrøm, (2002), the end-user in the humanitarian supply chain has no choice in selecting the end-product and therefore, “true demand” is not created. The demand is rather assessed through aid agencies which are also the primary actors through which governments channel the aid. The global actors in the humanitarian supply chain are usually the largest agencies; however, there are also many small regional and country-specific aid agencies (Thomas & Kopczak, 2005). Many of these organizations have their own political motives for providing relief. Sometimes political issues might generate the need for relief operations and even make it difficult for supplies to reach the particular region. In some crisis, such as wars, rebel forces might even block the arrival of the supplies (O’Neill and Young, 2015).

Donors are important actors in the humanitarian supply chain as they provide funding for major relief activities. In recent years, in addition to country specific funding, individual donors, foundations and the private sector have become important sources of funds for aid agencies (Arzu and Toklu, 2017). According to Arzu and Toklu, (2017), other actors in the humanitarian supply chain include the military, host governments and neighboring country governments, other NPOs and logistics service providers. The military can also be seen in many occasions as an important actor as the military personnel can help providing assistance in the crisis zones.

### **2.1.3. Humanitarian Logistics and Relief Supply Chain Steps**

Considering the number of organizations, workers and relief items arriving on the ground and concerning the struggle to coordinate relief efforts in order to most effectively reach those in need, there are some important steps which should be carried out during the disaster response operation under the humanitarian logistics and relief supply chain umbrella (Liu, 2014).

#### **Planning & Preparedness**

This step is including some pre- disasters logistical procedures and activities which should be taken place. A plan includes what tasks are to be done, what part of the organization will be responsible, and how to procure needed resources. They must also have a national or regional plan based on the vulnerabilities of the infrastructure, the logistical support in the area, and governmental emergency response abilities (Liu, 2014).

Planning includes written contingency plans and procedures to respond to disasters. Usually governments have their own national and local plans including organizations, responsibilities, priorities, and main actions to take in case of disasters. Most of the plans include several scenarios based on the level of damage caused. Humanitarian organizations also have their own set of plans, which are usually coordinated with the governmental plans, but can also operate independently.

Preparedness is related to making the system of response ready to respond to catastrophic events. It is not possible to be completely prepared to face the impact of an earthquake. However, planning and preparedness allow for a far more effective

response. Planning for disasters is necessary at the organizational, national and international levels. Organizations such as the International Federation of Red Cross and Red Crescent societies (IFRC), World Vision International, Concern, Oxfam and various UN agencies operate a system of pre-positioning goods, vehicles and equipment at different hubs around the globe. These stocks are managed independently or under the banner of the UN Humanitarian Resources Depot (UN report, 2002).

#### **Assessment**

Assessment fulfills the roles of demand planning in the relief chain. After a disaster, assessment establishes the needs of the population, the local infrastructure capacity, the level and magnitude of damage to the infrastructure, and the local resources which are available to respond. They deal with giving the right amount of aid to the right people and play the role of demand estimation. They can be done by visual inspection, by asking people, by simulation or by sampling. There is some standard information used to assess the impact of disasters, including information such as, possible number of deaths and injuries, availability of local resources, public services like electricity, communications, and transportation services (Beamon & Balcik, 2008).

Without performing a basic assessment, it is difficult to know what is needed, how much is needed, when it is needed, and where it is needed. Assessments are generally composed of several activities: preparedness planning, survey and data collection, interpretation, forecasting, reporting, and monitoring. Preparation identifies what information should to be obtained. There are various methods used to obtain data. They range from visual inspection and interviews by specialists, to statistical sampling, to a checklist.

An assessment team reports the data analysis and thoughts about future developments to the appropriate parties. As assessments are just a snapshot in time, they should be revisited and compared with previous results. The report should include the current food, health, water and sanitation, and shelter situation. It should mention capability / capacity of local resources and if any effort at coordination is underway. Lastly, it should speak to the logistics, by describing how to get relief to people, the state of the roads, seaports, airports, and the costs and availability of transportation.

### **Recourse Mobilization - Financial and Human Resources**

Before the response to a disaster begins, an organization obtains and sets into motion resources. Financial Resources and Donations Once the response operation is underway, organizations allocate available resources and begin requesting additional resources via the appeals process. Appeals for disasters can be carried out by a single organization acting alone or through broker organizations such as Global Impact. The media plays a vital role in promoting appeals to the wider public thereby increasing the visibility of the organizations operating on the ground and what they need.

Human resources must be mobilized and they come in the form of professional humanitarian workers, volunteers, firemen, ambulance workers, police or military staff. Resources have different levels of training, skills, and affiliation. Training varies across organizations and within every organization. Governmental agencies are used to having full-time staff. (Beamon & Balcik, 2008).

### **Procurement and Donation**

Emergency supplies enter the relief chain through different sources, forms, and locations. They can be given as donations, grants, or gifts-in-kind (non-monetary goods and/or services). In-kind donations come in different forms and from several sources, using multiple channels. They may be planned or not. Planned donations usually respond to the needs identified during the assessment phase. Unplanned donations do not necessarily match with the needs of the disaster.

Often unsolicited donations are goods that are not a priority and have not been requested. Aid can be multilateral, administered by international institutions which collect resources from countries and redistribute them, or bilateral, given directly from a donor government to a recipient country. Procurement can be done at the local level or sourced globally. Procurement is carried out using available financial resources or credit. The goal of procurement in relief operations is to enable orders to be placed and delivered on schedule at a good price. When possible, governments and organizations prefer to buy locally to avoid delay times and try to help the local economy. However, some organizations prefer to use their regular suppliers to guarantee the quality and standardization of their supplies, or to get better prices.

#### **2.4.5 Transportation and Execution**

Transportation is critical to deliver aid at the right time and to the right place to assist those in need. It can involve global sourcing, drop shipment, military transport, commercial transport, non-commercial transport, third-party logistics firms, freight forwarders, charter aircraft, or even local transportation in form of planes, trucks, cars, boats, and even animals if necessary (Liu, 2014).

However, transportation is dictated by road conditions, fuel availability, and airports and ports capacity after disasters. The kind of vehicles which can be used depends on the access routes to the disaster zone and the distance to other urban centers able to provide help. Flow capacity, which is the capacity along an access route, is an important variable in deciding the plan for transportation. Transportation might include governmental vehicles, army, humanitarian, volunteers, and private sector partners.

### **2.2. Performance Measurement in Non-profit Organizations**

Performance measurement systems have received much attention in recent years. Traditionally, these systems were focused on financial measures such as sales, profits or return on investment. In the 1990s both practitioners and academics began to question the relevance of using solely financial performance measurement indicators (Kaplan and Norton, 2001). Kaplan and Norton argued that performance measurement systems should include non-financial indicators, which are deemed to be more directly related to firm's long-term strategy, to be better indicators of managerial effort and to be less subject to manipulation. Kaplan and Norton (2001), who are often cited as important developers of performance indicator systems that measure multiple dimensions, apply their performance measurement model to non-profit organizations (NPOs) and argue that financial measures are not the relevant indicators of whether an NPO is delivering on its mission. They stress that measuring performance using a multidimensional set of indicators, primarily based on non-financial indicators, is essential also in the not-for-profit sector (Kaplan and Norton, 2001).

Non-profit organizations provide important services throughout the world. Since the mid-1970s, the NPO Sector in both developed and developing countries has experienced exponential growth (Lagerstrøm, 2002). Growing number of not-for-profit organizations are competing for scarce donors, as well as pressure from donors such as governments and private clients to show that they are “making a difference” (Lagerstrøm, 2002).

Non-profit organizations lack the simple elegance of a financial measure- such as profitability or shareholder returns – used by for-profit organizations to assess their performance. Success for nonprofits should be measured by how effectively and efficiently they meet the needs of their constituencies. Financial considerations can play an enabling or constraining role but will rarely be the primary objective. (Kaplan, 2001).

The application of performance measurement in non-profit organizations serves many purposes, but not limited to discharging accountability and effective and efficient use of resources. So, to achieve efficiency and effectiveness, there should be good control mechanisms that track the performance of these Non-profit organizations. Control is inevitable in human organization. Moreira and Tjahjono (2016), discourse that an organization is concerned with control because of the incompatibility of goals among people and there is a need to inspire employees’ effort toward achievement of organizational objectives. This idea was further supported and emphasized by Lagerstrøm (2002) that it is important that non-profit organizations seek to develop effective measurement systems to monitor and control performance of the executives, managers and other line managers to safeguard their interest and benefits.

### **2.2.1. The Need for Performance Measurement non Non-profit Organizations**

There are several indications that the culture of the non-profit sector is on the brink of being able to embrace a quantitative system of performance measurement. In the past, goals for humanitarian operations have been set very qualitatively, which makes it difficult for these organizations to truly gauge their performance upon the completion of an operation (Powell & Renner, 2012).

Understandably, due to the chaos in which most workers find themselves in the midst of a relief operation, there has been much more emphasis placed in non-profit organizations on the necessity to deliver goods and services as quickly as possible to beneficiaries rather than emphasizing the need to perform the paperwork and review operational performance (Liu, 2014). However, when the record-keeping suffers, knowing with confidence what the current inventory levels are as well as knowing when future deliveries will arrive becomes much more difficult, which often leads to an environment of intense frustration for many relief workers on the ground.

Powell and Renner (2012), suggests that nonprofit organizations should disclose nonfinancial quantitative measures of the quantity and quality of services provided, but does not offer guidance about how organizations should select such measures. Similarly, Liu, (2014) states the subject of performance measurement for nonprofit organizations are extensive but generally inconclusive. Liu notified that nonprofit organizations lack the simple elegance of a financial measure- such as profitability or shareholder returns-used by for-profit organizations to assess their performance. Forbes also observed that nonprofits have a difficulty in 'developing surrogate quantitative measures of organizational performance because they frequently have goals that are amorphous and offer services that are intangible' (O'Neill and Young, 2015). Kaplan and Norton (2001), who are often cited as important developers of performance indicator systems that measure multiple dimensions, apply their performance measurement model to not-for-profit organizations (NPOs) and argue that financial measures are not the relevant indicators of whether an NPO is delivering on its mission.

### **2.2.2. Challenges in Humanitarian Logistics Performances**

The literature illustrates several challenges relating to the humanitarian supply chain that are specific to disaster response contexts. These include a lack of coordination between government and humanitarian actors at the operational level and in pre planning and after action reviews/evaluations, weak structures and processes to facilitate regular and appropriate interaction and substantive gaps in existing guidance on specific issues.

According to Arvis G. (2012), classified humanitarian logistics challenges as natural and man-made. The major categories of the humanitarian supply chain and logistics barriers include governmental related challenges, socio-economic challenges, infrastructure challenges and internal challenges. Each of the major categories had multiple subcategories. The subcategories address individual facets of the major categories which pose more specific problems for the humanitarian logistics performances.

The government related challenges category has subcategories associated to political, collaboration, security, earmarking fund, interferences and customs clearances challenges etc. In fact, without the host government authorization, no other player with the exception of national aid agencies and the military can operate in the disaster theater. Host governments have the responsibility to put into place protocols and take action to reduce the probability of disasters (Davidson, 2006)

The politics and security also play a great role on donor and government influence. Governments hold the main power with the control they have over political and economic conditions and directly affect to humanitarian supply chain processes with their decisions and it may refuse to allow humanitarian agencies to assist their citizens and may object to conditionality of aid and development assistance, citing defense of their national sovereignty (Arvis, 2012). Another major problem faced by logistics managers in humanitarian organizations is that the donor has significant influence over where and how aid is distributed while the victim is a third party with little voice in the matter (Popa et al, 2010).

The security context in a country is also dependent from the government (or its absence), and strongly impacts the performance of the logistics response. Despite humanitarian workers efforts to strengthen operational security in insecure environments, attacks that have led to death, kidnapping or serious injury, continue to exact a heavy toll on humanitarian personnel (Walton, et al., 2011).

### **2.3. The Concepts of Balanced Scorecard**

The concept of BSC was introduced in the literature by Kaplan and Norton (2001). In 1996, Kaplan and Norton also published a book on the subject and pointed out the balanced success indicators as "a way to turn company strategies into action". One principle of the BSC approach is to select key metrics that will help to develop organizational competencies (Ricardo and Joyce 2009).

The BSC is a strategic planning and management system which takes into account non-financial aspect of corporate performance, such as customer satisfaction and business processes, to create complete picture of how the company is likely to perform in the future. Strategy and vision but not control is at the centre in the scorecard. It has goals and assumes that people will adopt it and all the actions are requested to reach those goals. The measures are to take people toward the overall vision. Companies look and move-forward instead of backward with BSC (Kaplan and Norton, 2001).

The BSC points out three purposes; first, it monitors performance as a measurement system. Second, it provides diagnostic feedback of their performance as a communication tool; and lastly, it focuses on the small business visions as a strategic management system (Becker et al., 2001). The BSC has a holistic point of view for the firms by simultaneously monitoring its performance from learning and growth, internal business processes, customer, and financial perspectives (Becker et al., 2001).

#### **2.3.1. The Perspectives of Balanced Scorecard**

The BSC approach originally emerged in 1992, as a framework for performance measurement in the Harvard Business Review (Kaplan & Norton, 2001). The BSC approach forces managers to select only a small number of critical measures by which they can gauge performance. The BSC also excels in forcing organizations to focus on two key issues: first they must examine what their core competencies are, and second, they must look beyond purely financial metrics (Bishnu and David, 2011).

The BSC organizes the metrics into four perspectives that are addressed by asking the following questions, which should provide managers with a more "balanced" perspective of performance than just the proverbial bottom-line results (Ricardo and Joyce 2009).

1. Customer perspective: How do customers see us?
2. Internal Business perspective: What must we excel at?
3. Learning and growth perspective: Can we continue to improve and create value?
4. Financial perspective: How do we look to shareholders?

In order to develop a humanitarian mission map, we investigated humanitarian supply chain literature on each of the four perspectives using the strategy maps framework of Kaplan and Norton as a reference. Table-1 provides a brief overview of literature from the humanitarian sector on each of the four perspectives.

To fully understand the interaction between the four key disciplines, or perspectives, and the reliance on the contribution of each to the overall success of the whole, it is helpful to explain the breadth of each perspective:

**Financial Perspective:** This perspective includes the measurement of operating income, return on capital, and economic value added. Nonprofit organizations, just as for profit companies, must have a solid understanding of their financial situation. Timely data on funding sources, cost of services, and over head costs must be incorporated into the nonprofit's strategic plan to provide a complete picture of the situation. The leadership must be well informed about the financial health of the organization and be comfortable with the financial statements and budgets. At the very least these financial reports provide a solid basis for operations and build confidence with funders, grantors and other sources of revenue (Bishnu and David, 2011).

**Customer Perspective:** This perspective is about the donor, volunteer or clientele (users of services) experience, which is found by measuring satisfaction and retention as well as assessing the nonprofit's market share in its niche. Every nonprofit should measure the attitude of its strongest and most loyal supporters to gain the most for the organization. Keeping donors and volunteers engaged and enthusiastic – and identifying ways to do that through the BSC – provides an incredible advantage for any organization.

**Business Process Perspective:** This perspective involves measuring the cost, throughput and quality of the nonprofit's key operational processes – such as programs provided, services offered, and ability to address targeted audience needs. This internal focus gives leaders a thorough understanding of how well the nonprofit is running and can help them determine which programs and services are meeting the real needs of the community. Often times, nonprofits “assume” a long standing service is valuable when, in fact, it may no longer be addressing the needs of the users as effectively as when it was originally launched. Without looking at the overall effect of each program, it is difficult, if not impossible, to determine its sustainability (Bishnu and David, 2011).

**Learning and Growth Perspective:** This perspective looks at the nonprofit's human capital – its employees, volunteers and its board of directors - to measure satisfaction, necessary skills, community connections, retention and adherence to the organization's mission. Since the staff and volunteers represent the organization's major resources, it is imperative that their performance is appropriately measured. Decisions on training and skill building can be based, in part, on their level of knowledge about the organization. The leadership can also take into account the business skills needed to advance the mission, such as donor development, marketing and branding, leadership, communications and the use of technology to support every aspect of the organization. High performing boards, volunteers and staff are a prerequisite to the success of any nonprofit (Bishnu and David, 2011).

S/ N	Perspective	Content	Humanitarian sector examples
1	Customer	Product & service attributes	Right supplies at the right place and time for those who need it most; speed of delivery
		Customer relationships	There are different customers in a supply chain simultaneously with different requirements
		Image	Branding conflicts with ideals of voluntarism, altruism and democracy connected to humanitarian agencies
2	Business process	Operations management	Provide excellence from field needs assessment to delivery in the field
		Customer management	Donors want to know their money is used well; need to manage a diversity of customers
		innovation	Need for flexible technology solutions
		Regulation & social	Focus on environmental issues; employment of locals
3	Learning & Growth	Human capital	Appropriate logistics knowledge required and not available; manage high field personnel turnover
		Information capital	Create visibility and foster transparency required; good information management is critical
		Organizational capital	Profit incentives to perform certain actions are not like private companies
4	Financial	Manage revenue	Ensure sufficient and timely donor funding
		Manage costs	Track spending of money; focus on efficiency

Table 1: the BSC perspectives of the humanitarian logistics (Moreira and Tjahjono, 2016).

### **2.3.2. The Customer Perspective-the crucial feature of Balanced Scorecard**

The customer perspective of the BSC has to incorporate performance effectiveness as perceived by various customer segments. Based on the assessment information gained from the customer perspective, the organization can easily identify critical performance measures in the other three perspectives (internal processes, learning and growth and financial). Monitoring customer processes through the BSC helps nonprofits collect information about customer's perceived value, service quality, delivery time and costs, and customer's satisfaction. Thus, they will be able to align their strategic plans to the achievement of higher customer intimacy, superior service quality perception and operational Excellency (Liu, 2014).

Liu, (2014), supports the foregoing argument by asserting that this perspective is about the donor, volunteers or clientele (users of the services) experience, which is found by measuring satisfaction and retention as well as assessing the non-profit's market in its niche. Management philosophy has shown an increasing realization of the importance of customer focus and customer satisfaction. These are leading indicators which attempts to indicate that if the customers are not satisfied, they will eventually find other suppliers that will meet their needs. Poor performance from this perspective is thus a leading indicator of future decline, even though the current picture may look good. Phillips J.J., (2014), concurs that being able to satisfy customer needs is fundamental to all corporations and to achieve positive financial results (both in the short and long term), many organizations gear themselves towards their customers and also include them in their mission. Phillips J.J., (2014), asserts that every NPO should measure the attitude of its strongest and most loyal customers to gain the most for the organizations.

This research therefore mainly focuses on the key elements of IRC's logistics performance in Ethiopia at Jigjiga humanitarian program in the context customer perspective of customer's perceived value, service quality, delivery time and quantity, and customer's satisfaction from the BSC framework and its challenges.

### **2.3.3. Benefits of BSC metrics for Humanitarian Organization**

While the BSC was originally designed to be implemented in for-profit businesses, it has been successfully implemented in other non-profit organizations, such as local governments (Moreira and Tjahjono 2016). They provide insight into the history of performance measurement in governmental systems and indicate that performance measurement in earnest began when local governments started to understand the importance of focusing their attention on customer service and product quality.

The clearest benefit of using the BSC approach in humanitarian logistics is the importance it places on customer service. In the humanitarian sector, the customer's perception of service and the media's portrayal of this service greatly affect an organization's reputation and potential donations, so the customer perspective is critical in this sector. Because the BSC incorporates the customer perspective as a significant part of its framework, it follows that the BSC should, in theory, provide a framework of metrics that is consistent with a humanitarian organization's goals (Niven, P2002).

One of the significant determinants of application of the BSC in an organization relates to the leadership of that very organization. The senior managers of an organization assume a dominant responsibility in shaping the strategic path of the organization, designing the organization and putting in place effective management systems. Having an influential position in the organization and being accountable for the effectiveness of the strategic achievements and operations of the organization puts one in a position to decide on the adoption of any innovations.

Managers also have the power to decide the type of management tools and practices to be adopted in the organization. Top management involvement may help to create commitment and generate organizational support for adoption of innovations such as the BSC (Popa et al, 2010). They assert that the internal characteristics of the organization are also a major determinant of application of the BSC. For instance the influence of the finance department is anticipated to impact on BSC application.

The various actors working in specific functions within the firm typically share professional or expertise specific values created partly through common education. According to Niven, P.N. (2002) it is important for organizations intending to apply the BSC to avoid piece meal application of the same. Organizations need to introduce application of the BSC on the entire organization if at all it has to be successful.

#### **2.4. Humanitarian context in Ethiopia**

Several researchers described the humanitarian context in Ethiopia as a chronic crisis with repeated and fairly predictable emergencies – droughts, floods and disease (both human and animal) outbreaks – though the timing and magnitude of the crises is difficult to predict (Belayneh, 2013).

Ethiopia's worst drought in 30 years is fueled by the El Niño weather pattern that has contributed to two failed seasonal rains last year dangerous for a country where more than 80 percent of its population is farmers. Even in contemporary Ethiopia, a widespread drought is severely impacting Ethiopia, leaving millions of people without enough to eat. In December 2015, the Government of Ethiopia announced that the number of people in need of food assistance had increased to 10.2 million (WHO, 2017).

Ethiopia has suffered from drought for decades, but 2016 saw the worst in 50 years, affecting more than 10 million people. Many were forced to walk more than 12 hours in a desperate search for water. While the Ethiopian government is leading the ongoing drought response, more support is needed to reach millions of people in need of food and emergency assistance. As drought intensifies across East Africa in 2017, below-average rains have left 5.6 million people in Ethiopia in need of food aid while over 9 million lack access to safe drinking water. More than 300,000 children are expected to need treatment for severe acute malnutrition as the crisis continues. Children often miss school in order to search for water. Women and girls, in particular, are in need of clean and accessible health centers and protection from abuse and exploitation (WHO, 2017).

In order to address both chronic & acute food insecurity, the country has been receiving donations of food commodities from different organizations/ nations in different parts of the world. Currently, the logistics unit under disaster prevention and preparedness agency (DPPA) is responsible to coordinate the timely delivery of relief resources obtained from different multi-lateral, bi-lateral donor agencies & international & local NPOs to disaster affected localities in different part of the country (Belayneh, 2013).

#### **2.4.1. International Rescue Committee Humanitarian Programs in Ethiopia**

Ethiopia is located in the Horn of Africa, is still coping with the effects of its worst drought in decades. Today some 5.6 million Ethiopians are in need of food and aid as a new drought takes hold of the region. The IRC delivers clean water and sanitation, essential supplies, and other emergency assistance to vulnerable Ethiopians while supporting government-provided health services (WHO, 2017).

To evolve Ethiopian affected communities from emergencies to rebuilding, the IRC works to build stronger community and government oversight on improved water, hygiene and sanitation services, and maintenance of systems. It also collaborate with communities on issues such as climate change and disaster risk management to ensure that communities have the resources they need to survive in a changing world (Alton Kastner, 2015).

Since the IRC began working in Ethiopia, it has responded to various WASH emergencies, constructing a range of water systems and sanitary facilities for refugee camp populations; operating emergency water treatment systems; distributing water treatment chemicals and jerry cans; and coordinating water trucking to those in critical need. The IRC has also run innovative and effective hygiene promotion and capacity-building activities in the communities in which it works. The IRC has been implementing WASH programming in Tigray and Gambella regions since 2003 and 2011 respectively. The IRC is currently the water or WASH provider in 13 refugee camps in Ethiopia, serving more than half of the refugees registered nationwide (IRC, 2017).

#### **2.4.2. IRC Humanitarian Response in Jigjiga Program**

IRC has a regional field office located in Jigjiga town in Somali Region sufficiently staffed to effectively manage projects in the area and provide immediate logistical, administrative, and financial support for the IRC's operation. This includes health and WASH staff already on the ground. The Health Technical Unit in Addis with support from HQ based Technical Advisors leads all technical aspects of the health program across the country (IRC, 2015).

The IRC is implementing an integrated emergency in four woredas of Siti Zone of Somali Region under Jigjiga humanitarian response program. These woredas are: Erer, Shinile, Ayishia, and Dambel (IRC, 2017). The project will integrate basic primary health care interventions (both curative and preventive services); Water, Sanitation and hygiene (WASH) communicable disease outbreaks preparedness & responses and establishment /strengthening of rapid response coordination mechanisms (IRC, 2017).

#### **2.4.3. IRC Humanitarian Response Performance Measurement**

Existence of non-profit organizations relies on their credibility to donor institutions. To maintain this credibility non-profit organizations are responsible and accountable to report their performance to donors. In doing so, there is a need of effective performance measurement system for non-profit organizations to measure their performance.

The IRC will ensure that program implementation in the affected community is measured, monitored and evaluated using a variety of methods. Some of these methods include: monitoring visits by IRC field staff; feedback sessions; focus group discussions with beneficiaries. Regular water testing is frequently done at both water treatment plants and at distribution points. In addition, internal monthly progress reports will assess the project against indicators and targets. These reports will be prepared at the field level and reviewed at the country level by Field Coordinators, Program Sector Coordinators, and the Grants, Monitoring, Evaluation, and Learning Units (Alton Kastner, 2015).

To ensure the quality of services delivered, or delays observed through internal program review and site visits is used to correct program deficiencies and to inform future program planning. The IRC tries to address any bottlenecks in implementation and ensure the participation of the intended beneficiaries, and consolidate this information to share with project stakeholders. The IRC will also use the information gathered to address issues of equity of access to services through close supervision and targeted training with water supply management staff.

## **2.5. Conceptual Framework**

The conceptual framework was adapted from the Balanced Scorecard theoretical framework by Kaplan and Norton (1992) to explore the efficacy of the framework as a performance measurement tool within the Non-Governmental Organization (NGO) fraternity. In this framework the four main perspectives of performance measurement dimensions were modified within the humanitarian organization's mission and strategy. In this context, each performance measurement perspective had a number of item measures in relation to the mission of the NGO. The measures focused on all areas that attempted to reflect the perspectives within the organization.

In summary, the modified BSC conceptual framework of the logistics performance model is an effective management tool that can support improvements in humanitarian relief activities.

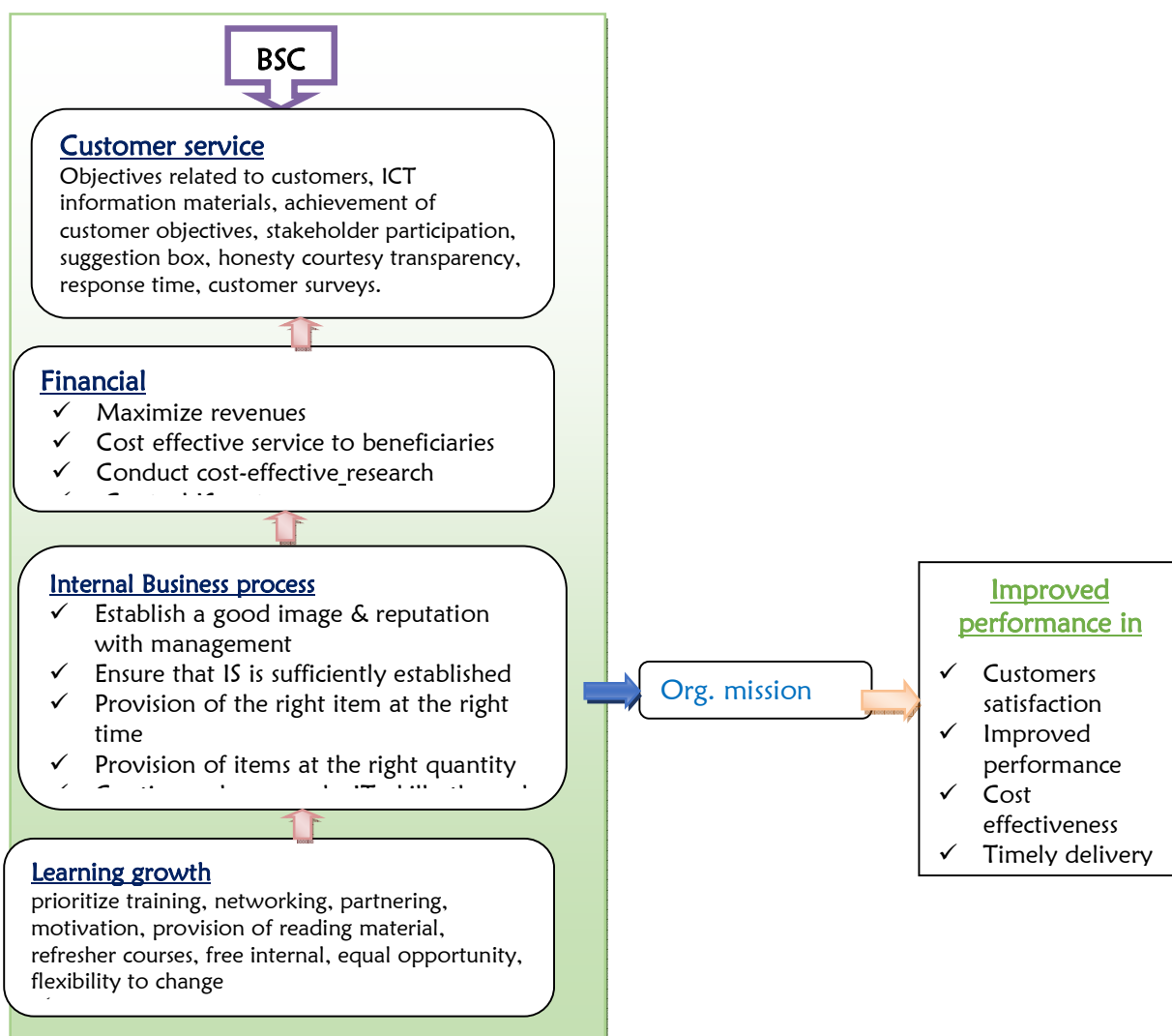


Figure-2: Modified model of performance measurement using BSC (Nicholas J. Mathys, 2006).

## Chapter Three

### 3. Research Methodology

This chapter contains the methodology to investigate the challenges and ways of improving the humanitarian performance of IRC by use of the BSC. In this chapter, the description of the research area, research design, the target population, sampling design, sample size, data collection and analysis are briefly discussed.

#### 3.1. Description of the Study Area

IRC globally founded in 1933. It is one of the world's leading humanitarian and post-conflict development agencies, supporting communities in over 40 countries including Ethiopia. The IRC offers lifesaving care and life-changing assistance to refugees forced to flee from war, persecution or natural disaster (Alton Kastner, 2015).

The IRC began working in Ethiopia since 1999 in response to emergency water and sanitation needs resulting from drought in the Somali Region. Since then, the IRC has significantly expanded its presence across Ethiopia and is currently implementing multi-sectorian programs, which include child protection (CP), gender-based violence (GBV) prevention and response, community based health, and water, sanitation, and hygiene (WASH), in 19 refugee camps (Alemu, 2013).

The IRC currently operates across six regions in Ethiopia, with field offices strategically located in the North (Tigray Region), South (Southern Nations, Nationalities and People's Region), East (Somali and Oromia Regions) and West (Benishangul-Gumuz, and Gambella Regions) (IRC humanitarian, 2017). With offices throughout Ethiopia, including a main office in Addis Ababa, six field offices, two sub-offices and 17 offices in refugee camps, the IRC employs more than 900 staff and 1,400 refugee incentive workers. Its main office in Addis Ababa is staffed to provide technical oversight and program management, logistical, administrative, and financial support for all IRC programs throughout Ethiopia (IRC humanitarian, 2017).

### 3.1.1. Background of the Somali Region

The Somali Regional State of Ethiopia borders Somalia, Djibouti, Afar Region and Oromia. According to projections by the Central Statistical Agency of Ethiopia (CSA) in 2014, the region had a total population of nearly 5.6 million living in nine administrative zones, further divided into 68 woredas.

The Somali Region in general has a weak health system as compared to the national average. Because of frequent shocks, health facilities in the zone face shortage of essential drugs and medical supplies, poor capacity of health workers and health extension workers, and inadequately trained health experts at the woreda health office level. This problem was exacerbated with the recent El Nino and Indian Ocean Dipole weather conditions causing significant public health repercussions.

In most of the districts of the Siti Zone, for the human consumption of water comes from surface water during rainy season, which can be easily contaminated. Otherwise people directly drink from waters accumulated in traditional ponds and *birkads* that collect surface run-offs containing impurities like animal carcasses and other human wastes cause waterborne diseases that increase community vulnerabilities. In addition to this, most of the health centres and health posts and schools are highly affected due to lack of access to water.

According to the Somali Region assessment report (*HRD, 2017*), the rural population of Siti Zone is primarily pastoralist and is estimated at 545,000 persons, of whom 40,643 are children under five. According to IRC report (2017), there are about 160,000 persons who demands immediate assistance in the four woredas- Ayshia, Shinlie, Dambel and Erer woredas of Siti zone. From this figure, 42,000 beneficiaries are registered by IRC humanitarian response program.

The responses to the anticipated events in 2017 exert an additional burden on the health system, especially in pastoralist areas such as Siti Zone. The ongoing outbreak of disaster in Somali Region is expected to be aggravated by the dry spells and will continue to pose the risk of wider expansion of disease and even to other parts of the country (HRD, 2017). Population displacement due to drought and flooding is also expected.

### 3.1.2. Geographical Map of the Study Area

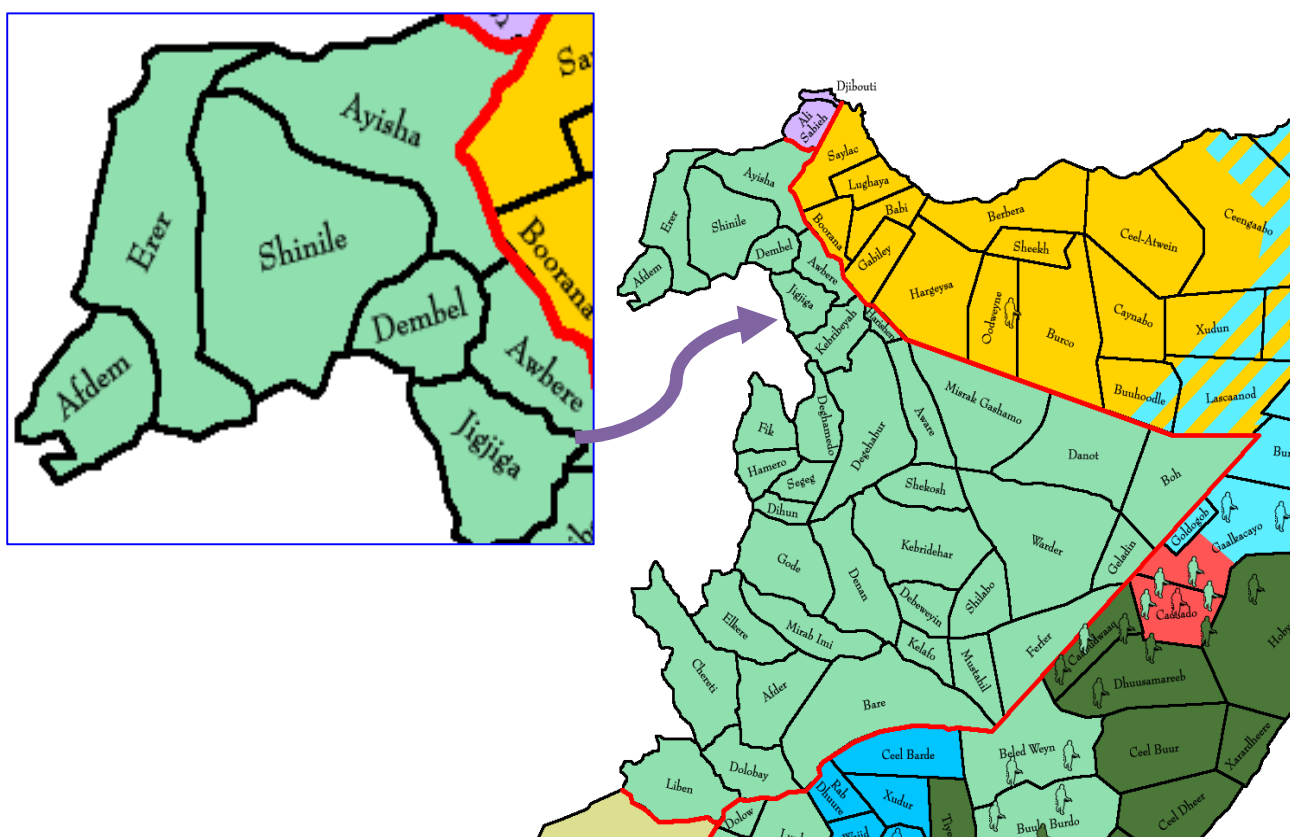


Fig3: geographic map of the study area.

### **3.2. Sources of Data**

In this study, blends of primary and secondary data are used. Concerning the primary data both open- ended and close- ended questions were collected from selected respondent (administrative IRC staff) and from the community respondents.

The administrative IRC staff includes top and middle level managers, logistics, finance, program and procurement department heads of the IRC staffs located at IRC main office in Addis Ababa, the branch office in Jigjiga and from the IRC sub office in Siti zone. Concerning the affected community respondents, data is collected from the affected communities who are living in Somali region-Siti zone in four woredas namely, Ayshia, Shinlie, Dambel and Erer woredas.

Concerning the secondary data, relevant data is collected from textbooks, journals, internet sources, research papers, articles and company files and reports.

### **3.3. Research Design**

To investigate the performance of humanitarian logistics and determine the challenges of IRC using the BSC at Somali Region, Jigjiga humanitarian response program, a descriptive research-quantitative in nature was employed in the research. A descriptive research design determines and reports the way things are (Mugenda & Mugenda, 2003). Creswell (2003) observes that a descriptive research design is used when data will be collected to describe persons, organizations, settings or phenomena.

#### **3.3.1. Research Approaches**

The questioner is structured in two constructs. The first construct is designed for the affected community respondents at Siti zone having 10 items and the second construct for the IRC administrative staff informants having 23 items, with a total of 33 items.

The second construct that is prepared for IRC staff informants had two constructs. The first construct has a total of has twenty (20) item and are organized in five point likert scale. Similarly, the second construct consisted of twenty-two (22) items in five point likert scale supplemented by an open ended question for any additional comments by the respondent. These items are administered by IRC administrative staffs, logistics,

finance, program, monitoring & evaluation and procurement heads of the IRC staffs located at IRC main office in Addis Ababa, the branch office in Jijjiga and from the IRC sub office in Siti zone.

The third constructs of questionnaire is prepared for community informants that has 10 (ten ) items organized in five-point Likert scale that asked respondents of the affected community to agree or disagree by scoring items ranging from 'very low' to 'very high'. The questioner filled by the community is prepared both in Amharic and Somali local language to minimize language barriers in the study. It is mainly aimed at assessing the satisfaction level of beneficiaries by the supply and services of IRC.

### **3.3.2. Pilot Testing**

A pilot study was carried out among 20% of the sample size amounting to 20 eligible respondents of the community samples. This proportion can be sufficient to run pilot test as it was suggested by Swales, J.M., (2013) that a minimum number of respondents for the purpose of pilot test would be 15%. These respondents were part of the selected sample to be used in the study so they were excluded from the study sample. The pilot study adopted the same procedures and sampling technique adopted in the main study. The researcher waited 10 days after conducting the pilot test so as to avoid contamination of data for the main research. Then the data was analyzed, the resultant product was used to provide suggestions on how the research instruments could be reviewed and revised to become suitable for the study.

### **3.4. Population and Sample Size**

Swales, J.M., (2013) define a target population of a study as a finite list of all the individuals who are considered suitable in providing relevant information for the study at hand. The target sample size for the community respondents are determined based on the sample size determination table (Glenn, 1992) as shown in table-2.

According to IRC report (2017), there are about 42,000 beneficiaries who are covered by IRC humanitarian response program. Therefore, this figure can be taken as the population size of the research. Therefore, 100 samples for precision  $\pm 10\%$  from a

population size of 42,000 are considered for the questionnaire respondents as referenced by sample size determination table (Glenn, 1992) from the affected community located at the four woredas of Siti zone (Ayshia, Shinlie, Dambel and Erer woredas).

There are also a sample of 35 (thirty-five) questioner respondents from IRC administrative staff in the positions of top and middle level managers, logistics, finance and procurement department heads of both at the main and branch offices of the study area.

Size of Population	sample size (n) for precision (e)	
	e= ±5%	e= ±10%
500	222	83
1000	283	91
2000	333	95
3000	353	97
4000	364	98
5000	370	98
7000	378	99
9000	383	99
10000	385	99
15000	390	99
20000	392	100
25000	394	100
50000	397	100
100000	398	100
>100,000	400	100

*Table-2: sample size determination (Glenn, 1992)*

The data collected from the affected community is determined by the method of stratified sampling in which each woreda is categorized as strata. Therefore the total 100 samples are equally shared among the four strata (woredas) and is set to be twenty-five (25) for each woreda since approximately an equivalent number but homogeneous population existed in each woreda.

Concerning the data collected from IRC staff, purposive sampling is employed so that the respondent is expected to be member of top and middle level managers, logistics, finance and procurement heads of the IRC either at the Main office of IRC or at the branch offices of Jigjiga IRC program. The reason that respondents of IRC staff are selected by judgmental random from top and middle level administrative positions IRC staff is that the relevant information and documents could existed with these individuals and most importantly, their duties and responsibilities make them the right person to the study area.

S/N	Types of Data	Data Source	From	Population size	Sample Size
1	Primary data	Questionnaire	community	42,000	100
		Questionnaire	IRC staffs	85	35
2	Secondary data	documentary analysis of textbooks, journals, internet sources, research papers, articles and company files and reports			

Table-3: Summary of Data sources

### 3.5. Data Analysis

The data is analyzed with the help of the statistical tool SPSS version 22. This tool very important to determine mean, standard deviation, median and cumulative frequency. In addition to this, tables, percentage will be used to present data and interpretation.

In order to make the study findings more clear and easy to understand, the researcher explained the findings as illustrated in each table. This in turn assisted in drawing conclusions and making recommendations based on the study findings.

## **3.6. Validity and Reliability of the Study**

### **3.6.1. Validity of Research Instruments**

Validity refers to the extent to which recorded observations accurately reflect the construct they intend 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.

### **3.6.2. Reliability of Research instrument**

Reliability refers to the extent to which a research instrument yields consistent results or data after repeated trials (Powell 2003). In this study reliability was tested using split- half method to measure internal consistency of the items measuring each construct. The research instrument was administered to the 20% of the respondents and data obtained split into two sub sets (the sets had odd numbers and even numbers). All even numbered items and odd numbered responses in the pilot study were computed separately. Reliability test statistics based on Cronbach alpha revealed coefficients greater than 0.7 across all perspective measures. This indicated it is an acceptable instrument.

## **3.7. 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.

During data collection and other parts of the study, the following research based ethics are considered.

- The research conclusion is drawn from the research data without the involvement of researcher's biasness.
- Contacts are made without harming the respondents' rights including telephone calls, mail, e-mail and appointment contacts.
- Care is taken to avoid a clear psychological, physical or emotional injury for those who involved and touched by the study.
- Individuals who contributed directly or indirectly to the study are properly acknowledged.

## Chapter Four

### 4. Data Analysis, Results and Discussion

This chapter presents data analysis and discussion of the study on the logistics performance of humanitarian organization in Ethiopia using BSC in the case of IRC. The chapter includes findings of the study under thematic areas namely questionnaire response rate, data analysis of the customer respondents and IRC staff respondents concerning the Customer perspective, Internal Processes perspective, Learning and Growth perspective and Financial perspectives. The analysis and interpretation of data was guided by the research objectives from which a discussion of findings has been made.

#### 4.1. Response rate

The study was targeted to one hundred (100) beneficiaries affected by natural disaster in Siti zone of the Jigjiga IRC humanitarian response program by considering four woredas. In addition 35 (thirty-five) questionnaires were distributed for the IRC staff in the position of Finance, procurement, logistics, monitoring & evaluation and administrative staffs. From these 86 (eighty-six) questionnaires from the beneficiaries and 29 questionnaires from the IRC staff are filled and returned to the researcher. The response rate was 86% and 83% respectively. This response rate was sufficient and representative, and conforms to Powell, 2003 stipulation that a response rate of 50% is adequate for analysis and reporting; a rate of 60% is good while a response rate of 70% and over is excellent. This commendable response rate was due to extra efforts that were made via follow-up visits to remind the respondents to fill-in and return the questionnaires.

## 4.2. General Information of IRC Staff Respondents.

### 4.2.1. Respondents Sex

The Finance, procurement, program, logistics and administrative managers were asked to indicate their age bracket. The results presented in table-4 below shows that 24 % of the respondents were females while the rest 76 % of the respondents were male.

<i>Sex</i>	<b>Number of respondents</b>	<b>Percent</b>	<b>Cumulative Percent</b>
Male	22	76	70
Female	7	24	100.0
Total	29	100.0	

*Table-4: Respondents sex*

### 4.2.2. Respondent's age

From the findings, the respondents from the supply chain/ procurement/ logistics administrators, 24.1% were between 20-30, the majority of respondents were between 31-40 years old (41.4%), 34.5% were over 40. The findings indicate that majority of the respondents were aged between 31-40 years and could therefore handle the labor intensive logistics management works owing to their productive age.

<i>Age</i>	<b>Number of respondents</b>	<b>Percent</b>	<b>Cumulative Percent</b>
Under 20	0	0	0
20-30	7	24.1	24.1
31-40	12	41.4	65.5
Over 40 years	10	34.5	100
Total	29	100	

*Table-5: Respondents' Age*

#### 4.2.3. Respondent's years of experience

The respondents were asked to indicate their years of experiences. The number of years that an individual has been in the organization and his or her age determines the level of dealing with the logistics performances in the research area.

Work experience	Number of respondents	Percent	Cumulative Percent
Under 2	2	6.9	6.9
2-5	9	35	41.9
6-10	11	37.9	79.8
Over 10 years	7	24.2	100
Total	29	100	

Table-6: Respondent's years of experience

The results presented in table-5 shows that 6.9 % of the respondents were under 2 years of experiences in the organization, 35 % of the respondents were 2-5 years of experiences, 37.9% of the respondents have 6-10 years of experiences and the rest 24.2 % of the respondents were working over 10 years in the organization. . It indicates that the majority of the IRC staffs are worked in the organization for more than two years where they are in a better position to understand their organization's strength and weaknesses and hence the data obtained from these respondents are more reliable.

#### 4.2.4. Educational Qualification of respondents

Regarding question rose to respondents about their Educational Qualification, as indicated in table-6; 10.3 % of respondents had diploma, 58.6% of respondents had first degree and the rest 31 % 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 research questionnaire.

Educational level	Number of respondents	Percent	Cumulative Percent
College Diploma	3	10.3	10.3
First Degree	17	58.6	68.9
Second Degree or above	9	31	100
Total	29	100	

Table-7: Educational qualification of respondents

#### 4.2.5. Respondents' department/work Unit

The IRC staff respondents for questionnaire were asked to indicate their department/work unit in the organization and the results are presented in table below.

Respondents' Department	Number of respondents	Percent	Cumulative Percent
Administrative	6	20.7	20.7
Logistics and Procurement	8	27.6	48.3
transport	2	6.9	55.2
Program/technical	7	24.1	79.3
Finance	4	13.8	93.1
Monitoring & evaluation	2	6.9	100
Total	29	100	

Table-8: Respondents department/work Unit

#### 4.3. General Information of Community Respondents

Concerning the general information about the questionnaire respondents from the beneficiaries (affected community) on the logistics performance of IRC at Jigjiga humanitarian response program at Siti zone, the following data is summarized.

Respondents sex			Respondents age category				Respondents educational level			
sex	Freq.	%	age	Freq	%	Com. %	level of Education	Freq	%	Com. %
M	47	54.65	under 20	12	13.95	13.95	uneducated	18	20.93	20.93
F	39	45.35	20-35	21	24.41	38.36	Grade five or less	29	33.72	54.65
			36-45	28	32.56	70.9	Grade 6 to 12	33	38.37	93.03
			Over 50 yrs.	25	29.1	100	College diploma or more	6	6.97	100
Total	86	100		86	100			86	100	

Table-9: general information of the beneficiary respondents

As shown in Table-9 (above), the study had a sample size of 100 respondents from the affected communities who were drawn from the four weredas of Siti zone namely; Aysha, Erer, Shinele and Dembel supervised under Jigjiga IRC humanitarian response program. A total of 100 questionnaires were issued and the researcher managed to receive back a total of 86 questionnaires. From the total respondents, 54.65% are male and the rest 45.35% are females. This shows that the majority of household beneficiaries of IRC are represented by males. In terms of age, 13.5 % are below the age of 20, 24.41% of respondents are between the age of 20 and 35; the majority of the respondents (32.5%) are between the age of 36-50, and the rest 29.1% are above 50. This shows that most of the beneficiaries affected by the disaster are adults between 36 and 50.

Regarding education level, 20.93% of the beneficiaries don't have the basic skill of reading and writing of any language, have Diploma, 33.72% of the respondents have educational level of grade five or less, 38.37% are between grade 6-12 and the remaining 6.97 % respondents have college diploma or more. This tells us that most of the respondents (54.6%) have educational level of five or less.

#### **4.4. Findings from Staff and Community Respondents**

To investigate the performance of humanitarian logistics and determine the challenges of IRC at Somali Region, Jigjiga IRC humanitarian Program using the BSC, findings from the staffs are gained from the five point likert scale in three constructs. The first part of the questionnaire (20 questions) are intended to get an overview on the logistics performance and its management system of the organization and the second part comprise of 22 (twenty- two) questions with five point likert scale supplemented by empty spaces aiming to understand the challenges of IRC and ways of improving its logistics performances in handling humanitarian aid to the affected community. In the third part, the researcher sought to find out how customer related factors as a component of the BSC affect the performance of IRC and this component has 10 items.

#### **4.4.1. Findings from Staffs on Logistics Performances**

To investigate the logistics performance of IRC in Jigjiga humanitarian response program, the factors affecting the four perspectives of BSC are considered. The findings from IRC staff respondents explain how well the IRC humanitarian response program are performing and how quickly aids are reached to the affected community.

##### **KEY:**

- 1= strongly agree, 2= agree, 3= neutral, 4= disagree, 5= strongly disagree
- F= frequency, %= percentage,
- Total= Total number of respondents to the corresponding statement

##### **i. Financial Perspectives**

The financial performance of Non-Governmental Organizations is defined in terms of financial accountability. In this study, The financial perspective had 5 items that assesses the organization's financial status including if sufficient amount of fund reach to the community, warehouses are located in the right location that minimizes overall logistics costs, whether IRC adopts a strategy that minimizes its transportation and inventory expenses, is there a clear and transparent way of spending money and whether the organization conducts financial audit regularly.

Descriptive statistics were run for all the items and frequency and percentage of respondents are summarized as indicated in Table 10 below.

S/ N	Components of Financial Perspectives:	Total	1		2		3		4		5	
			F	%	F	%	F	%	F	%	F	%
1	sufficient amount of fund reach to the community	26	3	11.54	5	19.2	3	11.54	9	34.6	6	23.1
2	warehouses are located in the right location that minimizes overall logistics costs	27	7	25.9	9	33.3	3	11.1	4	14.81	4	14.81
3	IRC adopts a strategy of minimizing its transportation and inventory expenses.	28	6	21.4	10	35.71	3	10.71	6	21.43	3	10.71
4	There is a clear and transparent way of spending money	29	2	6.89	5	17.24	3	10.34	12	41.38	7	24.13
5	The organization conducts financial audit regularly	25	2	8	3	12	4	16	10	40	6	24

Table-10: financial perspectives (Source: Research Data)

As indicated in the table above in table-10, the study sought to find out how much the components of the financial perspectives of BSC affect the logistics performances of IRC humanitarian response program in Jigjiga. Respondents were asked if sufficient amount of fund reach to the community. It can be observed from the findings tabulated above that 23.1% strongly disagreed, 34.6% of the respondents disagreed, 19.2% agreed and 11.54% strongly agreed.. This indicates that most of the respondents believe that sufficient amount of fund is not reached to the community during emergency response.

Similarly, IRC staff respondents were asked if warehouses are located in the right location that minimizes overall logistics costs. 14.81% strongly disagreed, 14.81% disagreed,

33.3% agreed and 28.9% strongly agreed. Therefore, it is clear that majority of the respondents agreed that warehouses are located in the right location that minimizes overall logistics costs.

Concerning the IRC strategy to minimize its transportation and inventory expenses, 10.71% respondents strongly disagreed, 21.43% disagreed, 35.71% agreed and 21.4% strongly agreed therefore most respondents agreed that IRC adopts a strategy of minimizing its transportation and inventory expenses. About the transparency of spending money of the organization, 24.13% strongly disagreed, 41.38% disagreed, 17.24% agreed and 6.89% strongly agreed. This implies most respondents believed that there is no a clear and transparent way of spending money.

Finally, the researcher wanted to investigate whether the organization conducts financial audit regularly or not. 24% strongly disagreed, 40% disagreed, 12% agreed and 8% strongly agreed. This indicates that the organization do not conduct financial audit regularly.

#### **ii. The Customers Perspectives**

The researcher sought to find out how customer related factors as a component of the BSC affect performance of Non-Governmental Organizations. The customer perspective assesses the organization's attention to its customers. The customer perspective in this study includes six items namely the presence of well stated objectives towards customer service, existence of relevant ICT/information system, if supplies are reached to customers at the right time, the programs and services responsiveness to immediate needs of the affected community and government, if there is regular customer satisfaction surveys and existence of definite response duration for customer feedback.

The frequency and percentage of respondents are summarized as indicated in Table-11.

S/N	Components of Customer Perspectives:	Total	1		2		3		4		5	
			F	%	F	%	F	%	F	%	F	%
1	Presence of well stated objectives towards customer service	29	13	44.82	11	37.93	1	3.45	3	10.34	1	3.45
2	Existing relevant ICT/information system	27	4	14.8	11	40.74	2	7.4	7	25.92	3	11.1
3	supplies are reached to customers at the right time	27	1	37.03	4	14.81	3	11.1	16	59.25	3	11.1
4	The programs and services of IRC respond to immediate needs of the affected community and government	28	1	3.57	5	17.85	4	14.3	15	53.57	3	10.74
5	There is regular customer satisfaction surveys	29	2	6.9	2	6.9	3	10.34	13	44.83	9	31.03
6	Definite response duration for customer feedback	28	2	7.14	3	10.71	2	7.14	14	50	7	25

Table-11: customer perspectives (source: research data)

Based on the research data shown in the table-11 above, research respondents were asked about the presence of well stated objectives towards customer service in the organization; and the following findings obtained. 3.45% strongly disagreed, 10.34% of respondents disagreed, 37.93% agreed and the balance 44.82% strongly agreed. Therefore a well stated objective towards customer service is properly addressed by the organization.

Concerning the existence of relevant ICT/information system, 11.1% of respondents strongly disagreed, 25.92% disagreed, 40.74% agreed and 14.8% strongly agreed. This shows that the existence of relevant ICT/information system is not a problem to the organization.

The question “are supplies reached to customers at the right time?” was asked to IRC staff respondents. 11.1% of respondents strongly disagreed, 59.25% disagreed, 11.1% agreed and 37.03% strongly agreed. This implies the majority of the respondents confirmed supplies are not reached to customers at the right time.

Similarly the researcher wanted to know if the programs and services of IRC respond to immediate needs of the affected community and government. 10.74% of respondents strongly disagreed, 53.57% disagreed, 17.85% agreed and 3.57% strongly agreed. Therefore, the majority of the respondents believed the programs and services of IRC do not respond to immediate needs of the affected community and government.

The research respondents were asked about if there is a regular customer satisfaction surveys and the following results registered. 31.03% of respondents strongly disagreed, 44.83% disagreed, 6.9% agreed and 6.9% strongly agreed. Therefore, the majority of the respondents believed there are no regular customer satisfaction surveys by the organization.

The researcher wanted to know if definite response duration for customer feedbacks existed or not. 25% of respondents strongly disagreed, 50% disagreed, 10.71% agreed and 7.14% strongly agreed. Therefore, the majority of the respondents agreed that definite response duration for customer feedbacks are not existed in the organization.

**iii. Internal Business Process Perspectives:**

Internal Business Process refers to those factors that capture organizational operations and processes necessary to meet customer expectations and increase their satisfaction. The internal processes perspective captures measures regarding organizational operations and processes to meet customers' expectations and increase their satisfaction.

The study assessed how the internal business process related factors as a component of the BSC that affect IRC's logistics performance. This perspective has 5 items.

S/ N	Components of Internal Business	Total	1		2		3		4		5	
			F	%	F	%	F	%	F	%	F	%
1	There is an integrative communication between other humanitarian actors	29	3	10.34	8	27.59	6	20.69	7	24.1	0	0
2	Donations reached to community based on IRC's principle of impartiality	28	1 1	39.23	14	50	2	7.14	1	3.57	0	0
3	There exists strong collaborations among IRC staff during humanitarian response	29	7	24.14	14	48.29	4	13.8	3	10.34	1	3.44
4	Humanitarian assistances are flowing continuously from the point of origin of supplies to the destination of beneficiaries	26	2	7.69	5	19.23	4	15.38	12	46.15	3	11.54
5	warehouses are in the right location accessible for affected communities	27	4	14.81	6	22.22	3	11.1	9	33.3	5	18.52

*Table-12: internal Business Process (source: research data)*

The findings tabulated above confirm that 24.1% of the respondents disagreed for the existence of integration between health & nutrition, NFI and WASH humanitarian assistance programs at all; 27.59% agreed and 10.34% strongly agreed. This is an indication that there existed some gap to integrate between health & nutrition, NFI and WASH humanitarian assistance programs of IRC.

The respondents were requested to indicate the extent to which they agree whether donations are reached to affected communities based on IRC's principle of impartiality or not. The findings presented in table 4.7 above reveal that 3.57% of the respondents disagreed that donations are not reached to affected communities based on IRC's principle of impartiality; 50% agreed and another 39.23% indicated they strongly agreed. This is a clear indication that most of the respondents accepted donations are reached to affected communities based on IRC's principle of impartiality.

The researcher wanted to find out whether there exists maximum collaborations among IRC staff during humanitarian response or not. The findings illustrated in table -11 above reveal that 3.44% of the respondents revealed it as strongly disagreed at all; 10.34% disagreed, 48.29 respondents agreed and 24.14% believed there exists maximum collaborations. Therefore maximum number of respondents agreed that there exists maximum collaborations among IRC staff during humanitarian response programs. Respondents were asked if humanitarian assistances are flowing continuously from the point of origin of supplies to the destination of beneficiaries and the following responses were collected. 11.54% respondents strongly disagreed, 46.15% disagreed, 19.23% agreed and 7.69% strongly agreed. This indicated that majority of the respondents refused to accept humanitarian assistances are flowing continuously from the point of origin of supplies to the destination of beneficiaries.

Concerning the appropriateness of warehouses locations; 18.52% respondents strongly disagreed, 33.3% disagreed, 22.22% agreed and 14.81% strongly agreed. This indicated that the warehouses are not situated in the right location accessible for immediate responses to affected communities.

**iv. Learning and Growth Perspective**

Learning and growth perspective is about employee training, the organizational culture, tools, technology, infrastructure, skills and capabilities required to achieve the organizational objectives. Since NPOs operate as mission based organizations, they rely heavily on the skills and alignment of their staff to achieve their socially important goals. The study sought to establish the learning and growth related factors a component of the BSC. In this study, the components of learning and growth perspective had 5 items put to access the logistics performance of IRC.

S/N	Components of Learning and Growth Perspectives:	Total	1		2		3		4		5	
			F	%	F	%	F	%	F	%	F	%
1	Training and motivation programs to staff are based on IRC development guidelines	29	2	6.9	5	17.24	3	10.34	12	41.38	7	24.13
2	IRC build a strong partnerships with local government	27	6	22.2	14	51.58	5	18.52	2	7.4	0	0
3	IRC staffs have the required skills on inventory control, supply and customer service practices.	26	9	34.61	8	30.77	3	11.54	4	15.38	2	7.7
4	There is a continuous flow of information among IRC, community, donors, government and other actors.	27	2	7.4	4	14.81	2	7.4	13	48.15	6	22.2
5	IRC appraise staffs based on performance.	26	1	3.85	4	15.38	0	0	15	57.69	6	23.1

*Table-13: Learning and Growth Perspectives (source: research data)*

Respondents were requested whether training and motivation programs to staff are based on IRC development guidelines or not. Based on the findings tabulated above 24.13% of the respondents strongly disagreed it at all; 41.38% disagreed and 10.34% agreed and 17.24% strongly agreed. This is an indication that training and motivation programs to staff are not based on IRC development guidelines.

Concerning the IRC's role in building partnerships with local government; 7.4% of the respondents disagreed it at all; 51.58% agreed and 22.2% strongly agreed. This confirmed that IRC is strong enough in building partnerships with local government. Respondents were requested if IRC staffs have the required skills on inventory control, supply and customer service practices. 7.7% strongly disagreed 15.38 disagreed 11.54% agreed and 34.61% respondents were strongly agreed. This indicates that IRC staffs have the required skills on inventory control, supply and customer service skills.

For the statement 'There is a continuous flow of information among IRC, community, donors, government and other actors'; 22.2% respondents strongly disagreed, 48.15% disagreed, 14.81% agreed and 7.4% respondents were strongly agreed. This shows that there is no a continuous flow of information among IRC, community, donors, government and other actors. Staff respondents were asked if IRC appraise staffs based on their performances. 23.1% respondents strongly disagreed, 57.69% disagreed, 15.38% agreed and 3.85% respondents were strongly agreed. Therefore, staff appraisal is not based on their performance.

#### **4.4.2. Findings from Staff Respondents on Logistics Performance Challenges**

To access to what extent the challenges of IRC's humanitarian response program affected its logistics performances; the top management, logistics, procurement, program and finance officers were requested to indicate their level of agreement that challenges in addressing the right supplies at the right place and time for those who need it most.

In investigating the extent the challenges of the humanitarian response program affected the IRC's logistics performances in addressing the right supplies at the right place and time for those who need it most, findings are summarized as shown in the table-14 below.

Based on the response provided by respondents, the following 22 item findings were presented in five subsequent sub themes.

S/N	Categories of Challenges	Summary of findings	
		Mean	Standard Deviation
<b>A. The internal organizational challenges</b>			
1	weak organizational structure and systems	3.22	0.23
2	Presence of well-defined and functional procurement procedures	4.73	0.81
	Corruption, poor governance	4.23	0.66
4	Flexibility to revise and improve internal business processes	4.65	0.39
5	Networking with other organizations	1.67	0.84
6	excessive inventory	2.68	0.45
7	high employees turnover	3.21	0.78
8	Proper control mechanisms over purchases	4.17	0.54
<b>B. Governmental Challenges</b>			
9	the government bureaucracy	2.82	0.28
10	Lack of government support	3.45	0.65
11	strict regulations of govt. toward relief organizations	2.67	0.46
12	high government interferences	4.25	0.70
13	restrictions of entry of staff and goods from abroad	1.44	0.31
14	complex customs clearances procedure and higher taxes	1.22	0.45
<b>C. the socio-economic challenges</b>			
15	uncertainty in demand and supply	4.77	0.81
16	absences financial donors	3.89	0.41
17	the culture and language barriers	3.12	0.87
18	high transportation cost	2.32	0.61
<b>D. inadequate resources</b>			
19	Shortages/unavailability of the right employee	4.62	0.32
20	technology barriers	3.16	0.68
21	internal budget constraints	3.33	0.52
<b>E. Security challenges</b>			
22	attacks or threats directed against IRC's personnel facilities, vehicles, and services	4.15	0.33

Table-14: challenges of humanitarian organizations (source: Research Data)

**i. The internal organizational challenges**

According to table-14 above, the majority of the Logistics/ program/procurement/finance managers were agreed to the highest extent that the following challenges of IRC's humanitarian response program affected its logistics performances; presence of well-defined and functional procurement procedures (Mean=4.73), Flexibility to revise and improve internal business processes (Mean=4.82), Corruption, poor governance (Mean=4.23), Proper control mechanisms over purchases (Mean=4.17) all have agreed to have maximum challenge on the performance of the organization. Weak organizational structure and systems (Mean=3.22), high employees turnover (Mean=3.22) have also high impact on the organization's performances whereas excessive inventory has low level of challenges. The above result indicated that, the internal organizational challenges are significantly affected the logistics performances of IRC.

**ii. Governmental Challenges**

According to table-14, the top management, logistics, procurement, program and finance officers were requested to indicate their level of agreement about the challenges of IRC in addressing the right supplies at the right place and time for those who need it most. Based on their degree of agreement; high government interferences (Mean=4.25) and Lack of government support (Mean=3.45) challenges most. The government bureaucracy (Mean=2.82) strict regulations of government toward relief organizations (Mean=2.67) have moderate level of challenges. Others restrictions of entry of staff and goods from abroad and complex customs clearances procedure and higher taxes have no challenges. This indicates that there is relatively lower level of government challenges in addressing the logistics performances of the organization.

**iii. The Socio-Economic Challenges**

The above results revealed that, the majority of the logistics/ procurement/finance/ program managers agreed to a very great extent on uncertainty in demand and supply (Mean=4.77). Absences financial donors (Mean=3.89) and the culture and language barriers (Mean=3.12) has also high level of challenges on the logistics performance of

the organization. High transportation cost (Mean=2.32) has relatively low level of challenge to the organization. Therefore the above results indicated that, the socio-economic challenges have an impact on the performance of IRC's humanitarian response program.

**iv. inadequate resources and Security Challenges**

According to the summary on table-14 above for the inadequate resources challenges, the majority of the supply chain/ procurement/logistics managers agreed to a very great extent on Shortages/unavailability of the right employee (Mean=4.94), followed by internal budget constraints (Mean=3.33) has a strong challenge on the performance of the organization. Technology barriers (Mean=3.16) has also the third most important challenge to the organization in this regard. Concerning security challenges, attacks or threats directed against IRC's personnel facilities, vehicles, and services (Mean=4.15) has high degree of challenge on the performance of the organization. The above result indicated that, inadequate resources and Security Challenges have high level of challenge on humanitarian aid organizations.

**4.4.3. Findings from the Community Rrespondents**

The researcher sought to find out how customer related factors as a component of the BSC affected performance of IRC. It investigates the satisfaction level of beneficiaries by IRC's humanitarian response program after the scene of the disaster. The customer perspective had 10 items measures including timely delivery of aid materials, presence of objectives related to customer service, adequacy of aid materials, relevance/quality of donations, existing suggestion box for customers, responsiveness of IRC to customer feedbacks, proper handling of customers, regular customer satisfaction surveys and transparency & honesty during service delivery.

S/N	How do you rate the responses of IRC after the scene of the disaster?	Mean	Standard Deviation
1	presence of objectives related to customer service	4.4	0.76
2	Timely delivery of aid materials	2.8	0.28
3	Adequacy of aid Materials	3.1	0.71
4	Relevance/quality of donations	3.83	0.35
5	Consistency of delivering aid materials	2.45	0.45
6	Existence of suggestion box for customers	1.69	0.86
7	Proper handling of Customers	4.01	0.57
8	Transparency and honesty during service delivery	4.41	0.76
9	Existences of regular customer satisfaction surveys	2.1	0.55
10	Responsiveness of IRC to customer feedbacks	1.8	0.63

*Table-15: Customer Respondents (source: Research data)*

As shown in the table 4.10, high score were recorded across transparency and honesty during service delivery (Mean=4.41), presence of objectives related to customer service (Mean=4.40), proper handling of Customers (Mean=4.01). This indicates that beneficiaries are better satisfied by IRC's humanitarian response program services after the scene of the disaster.

Above average were recorded with three items; Relevance/quality of donations, adequacy of aid Materials and lastly timely delivery of aid materials which were normally distributed. The remaining four items namely consistency of delivering aid materials, existences of regular customer satisfaction surveys, , existence of suggestion box for customers and responsiveness of IRC to customer feedbacks are the ones scored below average which indicates these components of customer perspectives are the least to satisfy beneficiaries.

#### 4.5. Discussion of Findings

This study was aimed to assess the logistics performance of IRC using BSC in Jigjiga. It also investigated the challenges that hinder the performance of the humanitarian organization. The performance of the organizations is quantified in terms of the ability and willingness of the organization to achieve its set goals with the resources available.

The BSC has four components fondly referred to as perspectives namely customer, internal processes, learning and Growth and financial. The components of the customer perspective in this study included six items namely the presence of well stated objectives towards customer service and existence of relevant ICT/information system are the strong side of the organization where as the organizations responsiveness to deliver service and supply at the right time, the IRC's respond to immediate needs of the affected community and government, regular customer satisfaction surveys and the presence of definite response duration for customer feedback are found to be ineffective concerning IRC's performance.

The second perspective was to assess how internal processes related factors as a component of the Balanced Scorecard that affect the logistics performance of IRC. The findings confirmed that warehouses are situated in the right location accessible for immediate responses to affected communities and donations are reached to affected communities based on IRC's principle of impartiality. On the other side, IRC has limitations on the continuous flow of humanitarian assistances from the point of origin of supplies to the destination of beneficiaries. Research findings revealed that job flows among IRC staff during humanitarian response programs is also partially ineffective.

Concerning the financial perspectives it is found that sufficient amount of fund didn't reach to the community, there is no a clear and transparent way of spending money and the organization lacked conducting financial audit regularly. On the other hand warehouses are more or less located in the right location that minimizes overall logistics costs and IRC adopts a strategy that minimizes its transportation and inventory expenses.

The learning and growth perspectives of BSC noted that motivation of employees and prioritizing their training and professional development were some of the best predictors of this perspective. It is identified that training and motivation programs of staff are not based on IRC development guidelines; staff appraisal practices of IRC is not based on their performance, it is unclear and mainly based on the well-being of top managers. The flow of information among IRC, community, donors, government and other actors are not based on predetermined procedures and is not continuous. On the contrary, most IRC staffs have the required skills on inventory control, supply and customer service skills.

Generally the findings from IRC staffs advocated that the performance measurement system of non-profit organization are limited by the weak management commitment, incapability to deliver service and supply at the right time, the organizations weak response rate to immediate needs of the affected community and unclear & non transparent way of spending money, vague procedures for employee training and other several factors mentioned above matches with the findings in IRC's performance weaknesses obtained through observation.

The study also identified the major challenges on the logistics performance of IRC in Jigjiga humanitarian response programs. The logistics performance challenges of humanitarian response program IRC have a very great extent effect on its immediate response to humanitarian operations during disaster of IRC in Jigjiga. The logistics challenges consequently reduced the ultimate effectiveness of humanitarian supply chain management in responding to multiple interventions within a short time frame.

The humanitarian logistics challenges are categorized as government related challenges, socio-economic challenges, internal challenges, inadequate resources and security challenges. The questionnaire findings supplemented by observation indicated that humanitarian aid organizations are complaining about government challenges for long in relation to: government interferences, government bureaucracy, stuck national regulations toward relief organizations, and insecurity towards humanitarian relief operations. Similarly, in relation to socio-economic challenges, the humanitarian

organization are challenged mainly by unpredictable demand difficulty to have sustainable financial donors and the culture and language barriers has also high level of challenges on the logistics performance of the organization. Concerning security challenges, attacks or threats directed against IRC's personnel facilities, vehicles, and services highly impacted the supply and service level of IRC to its beneficiaries.

The researcher also found out how the customer related factors as a component of the Balanced Scorecard affected performance of IRC from customer respondents. The researcher had included beneficiaries' responses about IRC and the findings revealed that: transparency and honesty during service delivery, timely delivery of aid materials, adequacy of aid materials, relevance/quality of donations, responsiveness of IRC to customer feedbacks are the weak sides of the organization that affected the performance of the organization. The most important component from the beneficiaries point of view was that the organization didn't regularly conducted customer satisfaction surveys and the use of suggestion box and definite response duration for customer feedback were not widely practiced. The customers as the main stakeholder of the organization should constantly consulted about the provision of supply and services from the organization and the necessary adjustments could be taken before things went wrong.

## Chapter Five

### 5. Summary, Conclusion And Recommendations

#### 5.1. Introduction

This chapter summarizes the main findings of the study. This is followed by conclusions arising from the findings, and then recommendations and suggestion for future research.

#### 5.2. Summary of Findings

The BSC system enabled many organizations to overcome the deficiencies traditional performance measures that largely focused on financial performance of an organization. This system provides feedback on internal business processes and external outcomes to continually improve organizational performance and results.

The customer perspective enabled organizations to translate abstract statements into tangible and actionable measures. Through customer's involvement in the activities of the organization, there is an increasing realization of the importance of customer focus and customer satisfaction. The internal processes perspective captured measures regarding organizational operations and processes necessary to meet customers' expectations and increase their satisfaction. Learning and growth perspective was about the organizational culture, tools, technology, infrastructure, skills and capabilities required to achieve the organizational objectives. Lastly, the financial perspective; it can also be defined in terms of financial accountability of the organization.

The primary aim of assessing the humanitarian organization performances is to determine how well an organization is fulfilling its mission. If such an assessment is not possible then public trust in humanitarian organization will be lost. The research identified that the logistics performances assessments of IRC is not well practiced. As a result the organization is facing problems in measuring their performance. IRC is failed to deliver the right humanitarian aid materials in the right time and place, it is found out that the organization conducts financial audit regularly, there is a gap to match demand and

supply of the organization, unclear procedure for training and appraisal of employees, problems of communication and feedback mechanism with customers and absence of well defined functional procurement procedures.

The customer perspective of humanitarian organization enabled organizations to translate abstract statements into tangible and actionable measures. But findings revealed that the customer component of BSC is not properly exercised in the humanitarian operations of IRC. It is identified that beneficiaries' involvement in the logistics performances organization has to be regularly implemented for the success of both IRC and the beneficiaries. It is appropriate to recognize how the affected population and the humanitarian organization to use elements of supply chain management in their operations. The initial and presumably fastest reaction to a disaster comes from the affected community itself, Furthermore, it is common for the victims of a disaster to recover quickly from the initial shock and participate spontaneously in search and rescue efforts and other relief initiatives such as the storage and distribution of emergency supplies

The study has identified different humanitarian logistics challenges of IRC humanitarian response programs in the study area. The logistics challenges highly contributed to the inefficiency in delivery of the relief supplies as well as on the daily operations of the organization. The main challenges on the logistics performances are associated with government related challenges, socio-economic challenges, infrastructure challenges and internal challenges. Therefore, the relief and emergency sector is affected by multiple logistics challenges.

In order to improve the logistics performances of IRC humanitarian response program of IRC, the affected population is never entirely helpless. The military, local governments, indigenous humanitarian organizations, and regional allies will often serve as the first line of relief after a disaster. Therefore, it is essential to work with the community and other humanitarian actors before hazard happened to the community. Thus, working with actors and talking about preparedness will foster a common language, and then preparedness efforts should be considered.

### 5.3. Conclusion

Ethiopia is experiencing one of the worst droughts in decades due to failure of regular rainy seasons. The Somali regional state is one of the regions of the country significantly affected by the current drought and effects of El Niño. Most of the Woredas in the region are classified as hotspot priority Woredas. As a result, many nonprofit organizations selected these zones as its operational locations for humanitarian services.

This study presented the BSC to define key performance indicators by adapting the model to the humanitarian aid logistics performances of BSC in non-profit organizations by taking a case study on IRC-Ethiopia at Jigjiga humanitarian program. The BSC has four dimensions commonly referred to as perspectives that are key in helping organizations achieve their intended objectives. These included customer, internal business processes and finally learning and growth and the financial perspectives.

The research assessed the logistics performance of IRC at Jigjiga humanitarian program at four woreda's of Siti zone. These woredas are: Erer, Shinile, Ayishia, and Dambel in the forms of nutrition & health, water, sanitation and Hygiene (WASH). It assessed how the customer related factors as a component of the BSC affect the performance of IRC in its humanitarian aid and identified the challenges of IRC logistics performances and ways of improving the performances of the organization and thereby increasing the satisfaction level of beneficiaries.

The priority of quick response to the huge amount of aid after disaster happening and during the initial phase of relief process, makes the importance and position of international donor organization bold and clear. Unfortunately, the logistics performances operated by IRC in Jigjiga humanitarian program are characterized by degraded infrastructure, lack of qualified and adequacy of personnel, and complicated funding procedure supplemented by the increase of the frequency and the impact of the disasters. Moreover, the logistics performance assessments of the organization didn't widely developed and applied systematically.

Based on BSC understanding, creating customer value and satisfaction as defined in the customer perspective entails the efficient operation of a specific internal process within the organization, in order to serve the customer. Customers play an important role in co-creating a service experience and influencing its outcome and their own experience. This is a key characteristic of humanitarian organizations.

The study found out that IRC tried to assess its logistics performance mainly through the employee's reports and survey reports on the overall disaster response, which may not reflect the actual organization performance achievements. Performance assessment should therefore be done in terms of what the customer can see and is informed about, in order to ensure maximum satisfaction in a highly competitive market. This could include outcome measures that show the improved situation of the beneficiaries, or input/output measures that capture the efficiency of the organization.

The research also discussed the main challenges of IRC on logistics performance in the humanitarian context; the fact that the organization has no complete responsibility and control over the challenges of humanitarian logistics performances and therefore, performance improvement cannot be completely limited to an individual organization; it is only touched upon by an amount the organization can comply with the problems.

Humanitarian actors play a key role in decision making and implementation of the humanitarian aids logistics and relief supply chain operations and closer cooperation with the local governments to set against the backdrop of the humanitarian aids processes and relief supply chain suffering. Hence working with the government and other actors are important to achieve timeliness, foster the delivery of relevant humanitarian aid materials and increase the organization's ability to match demand and supply.

#### 5.4. Recommendation:

Since the increasing international activities, logistic became very important sector for the international sustainability of the companies. If a logistic company works with high performance, it will create competitive advantage for both the organization and its customers. Therefore, it is important to analyze the logistic performance of organizations. Therefore, In view of the above conclusions, the following recommendations are made.

- ❖ In the humanitarian logistics space, in addition to minimizing cost while optimizing delivery times, the key concern is the impact of performance as a determinant of the survival of the affected population. Therefore, IRC is recommended the following points to minimize the logistics performance drawbacks at Jigjiga Humanitarian program.
  - In humanitarian aid operation, delays in delivery or relief can cost lives. Therefore, efficiency in logistics is a key factor as it ensures the smooth flow of goods and services in a complex supply chain system. Therefore, IRC should allocate warehouses of relief goods at the beneficiary's location that victims can be saved.
  - The organization should conduct financial audit regularly for its transparency.
  - Adequate inventory levels are critical to maintain demand and supply during preparedness planning, especially given the high uncertainty of delivery lead times. With the purpose of decreasing costs, organizations operate on very low inventory levels. However, it should look beyond costs since people's lives will depend, at least partially, on the availability of basic supplies.
  - To avoid delays of supplied items to reach to the community and minimize corruption while items are purchased locally, most purchasing should be done with their regular suppliers to guarantee the quality and standardization of their supplies, or to get better prices. Procurement managers should make sure that the procurement manual is properly followed while purchasing is made.

- procurement personnel need scheduled training that maximizes their level of understanding regarding effective logistics performances for the benefits of both the organization and beneficiaries.
  - There should be integration between humanitarian actors, since at different levels of the supply chain, the lack of communication leads to even higher variance, aggravating the problem.
  - The appraisal system of IRC staffs should be clear and appraisal manual has to be properly followed increase the credibility of the appraisal systems and to reduce the conflicts within organizations. The employees would be aware of the requirements to appraise.
- ❖ The customer related factors as a component of the BSC affected the logistics performance of IRC. The organization should therefore capture the customer attentions by customer-focused operations and processes such as customer consultation mainly during emergency response program necessary to meet customers' expectations.
- Use of suggestion box as an item measure of the customer perspective was not widely used by IRC. However, the suggestion box can also complement the customer surveys since feedback from the suggestion box would be immediate unlike the surveys that are conducted after a given period of time.
  - There should exist a definite response duration for customer feedback. This would help improve service delivery in that the organization would be able to respond to the needs of their customers as they arise.
  - Community outreach can be facilitated through training community based protection structures in the refugees and host community that serve as entry points to provide information and do referrals to services. Training the customer structure in conflict management, mediation, negotiation and

reconciliation will enhance dispute resolution and increase knowledge of protection issues around the occurrences of natural disaster.

❖ Concerning the main challenges of the humanitarian logistics performances of IRC humanitarian response program in Jigjiga, the following points are suggested.

- The governmental, political, cultural and socioeconomic challenges unawareness of the specific local issues may cause even the best stand-alone plan to fail or be impractical. Therefore, understanding regional political, economic, and socioeconomic conditions is crucial for the success of the humanitarian operations.
- Concerning the governmental challenges, panel discussions are needed between the government and the humanitarian aid organization. The government officials should prepare and organize a continuous panel discussion to avoid confusion and misunderstanding and to get an input from all stakeholders even to reduce the logistics challenges. Therefore; humanitarian organizations should comply with the laws and policies of the country and the government should strengthen the capacity of the established agency, so that to render best service as much as possible.
- The military, local governments, indigenous humanitarian organizations, and regional allies will often serve as the first line of relief after a disaster. Therefore, It is essential to involve the community and other humanitarian actors before hazard happened to the community. Thus, working with actors and talking about preparedness will foster a common language, and then preparedness efforts should be considered.
- Local governments played a key role in decision making and implementation of the humanitarian aids logistics and relief supply chain operations and closer cooperation with the local governments are set against the backdrop of the humanitarian aids processes and relief supply chain suffering.

- ❖ Finally, to improve the performances of humanitarian aid organization the BSC approach is found to be helpful. Therefore, BSC is recommended for humanitarian organizations as a suitable performance management system to develop and improve in managing of humanitarian aid logistics and the customer perspective as its important component that has a dominant role for the effectiveness of the organization.
- ❖ The study further recommends that the management of IRC and other humanitarian organizations has better conduct research on the different relief areas they are operating to ensure that the humanitarian initiatives being implemented are effective in addressing the specific logistics challenges towards enhancing their organizational performance.

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## Appendices

### A. Questionnaires for IRC staff and Community Respondents



#### **ADDIS ABABA UNIVERSITY SCHOOL OF COMMERCE GRADUATE PROGRAM**

Dear Participant,

These questionnaires are developed for an academic effort planned for the collection of primary data that will be used to assess humanitarian logistics performances of non-governmental humanitarian organizations, in partial fulfillment of the requirements for the Degree of Master of Arts in Logistics and Supply Chain Management, Addis Ababa University, School of Commerce.

The information obtained from this questionnaire will be kept confidential and will not be used for any other purposes. Hence, I, kindly request you to answer to the questions freely and openly to share your competence and knowledge with me.

Thank you for your cooperation!

**Yenehun Chekol**

Cell Phone: 0911353370

E-mail: keyachekol@gmail.com

Dec, 2017

Addis Ababa, Ethiopia

## Questionnaire for IRC staff Respondents

### 6.1.1. General Information for IRC staff questionnaire respondents

This part of the questionnaire, tries to gather some general information about the background of the respondent and the organization.

#### 1.1 Sex

- 1. Female
- 2. Male

#### 1.2 Age

- 1. Under 20 Years Old
- 2. 20-30 Years Old
- 3. 31-40 Years Old
- 4. Over 40 Years Old

#### 1.3 Educational Qualification:

- 1. Grade 10 completed
- 2. Grade 12 completed
- 3. College Diploma
- 4. First Degree
- 5. Second Degree and above

#### 1.4 Name of the organization: \_\_\_\_\_

#### 1.5 Years stayed at the organization: \_\_\_\_\_

- 1. Under 2 Years
- 2. 2-5 Years
- 3. 6-10 Years
- 4. Over 10 Years

#### 1.6 Your department/work unit:

- 1. Administrative
- 2. Logistics/Supply Chain
- 3. Transport
- 4. Procurement
- 5. Warehouse
- 6. other

**Part One:**

With regard to the humanitarian performance of IRC, please tick (✓) the appropriate option you believe appropriate to indicate the extent to which you agree or disagree with each statement.

S/N	Financial Perspectives:	strongly disagree	disagree	neutral	agree	Strongly agree
1	sufficient amount of fund reach to the community					
2	warehouses are located in the right location that minimizes overall logistics costs					
3	IRC adopts a strategy of minimizing its transportation and inventory expenses.					
4	There is a clear and transparent way of spending money					
5	The organization conducts financial audit regularly					
	<b>Customers perspectives</b>					
6	Presence of well stated objectives related to customer service					
7	Existing relevant ICT/information materials					
8	supplies are reached to customers at the right time					
9	The programs and services of IRC respond to immediate needs of the affected community and government					
10	Regular customer satisfaction surveys					
11	Definite response duration for customer feedback					
	<b>Internal Business Process</b>					
12	There exists an integration between health & nutrition, NFI and WASH humanitarian assistance programs					
13	Donations are reached to affected communities based on IRC's principle of impartiality					
14	There exists a clear division of labor among IRC staffs during humanitarian response					
15	Humanitarian assistances are flowing continuously from the point of origin of supplies to the destination of beneficiaries					
16	warehouses are situated in the right location accessible					

	for immediate responses to affected communities					
	<b>Learning and Growth Perspective</b>					
17	Training and motivation programs to staffs are based on IRC development guidelines					
18	The organization uses managers to appraise staff on performance					
19	IRC staffs have the required skills on inventory control, supply and customer service practices					
20	There is a continuous flow of information among IRC, community, donors, government and other actors					

**Note:** in this questioner, *“Funds” or “donation”* implies items and services that must be supplied to the affected community in the form of health & nutrition, non food item (NFI) and water, sanitation & health (WASH).

**Part Two**

A. To what extent the challenges of the humanitarian response program affected the IRC's logistics performances? Please tick (✓) the appropriate option to indicate the level of its impact in addressing the right supplies at the right place and time for those who need it most.

KEY: 1= no impact 2= very low 3= low 4= high 5= very high

S/N	Type of Challenges	The level of impact				
		1	2	3	4	5
<b>F. The internal organizational challenges</b>						
1	weak organizational structure and systems					
2	Presence of well-defined and functional procurement procedures					
3	Corruption, poor governance					
4	Flexibility to revise and improve internal business processes					
5	Networking with humanitarian actors					
6	excessive inventory					
7	high employees turnover					
8	Proper control mechanisms over purchases					
<b>G. Governmental Challenges</b>						
9	the government bureaucracy					
10	Lack of government support					
11	strict regulations toward relief organizations					
12	high government interferences					
13	restrictions of entry of staff and goods from abroad					
14	complex customs clearances procedure and higher taxes					
<b>H. the socio-economic challenges</b>						
15	uncertainty in demand and supply					
16	absences financial donors					
17	the culture and language barriers					
18	high inventory and transportation cost					
<b>I. inadequate resources</b>						
19	Shortages/unavailability of the right employee					
20	technology barriers					
21	internal budget constraints					
<b>J. Security challenges</b>						
22	attacks or threats directed against IRC's personnel facilities, vehicles, and services					

B. Mention other challenges you believe important in the performances of IRC humanitarian response program on the blank space provided based on your priorities by listing most important reason first, 2<sup>nd</sup> most important reason next, and so on (if any).

- a. \_\_\_\_\_
- b. \_\_\_\_\_
- c. \_\_\_\_\_
- d. \_\_\_\_\_
- e. \_\_\_\_\_
- f. \_\_\_\_\_

Many Thanks! I really appreciate your time.

### 6.1.2. Questionnaires for Beneficiaries/customers respondents

This part of the questionnaire, tries to gather some general information about the background of the respondent and the organization.

1.1. Location the beneficiary is living: \_\_\_\_\_

#### 1.2 Sex

- 1. Female
- 2. Male

#### 1.3 Age

- 1. Under 20 Years Old
- 2. 20-35 Years Old
- 3. 36-50 Years Old
- 4. Over 50 Years Old

#### 1.4 Educational Qualification:

- 1. Uneducated
- 2. Grade five or less
- 3. Between grade 6 and twelve
- 4. College Diploma or above

1.5 How long have you been waited in the area as a humanitarian beneficiary of IRC?

- 1. Under 2 Years
- 2. 2-5 Years
- 3. 6-10 Years
- 4. Over 10 Years

Please tick (✓) the appropriate number to indicate the extent to which you agree or disagree with each statement as per rating given in the table below.

S/N	How do you rate the service level of IRC after the scene of the disaster?	Very low	low	medium	high	Very high
1	Timely delivery of aid materials					
2	Adequacy of aid Materials					
3	donation of the right item to customers					
4	Consistency of delivering aid materials					
5	IRC is governed by the humanitarian principles of impartiality in providing assistant to customers					
	<b>How do you rate the affected community's satisfaction level for the works of IRC?</b>					
6	Timely delivery of aid materials					
7	Adequacy of aid Materials					
8	Relevance/quality of donations to customers					
9	Consistency of delivering aid materials					
10	Proper handling of its Customers					

Many Thanks! I really appreciate your time.