



THESIS TOPIC ON: EVALUATION OF DOWN STREAM LOGISTICS OPERATION IN THE CASE OF UNITED NATION WORLD FOOD PROGRAM.

BY: ANDARGACHEW TAYE

ENROILLEMENT NO: 1116587

THESIS SUBMITTED TO THE COORDINATION (PROJECT), SCHOOL OF MANAGEMENT STUDIES INDIRA GANDHI NATIONAL OPEN UNIVERSITY MAIDANGARHI, NEW DELHI -110068 FOR THE FULFILLMENT FOR THE REQUIREMENT OF MASTER OF BUSINESS ADMINISTRATION SPECIALIZED AREA OF OPERATION MANAGEMENT.

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CERTIFICATE OF ORIGINALITY

This is certify that the project titled **”Evaluation of Down Stream Logistics Operation in TheCase of UN WFP In Ethiopia.”** is an original work of the student and is being submitted in partial fulfillment for the award of Master’s Degree in Business Administration of Indira Gandhi National Open University. This paper has not been submitted earlier to this university or any other university/Institution for the fulfillment of requirement of course of study.

SIGNATURE OF GUIDESIGNATURE OF STUDENT

Place:

Place:

Date:

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ABSTRACT

In recent year's logistics and supply chain a vital role to one country economy within the frame work of logistics the organization success to achieve its objective and goals.

The objective of this paper is a survey study is to assess the challenge of downstream logistics operation within the organization and to address possible direction in the downstream activities to prompt delivery of food and non-food items on time. The study contributes significantly to the academic as well as organization hence, in big humanitarian organization effective logistics optimization to enhance the credibility and good will of the organization. Accordingly, it will build the existing theories of logistics and supply chain indicates a future research area and further it contribute for the organization as well as other humanitarian sectors as an input for their strategic plan. In doing so, employees from logistics unit and external service providers (transporters) were selected as a sample from the total population. About 45 percent of sample taken and out of 94 sampled population 87 filled the questionnaires and returned back. The rest not submitted the questionnaires on time. The method of sample collection was questionnaire and interview. Questionnaires designed in likert scale, closed and open ended. Besides, tabulation method, frequency distribution, and descriptive of the facts based on some statistical analysis are to be used in analyzing and interpreting data. Qualitative data taken that that the employee's in charge their unit.

We found that in the findings quality of customer handling and service improvement, system tools ,time taken during loading and unloading, training , knowledge sharing and incentive scheme need improvement and, therefore we can conclude that the concerned management body should take necessary action on the downstream logistics operation within the organizatio

LIST OF ACRONYMS

WFP: World Food Program

P4P: Purchase for Progress

GTP: Growth Transformation Plan

PSNP: Productive Safety net Program

JEOP: Joint Emergency Program

UNDP: United Nation Development program

MERET: Management Environmental Resources to Enable Transition

SCM: Supply Chain Management

BWE: Bullwhip Effect

CILT: Chartered Institute of logistics & Transport

ATA: Actual Time of Arrival

COMPAS: Commodity Movement Processing and Analysis System

WINGS: Web International Network Global System

FRN: Food Release Note

FDP: Final Delivery point

TPL: Third Party Logistics

HL: Humanitarian Logistics

MF: Material flow

JIT: Just- In-Time

EDI: Electronic Data Exchange

DW: Data Warehousing

WCS: Warehouse Control System

SO: Special Operation

DS: Direct Shipment

OTAP: On time Arrival percentage

OTDP: On time Departure Percentage

HRO :Humanitarian Relief Organization

KPI: Key performance Index

AQ: Any Quantity

LCL: Less than Car Load

LTL: Less than Truck load

MHRL: Management Humanitarian Relief logistics

HQ: Head Quarter

LMIS: Logistics Management Information Systems

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CHAPTER ONE

1. Introduction

1.1 Organization Back Ground

United Nation World Food Program in Ethiopia was starting operation by the year 1981 with the ‘motto’ of emergency operation to tackle food shortage in Ethiopia.

The Horn of Africa drought crisis in 2011 had a big impact on the food security situation in Ethiopia, particularly in southern and south-eastern parts. According to a multi-agency assessment, 3.2 million people require relief food assistance from January to June 2012. WFP covers the needs of 2.6 million through its Relief program while the other 800,000 people in need receive food assistance from the NGO consortium, the Joint Emergency Operation Program (JEOP).

WFP in Ethiopia provides food assistance to 320,000 Somali, Sudanese and Eritrean refugees. Due to the number of Somali refugees at the Dolo Ado refugee camp in Southern Ethiopia registering high malnutrition rates, WFP operates a blanket supplementary food program in the camps, providing fortified food rations to all children under five years of age. In addition, WFP is distributing High Energy Biscuits at the pre-registration center to children under-five and pregnant and nursing women.

WFP’s role with guiding principle in Ethiopia is to support government programs addressing food in security by using food assistance where it adds value, and by enhancing the capacity to implement hunger solution. Beside on this, WFP’s activities are intended to contribute towards

the Government of Ethiopia's five-year development agenda, the Growth and Transformation Plan (GTP), through which the Government continues to address food insecurity in the country.

WFP Ethiopia program focus on achieving results in several initiatives to meet this end, including the National Relief Program the Productive Safety Net Program (PSNP), Targeted Supplementary Feeding, the HIV/AIDS Program, the Purchase for Progress Program (P4P), Food for Education, MERET (Managing Environmental Resources to Enable Transition), Food Assistance to Refugees and the use of Cash and Vouchers in its operations.(source wfp.ikm.portal)

Despite these challenges, Ethiopia has recently made gains in education, expanded the health extension system and made notable achievements in combating HIV/AIDS. The government continues to address food insecurity through its long-term strategy of Agricultural Development-led Industrialization. This is complemented by Ethiopia's Food Security Program, which includes the Productive Safety Net Program, the Household Asset Building Program and others designed to ease households out of food insecurity. Ethiopia is also one of the fastest-growing economies, maintaining a growth rate of over 11 percent for the last five years. In that context, the focus of UN WFP donation service is at the country level with seven regional states of government and currently operating with 9 sub offices and 1 field office.

1.2 Back Ground of the study

Emergency relief involves many of the same logistics processes encountered in the private sector, but modern logistics practices have only recently been applied to disaster aid and recovery. Humanitarian logistics is slowly emerging as its own discipline within supply chain and logistics management. Thomas explains that "Humanitarian logistics refers to the processes

and systems involved in mobilizing people, resources, skills, and knowledge to help vulnerable people affected by natural disasters and complex emergencies” (2003:3)The logistics unit responsible for the delivery of food to the intended destination or areas that operates in the areas with cost-effectiveness and speed are the inherent requirements to meet the operation as successful use.

- Delivery of goods-Delivering food to the intended end users with efficient and effective manner.
- Logistics defined could be used to cover all aspects of movements, storages of material and to deliver the material to the user. In other hand, would mean involving of goods both in the inbound and outbound sides.

1.3 Statement of the problem

United Nation World Food Program huge operation on the assistance of food items in Ethiopia. Performance and service delivery on the targeted end user is very important to tackle food in need to the country. However, the delivery of downstream logistics operation some challenges to overcome this challenge enhancing the capacity of the operation and the performance of the people& a system is crucial. Effective logistics (supply chain) activity has become a potential valuable way of securing competitive advantage in humanitarian service or non -governmental organization that is doing business using effective manner responding when likelihood of risk occurred in one country. Therefore, the knowledge of proper delivery of goods and monitoring in every stage of supply chain or logistics activity is a key to lead the organization one step far behind the competitors. This result the organization faced many problems in the downstream logistics operation to coup this target in visible manner.

The efficiency and effective of supply chain activity is a vital important for the successful achievement of the objective of UN WFP. However, the organization downstream logistics process and perform to be ineffective and inefficient. This means that there is lack of well-planned and property coordinated among different offices and covering a wide range of the country food supply chain activity. Hence, this research will be under taken to identify the problem and the possible causes that lead the poor performance of logistics activity.

The attainment of service giving organization, how they utilize their manpower, information handling, materials & resources efficiently and effectively. Man power Capacity building in area of logistics to handle a lot query at time; Information passing reliable and accurate information to respective body as needed; materials are scarce and costly; resources that delivering the materials at the right time and at the right place with minimum cost with efficient and effective manner. To enables the achievement of current and future business objectives-where these are directly linked to associated logistics and distribution objectives.

1.4 Logistics service for WFP helps:

- To facilitate the festive provision of logistics services thus enabling checks to be made that the distribution operation is appropriate for the overall objectives(doing the right things)
- To support the planning and control of an operation so that any information can be feed back to the process of planning and management.
- To provide measures that focus on the real of the business this enables action to be taken when the operations are not performing satisfactorily or when potential improvement to the operation can be identified this will generally be linked to some form of productivity

improvement or better use of resources. However, Challenging on the conjunction of port operation and arrival of bulk and break bulk ship at one time and getting ample trucks also main problem from the port of the operation to the respective hubs. This led to more time and un appropriate cost like demerge, warehousing and labor cost will incur.

- The problem of customs authority not clearing donated food items and non –food items where is needed. This will incur additional cost.
- The government also ordered the transporters to uplift the government items when the vessel arrives at the port in the same time with different commodities to different organization at the same time , even if the urgency of donated food items available at the port.
- Customer satisfaction is intangible and not easy subject to measure. Since customer satisfaction through the mechanisms of performance and service delivery improvement by the implementation proper way of doing business and to show in a good competent position and role model to their organization.

1.5 Objective of the study

1.5.1 General Objectives

The general objective of this research paper focus on the activities, process and control over logistics activity within the organization on imported goods for humanitarian aid and to improve its competitiveness of logistic activities the most timely manner and cost-effective means of food items non-food items to deliver the targeted end users.

1.5.2 The specific objective

- To identify factor contributing to the in efficiency of commonly downstream logistic management/operation/.

- To identify critical success factors of the supply chain activity.
- To maximize effective and efficient service giving within the organization.
- To identify the relationship between training on area of logistics/Supply chain/ and employee effectiveness.
- Study lead time in the information flow between or among the section to satisfy internal and external customer.
- To measure the performance of downstream logistics operation and process within the organization and must select appropriate performance indicators that relate to the organization goals and objectives. These measures allow the organization to evaluate the degree to which objectives are reaches, and to analyses initial causes and effective.

1.6 Research Questions

On the stated objectives the following basic questions were raised and attempt to the researcher want to answer the following questions:

- I. What challenge faces where during downstream logistics operation?
- II. What is the practice of logistics activity in UN-WFP in Ethiopia?
- III. How staffing function address the downstream logistics activity in their unit?
- IV. How they serve their clients in the process of logisticsactivity?

1.7 Significance of the study

The study look into service quality in the area of downstream logistics and supply chain activity within the organization and yet to gain full understanding the momentum, despite one of the

fastest growing logistics activity in all over the world. Now a days, logistics operation is a key the success of any organization doing the business in the absence of waste. The study develops a model for service quality in areas of logistics/supply chain/measurement specifically in the humanitarian service giving organization and applies to investigate the perception of the people on logistics service quality hereby the prevailing level of customer satisfaction.

1.8 Scope of the study/Delimitation of the study

The study will be conducted one of big humanitarian organization and also one country case study. This research will not analyses the data or documents of all humanitarian organization those operating the country or all United Nation World food Program offices throughout the world. With regard to the scope of the study, one department and clients are selected from sub offices and country offices. Besides, this scope of the study downstream logistics from the port of operation up to the final delivery point.

1.9 Structure of the paper

This research paper contains five chapters. Chapter one contains the introduction part dealing with back ground of the study and the organization profile, Research questions, Significance of the study, statement of problem, objective of the study and scope of the study. Chapter two contains the literature review parts. Chapter three contains the research methodologies were presented. Chapter four represents data results and finding of the survey. Finally, chapter five presents discussion of the findings of summary &conclusions and recommendations.

CHAPTER TWO

2. LITERATURE REVIEW

2.1 Historical prospective of Logistics

The elements of distribute and logistics have of course, always been fundamental to manufacturing, storage and movement of goods and products. It is only relatively & recently, however, that distribution and logistics have come to be recognized as vital functions within the business and economic environment. The role of logistics has changed in that it now plays a major part in the success of many different pertains and organizations in essence, the underlying concepts and rationale for logistics are not new they have evolved through several stages of development, but still use the basic ideas such as trade-off analysis value chains and systems theory together with their associated techniques. There have been several distinct stages in the development of distribution & logistics (Alan Rushston, PhilCroucher and Peter Baker ,2003:PP 7&8) .In, 1950 's and early 1960's, in this period , distribution systems were un planned and un formulated distribution was broadly represented by the haulage industry and manufacturers own-account fleets. There was little positive control and no real liaison between the various distribution-related function.In the 1960's & 1970s the concept of physical distribution was developed with the gradual realization that the 'dark continent' was in dead a valid area for managerial involvement. 1970s, this was an important decade in the development of distribution concept. One major changes was the recognition by some companies of the need include distribution in the functional management structure of the recognition. 1980s,Fairly rapid cost increases and the clearer definition of the true costs of distribution contributed to a significant increase in professionalism with in distribution with this professionalism came a move towards

longer-term planning and attempts to identify and pursue cost-saving measures. These measures include centralized distribution, severe reductions in stock-holding and use of computer to provide improved information and control. The growth of third-party distribution service industry was also of major significance with these companies spearheading developments information and equipment technology. In the late 1980's and early 1990's ,and linked very much to advances information technology organizations began to broaden their perspectives in terms of functions that could be integrated. In short, this covered the combining of materials management (the inbound side) with physical distribution (the out bound side). The term, 'Logistics' was used to describe this concept. Once again this led to additional opportunities to improve customer service and reduced the associated costs. On major emphasis recognized during this period was the importance of the information aspects as well as the physical aspects of logistics In the 1990's the process was developed even further to encompass not only the key functions, within the organization's own boundaries but also those functions outside that also contribute to the provision of a product to a final customer. This is known as 'supply chain management'. In 2000 & beyond, Business organization face many challenges as they endeavor to maintain or improve their position against their competitors, bring new products to market and increase the profitability of their operations this has led to the development of many new ideas for improvement, specifically recognized in the redefinition of business goals and the re-engineering of entire systems (Alan Rushston, Phil Croucher&Peter baker,2003: PP 8-10).

2.2 Definition of Logistics

Logistics is an integral part of our everyday life. Today, more than ever, it influences a large number of human and economic activities. The word "logistics" is derived from the Greek adjective "logistikos" meaning "skilled in calculating". The first administrative use of the word

was in Roman and Byzantine times when there was a military administrative official with the title Logista. But some researchers believe that the term logistics comes from the French word “logis” meaning dwelling, originally designated the art of organizing the transportation, resupplying, and housing of the troops of an army (that of Napoleon). Logistics is a diverse and dynamic function that has to be flexible and has to change according to the various constraints and demands imposed upon it and with respect to the environment in which it works. Therefore, so many terms have been used, often interchangeably, in the literature and in the business world. One quite widely accepted view shows the relationship as follows: (Baker 2006).

Logistics = Supply+Materials Management+Distribution.

Logistics is also concerned with the physical and information flows and storage forms of the raw material until the final distribution of the finished products (Baker 2006). Logistics deals with the planning and control of material flows and related information in organizations, both in public and in private sectors. Broadly speaking, its mission is to get the right materials to the right place at the right time, while optimizing a given performance measure (e.g. minimizing total operating cost) and satisfying the given set of constraints (e.g. a budget constraint).

The question of the most appropriate definition of logistics and its associated namesakes is always an interesting one. There are a multitude of definitions which can be found in textbooks and articles. A selected few are:

- “Logistics is the management of all activities which facilitate movement and the co-ordination of supply and demand in the creation of time and place utility” (Heskett et al. 1973).

- “Logistics is the positioning of resource at the right time, in the right place, at the right cost, at the right quality.” (Chartered Institute of Logistics and Transport (UK, 2005, cited in Riopel et al. 2005)).

2.2.1 What is Logistics Management?

Logistics management is the planning, implementation and control of the efficient, effective forward and reverse flow and storage of goods, services and related information between the point of origin and the point of consumption in order to meet customer” (CSCMP, 2006 cited in Riopel et al. 2005).

Logistics management is the part of supply chain management that plans, implements, and control and controls the efficient, effective, forward, and reverse flow and storage of goods, services, and related information between the point of origin and the point of consumption in order to meet customer’s requirements:

- Materials management
- Channel management
- Distribution (or physical distribution)
- Supply-chain management

2.2.2 What is Downstream?

To understand the concept of “downstream” functions, think of the supply chain as a river, passing by the company’s location. Water between the company and the source of the river is “upstream.” Water between the company and the mouth of the river is “downstream.” Therefore, events that happen in the chain of supply before the company are “upstream” tasks; these include

all the processing of supplies that arrive at the company as raw materials. Downstream activities occur once the river has flowed past the company on the way to the sea.(www.ehow.co.uk).

2.2.3 Down Stream Logistics Operation in the case of WFP

WFP logistics in Ethiopia manages the downstream supply chain starting with the receipt of food at the ports and finishing with the delivery and handover to the government counterparts at predefined points with the exception of the Somali region. Thereafter WFP maintains a monitoring role while the delivery and distribution is carried out by the government. WFP is responsible for the whole supply chain and delivers to beneficiaries around more than 300 Final Delivery Points. Besides, up on arrival of vessel in Djibouti, WFP Addis Ababa requests the contracted road transporters to make trucks available as stipulated in the contracts. i.e primary transporters those working from port of arrival up to intended destination or WFP Hub or government warehouse. The role of secondary transport deliver the food from the predefined hubs to different delivery points (FDPs). (Unpublished UN WFP Logistics Operation manual 2009).

2.2.4 Tools Managing Upstream &Downstream Logistics Operation in UN WFP

2.2.4.1 COMPAS Means Commodity movement processing and analysis system



COMPAS will continue to be the World Food Program's corporate commodity tracking system. The system monitors the movement of commodities from the time of their arrival to when they are distributed to beneficiaries. In addition to this, during storage, other stock processes like transformation and reconstitution are also recorded

2.2.4.2 WINGS Means World Wide Network Global System

WINGSII-SAP will be the leading system for master data management, procurement processes, sales processes and accounting, and therefore will provide to COMPAS all the master data necessary to have the two systems aligned.

2.2.4.3 Excel Monitoring Pipe line.

In excel monitoring the daily dispatched update information to the concerned unit. In addition to COMPAS, this system will help the supervisors and head of unit will look the status of daily dispatched in different hubs, then the consolidated report monitored in country office level.

2.3 The Role of Logistics in the Economy

Logistics play a key role in the economy in two significant ways. First, logistics is a major expenditure for business. Logistics expenditure accounts for around 15-20 per cent of GDP. Thus, by improving the efficiency, logistics make an important contribution to the economy as a whole. Today logistics department appears on the organization charts of many large organizations linking logistics activities directly to organization strategic plan can work effectively to support their organization for achieving competitive advantage.(Logistics and Supply Chain module, IGNOU (2011)

2.4 Objective of Logistics or Supply Chain

Chopra and Meindi in their book SCM strategy, planning and Operation affirms that "The objectives of every supply chain should be to maximize the overall value generated. The value a supply chain generates is the difference between what the final products is worth to customer and cost and supply chain incurs in filling the end user request 'the objective of logistics or supply chain management is to balance the flow of materials with customer though out the supply chain, such that costs, quality, and customer service are at optimal levels. (Gupta &Sahay, 2007:13).

2.5 Pressure Influencing Logistics System

The foremost goal of logistics is satisfying customers' demands with effective cost. if the investment in logistics is increased without consideration of the proper customer service level strategy, the expected target cannot be reached. Thus, new trend of logistics activity is traded-off on cost and customer service level, known as customer value. Some companies or organizations do not want to invest considerably in logistics assets which might affect on companies core businesses, thus logistics outsourcing and third-party logistics are answers to overcome the logistics issues.

2.6 Humanitarian Logistics and Disaster Relief/Response

According to Thomas and Kopczak (2005, p. 4), the term 'humanitarian logistics' is defined As '... the process of planning, implementing and controlling the efficient, cost effective flow and storage of goods and materials, as well as related information, from the point of origin to the point of consumption for the purpose of alleviating the suffering of vulnerable people. The function encompasses a range of activities, including preparedness, planning, procurement, transport, warehousing, tracking and tracing, and customs clearance.' The authors Kovács and

Spens (2007) distinguish between two main streams of humanitarian logistics: 'aid work' and 'disaster relief'. 'Aid work' mostly focuses on the continuous support of people in need (e.g. development aid). The term 'disaster relief' is usually used for operations that cope with sudden catastrophes (natural or manmade disasters).

2.6.1 Challenge of Humanitarian Logistics

Humanitarian Logistics is defined as the process of planning, implementing and controlling the efficient, cost-effective flow and storage of goods and materials, as well as related information, from the point of origin to the point of consumption for the purpose of alleviating the suffering of vulnerable people. The function encompasses a range of activities, including preparedness, planning, procurement, transport, warehousing, tracking and tracing, and customs clearance. Humanitarian Logistics is central to disaster relief for several reasons. First, it is crucial to the effectiveness and speed of response for major humanitarian programs, such as health, food, shelter, water, and sanitation. Second, with procurement and transportation included in the function, it can be one of the most expensive parts of a relief effort. Third, since the logistics department handles tracking of goods through the supply chain, it is often the repository of data that can be analyzed to provide post-event learning. Logistics data reflects all aspects of execution, from the effectiveness of suppliers and transportation providers, to the cost and timeliness of response, to the appropriateness of donated goods and the management of information. Thus, it is critical to the performance of both current and future operations and programs. (Proposal, Peter H Tatham, Stephen J Pettit , 2008 Fritz Institute)

2.7 Logistics and Supply Chain Flow

2.7.1 Material Flow (MF)

The aim within a supply chain must be to keep materials flowing from source to end-users. The goal is continuous, synchronous flow. Continuous means no interruptions, no dropping the ball, no unnecessary accumulations of inventory. And synchronous means that it all runs like a ballet. Parts and components are delivered on time, in the proper sequence, exactly to the point they're needed (Knill, 1992: 54):

2.7.2 Logistics Information Systems (LIS)

Implementation of logistics information systems for the humanitarian relief community would greatly enhance coordination between partners, sharing of training and lessons learned, and storage of data that would aid in inventory visibility and demand forecasting. Long characterizes information systems as “arguably the single most important factor in determining the success of an emergency logistical operation” (Stock and Lambert, 2001:161).

2.7.3 Logistics Management Information Systems

Information is the engine that drives the entire logistics cycle. We collect information to make decisions; the better information we have, the better decisions we can make. A logistics management information system (LMIS) is the system of records and reports that you use to collect, organize, and present logistics data gathered across all levels of the system. Most important, an LMIS enables logisticians to collect the data needed to make informed decisions that will ultimately improve customer service. (USAID Logistics manual, 2010).

2.7.4 Communication

Definition, communication is the transfer of a message (information, idea, emotion, intent, feeling or something else) that is both received and understood (David L. Goetsch and Stanley B. Davis, 2006 pp 332).

2.7.4.1 Effective Communication in Total Quality

According to David & Stanley, (2006), when the message received is understood, there is communication. However, communication by itself is not necessary effective communication. Effective communication means that the message is received, understood, and acted on the desired manner. It the sender's responsibility to ensure that there is effective communication.

Effective communication is a higher order of communication it involves receiving, understanding, and acting on the message. This means that effective communication may require persuasion, motivation, monitoring and leadership on the part of managers.

2.7.4.2 Understanding the Role of Communication in Total Quality

If the total quality is the engine, communication is the oil that keeps it running much of what total quality is all about depends in effective communication without it, total quality breaks down. Some of the elements of the total quality concept are customer focus(internal &external) , total employee involvement, leadership, teamwork, decision making, problem prevention, problem solving, and conflict resolution. Each of these elements is dependent on effective communication. (David L. Goetsch and Stanley B. Davis, 2006 pp 332).

2.7.4.3 Essentiality Effective Communication in Humanitarian Organization

Poor communication is a major barrier to delivery of aid. Not only are there obvious difficulties associated with speaking to someone using a different language, but the communications infrastructure may be crippled by a disaster (if it ever existed in the first place). Organizations may use different names and definitions for transportation modes, supplies, the composition of worker teams, etc. “Ironically, inter organizational relations are usually a challenge to the relief effort instead of a source of support. Each organization has its own operating methods and goals, and it is only with great effort that they coordinate their plans and share resources” (Long and Wood, 1995:216). This is an indication that organizational and cultural language may lead to procedural difficulties (Long, 1997:28). This inability to coordinate effectively is common during emergency response and is only made worse by disputes between organizations, and reluctance to share information which will ultimately lead to duplicated efforts and wasted resources (PAHO, 2000:5).

2.7.5 Collaboration in the Supply Chain

Collaboration is increasingly promoted as somewhat of a “Silver Bullet” in many areas of SCM. By the term SCM, we refer to the integration of all activities associated with the flow and transformation of goods, information, and the associated funds, through improved supply chain relationships of all involved entities. The key to achieving improved relationships will come through better understanding the ways that entities in supply chains work together. Collaboration is important since according to Cooper et al. (1997), sub-optimization occurs when each organization in the supply chain attempts to optimize its own results rather than integrate its goals and activities with other organizations for the benefit of the whole chain.

2.8 Service quality Dimensions

- Time and timeliness: How long a customer must wait for a service, and if it is completed on time.
- Completeness: providing everything the customer asked for or expected.
- Courtesy: expectation that the service will provide the same way each time.
- Consistency: expectation that the service will provide the same way each time.
- Accessibility and convenience: ease of obtaining the service
- Accuracy: correctness of the service performed (particularly important for professional services.
- Responsiveness: reaction of service provider to unusual or unexpected customer's request.

2.9 Benchmarking

Benchmarking is the process of the comparing and measuring an organization's operations or its internal processes against those of a best in class performer from side or outside its operation(David L. Goetsch and Stanley B. Davis , 2006. Benchmarking is finding the secret of success of any given function or process so that a company can learn from the information and important and improve on it. This is a process to help an organization close the gap with the best in-class performer without having to "re-invent the wheel" (David L. Gotesch, and Stanley B.Davis,2006.)

2.10 Empowerment

According to Stanley, Empowerment is the key to motivation and productivity. An employee who feels he or she is valued and can contribute to ready to help and grow in the job. Empowerment enables a person to develop personally and professionally so that his or her

contributions in the work place are maximized, Empowerment is sometimes seen experienced managers as just another name for participatory management. It helps employee's development a sense of ownership of their jobs and of the organization. This, in turn leads to a greater willingness in the part of employees to make decisions, take risks in an effort to make improvements and speak out when they disagree.

2.11. Knowledge Management

The truly revolutionary impact of the information revolution is not artificial intelligence, information, or the effect of computers and data processing on decision making, policy making or strategy. The key to continued growth and leadership in the new economy is not electronics of computers but the cognitive skills of the 'knowledge workers', Peter Druker(1994) Knowledge management is the process through which organizations generate value from their intellectual and knowledge-based assets. Most often, generating value from such assets involves sharing them among employees, departments, and even with other companies in an effort to devise best practices(Dipak Kumar Bhattachryya ,2012) In an context, knowledge management is a concept in which an enterprise gathers, organizes , shares, and analyses its knowledge in terms of resources, documents, and skills. It helps an organization to gain insight and understanding from its own experience. It is the process through which organization generate value from their intellectual and knowledge-based assets(Dipak Kumar Bhattachryya ,2012).

2.11.1 Training

Training is the acquisition of knowledge, skills, and competencies as a result of the teaching of vocational or practical skills and knowledge that relate to specific useful competencies. Training has specific goals of improving one's capability, capacity, productivity and performance. It forms the

core of apprenticeships and provides the backbone of content at institutes of technology (also known as technical colleges or polytechnics). In addition to the basic training required for a trade, occupation or profession, observers of the labor-market recognize as of 2008 the need to continue training beyond initial qualifications: to maintain, upgrade and update skills through outworking life. People within many professions and occupations may refer to this sort of training as professional development. (<http://en.wikipedia.org/wiki/Training>).

Poor or nonexistent training ultimately affects the quality of any logistics operation. Field managers are faced with an onslaught of requirements during the relief effort, including demands from the affected population and local government, pressure from international media, monitoring agency attention, and restrictions imposed by donors on how aid is administered. Thomas points out that there may be problems with employee reliability (2003:7) stemming from lack of training. There is a notable lack of employees who are knowledgeable in supply chain or logistics management.

2.11.1.1 The Benefits of Training can be Summed up as:

- **Improves morale of employees-** Training helps the employee to get job security and job satisfaction. The more satisfied the employee is and the greater is his morale, the more he will contribute to organizational success and the lesser will be employee absenteeism and turnover.
- **Less supervision-** A well trained employee will be well acquainted with the job and will need less of supervision. Thus, there will be less wastage of time and efforts.

- **Fewer accidents-** Errors are likely to occur if the employees lack knowledge and skills required for doing a particular job. The more trained an employee is, the less are the chances of committing accidents in job and the more proficient the employee becomes.
- **Chances of promotion-** Employees acquire skills and efficiency during training. They become more eligible for promotion. They become an asset for the organization.
- **Increased productivity-** Training improves efficiency and productivity of employees. Well trained employees show both quantity and quality performance. There is less wastage of time, money and resources if employees are properly trained
(<http://managementstudyguide.com/training-of-employees.htm>)

2.12 Demand Forecasting

Demand forecast sometimes can be predicted. The management of information during the crises is a single great determines of success. The needs of disaster victims are presumed initially by people for away, based on limited information. Assumptions are made regarding the kind and quantity of supplies needed. Where they are needed and how they will be distributed. Initially supplies are “pushed” once relief personnel are in the disaster area, they reassess the situation and try to correct the mistaken once better assessment have been made and communicated to the origin of supplies, a pull system is put into effect and process becomes much more effective.(David Malony, Modern Material handling, June 1999 PP 16-17).

2.12.1 Bullwhip Effect (BWE)

Failure to accurately estimate demand and share information among supply chain entities can result in bloated inventory levels due to cumulative effect of poor information cascading up through a supply chain, says ‘Burt’ in his book WCSM. This is in fact quite natural in a way. If a

firm does not have information of the demand it will unnecessary carry load of additional inventory or even increase the lead time to provide for the uncertainty. In other words,' the increases in variability as we travel up wards in the supply chain is referred to as the (BEW) bullwhip effect.(Dobler and Starling,EMH,pp627-628).

2.12.1.1 Bullwhip Effect and Order Fluctuations

The resulting order fluctuations have a variety of consequences of the supply chain. These fluctuations increase manufacturing costs, inventory costs, replenishment lead times, transportation costs, and labor costs for shipping and receiving. (H. Moharana, J.Maruty,Senapati&K.Khuntie,2012 PP46).

As H.Moharana, J.Maruty,Senapati&K.Khuntie,2012 PP46 as described there four factors that causes the bullwhip effect. These are:

- Demand forecast updating:
- Order batching:
- Rationing and shortage game:

2.13 Waiting Line or Queuing Model

Waiting lines are commonly found where ever customers arrive randomly for services. In many situations the customers are not people but orders waiting to be filled, trucks waiting to be loaded or unloaded, jobs waiting to processed, or equipment awaiting repairs. One reason that queuing analysis is important is that the customers regard waiting negatively. Customers may tend to associate this with poor service quality, especially if the wait is long. Similarly, in organizational setting, having work or employees wait is the sort of waste that workers in JIT systems strive to

reduce. Generally, the goal of queuing is essentially to minimize total costs. William J. Stevenson (2005).

2.14 Data Management & Information Sharing

Information sharing is an important aspect in achieving perfect integration in logistics or supply chain activity. Cross functional integration and inter organizational integration requires the visibility of information across the supply chain activity. Poor information sharing among partners and employees in supply chain activity will result in poor coordination that will lead to many serious problems such as inventory levels, in accurate forecasts, low resources utilization, and un proper delivery of items in the wrong place. Indeed, information sharing is highly considered as the way to reduce demand uncertainty (Lee and Whang, 2000; Lee, 2000). Many studies have reported that information sharing can bring many benefits to both stack holders and partners. (Yu et al, 2000; Raghunathan, 2003)

2.14.1 Information Technology (IT) a key Drivers of Logistics or SCM Activity

Now a days, since IT is resolved in every step of operation in each company, therefore, it is not surprising that organization' logistics or supply chain Management supported by adopting IT. Talluri (2000), makes the comment that advances in IT systems have given opportunities for organizations to transform the way they manage their business. In every logistics aspect IT is highly regarded as a major enablers in achieving effective logistics or supply chain management. As supply chain spans many organizations in distributing their items to the end users in the downstream activity in the functional area within the organization, the implementation of IT allows the organizations to increase communication and coordination of various value adding

activities with their partners and between functions within their own operations (Simchi-levi et al,2000).

2.14.2 Electronic Data Interchange

Electronic data interchange , commonly referred to "EDI", is the computer to computer interchange of business documents and/ or information among the staff members and counter parts in standard data format. Computer-to- computer and standard data format mean information must be precisely formatted so that a computer can process the information without human assistance. EDI replaces the traditional forms of mail, courier, or fax. It is being utilized to link supply chain members together in terms of order processing, production, inventory, accounting, and transportation. It allows members of supply chain to reduce paper works and share information on invoices, orders, payments, inquires, and scheduling among all channel members(Modules Logistics &Supply chain IGNOU,(2011).

2.14.3 Data Warehousing (DW)

Generally, a data warehouse is a decision support tool for collecting information from multiple sources and making these information available to end users in consolidated &consistent manner. Benefit of data warehousing one, providing a consolidated view of corporate data is better than many smaller(and differently formatted) view, Secondly, DW warehousing allows information processing to be off loaded from individual(legacy) systems onto lower- cost servers (Modules Logistics &Supply chain IGNOU 2011).

2.15 Managing Pipeline Inventory

Shrinkage, the amount of supplies lost where in the logistics pipelines between origin and destination is much greater in an environment of civil strife. Need assessment must make difficult estimations of shrinkage in order to determine the quantity of supplies and food needed to be put in the pipeline. (Modules Logistics & Supply chain IGNOU, (2011).

2.15.1 Store Location and Lay Out Decision.

According to A.K Datta , in his material management procedure book, 2003, storage system has to accommodate the inflow of inputs of materials and bought out components from outside sources, the finished goods inventory to the main warehouse and the out flow of finished goods inventory to the end users. The stems efficiency may be compared and assessed in terms of unit cost, (per volume or weight) of moving goods through storage sites or storage over a given period. It usually takes into account the elements of labor, space and equipment needs and costs. But in any specific systems design there may be some advantageous in sacrificing the accessibility to stock in favor of getting more stores unless space, or vice versa. Thus, while it is not possible to arrive at any absolute criterion for the efficiency of one storage system over another the selection of the right system will depend up on assessing and evaluating the requirements in terms of distribution strategy.

2.15.2 Centralization and Decentralization of stores.

Although centralization helps to ensure economy, effect better control and reduce man power needs, it creates some difficulties in rendering service to various work centers scattered in different locations it is suitable for a small installation, but even then various stores may be kept near the distribution geographical area(A.K. Datta, 2003).

2.16 Transportation

Transportation happens to be the most fundamental part of strategic logistics management. Transport costs include all costs associated with the movement of products from one location to another. Transportation is the movement of products, materials and services from one area to another both inbound and out bound. (Module Logistics and Supply chain Management IGNOU 2011).

Transportation is the movement of products, materials and services from one area to another, both inbound and outbound. It can also be said as movement from one node of supply chain to other. As Deshmukh and Mohanty (2004) says, by providing for swift and uninterrupted flow of products back and forth through the chain transportation provides a sort of lubrication to run the chain smoothly. It also permits deeper penetration of newer markets far from the point of production.” Therefore, in order to effectively manage this transportation system the first step would be to establish a cost effective transportation mode. In otherworld’s highest customer service in lowest price, leads to the organization growth and profitability with optimization system. Transportation system has a strategic bearing to the organization operation efficiency. Therefore, failure to identify the best transportation mode can directly affect the efficiency on the delivery of aid items to the organization.

According to Mohanty&Deshmukh (2004) , organization, which involves physical movement of goods require transport services that varies from mode to mode. The best suitable mode is required to be identified depending upon on the nature of the product that has to be moved and the urgency of items to be delivered.

2.16.1. Transportation Management

Management of the distribution function should be an integral part of system management. “The activities of each function must be closely tied with the function downstream to avoid delays at handoff points in the logistics network” (Thomas, 2003:6). The operations must be physically and conceptually compatible. For example, one method for making the distribution process more robust would be to establish multiple distribution channels comprised of redundant routes and delivery methods for supplies (Coyle and others, 2003:107-109). Likewise, the distribution system should have built-in mechanisms to allow for tradeoffs between transportation costs and service level. More costly, faster transportation allows lower inventory levels to be kept due to a more responsive system (Coyle and others, 2003:340).

2.16.2 Transport Performance Measures

According to Thomas,(2000) ,transport is a major task of logistics service and it is also the biggest proportion of total logistics cost. Therefore, transport improvement is a key to let the company be competitive in the market. To develop the transport performance, four criteria which are finance, productivity, quality, and response time should be focused and measured. Each factor, in turn, consists of many terms; terms in finance, return on logistics assets and logistics asset turnover indicate financial performance. However, which parameters to adopt depend on the company’s concentration and strategies. In the next paragraph, it expresses general measurable parameters in each criterion.

- Financial metrics: Normally, total transport costs and associated ratios such as fleet assets are measured in order to include the capital consumption, especially a fleet owner-company.

- Quality metrics: This indicator emphasizes on reliability and damage measurement. The parameters reflecting suppliers' performance are percentage of claimed shipment, damage rate, on-time arrival percentage (OTAP), on-time departure percentage (OTDP), and so forth.
- Cycle time metrics: Because time is factually money in the transportation industry [16], transit time, loading and unloading times, detention time, and delayed in traffic time are related to cycle time performance. In some points, cycle time is influenced by the company's capital. Due to several parameters affecting on the transport time, time breakdown analysis can aid logistics managers to detect the bottle neck of the chain easily and reinforce the opportunity to improve the logistics performance

2.16.3 Performance Monitoring

In order to monitor four aspects of transport performance, information which is an important input should be quantitative and comparative. Besides, the information used in the system should be accurate and timely in order to observe performance successfully. Performance monitoring is a cyclical activity starting with current stage study, after that indentifying the distribution process objectives. The next step is developing appropriate strategies to achieve plan objectives, followed by process control and comparing to the plan. As mentioned, the performance monitoring is a cyclical procedure; therefore, continual review and revision of plans must be progressive.

2.16.4. Balanced scorecard

Performance monitoring process is normally unplanned and unrefined which can create complexity and incompleteness of the process. In general, there are several ways to guide

performance monitoring procedure such as the balanced scorecard. Kaplan and Norton introduced this method in 1996. Balanced scorecard is a tool to translate the strategic missions to measurable objectives by using Key Performance Index (KPI). There are four aspects to consider, which are financial perspective, customer perspective, internal perspective, and innovation and learning. All KPIs of four perspectives should be set up to balance all aspects in order to achieve the business's goal.

2.17 Transport Costs and Rates

Transport system faces requirements to increase their capacity and to reduce the costs of movements. Any users (e.g. individual enterprises, institutions, governments, etc) have to negotiate or bid for the transfer of goods, people, information and capital because supplies, distribution systems, tariffs, salaries, locations, marketing techniques as well as fuel costs are changing constantly. There are also costs involved in gathering information, negotiating, and enforcing contracts and transactions, which are often referred to as the cost of doing business. Trade involves transaction costs that all agents attempt to reduce since transaction costs account for a growing share of the resources consumed by the economy. Matiwos Ensermu Transport Management hand out AAUCC (2006)

Transport costs have significant impacts on the structure of economic activities as well as on international trade. Empirical evidence underlines that raising transport costs by 10 per cent reduces trade volumes by more than 20%. In a competitive environment where transportation is a service that can be bid on, transport costs are influenced by the respective rates of transport companies, the portion of the transport costs charged to users. Matiwos Ensermu Transport Management hand out AAUCC (2006)

Rates are the price of transportation services paid by their users. They are the negotiated monetary cost of moving a passenger or a unit of freight between a specific origin and destination. Rates are often visible to the consumers since transport providers most provide the information to secure transactions. They may not necessary express the real transport costs. The difference between costs and rates either results in a loss or deficit from the service provider. Considering the components of transport costs previously discussed, rate setting is a complex undertaking subject to constant change. MatiwosEnsermu Transport Mangement hand out AAU (2006)

2.17.1 Transport Cost and Time Components

MatiwosEnsermu Transport Management hand out(2006) , among the most significant conditions affecting transport costs and thus transport rates are:

- **Geography:** it impacts mainly involve distance and accessibility. Distance is commonly the most basic condition affecting transport costs.
- **Type of product:** many products require packaging, special handling, are bulky or perishable.
- **Economic scale:** another condition affecting transport costs is related to economies of scale or the possibilities to apply them as the larger the quantities transported, the lower the unit cost.
- **Energy:** Transport activities are large consumers of energy, especially oil. About 60 per cent of all the global oil consumption is attributed to transport activities. Transport typically account for about 25 % of all the energy consultation of an economy. The costs

of several energy intensive transport modes, such air transport, are particularly susceptible to fluctuation in energy prices.

- **Trade imbalance:** imbalances between imports and exports have impacts on transport costs. if a trade balance is strongly negative (more imports than exports), transport costs for import tend to be higher than for exports.
- **Infrastructure:** The efficiency and capacity of transport modes and terminals has direct impact on transport costs. Poor infrastructures imply higher transport costs, delay and negative economic consequences. More developed transport systems tend to have lower transport costs since they are more reliable and can handle more movements.
- **Competition and Regulation:** Concerns the complex competitive and regulatory environment in which transportation takes place. Transport services taking place over highly competitive segments tend to be of lower costs than on segments with limited competition (oligopoly or monopoly). International competition has favored concentration in many segments of transport industry, namely maritime and air modes. Regulations, such as tariffs, sabotage laws, or, security and safety impose additional transport costs.
- **Transport time:** Components is also an important consideration as it is associated with service factor of transportation. They include the transport time, the order time, the timing, the punctuality and the frequency.

2.17.2 Rate Profiles

MatiwosEnsermu, Transport Management Hand out Addis Ababa University CC (2006), transportation rates are the prices that for hire carriers charges, and indirectly the cost that private carriers incur, for moving goods. Traffic managers must be able to determine,

compare and negotiate transport rates. To do this effectively, understanding of rate structure (as they are related to volume, distance, and demand) is essential. In general, rates will simply be published by carriers, especially in the case of small shipments moved by common carriers. When shipments are large, the shipper will often negotiate specific rates such as contract rates or rates that are exceptions to the published rates.

2.17.2.1 Volume-Related Rates

The economics of the transportation industry indicate that costs of service are related to size of shipment. Rate structures in general reflect these economies because shipments in consistently high volumes are transported at lower rates than those for small shipments. Volume is reflected in the rate structure in several ways. First, rates may be quoted directly on the quantity shipped. If the shipment is small, that is, below a prescribed minimum quantity, the shipment is charged a flat rate. Called an ‘‘any quantity’’ (AQ) rate. Larger shipments, but less than a second minimum quantity, are charged less-than vehicle-load (LCL, LTL, etc) rates. Even larger shipments move under lower vehicle-load (CL, TL) etc. The vehicle load quantity refers to the maximum quantity the vehicle can carry. For example trucks with their trailer can carry up to 40 metric tons. On the other hand, a quantity below this level is called less than full loaded quantity.

2.17.2.2 Distance Related Rates

Rates as a function of distance range from being completely invariant to distance to varying directly with distance. However, most rate structures lie between these extremes.

- **Uniform rates:** simplicity can be a key factor in establishing a rate structure. The simplest of all is the uniform rate structure. There is one transport rate for all origin-

destination distances. For example, the rate per truck from Addis Ababa to Djibouti might be at Birr 40,000 no matter how much you ship.

- **Proportional rates:** for those carriers with significant line-haul cost components (truck and to a lesser extent, air), a compromise between rate structure simplicity and service costs is the proportional rate for a commodity by a straight-line extrapolation. Although there are some obvious advantages to this simple structure, it does discriminate against the long-haul shipper in favor of the short-haul shipper. Terminal charges are not recovered on the short hauls.
- **Tapering rates:** A common rate structure is built on the tapering principle. Because in some countries terminal charges are included in line-haul charges. A rate structure that follows costs shows rates increasing with distance but at a decreasing rate. A major reason for this is that, with increased distance of the shipment, terminal costs and other fixed charges are distributed over more miles. For instance in the above example we have noted that for every KM between Nazareth and Djibouti the rate Birr 40 per KM. This means the rate constant. However the shipment that goes to 'Dire Dawa' does not need the terminal service at Djibouti. Why is it, therefore, we charge the same rate for these two different shipments? Hence, to avoid such problems the rate for shipment to closer location should be lower. As it extends to remote locations that are close to the terminal areas, such as Djibouti, the rate should be higher. The degree of taper depends on the level of fixed costs that a carrier has and the extent of economies of scale in line-haul operations. Thus we logically expect greater taper for rail, water, and pipe than for truck and air.

2.17.2.3 Blanket Rates :

Meeting rates of competitors and a desire to simplify rate publications and administration led carriers to establish blanket rate structures. Blanket rates are merely single rates that cover a wide area at the origin, destination or both. The resulting rate structure is with the plateaus as the area of rate grouping or blanketing.

2.17.2.4 Import-Export Rate

To encourage foreign trade special rates called import rates are established on inland shipments originating at or designed for foreign points. Shipments move over domestic transportation routes at lower rates than comparable shipments with origins and destinations entirely inland. These rates take precedence over class or commodity rates applicable to shipments via the same route. Example, the Ethiopian Transport and Communication Authority, put standard rate from Djibouti to different location within the country. Rates are applicable in all carriers that prevail in road mode of transport.

2.17.2.5 Deferred rates:

Common carriers are responsible for the value of the goods in their keeping,. If goods are lost or damaged the shipper can claim up to the full value of goods. Normally rates based on the unlimited liability in contrast, common carriers are permitted to establish rates based on limited liability called released-value rates. Under released-value rates, the carrier's liability is limited to some fixed figure.

2.18 Lean Six Sigma Logistics

The concept of logistics management is cost reduction and quality improvement. In general, Lean Six Sigma Logistics can be defined as “the elimination of wastes through disciplined efforts to understand and reduce variation, while increasing speed and flow in the supply chain”

The proportion of lead time and cost caused by transport is significant, also the cost of unreliability and delaying, unsatisfied customers are difficult to identify and handle. Therefore there have been attempts to improve transport system. “Six Sigma” concept in transport improvement is to minimize time and variation of average transport time. Nonetheless, some companies have chosen to use freight forwarders with whom the management must maintain proper relationship. Long term relationship with shippers can let the company get the lowest priced transport service. In consequence, logistics network must be optimized as “a big picture” cost trade-offs. Focusing on the individual shipment, causes of inefficient transport are poor utilization of equipment, operators, and other limited resources (Michael C. Thomsett, 2005).

2.19 Tender

To define tender or bid is a formal offer to supply goods or services for an agreed price from a procurement perspective tendering (or a competitive bidding is a procurement procedure when by potential bidders are invited to make a firm and un equivocal offer of the price and terms on which they will give services, which are acceptance shall be the basis of subsequent contract.(**Kenneth Lysons& Brian Farrington, 2006**). Tendering is based on the principles of completion, fairness and accessibility, transparency and openness and probity. The process of obtaining tenders should also aim at obtaining the best and competitive bidders with the lowest cost.

2.19.1 Tender Evaluation and Comparison

Tender evaluation is usually undertaken with a view to identifying key data and information from the tenders submitted and then drawing comparisons between the different submissions, hence the importance of using a response that is straight forward from the contractor to use. Comparisons are going to be quantitative (mainly assessing the relative costs of the different solutions) and qualitative (a consideration of all the non-quantifiable aspects that may be relative. For a typical warehouse and delivery transport proposal, the main cost elements are the same as the standard ones.(Kenneth Lysons& Brian Farrington, 2006).

2.20 Demurrage

Any sender, consignee or warehouse operator who has failed to meet its obligation as stipulated in the loading and unloading time frame the consignee shall pay demurrage to the carrier on the following basis(Federal Negarit Gazette of, The Federal Democratic Republic of Ethiopia 18 December,2013 Proclamation number 811/2013).

2.21 Empirical Study on Related Topic on Logistics and Supply Chain Management

2.21.1 Management in Humanitarian Relief Logistics

William K. Rodman, Captain, USAF, (2004) on their thesis on explorative case study in their objective the research is to construct an easily understood framework of solutions to logistics problems encountered by humanitarian organizations. As explained later, some of the barriers facing humanitarian organizations are unpredictable demand, degraded infrastructure, difficulties with personnel, and funding issues. The proposed solutions will be based on SCM methods used in other humanitarian organizations, the military, and the private sector to overcome similar

problems. The research will require identification of critical relief resources and barriers followed by an analysis of current SCM practices from multiple sectors. The end result will be both a tool for humanitarian logisticians in the field and a cornerstone for further discussions regarding standardized logistics policies and practices within the humanitarian sector.

2.21.2 Supply Chain Network

Samuel Fikru(2003) studied to examine the supply chain networks practice in the case study of PSI Ethiopia. The rationale of this concept is the opportunity alternative for cost saving and better customer service, An important objective is to improve an organizational competences in spite of challenging external force and prompt changing customer needs .The ultimate aim of implementing the performance measurement system is to find out loop holes in the system and root causes that and finally to improve the performance.

2.21.3 Logistics and Supply Chain Approach in Port performance

Khalid Bichou and Richard Gray (2004), In their thesis topic on A logistics and Supply Chain management approach to port performance measurement, in their research aim the port system in the prospective logistics and supply management, and suggesting valid frame work of efficiency measurement capable of reflecting the logistics scope of port operations and complementing, if not replacing, the conventional methods for port performance measurement and management biased towards sea access. Respondent from the port group showed a lack of familiarity with logistics and supply chain management concepts, especially those related to logistics integration, benchmarking and channel design, although there is common recognition of ports as key logistics and distribution centers In there theses an important conclusion relates to channel control and management respondent ports mention the problems of information sharing and

highlight the need for collaboration or partner arrangements with other logistics channel members.

Finally, a logistics and supply chain management approach to ports may prove of great benefit in underlining the strategic role and future potential of ports within the framework of international business in general. It can serve particularly as a valid analytical framework allowing an unbiased assessment of port performance measurement and management. The enquiry described in this paper stands as an initiative requiring further research and investigation ,Khalid Bichou and Richard Gray (2004)

2.21.4 Relationship between Downstream Integration, performance measurement systems Supply Chain network

Pamela Danese&PeitroRomano (2011) ,Journal of Production Research Relationship between Downstream Integration, Performance Measurement Systems Supply Network Efficiency. This study demonstrates that the adoption of supply network performance measurement as moderator of the downstream integration-supply network efficiency relationship. The role of this moderator is two fold. On the one hand, the adoption of supply network performance measurement systems strengthens the positive impact of downstream integration on supply network efficiency, through a positive additional synergistic effect. The practical implication for managers is that performance optimization requires leveraging simultaneously on downstream integration and supply network performance measurement systems to foster interaction, rather than investing in downstream integration only.

2.21.5 The Challenge on Down Stream Logistic Service

Although significant numbers of researches have been conducted on the supply chain and logistic service in international level, there is a little done on logistics and supply chain management in case study by Ethiopian researcher, The concept is new to the country only a few researchers have been conducted in this area filed study of Therefore, My researcher couldn't find any research done on the challenge of downstream Logistics activity in the case study of one organization in Ethiopia. Hope my researcher will fill the gap on this areas of study and in the future any want to do his researcher will help as of further reference.

CHAPTER THREE

3 .RESEARCH METHODOLOGY

3.1. Research Design

The research designed both quantitative and qualitative type. This means mixed research were used. This research also results must have relevance for the decision making purpose. On descriptive statics the sample data represents the population that was selected. Different methods of data collection like diagnosis structured questionnaire, interview and observation focus on area of activities were employed. Information collected from the logistics, procurement and client those giving service to the organization especially on the movement of food items and non- food items.

3.1.2 Nature and Source of Data Information

Data gathered through qualitative and quantitative. Source both primarily and secondary data. Information from existing documents from the organization provided secondary data. Interview, questionnaire and observation were used to source of primary data.

3.1.3 Sample and Sampling Techniques

This research based on selected part of the population on the organization and client those giving transport services to the organization, which is used to ascertain on representative of the characteristic of the population of the sample. Sample selection conducted without replacement. Sampling technique used probability & non-probability sampling. Non probability sampling technique (Judgmental sampling) those representative of the sample of the population and

probability sampling is going to use stratified sampling technique the existence of strata such as each stratum was more homogenous within and markedly differ the study of the research within the organization and outside the organization i.e client conducting questionnaires were used homogenous and heterogeneous in nature. Interview based on judgmental sampling techniques those were selected. The researcher believed that those people are confident enough to answer the interview questions. The sample size of each stratum in this technique is proportionate to the population size of the stratum when viewed against the entire population. This means that the each stratum has the same sampling fraction.

Sample taken from UN-WFP has currently operating in one country office in Addis Ababa and One area office in Jijiga, ten sub offices ,Nazareth, Gambella, Dessie&Kombolcha, Dire Dawa,Mekele, Gode, Dolo, Nazareth, Kebridehar and Awassa. and two field offices i.e Degehabur and Assosa. Currently operation of logistics going on in all of them except Semera , Awassa and Assosa due to no operation, storage of food items kept and no logistics staff there. Currently, 160 logistic staffs and 50 active transporters working with UN-WFP in Ethiopia. Totally 210 population and from this 94 sampled for the study.

3.1.3 Sample Size

The Sampling size and frame taken from the population for the study were working in logistics unit and client (Transporter those giving service) selected using simple random sampling techniques. Some key Unit heads like procurement & program unit to interview for data analysis. Furthermore, personal observation has done at the organization level by the researcher in order to assess the logistics operation and material handling system of the organization.

The logistics staffs of 160 employees and 50 active transporter working to the organization. Out of 210 population size 45 per cent of were taken to make as a sample. Then, 94 were selected as sampled and Judgmental sampling techniques used those were convenient to answer those questionnaires and interview questions. Individual was contacted for interview in exclusive manner. Both questionnaires and interview was conducted in office.

3.1.4 Tools and Techniques Used for Data Collection

Tools that have been used for data collection by email to sub offices respective respondents and returned back by email after completed. I used both open-ended and close-ended questions were collected data from selected respondent (staff of the organization) and client i.e those working with transport sector. The question for both questionnaires and interviews were short, precise and clear with understandable manner to get necessary information from the respondents. The questionnaires designed on Nominal scale & interval Likert scale. Nominal scale rely on respondent profile composed of mutually exclusive category. Interval Likert scale designed in which the subjects indicate their degree of agreement or disagreement with each of a number of statements.

3.1.5 Data Collection Method

Data collection method based on primary and secondary data. The primary data in relation to downstream logistics operation questionnaires and interview conducted based on the determined sample size. In the case of data collection that used questionnaires designed and distributed according to the different hierarchical levels of the organization structure such as logistics employees, officers and head of unit and other side the transporters conducted higher level

official up to the manager of the company. This help to classify the understanding and responses of different types of respondent data analysis.

3.1.5 Data Handling and Analysis

For the quantitative part data analyzed with the help of the statistical tool SPSS version 19. This tool very important to determine mean, standard deviation, median and correlation. In addition to this, charts, tables, percentage will be used to present data and interpretation.

CHAPTER FOUR

4. DATA RESULT AND FINDINGS OF THE STUDY

4.1 Introduction

This chapter deals with the presentation, discussion and interpretation of the collected data through questionnaire and interview. The discussion particularly focuses on respondents profile, customer handling, quality of service and cooperation within the organization, transport rate compared with other organization and transparency of Request for Quotation (RFQ), commodity handling and warehouse management, waiting time, information flow, delay of payment in the overall supply chain activity, systems tools effectiveness, Integration & team work, distribution of foods, & experience or knowledge sharing. Out of 94 sampled selected population 87 people returned the questionnaires that distributed to the respondents. From the accepted response all responses were found valid except some questions that was missed by the respondent. This account 97 % of the response rate. Thus, based on the response obtained from the respondents data presentation and analysis were made as follows. The presentation of this chapter was guided by the following research objectives.

- I. To identify factor contributing to the in efficiency of commonly downstream logistic management operation.
- II. To scrutinize key critical success factors in the downstream logistics operation, such as .
Commodity handling and warehouse management, system tools effectiveness, information flow and the gap between waiting and receiving the payment and also communication gap among the staffs and stakeholders (service providers).
- III. To examine the importance of training and experience sharing among the different area of operation.

- IV. To measure the performance of downstream logistics operation within the organization.
- V. To analyze the quality of data handling and the effectiveness of the downstream logistics operation within the organization.

4.2 Frequency Analysis of the Respondents Profile (Service Providers or Transporters)

The demographic profile of the sample respondents are presented and analyzed on below summary. The purpose of the assessing the respondent is very important to know the service providers their education level, work experience, position within the organization and organization type.

As table 1 below clearly shows the frequency distribution of the respondent education level in the organization. 57.9% (11) having more than 10 years working experiences. In this table, shows 42.1%(8) between 5 and 10 years working experiences. We can conclude that the organizations working with WFP as of partner and it is sufficient experiences to judge and give views. This is because when the respondents are more and more experienced with the organization as of service provider, they have better opportunity to know more about the organization working systems

Table 1 Respondent Frequency distribution of experiences (Service providers)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	b/n 5 and 10	8	42.1	42.1	42.1
	>10	11	57.9	57.9	100.0
	Total	19	100.0	100.0	

Source: (Researcher’s survey 2014)

As shown in the below in the table 2, the highest education level attained by most of the respondent was University Degree which represents 57.9%(11) out of the valid respondent, followed college diploma with 26.3 % (5). In the same accounts 10.5%(2) with Master levels of education, and only 5.3 %(1) with secondary education level. We can induce that from this data shows the highest percentage is first degree and above.

Table 2 Respondent Frequency Distribution on Qualifications (Service providers)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Secondary school completed	1	5.3	5.3	5.3
	College diploma	5	26.3	26.3	31.6
	University degree	11	57.9	57.9	89.5
	Master level	2	10.5	10.5	100.0
	Total	19	100.0	100.0	

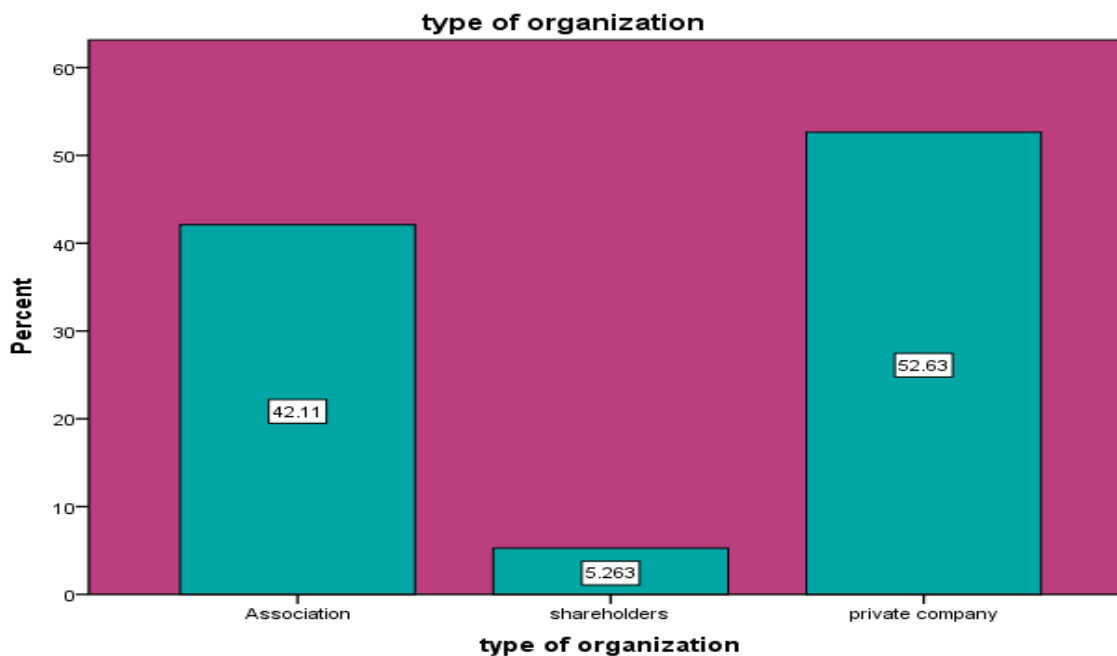
Source (Researcher's survey,2014)

According to below table shows the highest percentage that account with 52.1%(10) Private Company followed by Association with 42.1 %(8) and lastly 5.3% (1). According to the data most of, the organization working the business with Private Company and Associations with 68.4% (13). Besides, the majority of the respondent with high qualified and compete enough to handle their job effectively.

Table 3. Types of The organization

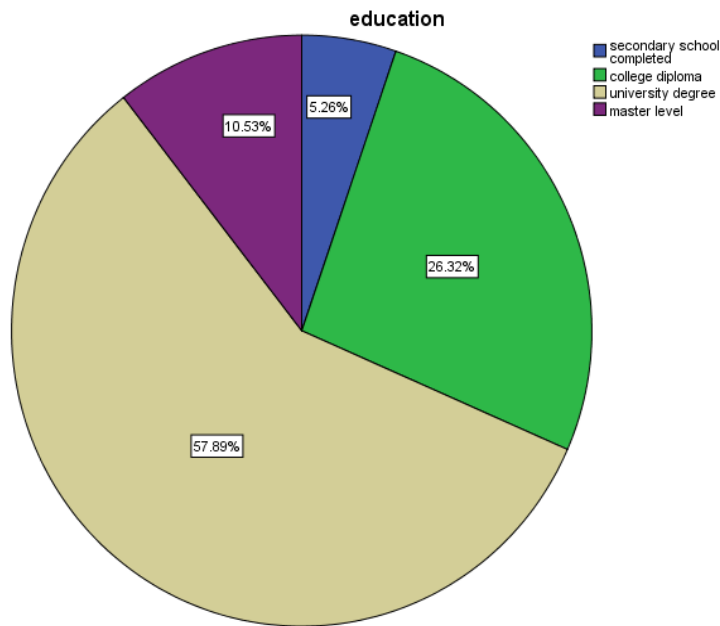
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Association	8	42.1	42.1	42.1
	shareholders	1	5.3	5.3	47.4
	private company	10	52.6	52.6	100.0
	Total	19	100.0	100.0	

Source (Researcher’s survey,2014)



Graph 1Source: (Researcher’s survey,2014)

Graph 2 : Shows Service Providers' Education Distribution in PIE-char



According to the above Pie Chart Most of the operation performed by university Degree holders.

Source: (Researcher's survey 2014)

Table 4 Service providers Position in their Organization

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Administration & Finance Head	1	5.3	5.6	5.6
	General Manager	5	26.3	27.8	33.3
	Logistics Head	1	5.3	5.6	38.9
	Manager	1	5.3	5.6	44.4
	Manager Director	1	5.3	5.6	50
	Marketing & Operation Manager	1	5.3	5.6	55.6
	Operation & Finance Manager	1	5.3	5.6	61.1
	Operation General Manager	1	5.3	5.6	66.7
	Operation Manager	4	21.1	22.2	88.9
	Owner General Manager	1	5.3	5.6	94.4
	Transport Dispatch officer	1	5.3	5.6	100
Total	18	94.7	100		
Missing	Non respondent	1	5.3		
Total		19	100		

Source :(Researcher's survey 2014)

4.3 Frequency Analysis of the Respondents Profile (Employees working in logistics Unit)

The demographic profile of the sample respondents are presented and analyzed on below summary. The purpose of the assessing the respondent is very important to know employees education level, work experience, position within the organization. Table 5 on below data that 79.4% (54) male are working with in the logistics unit, whereas 20.6% (14) are female. This means that males are highest proportion according to the survey date

Table 5: Shows Sex of employee with in logistics unit in the organization

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	m	54	79.4	79.4	79.4
	f	14	20.6	20.6	100.0
	Total	68	100.0	100.0	

Source: (Researcher survey, 2014)

Below table sample data shows position within the organization that 52.5% (31) are logistics assistant, this is the highest proportion when compared to other positions. Followed by 27.1% (16) of store keepers and 11.9% (7) Senior Logistics Assistant and 3.4% (2) National Logistics officers. Last 3.4% (2) the position of tally clerk. Therefore according to the sampled data shows about 80% (47) of the logistics tasks performed by Storekeepers and Logistics Assistants.

Table 6: Position within The organization

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Logistics Assistant	31	45.6	52.5	52.5
	Logistics Assistant Data Clerk	1	1.5	1.7	54.2
	Logistics Assistant Tally Clerk	1	1.5	1.7	55.9
	National logistics Officer	1	1.5	1.7	57.6
	National Logistics Officer	2	2.9	3.4	61
	Senior Logistics Assistant	7	10.3	11.9	72.9
	Store Keeper	16	23.5	27.1	100
	Total	59	86.8	100	
Missing	non respondent	9	13.2		
Total		68	100		

Source:(Researcher survey, 2014)

Below data (table 7) shows 66.2% (45) valid with University Degree holders, followed by 19.1 % (13) sampled employees with College Diploma and 10.3% (7) having Master Level. Only 4.4 % (3) that with Secondary Education completed. We can deduce that most task performed university degree and above.

Table 7. Frequency Distribution of Education Category within the Organization

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Secondary Education Completed	3	4.4	4.4	4.4
	College Diploma	13	19.1	19.1	23.5
	University Degree	45	66.2	66.2	89.7
	Master Level	7	10.3	10.3	100
	Total	68	100	100	

Source :(Researcher survey, 2014)

Below table 8 shows that 26.5%(18) sampled employee that have been working with the organization between 5 and 10 years, followed by 25% (17) those between r&5 years working experiences. Then, 20.6%(14) more than 10 years working experiences and 16.2 %(11) that have between 3 and 4 years working experiences. Finally, 11.7%(8) that lies lees than one years and between 1 & 2 years. According to the data the highest proportion 72.1 %(49) that more than 4 years working experiences in the organization.

Table 8: Frequency Distribution in Work Experience in the Organization.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	< 1years	2	2.9	2.9	2.9
	B/n 1 & 2 years	6	8.8	8.8	11.8
	B/n 3 & 4 years	11	16.2	16.2	27.9
	B/n 4 & 5 years	17	25.0	25.0	52.9
	B/n 5 & 10 years	18	26.5	26.5	79.4
	> 10 years	14	20.6	20.6	100.0
	Total	68	100.0	100.0	

Source :(Researcher survey, 2014)

4.3 Result of Questionnaires Client or service providing organization

4.3.1 Customer Handling, Quality of Service and Cooperation.

On below table shows level of Customer handling quality of service and cooperation is an important role in the downstream logistics operation. Customer handling and giving quality service is it achieving the prospective a process in value creation. Especially for the early downstream activities when it becomes difficult to isolate the true and costs attribute to a particular operation. Without customer nothing to one step forward to humanitarian activity.

Accordingly, Table 4.12,4 indicated that the level of customer handling, quality service and cooperation only 45.2 % that agree with the current service level and 25.8% strongly agree, 16.1% disagree and 6.5% strongly disagree and undecided respectively, from the aggregate data 71% agreed on quality service and customer handling. We can induce that not bad , even if some adjustment on the deviation

Table 9 Customer Handling Quality of service on group questions 2 and 4 Aggregate Summary

		Responses		Percent of Cases
		N	Percent	
customer handling, quality of service	undecided	2	6.5%	12.5%
	strongly disagree	2	6.5%	12.5%
	disagree	5	16.1%	31.3%
	agree	14	45.2%	87.5%
	strongly agree	8	25.8%	50.0%
Total		31	100.0%	193.8%

Source :(Researcher survey, 2014)

Table 10

		Responses		Percent of Cases
		N	Percent	
customer handling 1 ^a	good	13	34.2%	68.4%
	very good	17	44.7%	89.5%
	excellent	8	21.1%	42.1%
Total		38	100.0%	200.0%

a. Group : **Source : (Researcher survey, 2014)**

On the above table 10 indicated that in different angles of customer handling, quality of service and cooperation that responded with 44.7%(17) with very good and 34.2%(13) response that put their response on 34.2 %(13) is good. However, only 21.1 %(8) they are highly satisfied with the current performance. The management should access the situation how the employee handle their customers and make necessary action to put the organization in the number one position.

Table 11Source:(Table 9 Customer Handling Quality of service on Group Questions 8&10
Aggregate Summary

		Responses		Percent of Cases
		N	Percent	
customer handling 3 ^a	Neutral	1	2.60%	5.30%
	Poor	4	10.50%	21.10%
	Good	14	36.80%	73.70%
	Very good	14	36.80%	73.70%
	Excellent	5	13.20%	26.30%
Total		38	100.00%	200.00%

Source :(Researcher survey, 2014)

On Table 11 aggregate group questions on quality of service 72.6% very good & good position,, then 13.2% in excellent position, but 10.5% responded with poor and 2.6% neutral. From the result we can conclude that more than 85.8 % no complain on the customer handling and quality service , but still need some improvements.

4.3.2 Quality Of Service Improvement

Table 12 Quality of service improvement for the last one year

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Has declined	1	5.3	5.6	5.6
	Has not changed	6	31.6	33.3	38.9
	Has improved a little	8	42.1	44.4	83.3
	Has improved a lot	3	15.8	16.7	100.0
	Total	18	94.7	100.0	
Missing	missing	1	5.3		
Total		19	100.0		

Source: (Researcher survey, 2014)

In table 12, data indicated that 44.4 % (8) response from the customer side the quality of service has improved a little with in the 2013 fiscal year. And followed, 33.3%(6) answered with no change in the last fiscal year and 16.4% has improved a lot, where as 5.6% has declined.

Therefore we can infer from this data, on the average the quality of service going as usual.

4.3.3 Transport Rate

Table 13. Transport Rate compared to Other organization.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neutral	1	5.3	5.3	5.3
	Poor	3	15.8	15.8	21.1
	Good	8	42.1	42.1	63.2
	Very good	5	26.3	26.3	89.5
	Excellent	2	10.5	10.5	100.0
	Total	19	100.0	100.0	

Source :(Researcher survey, 2014)

According to the above data prevail about 78.9. %(15) that the rate of transport compared to other organization satisfactory. 10.5 %(2) and 26.3%(5) responded with excellent and very good position only 15.8(3) responded with poor and 5.3 %(1) neutral on the process of transport rate . From this we can deduce that transporter rate provided by UN WFP it is satisfactory with the current condition with to move items from one place to another destinations, besides with the existing rate by WFP will facilitate the overall downstream logistics operation.

4.3.4 Waiting Time

Table 14. After the truck reached in hub, average waiting time to load the commodity to load different destination(s)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	4-5 days	3	15.8	15.8	15.8
	2-3 days	10	52.6	52.6	68.4
	< 1 day	6	31.6	31.6	100
	Total	19	100	100	

Source : (Researcher survey, 2014)

Table 15. After the truck reached in hub, average waiting time to off-load the commodity to load different destination

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	6-7 days	1	5.3	5.3	5.3
	4-5 days	2	10.5	10.5	15.8
	2-3 days	12	63.2	63.2	78.9
	< 1 day	4	21.1	21.1	100
	Total	19	100	100	

Source: (Researcher survey, 2014)

In the above two tables (group) data indicated that about 60 %(22) responded that on the average waiting time to load and off load food and non-food items that wait two up to three days. And 15.8 %(3) the waiting time to do the job between 4 and 7 days. Generally, about 80%(15) between two and 7 days. We can conclude that the transporter waiting more than 2 days in the loading and unloading process.

4.3.5 System Tools

Table 16 Invoice Processing Tools is very Effective Receiving Payment on time

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	1	5.3	5.3	5.3
	Disagree	7	36.8	36.8	42.1
	Agree	6	31.6	31.6	73.7
	Strongly Agree	5	26.3	26.3	100
	Total	19	100	100	

Source : (Researcher survey, 2014)

On the above table 16 the response indicated that the system tool effectiveness 36.8 % (7) they didn't agree with the current system tools that give service to the service giving organizations. And followed 31.6 % (6) agree with the existing system tools, while 26.3 %(5) strongly agree with system tools. The rest 5.3%(1) that put their result as of strongly disagree. Therefore, from the total of the respondent 42.% (8) they are not satisfied with the current system. This implies that almost on the average the system effectiveness not satisfied with the current invoice processing tools effectiveness.

Table 17 Case Summary of Challenge Faced During Transportation (group questions on close –ended questions)

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Challenge ^s	18	94.70%	1	5.30%	19	100.00%

Source : (Researcher survey, 2014)

Table 17.1 Challenge Faced During Transportation.

	Responses		Percent of Cases
	N	Percent	
Challenge ^s No	21	58.3%	116.7%
Yes	15	41.7%	83.3%
Total	36	100.0%	200.0%

a. Group Data

Source : (Researcher survey, 2014)

According to the above table 4.15 & 4.16, indicated that 58.3(21) no challenge faced during transportation with internal working system, while, 41.7 %(15) faced challenge during transportation, this indicate that almost 42 percent of the respondents they are not happy the current working environment in the organization, and this shows lack of the internal control mechanism in the organization.

4.4. Result of questionnaire Employees those are working in Logistics Unit Response on the Down Stream Logistics Operation.

4.4.1 Table 18. Commodity Handling and Ware house & Warehouse Management Group Questions (1&14)

		Responses		Percent of Cases
		N	Percent	
Warehouse Management	undecided	6	4.50%	8.80%
	strongly disagree	10	7.50%	14.70%
	disagree	33	24.60%	48.50%
	agree	56	41.80%	82.40%
	strongly agree	29	21.60%	42.60%
Total		134	100.00%	197.10%

Source : (Researcher survey, 2014)

The above table 18 shows us 41.8% that agreed on commodity handling and warehouse management, where as 24.6% disagree on it. Then, 21.6% strongly agree, on the contrary 7.5% strongly disagree on it, where as 4.5% undecided. From this we can conclude that 63.4% they are in good position and the rest 36.6% not in the position, however, still some adjustment on handling commodity and warehouse management. The most thing in humanitarian sector commodity and warehouse management very essential and pervasive to run the operation smoothly.

Table 18.1 Summary of Respondent's

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
\$COH ^a	65	95.6%	3	4.4%	68	100.0%

a. Group

Source : (Researcher survey, 2014)

Table 18.2 Group Questions on Commodity Handling and & Warehouse management (21, 22, 23 & 29) .

	Responses		Percent of Cases
	N	Percent	
CHWM no	82	32.2%	126.2%
yes	173	67.8%	266.2%
Total	255	100.0%	392.3%

a. Group

Source : (Researcher survey, 2014)

On The above table 18.2 indicated that 67.8% responded on the close ended response were yes whereas 32.2 were un happy in the warehouse and commodity handling system. We can conclude from the data still lack of coordination on handling the commodity in the warehouses and managing the warehouse properly. Therefore, from the infer that the management checking optimality of warehouse capacity before release order comes from different directions, looking different warehouses in different corridors of operation rather than putting central warehouses. In addition to this according to the data timely fumigation and medication and appropriate action and also appropriate action to be taken before the commodity reach its BUB(Before Used Date) or expiry date.

4.4.2 Waiting Time and Warehouse Space Problem

Table 19After the trucks arrived in WFP or counter parts warehouses to off load the commodity, due to warehouse space problem?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	33	48.5	50.8	50.8
	Yes	32	47.1	49.2	100
	Total	65	95.6	100	
Missing	Missing	3	4.4		
Total		68	100		

Source : (Researcher survey, 2014)

On the above table 19 Indicatedthat 48. 5 %(33) responded that no trucks waiting to off load the food to WFP or counter parts warehouses. However, on the same data 47.1% (32) responded that the trucks waiting to off load due to warehouse space problem.. Only 4.4% (3) missing to answer the questions. According to the data implication that lack of coordination exist in the supply chain stream.

4.4.3 Information Flow

Table 20. Group Questions Related Information Flow (3,6,7&8)

Table 20. Indicated that 55.9 % (38) the respondent answered they are strongly the transport payment effect will hinder the supply chain activity. Followed by 29.9 %(20) they agreed on the transporter payment delay the performance of operation. However, only 11.9%(8) disagree and 1.5% (1) undecided on the issue matter. Therefore, we can conclude that the highest proportion 85.8 % (58) respondent they are agreed transport payment impact the overall effectiveness in the supply chain entity to move and delivery of food items on time.

4.4.5 Effectiveness of System Tools

Table 21. System Tool Effectiveness for Monitoring Delivery Food

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	undecided	1	1.5	1.7	1.7
	Poor	4	5.9	6.8	8.5
	Good	19	27.9	32.2	40.7
	Very good	20	29.4	33.9	74.6
	Excellent	15	22.1	25.4	100
	Total	59	86.8	100	
Missing	missing	9	13.2		
Total		68	100		

Source : (Researcher survey, 2014)

In the above table 21, showed that the system effectiveness under questions. 29.10%(20) responded that very good , but still below average. Followed by 27.9 %(19) were in good then by 22.1%(15) in the excellent position and only 5.9 %(40 said poor , Therefore, we can

conclude from this data the system tools effectiveness not bad to monitor the delivery of food. However, still some deviation not exceed beyond 85 percent.

4.4.6 Effectiveness of Service Providers

Table 22. Employee's Response on Question Related to External Service Providers (transporters) response on query

		Responses		Percent of Cases
		N	Percent	
Transporters	undecided	11	5.60%	16.40%
	strongly disagree	8	4.10%	11.90%
	disagree	55	28.20%	82.10%
	agree	85	43.60%	126.90%
	strongly agree	36	18.50%	53.70%
Total		195	100.00%	291.00%

Source : (Researcher survey, 2014)

On the above table 22 indicated that when the service providers (transporters) response on ordering the job.43.6%(85) the staff agreed on it., Followed 28.2% (55) (disagree , then followed by 18.5%(36) strongly agree response on any query and 4.1%(strongly disagree) and finally 5.6% (11) made undecided.62.1. % staffs are satisfied with current transporter query response. Therefore, we can conclude that still slight above on the average, the transporter also not immediate action to do the job still some deviation , might be internal or external factor they are lag on related work response query or looking another option from different side. So, logistics unit need on this on selecting reliable a client to do job properly.

4.4.7 Up on Receipt Declined to do the Job

Table 23Received the Award of contract then Declined to do the Job

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No idea	7	10.3	11.7	11.7
	Nothing	5	7.4	8.3	20
	Rarely	13	19.1	21.7	41.7
	Some times	28	41.2	46.7	88.3
	Usually	7	10.3	11.7	100
	Total	60	88.2	100	
Missing	missing	8	11.8		
Total		68	100		

Source : (Researcher survey, 2014)

According to the above table 23 ,data that indicated once receive the contract, in different case they declined to the do the job. 46.7 %(28) responded that sometimes service providers they declined to do, followed by 21.7 %(13) said rarely declined the job, then 20%(12) no idea and nothing about it . Finally, 11.7% (7) & responded the service providers usually declined to do their job properly. Therefore, we can infer from this data almost 80 percent indicated that from employee observation most the transporters or service giving organization they are declined to do the job in the inbound and outbound transport activity

4.4.8 Experience and Knowledge Sharing.

Table 24 As logistician Opportunity visiting WFP operation area's to get Knowledge sharing

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	42	61.8	64.6	64.6
	Yes	23	33.8	35.4	100
	Total	65	95.6	100	
Missing	missing	3	4.4		
Total		68	100		

Source : (Researcher survey, 2014)

On the above table 24 indicated knowledge and experience sharing among different office that WFP areas of operation , 64.6 %(42) responded that no and the rest 35.4 %(yes) from this it can be conclude that experience and knowledge sharing is very important to the organization to do the job the most effective and efficient manner.

4.4.9 Incentive Scheme to Employee's

Table 25 incentive scheme (plan) to the employee those who are working exceed performance with in the fiscal period

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	50	73.5	83.3	83.3
	Yes	10	14.7	16.7	100
	Total	60	88.2	100	
Missing	missing	8	11.8		
Total		68	100		

Source(Researcher survey)

In the above table 25. Indicated that 83.3 %(50) with valid percentage that the employee response on this and 16.7 (10) their response on positive side. Hence, the organization does not have incentive scheme plan in the fiscal year, that means to bench mark with the existing staffs difficult which staff is working with higher rank or not . Therefore, we can conclude that the organization does not incentive scheme to the employee those working exceed performance, this will cleat lack of motivation among the unit , in order to achieve the goal in maximum level the organization arrange like benchmark to compare with different office and those exceed beyond performance might arrange incentive scheme.

4.4.10 Job Satisfaction

Table 26 Job Satisfaction

		Responses		Percent of Cases
		N	Percent	
JS ^a	undecided	11	5.70%	16.90%
	strongly disagree	14	7.20%	21.50%
	disagree	25	12.90%	38.50%
	agree	98	50.50%	150.80%
	strongly agree	46	23.70%	70.80%
Total		194	100.00%	298.50%

Source : (Researcher survey, 2014)

In the above table 26, shows that with the highest percentage 74.2(144) from the group, they were agreed or satisfied in their carrier satisfaction, However, 28.8 in the position of disagree and undecided with the current situation due to some other cases.

4.4.11 Process of RFQ

Table 27 Processing in RFQ within The organization

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	undecided	14	20.6	26.4	26.4
	poor	13	19.1	24.5	50.9
	good	14	20.6	26.4	77.4
	very good	10	14.7	18.9	96.2
	excellent	2	2.9	3.8	100
	Total	53	77.9	100	
Missing	missing	15	22.1		
Total		68	100		

Source : (Researcher survey, 2014)

On the above data stated that only 26.4%(14) depicted their result on good position, followed 26.4% (14) they put undecided, while 24.5 (13) answered with poor position. Therefore only 18.9% and 3.9 responded with very good and excellent respectively. We can infer from this , the service providers responded below the average RFQ processing not good this implies request of quotation or tender processing to move by third party not satisfactorily.

4.5 Inferential Statistics

4.5.1 T-Test

The T-test is very important to check the significant of null hypothesis true or not. And also Statistically to show how our sample data satisfied with downstream operation look like

Ho: All transporters submit their invoice's within one week, after completion of work.

Ha: All transporters submit their invoice's more than one week to submit their invoice after completion of work.

On below T-test , to make decision whether the service giving company should take appropriate action on the submission of invoice.

Table 28. One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
How long does it take to collect waybills and submit your invoice(s) after completion of delivery?	19	3.68	.582	.134

Source : (Researcher survey, 2014)

Table 29 One-Sample Test

	Test Value = 6			
	t	df	Sig. (2-tailed)	Mean Difference
How long does it take to collect waybills and submit your invoice(s) after completion of delivery?	-17.332	18	.000	-2.316

Source : (Researcher survey, 2014)

Table 30 One-Sample Test

	Test Value = 6	
	95% Confidence Interval of the Difference	
	Lower	Upper
How long does it take to collect waybills and submit your invoice(s) after completion of delivery?	-2.60	-2.04

Source : (Researcher survey, 2014)

On the above table 29 &30 , T-Test data shows that the transporter submits their invoice after completion of the assignment it will take more than one week. Therefore, we will accept the (Ha) alternative hypothesis because of the P-value less than 0.05. In other words $t\text{-value}=17.332$. Therefore. we reject then null hypothesis. We conclude that, the transporter submit their invoice's after completion of work more than seven working days.

Table 31. One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Receive your payment after submission of invoices?	19	3.79	.535	.123

Source : (Researcher survey, 2014)

Table. 32 One-Sample Test

	Test Value = 15			
	t	df	Sig. (2-tailed)	Mean Difference
Receive your payment after submission of invoices?	-91.286	18	.000	-11.211

Source : (Researcher survey, 2014)

Table 33 .One-Sample Test

	Test Value = 15	
	95% Confidence Interval of the Difference	
	Lower	Upper
Receive your payment after submission of invoices?	-11.47	-10.95

Ho: The transporter or service giving company's receive their payment within 10 days.

Ha: The transporter or service giving company will receive their payment more than 10 days.

According to the above tables shows that with 95% confidence level , we reject the null hypothesis because t-value extreme negative and accept the alternative hypothesis. It can be conclude that the transporter will receive their claim more than 10 days, on other hand delay of payment for the transporter will affect the overall supply chain activity in the downstream logistics operation .

4.6 Pearson Correlation Matrix

The Pearson's correlation coefficient(R) was employed to establish the relationship between communication skill and information sharing with the relationship with integration of supply chain management. The result tabulated in table 35, below followed by their interpretation.

To show the relationship between communication, information sharing and on the integrations of supply chain management, the result in the below table 35 indicated a significant and positive relationship ($r=.637^{**}$, $P<0.01$). This means that the criteria is more effective and efficient.

Ho: Communication skill and information sharing direct relation for the integration of supply chain management.

Ha: Communication skill and information sharing not direct relation for the integration of supply chain management.

On below table 34 indicated that Communication and information sharing direct relation or correlated on the integration of supply chain management. In the down logistic activity communication and information sharing among the member of staffs essential to do activity very well. In the organization huge operation going on the information flow among the functional area as the most important factor in determining the success of an emergency logistical operation. Collaboration is increasingly promoted as somewhat of a “Silver Bullet” in many areas of SCM. By the term SCM, we refer to the integration of all activities associated with the flow and transformation of goods, information, and the associated funds, through improved supply chain relationships of all involved entities.

4.6.1 Correlation Test

Table 34 Correlations on communication & Information Sharing on the integration of Supply Chain

		Getting update information from pipe line unit for dispatch of food to Hub to Hub and mobilize trucks on time	My communication skill on the integration of supply chain management to be effective and supportive
Getting update information from pipe line unit for dispatch of food to Hub to Hub and mobilize trucks on time	Pearson Correlation	1	.059
	Sig. (2-tailed)		.637
	N	66	66
My communication skill on the integration of supply chain management to be effective and supportive	Pearson Correlation	.059	1
	Sig. (2-tailed)	.637	
	N	66	68

** . Correlation is significant at the 0.01 level (2-tailed).

Source : (Researcher survey, 2014)

Table 35 Transport payment delay and data amendment in the overall supply chain

		Transport payment delay is a significant impact on the overall supply chain movement of food items	The time b/n data amendment & response is strong impact on the payment of transporter
Transport payment delay is a significant impact on the overall supply chain movement of food items	Pearson Correlation	1	.635**
	Sig. (2-tailed)		.000
	N	67	66
The time b/n data amendment & response is strong impact on the payment of transporter	Pearson Correlation	.635**	1
	Sig. (2-tailed)	.000	
	N	66	66

** . Correlation is significant at the 0.01 level (2-tailed).

Source : (Researcher survey, 2014)

Ho: On time data amendment direct relation on transporter payment.

Ha: On time data amendment not direct relation on transporter.

On below table shows that on the significant level 0.01 on two trail test transport delay is strong relation on time data amendment. According to the sample data, the null hypothesis is true.

Therefore, the staff's take appropriate action on time data for not delay the overall transport payment.

Again the table 35, below , the relationship Transport payment delay and time on data amendment in the overall supply chain activity correlation results indicated a significant and positive relationship ($r=0.637^{**}$, $P<0.01$) .This means that the more you pay on time the more you pay the more service you get from the transporter or service giving companies.

4.7 Qualitative Analysis

4.7.1 Interviewed data on selected Personnel's

Interview data selected staff randomly by judgmental that are crucial and essential on giving reliable answer sample taken from different section on respondent in their related function of activity that responded the interview questions very well .

- Commodity management challenge conducted responsible personnel's that responded that due to lack of on time information flow on time from different areas of operation and problem encountered when order comes from different direction. The warehouse keepers and logistics staff at different direction information gap arises among the staff members. The pipe line also not address the right time of arrival for warehouse accommodation, only they notify up on the vessel arrival.
- In related procurement activity the unit not act immediate action rather they are seeking new vendor and market assess up on request comes from different unit.The time gap between request and receipt of good or items it takes one month for local purchase activities and more than three or more months for international forecast.
- In related budget activity the forecasts done based on previous data, this hinder the forecasts error encountered in the last budget consumption activity. Why this error of budget forecast happened due to always depend on past data specially on transport rate

when the one declined to do the job the next higher arte should be prorated , however; the true practice is different only we do based on past data. Another major problem when the emergency need arises from different angles, the budget not released on time the forecast error encountered on us.

- Interview conducted on the current existing commodity tracking software , the software not power full than other supply chain management soft wares, because of once you entered error data it takes more time to amend the data to respective office, until, the Head Quarter(HQ) notify the data. This might takes long paye4net processing time and delay of information exchange in the existing office of operation.
- Interview conducted the RFQ some service giving organization put their price quotation below the average rate of operation, only they send their name the sake of taking award only, This the overall challenge the supply chain operation and seeking the next awarded transporter the price might be double in some cases. The capacity of transport company sometimes difficult to run the operation smoothly and also the new multi modal system will not recognize the current situation of lack of ample trucks with in the country. When the vessel arrived at the port, conjunction encountered due lack of ample trucks to move the commodity to different hubs. This led further ship demerge penalty.\
- In Related customs, due of knowing or unknowing of objectives of humanitarian aid the organization most of the time not easily facilities the aid food or non-food items. Besides, the documents not arrive on time from HQ or Regional office again additional time and cost to facilitate the customs formality on time. This also led the supply chain activity not going straight.

CHAPTER FIVE

5. SUMMARY OF FINDINGS, CONCLUSION & RECOMMENDATIONS

5.1 Introduction

In this chapter, a discussion of research findings is presented. Conclusions are drawn and recommendations were made. The discussions, conclusions and recommendations were made accordance with research objectives. Answers to these objectives were from primary data from the Logistics staff and service giving organization (transporters those actively working with the organizations).

5.2. Summary of Findings

The Presentation of the result of the study is downstream part of the supply chain entity. Whereas, the downstream covered from the port of operation up to the final delivery points.

Based on presentation of the results, the finding of the study is summarized as follows:

The performance evaluation of downstream logistics operation in the case of WFP Ethiopia summarized the major findings that the study variables resulted in. The variable under consideration through the study were service providers relationship management, delivery performance, commodity handling and management, communication information sharing among the staffs, collaboration, integration customer handling and importance of downstream logistics operation activities. In this paper we have elaborated through an explanatory case study the challenges associated with downstream logistics operation. There are different literatures regarding the concept of logistics & supply chain operation in their research. However, the downstream and upstream logistic operation is very important to see which direction the

organization face challenges in the operation process. On my research paper, to see the statement of the problem part that the organization not achieved and a correspondent improvement in the service giving in their business. Having this facts, this research tried to identify why organization fail to implement the logistics or supply chain network system, to identify the current practice within the organization and based on this to explain the challenge and prospect of downstream logistics operation in the case of UN WFP in Ethiopia.

The assessment of the overall down Stream logistics operation on the stratum of client or service providers that shows that there is customer handling, quality of service and cooperation from client or service provider's that the data indicated 71% they are agreed with the current service level, still some deviation and to perform more than this value. More research suggests that the result value more than 80 percent that is allowable. However, still in our qualitative survey customer handling still going as usual, ever for the last two years it has going with decreasing rate. On related quality of service improvement for the last one year 44.6% respondents agreed with a little improvement. On the other hand 33.4% no change going the same and the rest 5.6% declined, and 16.7% a lot of improvement. However on the average still they are not happy on the quality of service improvement that the management address clear information to the staff on the improvement of service more than this. The finding on the rate provided by UN WFP the majority of 78.9. %(16) that the rate of transport compared to other organization is satisfactory. The organization should go the same pace by adjusting with the current market fuel price.

The findings from the questionnaires related loading and unloading time by WFP about 68.4% the average loading and unloading time by WFP taken 2 up to 5 days. This implies that more time taking to move the food or noon food items to respective destinations.

Though in the findings of system tools effectiveness the client only 58.9 % agreed on the system effectiveness, while the rest not agreed on system effectiveness effectiveness , Therefore, on the average system effectiveness satisfied on it and on the other hand the rest not satisfied, this tell there is less performance with regard to the system. Again on the findings on challenge during transportation commence 58% responded with yes and the rest 42% no challenge during the transportation. This implies that on the average the service providers in generally with the internal factors in the organizationthe transporters not happy on the current situation.

Strata findings from the respondents of employee those are currently working with the organization the data shows that 67.8% responded that the commodity handling and warehouse management system is good, while the rest 32.2 % commodity handling and warehouse management system with the current system not satisfied. On the other hand on the aggregate summary 41.8. % and 21.6 agree and strongly agree on commodity handling and warehouse management system , while 36.6 % they are not agreed on the process. Therefore, on aggregate still a deviation on more than 34 per cent from the employee side, which commodity handling and managing system.It is clear that that 73.7% responded that information flow is very important to the overall downstream logistics performance, while the rest information flow not agreed on it. On the data indicated that information flow is critical to the overall supply chain activity. Findings on the transport payment delay impact on the overall supply chain activity, the employee within the logistics unit responded that 85.3% responded with they are top agreements on it, while 11.9% disagree on the transporter or service providers payment delay, while only 1.5% undecided, therefore, we infer that from this data the transport payment impact a significant impact on transport payment. The findings from the respondents side system effectiveness to monitor food effectiveness that 22.1 % in excellent position, and 29.4% and

27.9 very good and good position, while 5.9% poor and 1.5 % undecided , whether effective or not. From this we can infer that the system effectiveness is good with the current level to monitor food items, however still some adjustment to foster more than this.

Another finding from the respondent side on ordering the job what the response of transporter 43.6% the staff agreed on it. Followed 28.2% , then 18.5%strongly agree on their response on any query and 4.1% strongly disagree and finally 5.6% made undecided 62.1. % staffs are satisfied with current transporter query response. Therefore, this shows still slight above on the average, the transporter also not immediate action to do the job still some deviation , might be internal or external factor they are lag on related work response query or looking another options from different side.

From the finding I general 58.2 % service giving organization declined to do the job. From this we can deduce that other findings from the data indicated knowledge and experience sharing among different office that WFP areas of operation, 64.6 % responded that there is no knowledge or experience sharing to different areas of WFP operation. On related organization incentives scheme, 83.3% responded that organization does not have incentives scheme plan.

Finally findings related RFQ (Request for Quotation) on the average 50.9% the RFQ processing system responded with poor answer, the rest on the satisfied on the current system. Therefore, still more than half respondents complain on current tender or RFQ processing system.

From this we can summarized us there is lack of communication gap among the members of staffs has not play a significant role and the logistics integration is not well built. The time of information flow and receive the information precisely. The people handling the commodity management practice need attention to do more than this. Regard the payment of claim on the

delivery of food items the organization its own standard to pay the payment within that time frame, however, there is coordination problem among the staff .Thus, the problem of downstream logistics operation seen most of the time. Regard to the quality of service and processing of RFQ the organization need special attention.

5.3 Conclusions

It is with the value adding contribution that measuring supply chain performance facilitates a greater understanding of the supply chain or logistics activity, and to improve the performance, the stakeholders and staff indispensable input to decision making in the logistic process. Particularly, re-designing of goal , objectives and of staff performance in the logistics activity, and continuous improvement in the system not only it is important for comparison and for identifying performance gaps but also necessary for internal objectives satisfying the diverse stakeholders that is working with organization. Based on these facts, the researcher identified the dimensions to assess in each stratum of employee's as well as service providers responded on the current practices in the organization and conducted a survey starting from customer handling and quality service, communication, data management ,collaboration, information flow , commodity handling, training and knowledge sharing within the organization.

- Regarding the degree of client handling according to the findings the organization need improve the level of quality service to forecast the future direction in the entire system.
- In the level of information sharing among the member of staffs still shows some barriers indicated in the findings, that means that sometimes the staff not effectively address the information and reluctant to forward information each other. UN WFP Ethiopia information sharing is one of the back bone to strength the downstream logistics capacity

.Without information no one to couple up his target. Therefore, reliable, update, quality of information sharing is very essential in every stage of downstream logistics activity to run the operation smoothly.

- Regard on related the time frame of loading and unloading the organization took more time, though the organization front line working on humanitarian aid assistance, the staff lack of coordination each other and on prompt action taking. Therefore, thus, with the current competitive market situation the service providers will shift to other market place.
- In addition to this the government put the new demurrage system, if the truck's waiting more than six hours in the premises of loading un loading , the consignee should penalized with the scheme of new government proclamation.
- There is also challenge in the organization on the movement of food or noon food items in different direction to the downstream, this also more option to address the right time and at the right place.
- On time data amendment and action taking also one very important to facilitate the downstream operation very well.
- Besides, Regard with communication important to foster the organization in the top position. Poor communication is a major problem on the delivery of food items on time or according to time frame. Teams at the emergency situation may not able to communicate in the downstream supply challenge on time as a result delay of delivery food, delay of payment, and delay of information feed to the entities in the supply chain will affect the overall performance. The culture of teams will change as the technology change unless will disrupt the whole system of the organization.

- On the system effectiveness reflected two side that the service providers with the currents system not satisfied, while of the employee also somewhat deviation on it. Therefore, the organization look into the way enhancing the system effectiveness by consulting with Head Quarters(HQ) to get the most reliable and fast responding system in order to minimize the lead time of processing in every stage of logistical activity.
- According to the findings again the organization give chance to the staff in the appraisal program like giving training, knowledge or experience sharing and incentive scheme to motivate the staff to the higher level.
- We conclude that that it is very is fruitful to the organization, to put some guideline to monitor the existing system very well unless , if the deviation more than this the implication is not good for the organization , this is precaution to awake the organization to do very well
- conclude that experience and knowledge sharing is very important to the organization to do the job the most effective and efficient manner, if the organization arrange dada or experience e sharing among different areas of operation the employee capable in every logistics or supply cha1in activity to do the job in effective manner.

5.4 Recommendations

Logistics and supply chain management concept is a wide from business prospective and non-business prospective like humanitarina organization. The aim is at examining and managing downstream logistics network within the organization. Whereas this paper cover starting from the point of downstream origin to delivery point how the information , data ,resource and people address the activity within the organization.Thus, the challenge,prospects from the

downstream of UN WFP in Ethiopia operation that need to be assessed by other research,even the whole logistics operation in the organization. Even if the logistics or supply chain concept there, people not address properly and fail to implement the concept of logistics and supply chain.

Since, downstream logistics operation will help the organization terms of time, quality service, cost, competitiveness and advancement , the people over there overcome the challenges depicted above. The challenge will be solved through:

- Interdepartmental or team spirit relationship should be developed as they are engaged in responsibilities to achieve the same final goal. A good level of communication, team work , integration and mutual understanding shall be developed besides, a clear division of task and a common information pool towards to the concerned staff to be implemented.
- One can understand from the response on the analytical part that WFP should make sure the transparency of tender processing and also suggested that the tender should be opened in the presence of vendors, and enough time should also be provided for carriers so that they have enough time for response. Due to the volatile marketsituation in Ethiopia, a tender should only be valid for a period of 3 months instead of 6 months. It was also advised to held regular roundtable discussions with vendors.
- The quality of service provided organization ,WFP should work in ways how to minimize invoice processing time, data quality, addressing the right information to the vendors information and also looking the new system tools to improve the system effectiveness at the most.

- Service giving organization has experienced problems or downtime in some of WFP hubs during loading and offloading. In order to avoid delays of transport and distribution, these few hubs should find ways of improving their operation in the most optimal way.
- In order to eliminate the lack of synergy and coordination among staff members in the port (Djibouti) , customs authority, clearing agent, and data inserting staff ought to develop sound coordination and integration to supply food and non-food items timely basis and interruption resource in the pipeline allocation.
- The organization ought to develop closely communicate with government body in the arrival of cargo on food aid items especially with customs authority to avoid the delay of clearing the food or non-food items on time and to overcome the overall supply chain performance activity.
- The organization look for additional powerful system tools (ERP) Enterprise Resource Planning System and SCM application software's. Those system provides the means for tracking in every stage of supply chain activity, data quality, including people, process and technology. The system might serve the organization as the backbone to the organization in terms of providing the information and support for decision making purpose.
- The organization has to arrange the staff on the bottom of logistics operation fitting the purpose training and knowledge experiences in different directions.
- To perform a better relationship with the vendors or service giving organization's the management it is better to design an efficient agreement to decide the appropriate time of delivery to the intended destinations. This means that to decide on lead time interval by considering the nature of the operation and the allocation on the pipeline.

- Proper coordination with both pipeline and logistics, the staff on the downstream logistics activity should develop preplanning for the consignment, planning for space in the warehouse capacity, expected consignments, dispatch plan and timely allocation of trucks to load or off load in the warehouses.
- Strategic plan should be needed Increase the capacity of the warehouses in different hubs to rather than putting the food items in central warehouse in terms of cost and time advantage.
- In order to enhance the capacity the employee's the organization ensure the arrangement of benchmarking among different offices , the staff exceed performance with the current level like incentive scheme and rewards to motivate employee's with in the unit .
- To improves downstream supply chain that need to follow up the systematically flows of information in both directions. Supply chain can be integrated through technology and that will be important to improve and expanding the supply chain management.
- Timely information sharing, prepare different kinds of workshops to discuss on the main challenges of supply chain activity and capacity building that agreed on the proposed solution, prepare refreshment training, give opportunity to visit WFP operation area's to get work exchange & on job training
- Transporters or service providers should deliver their commitments on time frame scheduled, if not has to penalize properly and also it is advisable to put the penalty type in attachment on the daily operational loading sheet.
- To be more effective in emergency situation, if the organization will arrange with some rate adjustment to the short period of a time as the price of gas oil increases the selected

area of emergency operation to tackle the delivery of food or non-food items within the time frame.

5.5 Future Research

Result from this research appear to oppose the prevailing belief in literature that proper address of information flow, commodity management, inventory control, customer handling, time management, communication, proper training to employees, integration & collaboration, and team work positively related to the proper address of downstream logistics operation. However, the research is limited only sampled from one organization unit and service giving organizations (transporter) these moving food or non-food items from different corridors. Therefore, the researcher belief that , one whose conduct on the area of supply chain or logistics in his future researcher should attempt taking from large sample of population size in order to obtain statistically defensive result and it is highly recommended that a comprehensive research effort be undertaken.

5.6 Limitation of the study

Due to time and financial constraints the research focused on down -stream logistics operation with in UN-WFP Ethiopia case study. Besides, The research conducted on the case study of one organization. Main problem also the availability secondary data research conducted by other researcher and also lack of rich experiences in conducting similar researches in UN organization specially Logistics operation with in the country. On the side of the researcher encountered time frame and financial to study the whole upstream and downstream logistics chain activity in the organization as well as the whole organization throughout the world due to the constraints.

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