Addis Ababa University College of Business & Economics School of Commerce

Department of Logistics and Supply Chain Management

Assessment of Logistics Service Outsourcing of the Organization:*the Case of Libya Oil Ethiopia Limited*

A Thesis Submitted to Addis Ababa University College of Commerce in partial Fulfillment of the Requirements for the Award of the Degree of Masters of Logistics and Supply Chain Management

BY:

ATSEDE AYELE

Advisor : Matiwos Ensermu (PHD)

MAY 27, 2016

ADDIS ABABA, ETHIOPIA

Assessment of Logistics Service Outsourcing of the Organizations:*The case of Libya Oil Ethiopia Limited*

BY:
ATSEDE AYELE

A Thesis Submitted to
The Department of Logistics and Supply Chain Management
School of Commerce

Presented in Partial Fulfillment of the Requirements for the Degree of
Master of arts (Logistics and Supply Chain Management)

Addis Ababa University
Addis Ababa
Ethiopia
June 2016

Assessment of Logistics Service Outsourcing of the Organizations:*The case of Libya Oil Ethiopia Limited*

By

Atsede Ayele

ID: GSE/0751/06

A Thesis Submitted to

The Department of Logistics and Supply Chain Management

School of Commerce

Presented in Partial Fulfillment of the Requirements for the Degree of

Master of arts (Logistics and Supply Chain Management)

Advisor: Matiwos Ensermu (PhD)

Addis Ababa University

Addis Ababa

Ethiopia

June 2016

Certification

Addis Ababa University

School of Graduate Studies

This is to certify that the thesis prepared by Atsede Ayele, entitled'Assessment of Logistics Service Outsourcing of the Organization, the case of Libya Oil Ethiopia Limited' and submitted in partial fulfillment of the requirements for the award of the Degree of Master of Arts (Logistics and Supply Chain Management) compiles with the regulations of the University and meets the accepted standards with respect to originality and quality.

Signed by the Examining Committee:

Examiner _____ Signature _____Date_____

Examiner _____ Signature _____Date_____

Advisor: Matiwos Ensermu (PHD) Signature _____Date_____

_____

Chair of Department of Graduate Program Coordinator

CERTIFICATE

This is to certify that the thesis entitles "*Assessment of Logistics Service Outsourcing of the organization***:***ACase Study on Libya Oil Ethiopia Limited",* submitted to Addis Ababa University for the award of the Degree of Master of Logistics and Supply Chain Management and is a record of bona fide research work carried out by Mrs. Atsede Ayele Yimeu, under my guidance and supervision.

Therefore, I hereby declare that no part of this thesis have been submitted to any other university or institutions for the award of any degree or diploma.

Adviser's Name	*Date*	*Signature*
_____	_____	_____

DECLARATION

I hereby declare that this thesis entitled "*Assessment of Logistics Service Outsourcing of the organization: A Case Study on Libya Oil Ethiopia Limited",* has been carried out by me under the guidance and supervision of Matiwos Ensermu (PHD).

The thesis is original and have not been submitted for the award of any degree or diploma to any university or institutions.

Researcher's Name	Date	Signature
_____	_____	_____

Acknowledgements

First and foremost, I thank the Almighty God for giving me the courage and patience to pursue the Masters of Logistics and Supply Chain Management program which I believe is a defining moment in my life.

My heartfelt gratitude goes to my advisor Matiwos Ensermu (Associate Professor) for his guidance and advises without which this project would have not come out in this form.

My special thanks to my daughters Blen and Yohana Solomon for their love and understanding while I share the family time to study the program and while preparing this research.

Last but not least, I'm very much grateful to my mom, Mrs. Yeshewalul Seifu for her care, love and encouragement in every phase of my life.

Abstract

In the operation of the company, the development of logistics takes the largest part on its day-to-day operation in fuel retail business in Ethiopian oil retail industry. Third party logistics companies play a vital role to the operation and distribution of fuel in the country and contributes to the economic growth of the country; we can say logistics is on its infant stage in Ethiopia. Likewise, in LOEL, logistics in fuel retail business is the largest operation of the organization's overall performance and in Ethiopia as well; it constitutes more than 50% of the total operation since the company operates mainly on distribution of oil and fuel business, which is the time and place value of logistics. Recently the performance of outsourcing logistics business in Ethiopia has increasing. Almost all oil companies use outsourced logistics service in their operation. However, the challenges of its collaboration, safety and business awareness is mentioned on many instances with the transporter and company management, monthly joint meetings and joint consultations. This research is attempted to describethe outsourced logistics performance of the company in the case of Libya Oil Ethiopia Limited. The scope of the study is assessment on the performance of logistics of Libya Oil Ethiopia Limited in relation to third party logistics service providers. The unit of analysis is assessment of logistics in the case of Libya Oil Ethiopia Limited in relation to its outsourced logistics performance. Semi-structured interview was undertaken to obtain primary data and archival data and some printed and non printed data are used as secondary data. The study adopted a descriptive research design. Therefore, it has a great significance to look in to the performance of and its outsources logistics providers to gain a competitive advantage over the competitors. The study also delimits its scope to the performance of aviation fuel, which has the highest rate applied to its margin by the Government of Ethiopia, and the volume is higher compared to the other bulk products. Moreover, any gain or loss on stock is directly accounted to the company's account. From the secondary data it is observed that the logistics performance has contributed a lot to the loss of about 30 million on the past 5 years in association with price change/decrease declared by the Ministry of Finance and Economic Cooperation last update on letter dated Miazia 28, 2008 E.C with Ref. No. 011.22.9/1. The result of the assessment also shows that outsourced logistics performance has contributed to the logistics performance of the company. However, the safety issue, the driver's behavior in association with adulteration, responsiveness, lack of professionalism and lack of management efficiency in the side of the providers affect the company's logistics performance negatively. The study recommended that the company should exert more effort to diversify their portfolio mix by having some backup trucks from within, in case of crises, and by trying to convince the government office at least any loss should not account to the company on the agreed 500mc safety stock.

Contents

List of Figures

List of Tables

ABBREVIATIONS

BRV - Bulk Road Vehicles

3PL - Third Party Logistics Providers

AGO - Automotive Gas Oil

MGR - Motor Gas Regular/Benzine

KERO - Kerosene

JET A1- Aviation Fuel

FFO - Furness Fuel Oil

HFO - Heavy Fuel Oil

EPE - Ethiopian Petroleum Enterprise

EPSE - Ethiopian Petroleum Supply Enterprise

LOEL - Libya Oil Ethiopia Limited

MFEC - Ministry of Finance and Economic Cooperation

GWP - Gross Working Profit

SHE - Safety, Health and Environment

CHAPTER ONE

1. RESEARCH BACKGROUND

1.1 INTRODUCTION

Logistics Outsourcing is a common type of traditional truck outsourcing, which is widely used by oil companies in Ethiopian oil distribution industry. Logistics Outsourcing has developed into an important form of contract arising out of or in connection with the use of third party logistics service providers in distribution of fuel business. For the last two decades, outsourcing of logistics services has been one of the most popular logistic decisions Knemeyer & Murphy, (2005). As Quélin and Duhamel (2003), argued that for the past 20 years, outsourcing of logistics activities has been one of the most used services in many companies. Companies that used this new strategy of using third party logistics scored greater logistics performances instead of sourcing them from within. International Journal of Business and Management (2014).

Though logistics outsourcing remains as optional to the fuel retail companies, the role of Third Party Logistics providers is mandatory in most countries around the world. Although, many literatures, reveals that outsourcing is a new strategy in this modern business and similarly, show that 3PLs outsourcing is extensively popular in Europe Mckinnon(1999), North America Cooper & Kaplan (1991) and Asia Pacific region (Zhao & Tang, 2009), where companies involve logistics, wins a competitive advantage. There is less information available on 3PL outsourcing especially in developing regions including Africa, likewise in Ethiopia, oil companies outsource their logistics activity by leaving owning it internally as optional to the vehicle owners.

The experience of most developing countries also implies the significant contribution of logistics outsourcing. Across Asia's emerging markets, outsourcing logistics offers an exciting opportunity for most companies' growth and profitability. For several years, the sector has consistently used this new strategy of using third party logistics and scored greater logistics performances instead of sourcing them from within. International Journal of Business and Management (2014).

Like other most developing countries, in Ethiopia, logistics outsourcing is the largest category of transporting sector which accounts for the greatest cost of the total cost of the country's

economic activities The management of Libya oil Ethiopia limited also reported logistics continuous to account for the largest portion of the company's cost, however, the logistics outsourcing was registered a lot of benefits and challenges.

As described above, despite its high contribution to the cash flow, risk transfer, flexibility, specialization, cost reduction, access to market, the result of collaboration on outsourcing logistics showed a negative result in most companies working with fuel distribution.LOEL incurred a loss aroundBr. 30million between the year of 2012 and 2016reported though the stock price decrease and the performance of the logistics providers is highly contributed to this effect. Unpublished report of the company.

In Ethiopia, currently 9 oil companies are operational, after acquiring licenses from the Ministry of Finance and Economic Cooperation to offer downstream business operating on oil/fuel distribution of which Lubtam is formed to operate only on lubricants business.As per the oil retailproclamation of Ministry of Finance and Economic Cooperation as recently updated with Business Proclamation No. 86/ 2014,the license enables the oil companies to retail fuel, lubricants, petrochemicals and LPG business under "Oil Retailing business''.

The general fuel retail or downstream business category includes all fuel distribution and retail business such as automotive gas oil, motor gas regular (benzene), kerosene, aviation fuel (jet fuel), FFO and HFO and all types of lubricants such as motor and industrial grades, LPG, bitumen and petrochemicals while focusing on their specialties.

Similar to other companies,aviation fuel business is the largest sector in fuel retailing business in Ethiopia for the companies operating on this business. In the case of Libya oil Ethiopia limited,from the total Gross profit of fuel retailing business in 2015 more than 50% of income has been generated from this class of business when compared to other ground fuel products. However, the business of fuel retailing in Ethiopia is also not as such profitable to the oil companies because of the sharp margin, which isset by the government. In addition, almost all oil companies describe in their several letters the stock loss on the safety tanks and stock on transit are affecting the company's profitability as negatively.

1.2 STATEMENT OF THE PROBLEM

Oil companiesengaged in downstream business in both developed and developing countries report logisticsoutsourcing as the major line of operation from other operating units. Moreover, it is alsoreported that the class of business contribute a positive result to the profitability of firms due to the outsourced logistics providers extensive experience on the field.However, the outsourcing of business has many challenges though many emphasizes more on its benefits. In Ethiopia, all oil companies operating on fuel retail business uses outsourced logistics service providers.

The major problems in the oil supply chain is to deal with logistics. Longer distances between supply points have increased lead times and high variability in transportation. Therefore, oil companies areforced to keep a larger safety stock to prevent a shutdown of operations in case of a disruption in the logistics function. Higher safety and in-transit inventories along with the increase in transportation expenditure have escalated logistics costs. Moreover, there is a stock price fluctuation due to the oil price decrease on the international market for the past few years. Since, all oil companies have outsourced all or part of their logistics activities to a third party,partnering with a 3PL to manage the logistics activities can help oil companies share some risks as well as reduce expenses by having a more efficient and reliable supply chain.

Thus, measuring transporting service with third party logistics service provider's involvement is very difficult. It is also often difficult to standardize or to make services uniform, because the standard of services perceived by each third party logistics provider may be different depending on the circumstances needed, the nature of the urgency, type of supply point to give priority, and also the level of professionalism displayed by the third Party Logistic Service providers, as a key stake holder in the logistics process is also difficult.

Similar to other business, aviation fuel retailing is the most prevalent line of business in Ethiopian oil industry. It has been provided with the largest profit margin by MFECfrom the other line of fuel business in the fuel retailing business in Ethiopia.Recently, the regulatory body has adjusted the profit margin for all fuel products retailing price. Therefore, the industryhas gain the approval of the profit margin of 8,9 and17cents per litter for AGO, MGR and Jet A1 respectively. Out of which aviation fuel portfolio constitutes 17cents per litter,which is the highest. Again, since there is no additional intermediary like other fuel products sold on retail

stations, any effort is directly accounted to the company's account.The competition to gain a market share is also between the three companies only operating in aviation fuel market, where Libya Oil Ethiopia Limited has the largest market share consistently during the past years, though the share is deteriorating by the stiff completion in the market. The company has 40% market share in 2016 per the agreement signed between Ethiopian Airlines and the company for the supply of aviation fuel. Thus, any loss is also accounted directly to the company's account.

Due to the significant contribution of logistics outsourcing intotal operationon one hand, and its unsatisfactory result on the other hand, pushed various researchers to conduct various studies. Nevertheless, most of the researches were focused on benefits of outsourcing. Academic researchers conducted in the form of masters of thesis and a research by the scholars are to contribute to the logistics process. As Quélin and Duhamel (2003) argued that for the past 20 years, outsourcing of logistics activities has been one of the most used services in many companies. For the last two decades, outsourcing of logistics services has been one of the most popular logistic decisions Knemeyer & Murphy, (2005). Companies that used this new strategy of using third party logistics scored greater logistics performances instead of sourcing them from within. International Journal of Business and Management (2014). In the case of LOEL, Lubricants Lead time assessment is investigated by Petros (2015) are some of the studies that considers the logistic performance.

Therefore, as Aviation fuel class of business represents the principal share in terms of GWP in the company, a clear insight/assessment about the impact of outsourced logistics performance on the logistics performance of the companywere found essential to the researcher to conduct a study. In addition, lack of empirical research which, focus on the performance of outsourced logistics in relation tooil transportation with BRV's logistics performance is what motivates the researcher to conduct the study so as to put her contribution to improve the performance of the logistics of the company.

Since aviation fuel by its nature is the same at all oil companies, logistics service excellence is a source of competitive advantage. Therefore, efficiency in logistics strategy has been found as the weapon to the companies on the competition battlefield. However, aviation fuel retail class of business, which constitutes the lion share of the business, is not as such gives the necessary profit to

the company due to the ineffectiveness of the outsourced logistics functions. Almost all oil companies describe in their annual reports that safety stock and stock in transit have been affected by the price decrease. To curve this situation, the company have to stick to the logistics performance of the outsourced service providers. The service provider's capability is consistently registered a marginal or negative results therefore, the general objective of this research is attempted to find out how the outsourced logistics service impacts the logistics performances of the company.

The Aviation fuel is a homogeneous product and therefore, there is no difference in physical characteristics, quality, and benefits between aviation fuels supplied by each oil company in the market for the customers. As a result, lacking any competitive distinction on product, and selling price is decided by the Ethiopian Government, oil companies compete on customer services, safety issues, expertise on service delivery or availability. Therefore, logistics is considered to be a critical area where companies with well strategies can beat their competitors in terms of operational excellence and customer service.

1.3 RESEARCH QUESTION

In order to assess the logistics performance on supply of aviation fuel efficiency, the study asked the following questions; According to Matiwos (2013) the objective of supply chain management is to maximize the overall value generated, minimize the cost, effective and timely distribution of products needed by ultimate customers. Therefore, logistics strategy is the core on the supply chain of the aviation fuel and therefore, the study provided answer to the following questions.

As it is presented in the theoretical model, this study has focus around four main areas: reasons for logistics outsourcing, outsourcing strategy, ability to determine capabilities of 3pl service providers and level of collaboration with these provider as the main areas under the assessment of the logistics performance of the company. It also attempted to find out how these decisions benefit and challenge the logistics performance of the LOEL. The study therefore answered the following research questions:

- What are the reasons for logistics outsourcing of the company?

- What are the strategies of the company when outsourcing the logistics activities i.e. its scope and type of activities, outsourcing length and extent of budget outsourced?
- How the company facilitate collaborative relationships with its logistics services providers?
- What are the challenges involved and what benefits obtained?

1.4 OJECTIVE **OF THE STUDY**

1.4.1 *General* Objective

The general objective of this study is to assess the logistics performance of the organization in relation to the outsourced logistics service providers.

1.4.2 *Specific objectives*

- To identify and understand the reasons behind the logistics outsourcing.
- To assess logistics performance of the company
- To identify the scope and type of activities to outsource, length of relationship with 3pl providers and proportion of logistics budget outsourced.
- To assess how the company, facilitate collaborative relationships with its logistics service providers?
- To identify what challenges are involved and what benefits are enjoyed by the company.

1.5 SIGNIFICANCE OF THE STUDY

Logistics outsourcing have been practiced by most Oil Companies in Ethiopia today.Though there is evidence to show it has been in existence in the country for over a couple of decades, similar to other African countries, where less are known on 3PL outsourcing.

Therefore, undertaking this research paper has significance in positively contributing in evaluating the strategy of the use of 3pl at the country level. Hence, this paper has given insight on how the company performed on logistics in relation to its outsourced logistics service providers and be a bench mark as a strategy for other operating areas as many literatures suggested. As in Europe, North America and Asia Pacific region Wilding & Juriado (2004), Lieb & Lieb (2009, Lieb (2008), Lieb & Butner (2007) and Abdullah et al. (2009), Power et al. (2007)& Chen et al. (2010).

The assessment on the logistics performance of the company with the involvement of the third party logistics service providers,also, gives formal means of feedback to the management, which may also help to identify existing and potential problems. It also conveyed a message to the senior management that the company can look at a best way of logistics outsourcing strategy to strengthen the service of the companyto supply the aviation fuel products efficiently to the business's expectations.Furthermore, the study will be stepping point to study other similar logistics outsourcing activities with special carriage like bulk road vehicles.

In addition, the main significance of this study is to understand the current status and the move towards outsourcing of third party logistics services in general and how 3PL impacts logistics performance of the firm. The student researcher has tried to focus around benefit of outsourcing and its impact on the firm's logistics performance. The student researcher believes the study, therefore, is significant to answer the following questions:

- to assess the logistics performance of the company
- to determine the degree of service outsourced to third party logistics service providers,
- to determine how the company evaluates the capabilities of 3pl service providers
- to determine the level of collaboration with these providers
- to assess how 3pl benefits/challenges logistics performance of the company

1.6 DELIMITATIONOF THE STUDY

This study attemptedto provideinformation about the logistics performance of the company particularly in relation to aviation fuel only.The study is limited to experiences of 3PL operating in aviation fuel of the company. Ethiopian oil industry has nine players in the market but three of them only involve in operating aviation fuel business.This study delimits its scope of study on Libya oil Ethiopia limited on aviation fuel only as a case company and no attempt have been made to extend the study to other oil companies in the industry operating aviation fuel.The scope of the study is outsourcing of logistics on the aviation fuel products onlydisregarding all other ground fuel products. In the case of other ground products, the risk and work process is somewhat transferred to the retailers and the inventory management and logistics demand is shaped by demand of the retailers. Furthermore, it is so broad to cover all bulk products within this thesis.Thus, the student researcher believes this paper will be a stepping point to look logistics from the retailers' point of view. In addition to this the profit margin is relatively high (17 cents/litter) compared to other bulk products and any stock gain or loss accounts directly to the company. Thus, failing to operate in this area is found costly to the company.

1.7 LIMITATION OF THE STUDY

- Due to limitation on data protection policy of the company, sensitive data is difficult to access and analyze.

- In addition, there is shortage of similar survey report and publication in the logistics service related to supply of aviation fuel with Bulk Road Vehicles. This also limits the use of secondary data as a reference and this thesis paper can be a stepping stone for future third party logistics performance in aviation fuel and other liquid products.

1.8 DEFINISION OF USED TERMINOLOGIES

In this study, unless the context so otherwise explains the following words has been used with the following meanings:

Logistics

- The art of moving goods, information, and money form a place of its origin to its destination.

Outsourcing

- The transferring of operation to the external operators, which was don internally before.

Third Party logistics providers

- The executers of the outsourced operation and are entered in to the contract with the service receiving company for the execution of a certain job for reasonably longer period.

Downstream

- The oil distribution and retail business.

Aviation fuel

- The type of fuel used to fly an aircraft.

Adulteration

- The mixing up of the product with other foreign products intentionally to get unnecessary benefit.

Fuel

- Fuels include Motor Gasoline Regular (MGR) or Benzene, Automotive Gas Oil (AGO) or Diesel, Furnace Fuel Oil (FFO/HFO), Kerosene and Jet Fuel.

Bulk Road Vehicles:

- Fuel transporting vehicles designed to transport liquid products.

Oil Industry:

- Oil Industry in Ethiopia is a sector engaged in petroleum product distribution.

1.9 ORGANIZATION OF THE STUDY

The study hasfive sections; the first part contains the problem and its approaches. i.e. Background of the study, problem statement, objective of the study, significance of the study, delimitation of the study, limitation of the study, definition of used terminology, organization of the study, as part of it. The second part discussed review of related literature ranging from definition of outsourcing, logistics outsourcing and third party logistic Service and challenges and benefits of outsourcing. The third part discussed about research methodology,the fourth part is all about data presentation and analysis by using all the techniques mentioned in the methodology. The fifth part, which is, the final section has contained summary of finding, conclusion and recommendation.

CHAPTER TWO

2. LITTRATURE REVIEW

2.1 INTRODUCTION

2.1.1 Global Oil industry

The petroleum industry includes the global processes of exploration, extraction, refining, transporting (often by oil tankers and pipelines), and marketing petroleum products. The largest volume products of the industry are fuel oil and gasoline (petrol). Petroleum (oil) is also the raw material for many chemical products, including pharmaceuticals, solvents, fertilizers, pesticides, and plastics. The industry is usually divided into three major components: upstream, midstream and downstream. Midstream operations are usually included in the downstream category.

Petroleum is vital to many industries, and is of importance to the maintenance of industrial civilization in its current configuration, and thus is a critical concern for many nations. Oil accounts for a large percentage of the world's energy consumption, ranging from a low of 32% for Europe and Asia, to a high of 53% for the Middle East.

Other geographic regions' consumption patterns are as follows: South and Central America (44%), Africa (41%), and North America (40%). The world consumes 30 billion barrels (4.8 km^3) of oil per year, with developed nations being the largest consumers. The United States consumed 25% of the oil produced in 2007. The production, distribution, refining, and retailing of petroleum taken as a whole represents the world's largest industry in terms of dollar value.

2.1.2 Ethiopian Oil industry

The Ethiopian Petroleum Supply Enterprise (EPSE) buys fuel from international suppliers such as the Sudanese Sudan Petroleum Corporation, Saudi Arabia and KPG from Kuwait. It sells to the nine distributors in the country. The Enterprise supplies fuel based on the assessment of demand of the country and maintains and administers the national petroleum reserve. In 2012, EPSE succeeded its predecessor, Ethiopian Petroleum Enterprise, with a paid-up capital of 500 million dollars in kind and cash. The National Petroleum Reserve Depots Administration also preceded the EPSE.

The nine distributors who receive fuel from the enterprise are Oil Libya, Total, National Oil Ethiopia (NOC), Yetebaberut Beherawi Petroleum (YBP), Kobil, Dalol Oil S.C., TAF Oil S.C, Nile Petroleum, and Wadi Alsundus. The last two are Sudanese Companies. A tenth company, licensed by the ministry of trade (MoT) is soon to join.

Total Ethiopia, Libya Oil Ethiopia Limited, and National Oil Company, are operating as the other operators in the country in the downstream oil business and also engaged in the supply, distribution and marketing of aviation fuel. These companies also operate on lubricants and other petroleum products in the Ethiopian market with an extensive network of supply points which consists of the following class of business: Retail Stations, Commercial/B2B, Aviation and Airfields, the first two categories supplied with ground fuels and the third one is aviation fuel. The sole supplier for all bulk products are Ethiopian Petroleum Supply Enterprise, which makes it a sole supplier of these products.

2.1.3 Libya oil Ethiopia

Libya oil has now been in existence in Ethiopia since 2008, having taken over Shell's business in Ethiopia. The retail business continues to present vast opportunities for growth and expansion in the Ethiopian market.

Libya Oil Ethiopia Limited (LOEL) is the local subsidiary of the Libya Oil Group with affiliates in over 23 African countries including, Morocco, Niger, Senegal, Cote d'Ivoire, Mali, Gabon, Cameroon, Egypt, Morocco and Tunisia. In Eastern Africa, the company works in Kenya,

Djibouti, Sudan, Eritrea and Uganda where the company continue to look for investment opportunities. The Group's reporting office is in Dubai, UAE.

Logistics outsourcing has been practiced by most Oil Companies in Ethiopia today and have evidence to show that it has been in existence in the country for over a couple of decades, as in other African countries, where less is known on 3PL outsourcing. Therefore, the purpose of the study is to analyze the impact of logistics outsourcing strategy in the oil industry in Ethiopia.

Generally, understanding the background and historical development of logistics outsourcing in Oil business in Ethiopia will give an insight to the future growth of the industry and were essential to review the historical development. The total supply of aviation fuel by oil industry in Ethiopia is divided between three oil companies among active players in the country namely. i.e TOTAL, LOEL, NOC. Thus LOEL has the largest share of the market i.e 40% in the year 2016.

The above being the overview of the company the scope of the study is the logistics activities of aviation fuel products only disregarding all other ground fuel products, because risk and work process is somehow transferred to the retailers at the ground product retail stations and the inventory management and logistics demand is shaped by demand of the retailers. For this specific product the following points are discussed:

2.1.3.1 Handling of Aviation Fuel

The product of aviation fuel is liquid in nature and has to be handled in a different Bulk road vehicle which is tinted with a unique material called epoxy. It also be kept in a separate Tank which is designed on the requirement of International Aviation Transport Authority (IATA). It has also a safety handling requirement because of the product nature which is highly flammable. Therefore, logistics/transporting the product is not different from the safety handling requirement instead it is the potential to the incident and safety hazardous area. In connection to the outsourced logistics provider’s area it has also a high risk of adulteration that associates with the behavior of the drivers. The product also needs some settlement time on the refiler and dispenser and also quality is controlled on the standard of IATA at the spot before it will be filled to the aircrafts.

2.1.3.2 The structure of the industry and growth prospect

As found form the respondents the structure of the industry is operating with high interference of the government with the insisting policy of outsourcing the logistics of oil companies to a third party, deciding the transportation rate to be paid to the BRV's per kilometer. The growth prospect is still on the rise since Ethiopian aviation market is growing and with the same token is aviation fuel including to be the destination to other aviation the market is still promising for growth.

The industry is more affected by the price flactuation in the international market and the price adjustment of the governments policy, and further on the proclamation of having a stock at 500MC at any time, the company has incurred a net loss of the 35 million amount during the years 2012 to 2016 on aviation fuel. The company has registered a gain only on the year 2013 which has a great deal of followup on the transport and inventory management, infact acording to the respondents the losses are very controlled to end up on this amount.

Year	PRODUCT	QUANTITY	AMOUNT
2012	JET A1	(223,586.72)	(4471,734.37)
2013	JET A1	492,143.45	9842,868.92
2014	JET A1	(481,603.60)	(9632,072.00)
2015	JET A1	(1158,889.73)	(23177,794.61)
2016	JET A1	(174,351.81)	(3487,036.28)
		Total	**(30925,768.34)**

Fig. 4.1.2 Stock gain/loss amount due to price adjustment by the government

2.1.3.3 Competition

Competition is more on logistics as mentioned by most of the respondents and mainly due to the proclamation on the Ethiopian government, since price is adjusted, and product differnciation is not achived due to the product nature, the competition is on utilities of logistics that is place and time value. According to the aviation sales manager delay on aviation supply has a greatest impact on competition because more flights of Ethiopian Airlines of the 43 destinations in Africa are connection flights and a delay in aviation fuel supply will have a substantial effect on all the connection flights on other destination.

2.2 OUTSOURCING

Outsourcing as defined by Lysons, K. and Farrington, B. (2006) ‘’is a management strategy by which major non-core functions are transferred to specialist, efficient, external providers’’. Stated differently, it refers to the process by which a company contracts another company to provide services that might otherwise be performed by in house employees. Outsourcing is being employed to achieve performance improvements across the entire business. Since, the early 1990s, outsourcing has been discussed under both academic business studies and operational practice as pointed by Kakabadse and Kakabadse (2000). Accordingly, usually firms have outsourced their non-core activities. However, outsourcing does not necessary mean that the outsourced function is less important to company’s performance as argued by Holcomb and Hitt (2007). In recent years, many other functions in all industries has been actively outsourced, though, outsourcing of entire processes however has not been prevalent.

In recent years the traditional paradigm of owning factors of operations to achieve competitive advantage is challenged by cost saving motive. There is also other factors to go for outsourcing including achieving competitiveness as supported by Greaver, (1999). In addition, the sourcing concept of moving activities out of the organization to where the experts and their resources exist has challenged owning all of the resources as most traditional firms by the strategy for outsourcing.

Outsourcing is simply the transferring of an internal service function to an external organization

that otherwise would be difficult to acquire, or costly to have in-house Ketler and Walstrom (1993); Razzaque and Sheng(1998). Outsourcing is one of these business practices that can lead to greater competitiveness Embleton and Wright (1998). As discussed in the purpose of this study, that the oil companies has been outsourced their transportation of aviation fuel to third party logistics services providers.

2.2.1*Forms of Outsourcing*

Outsourcing according to Embleton and Wright, (1998), can be divided into three different levels, namely; tactical, strategic, and transformational.

2.2.1.1*Tactical outsourcing*

It is that a company willget a better service for less investment and management time from an outsource provider. It focuses on constructing the right contract and making the vendors stick to that contract. Reasons for tactical outsourcing are for example immediate cost savings. Quite often, the company is already in trouble and uses tactical outsourcing as a direct way to address problems.

2.2.1.2 *The Strategic Outsourcing Model*

As a strategy, holding stock or inventory in warehouses just in case it is needed is a highly costly activity. The stock itself is expensive and might not sell or could become obsolete. Warehouses and distribution centers generally are expensive to build, operate and maintain, acquiring transportation is also becoming very expensive, therefore strategies to curve up this situation is imperative. According to Visagie (2003), there are a number of critical issues to be taken into account when outsourcing becomes an improvement initiative. Strategic decision making in terms of what is to be outsourced and what not to outsource is essential.Strategic outsourcing is about outsourcing a certain function of a company to be able to focus on core businesses. It requires a strong secure relationship between the vendor and the company. This means a strategic long-term partnership with the emphasis of mutual benefit, instead of a pure vendor – buyer relation, which is quite often adversarial.

2.2.1.3 Transformational outsourcing

In transformational outsourcing the decision might be doing all or none. It refers to outsourcing everything the company does not do well, including core businesses. Therefore, the purpose of outsourcing is redefining the business. This might be quite questionable since core business is usually the most important part of a company.

2.3 LOGISTICS

In some literatures logistics and supply chain being used interchangeably. Thus as indicated in the Council of Supply Chain Management professional's council (2008), logistics is that part of supply chain process that plans, implements, and controls the efficient, effective forward and reverse flow of goods and storage of goods, services and, related information between the point of origin and the point of consumption in order to meet customers' requirements.

If properly operated, a good logistics system can both reduce costs, improve service and provide a competitive advantage for the firms. So many littratures have discussed that the logistics has to be perfect to provide to anyone who comes to buy the product at any time to our station. Therefore, the logistics that a company involved is vital to the company's competition/sustainability or even for its existence. This paper has this in mind to go through the literature and tried to find out the best way for the best supply of aviation fuel to the ultimate customers and to make profit, which is, the ultimate objective of any profit making organization.

'If the product isn't on the shelf when you want to buy - it doesn't matter anymore''

As this concept goes highly with the utilities of time and pace value, which are the core components of logistics, the student researcher is motivated to look in depth in to the related literature.

2.3.1 Logistics Outsourcing (3PLs)

Let us look at the heart of this study, logistics outsourcing. In today's environment, organizations are searching for new business practices and solutions that can provide them with success. Outsourcing is one of these business practices that can lead to greater competitiveness Embleton and Wright (1998). Outsourcing is simply the transferring of an internal service function to an external organization that otherwise would be difficult to acquire, or costly to have in-house Ketler and Walstrom (1993), Razzaque and Sheng (1998).

Although, there is less information available on 3PL outsourcing especially in developing regions including Africa, many literatures, reveals that outsourcing is a new strategy in this modern business era. Similarly, literatures show that 3PLs outsourcing is extensively popular in Europe Mckinnon (1999), North America Cooper & Kaplan (1991) and Asia Pacific region Zhao & Tang, (2009), where companies involve logistics wins a competitive advantage.

In the recent past, logistics outsourcing or third-party logistics (third party logistics) has received considerable attention. It is an evolving strategy that starts over two decades from the concept of transactional relationship in 1970 to collaborative third party relationship in 2000. As La Londe & Cooper (1989) referred third party logistics as "contract logistics", where it is a process whereby a shipper and 3PL provider enter into an agreement for specific services at specific costs over some identifiable time horizon. This is further supported by Murphy and Poist (2000) who, after going over a number of literatures, defined 3PL as: "a relationship between a shipper and third party logistics providers characterized by a long term, mutually beneficial relationship".

For people new to the supply chain management and logistics industry, the term "third party logistics" is likely unfamiliar term. This is certainly not surprising as every industry always has their own set of acronyms and buzz words, but this paper would like to provide some clarity to the commonly asked question, what is a third party logistics?

While it isn't immediately clear exactly who coined the term third party logistics, its beginnings can be traced to the 70′s and 80′s as companies outsourced more and more logistics services to 3rd parties. Over time these third party logistics service providers (3pls) expanded their services to cover specific geographies, commodities, modes of transport and integrated their existing

warehousing and transportation services, becoming what we now know today as a "third party logistics". Logistics list, third party logistics Sitemap (2005-2014) as sited on 2014 on www.emeraldsinsight.

According to Alan (2013), logistics is concerned with the efficient transfer of goods form the source of supply though the place of manufacture to the point of conception in a cost effective way while providing an acceptable service to the customer. Alan et. al (2014)

Logistics/transport in the operation of fuel retail has the greatest impact on the oil company's performance. The Oil company under investigation have been operating aviation fuel business and still has made the greatest share i.e 40% of all the three companies operating on aviation fuel in the industry. The aviation fuel is transported by the bulk road vehicles and this BRV's are not owned by the oil companies hence outsourced to the third party logistics service providers.

2.3.2 Types of LogisticsOutsourcing Service Providers

Many times in the market logistics providers start with one specialty (like trucking or warehousing) and then branch out into additional service offerings either by partnering with other companies (especially in the case of trucking and rail) or using a mixed approach. Also you will come across companies with trucking origins will develop in warehousing but not have the capabilities for more complex pick and pack, kitting, or fulfillment tasks. That is not to say that there are not many companies with origins in trucking, rail, or warehousing that doesn't provide excellent integrated services. In fact, there are many.

Here are examples of typical types of third party logistics:

- Trucking companies that have expanded into warehousing

  Warehousing focused companies that also own their own private fleet
- Warehousing companies who have strong relationships with LTL and Full Truckload Carriers
- Trucking companies focused on intermodal logistics solutions and Ocean Freight
- Warehousing companies that specialize in partnering with Rail Freight Companies

- Companies that refer to themselves as third party logistics but are actually Logistics Software companies

There certainly are many other hybrids and variations of third party logistics providers you will encounter in the industry like freight forwarders for instance, but these are a few of the typical types you will likely encounter. Logistics list, third party logistics Sitemap (2005-2014) as sited on 2014 on www.emeraldsinsight.

2.4 Driving factors for Logistics services outsourcing

Elements of logistics are remarkably expensive, if notcontrolled effectively,vehicles totransport goods between warehouses and distribution centers are expensive. Quélin and Duhamel (2003) argued that for the past 20 years, outsourcing of logistics activities has been one of the most used services in many companies. Thus, the study aims to identify the logistics motivates for outsourcing logistics to a third party, benefits and challenges that the industry is facing and outline the driving factors as a requirement. One of the driving factor is that third party logistics providers offer fully integrated outsourced logistics solution. Before approaching potential third party logistics providers, it is important to get an understanding of one's needs and what is one's current pin points are. Though, cost reduction and expectation to improve services are the most frequently cited factors for outsourcing Mello, Stank, & Esper (2008). Logistic outsourcing decisions of the firm were driven by a various factor like, the need to achieve operational flexibility, customer service, risk mitigation, cost reductions, operational efficiency and access to resources and markets. Therefore, the term third party logistics is one that have been used quite generously over the years and it is important you have a clear understanding why you outsource a business functions as a strategy and who you are working with, since, logistics providers have their strengths, weaknesses, and origins.

As a matter of fact, outsourcing a non-core area for some reasons, will lead toaccess of provider's special experience in the area, cost reduction as the result of economies of scale of the service providers will increase profitability and access to technical expertise. To achieve this, appropriate analytical techniques should be employed along with sound professional judgment to arrive at an outsourcing decision. Greaver (1999), asserts that it is critical a company understands

its reasons for considering outsourcing and the benefits, in order to make an informed outsourcing decision. Strategically, financially and operationally, outsourcing also holds the potential for many improvements and other possibilities for a company Greaver (1999).Hence any logistics inefficiency which is overlooked translates into a competitive advantage if discovered and improved upon.

The oil price is decreasing in the international market with a little fluctuation as referred every day between 2012 and 2016. Therefore, this study considers the companies will be benefited, if they exerted extra effort on adjusting the 3pls effort as a logistics strategy.

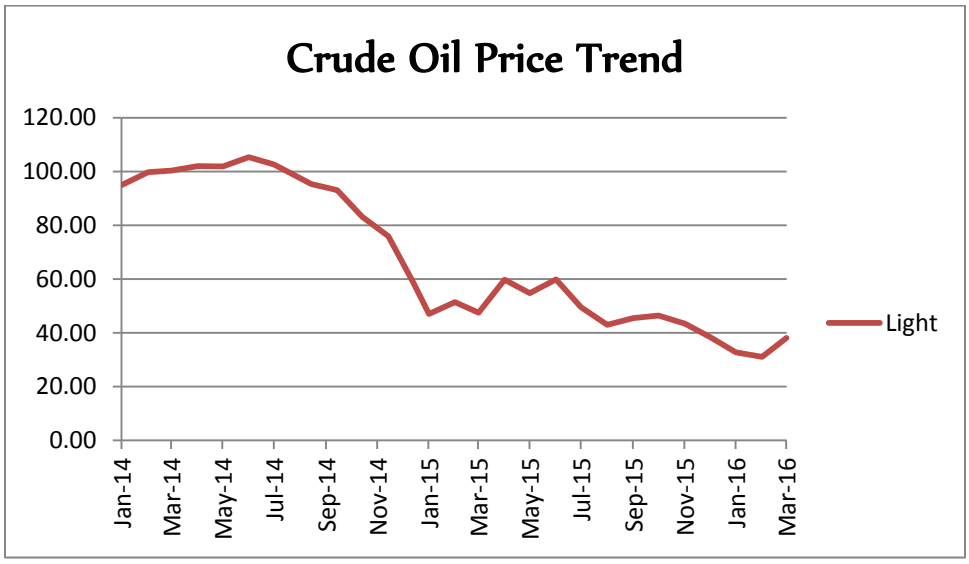

Fig 2.1 Crude Oil Price trend

As indicated above, the recent notable decline in the international oil price is considerably affecting the transporters and businesses in Ethiopia. The price of oil was 76 dollars in 2008. In the year 2014 month of June, the average price of oil drawn, at 111.8 dollars per barrel, declined to 97 dollars in September, 2014. And further declined on December 2015 to average of 50.31 dollars per barrel. The proce also 38.07 dollars per ballel on March 2016. BBC website (2014-2016)

The Ethiopian government makes price adjustments of gas every month. For instance, the government has made price adjustments on fuel prices in 2014. This aviation fuel price adjustment reached its peak at 23.01 in Fenruary 2014. In December 2014, the price of aviation

fuel was 19.43 Br per litre. Then, when the global market showed a decrease, the price went down to 20.67 Br per litre, as adjusted in November 2014. As of the February 2015adjustment, stands at 15.21 Br. Currently February 2016 the price went dwn further to Br. 12.87. and Br. 12.68 in April 2016. Letter from Ministry of Finance and Economic Cooperation.

Therefore, undertaking this research paper is another factor to look in to the reasons for outsourcing which is significant in positively contributing the evaluation of the strategy in connection to the stock management and the responsiveness of the use of 3pl at the company level. As in Europe, North America and Asia Pacific region Wilding & Juriado (2004), Lieb & Lieb (2009), Lieb (2008), Lieb & Butner (2007) and Abdullah et al. (2009), Power et al. (2007) & Chen et al. (2010) outsourcing has a great advantage to the company.

2.5 Logistics Outsourcing as a Strategic Consideration

In the recent past, logistics outsourcing has received considerable attention. In today's environment, organizations are searching for new business practices or strategies that can provide them with success.

Companies are increasingly considering outsourcing as a strategic option. These companies are operating in increasingly difficultenvironments with major change impacting on their operations and strategies. According to Greaver (1999), outsourcing is a strategic decisionrequiring proactive and professional decision-makingand needs conscious effort in analyzing in order tomake a betterand informed decision. A company'sstrategy forms a comprehensive plan stating how itwill achieve it's goals and objectives and primarybusiness. According to Lankford and Parsa (1999), increasing companies are focusingon strategy and committing to integrating resourcesacross all operational levels to achieve their identifiedobjectives. Thus, strategy represents the overall actionsor approach to be taken to achieve the company'sgoals and objectives. It is, therefore, vision, function,and economics that drive the need for outsourcing.

2.6 Logistics Outsourcing Risk Analysis

A central theme is to identify common critical issues and then to compare or suggest solutions and approaches that could facilitate the development of relevant risk analysis policies to promote efficient transport logistics. If the outsourcing contract is not preceded by careful strategic planning and thorough risk assessment, it may result in financial loss, decreased shareholder value, damaged company reputations or even destruction of the business as defined by Jiang and Qureshi (2006). They further state that the awareness of possible risks incurred when outsourcing, will enable decision makers and stakeholders to make an informed decision and draw up contingency and mitigation strategies. A holistic approach to outsourcing, one that evaluates both the risks and rewards, is crucial Chris (2000). High risk management processes are needed to ensure that risks are identified and addressed so that the real opportunities to increase shareholder value provided by outsourcing logistics can be.

2.7 Successful LogisticsOutsourcing of 3pl with the needed Capabilites

Outsourcing holds many advantages for any company that is successful in its implementation.performance, choosing the correct outsourcing providers and treating them as partners, ensuring communication and honesty throughout the outsourcing process, and providing adequate training and skills to facilitate the inevitable changes resulting from the process. There must also be complete support of the process by top management with the commitment of the necessary knowledge. According to Embleton and Wright, (1998) on their study of a practical guide to successful outsourcing and empowerment in organizations, many problems can also be experienced. In order to avoid as many of the problems as possible, certain steps must be taken such as undertaking a thorough business analysis, correctly identifying the core competencies of the company to engaged in a contract, have a clear understanding of what the organization wants to achieve by outsourcing, developing comprehensive plans to ensure that outsourcing provides enhanced business company infrastructure Embleton & Wright (2001) contrasted with the importance of making the right decisions with respect to outsourcing and identify the following keys to successful outsourcing: Strategic analysis and planning, Careful evaluation and selection of the providers and managing the relationship

2.8 Outsourcing Relationship and Managing the Contract

In Drucker's (1998) new management paradigms, this concept of business relationships extends beyond traditional enterprise boundaries and seeks to organize entire business processes throughout a value chain of multiple companies.Collaborative outsourcing relationships are often structured as joint ventures and partnerships, characterized by flexibility, risk and knowledge-sharing. Limited outsourcing decisions or partial relationships are generally more analytical than emotional in nature, primarily because few people are impacted on by the decision process or its outcome as stated by Gavin & Matherly, (1997). From a global outsourcing point of view, Elmuti & Kathawala (2000) assert that the trend is for outsourcing relationships to function more and more as partnerships as opposed to subcontracting and joint venturing. Franceschini *et al* (2003), propose that an organization evaluate the type of relationship it requires based on two main characteristics thus, *specificity* and *complexity* of the process to be outsourced. Specificity refers to the level of reutilization of the considered process for many different uses while complexity refers to the difficulty of monitoring and defining contract terms and conditions of the outsourcing process. A combination of these two characteristics gives rise to four possible types of relationships namely traditional vendor, temporary relationship, strategic union and network organization.

Outsourcing agreements establishes a commercial relationship formalized with legal contracts or arrangement. Relationships emanating from outsourcing can include limited or partial outsourcing, and collaborative relationship which can take several forms with respect to acquisition and sharing arrangements. Embleton & Wright (2001), assert that the necessary time and effort must also be spent on negotiating and establishing the outsourcing contract, with respect to management structures and systems for monitoring and evaluating the relationship. They state that regardless of how the activity is handled in-house, outsourcing must be managed differently, often requiring new management skills. As has already been outlined, the outsourcingcompany must identify and stipulate the required service level in order to measure the service provider accordingly, and management must monitor and evaluate adherence to the outsourcing contract Fan (2000).

2.9 Challenges of Outsourcing

In synthesis of the littratures review, the logistics outsourcing derives from cost and service requirements. Moreover, elements of logistics are remarkably expensive, if not controlled effectively. Holding stock or inventory in warehouses just in case it is needed is a highly costly activity. The stock itself is expensive and might not sell or could become obsolete. Warehouses and distribution centers generally are expensive to build, operate and maintain. Vehicles to transport goods between warehouses and shops are expensive. Therefore, outsourcing logistics as a strategicfunction impacts all aspects of the operation i.e. the firm's logistics performance.

Competitive advantage emerges from the creation of superior competencies that are leveraged to create customer value and achieve cost and/or differentiation advantages, resulting in market share and profitability performance Barney, 1991; Day & Wensley (1988). As the government of Ethiopia regulates the cost structure of aviation fuel, and the product is homogeneous in nature, competing on the price and product differentiation is difficult to achieve. Therefore, the capabilities of the companies' logistics are of paramount advantage on the competition battle. Thus, while the logistics services of the company is outsourced, evaluating the third party logistics providers will have paramount advantage.

According to Lambert et al. (1999), outsourcing logistics activities has increasingly become an effective way to reduce costs and spread risks for firms. Therefore, the conceptual framework will go from Justification on outsourcing decision, decision on the extent of logistics outsourcing, outsourcing strategy, ability to determine capabilities of third party logistics service providers, and third party logistic service providers' relationshipwill have positive effect on logistics performance of the company's logistics.

CHAPTER THREE

3 RESEARCH METHODOLOGY

3.1 INTRODUCTION

To exploit various opportunities provided by employing a case study design, this qualitative study involves an in-depth examination of how logistic outsourcing is practiced in LOEL. It involves analyzing how the company outsource its logistics functions to third party logistics service providers in the industry and how it managed various challenges resulting from adhering to these options.

3.2 **Research**Methodology Selected

A case study is an intensive description and analysis of a single individual, group or groups, in this case Libya Oil Ethiopia Limited, which is the unit of analysis. Case study facilitates understanding of complex issues and increases our understanding and experience of what is already known through previous research Soy (1997).

One of the common pitfalls associated with case study is that there is a tendency for researchers to attempt to answer a question that is too broad or a topic that has too many objectives for one study Yin (2003). Critics of case study is alsobelieved, that the study of few cases can offer no grounds for establishing reliability of findings and they cannot be generalized in other settings. Others feel that the method does not provide good opportunity to generate clear cause-effect type of relationships as in a quantitative study.Thus this design uses naturalistic approach that seeks to understand phenomena in context-specific settings where the researcher does not attempt to manipulate the phenomenon of interest" Patton, (2001). Furthermore, case study seeks illumination, understanding, and extrapolation to similar situations while those following a quantitative approach seek causal determination, prediction and generalization of findings

3.3 Target Population

The target population includes all logistic executives, managers and department heads responsible for supply of aviation fuel, i.e marketing/customer service, procurement, transport, supply, warehousing, and operations (aviation operations superintendents) and responsible personnel on relevant logistics functions in the company. The unit of analysis is Libya Oil Ethiopia Limited. Since almost all supply chain functions are represented in the company's functions, therefore, the study populations is approximately of two personnel form each function and are about 35 in number.

3.4 Data Collection Tool

In order for the research to produce a realistic outcome,a comprehensive list of semi structured interview questions, which, were based on research questions in problem statement section,has been prepared. These tools were a useful guide for a semi-structured interviews being conducted over a face to face interview where a student researcher takes a note verbal on the spot later to be analyzed. Respondents have been asked for their willingness to participate in this study. In addition to the primary data, secondary data of printed and non-printed documents have been used.

3.5 Reliability and Validity

According to Mentzer and Flint (1997), validity does not mean much without reliability and defined reliability as how consistently the measures yield the same results through multiple applications. Yin (1994) also states that, validity and reliability are two measurement instruments measuring the level of trustworthiness and credibility of a research study. In order to validate the thesis, the author made use of peer reviewed literatures from experts in the field of third party logistics and empirical data that was collected from different experts on logistics at LOEL during the interview. While reliability and validity denotes two different ideas in quantitative research they are mainly regarded as inseparable in qualitative researchBashir, Afzal, & Azeem (2008).

Reliability: It is an idea that the conducted test or study gives the same result if repeated elsewhere; it is the estimation of consistence of the tools in the same settings and subject or the measure of repeatability of the measurement. Whereas, Validity: itself is the measure of trustworthiness or strength of the findings or conclusion, if there is any arrangements or approaches that increase our confidence on the originality and truthfulness of the result, can be called reliability measure.

Different from their use in quantitative research, both reliability and validity are encompassed when terms like credibility, precision and transferability are used in qualitative researches; these terms are regarded as more effective in providing the lenses for evaluating the findings of a qualitative research like case study Golafshani, (2003). Largely, this is because the issue of replicability of results is not of concern for qualitative researchers. Therefore, the student researcher checks the validity and reliability of the content by cross checking the individual respondent' response while interviewing.

3.6 Data Analysis

According to Saunders et al. (2000) there is no standardized approach to analyze qualitative data. There are a variety of different research approaches and a variety of different strategies to deal with the collected data. One way to analyze data is to use the transcript notes from the conducted interviews. However, there is a need to transform the data making it easier to manage it and to be able to draw conclusions.Miles and Huberman (1994) categorizes data analysis into three simultaneously different activities as follows:

- Data reduction: This involves the focusing, selecting, abstraction, simplified and transformation of data. The principal objective of data reduction is to arrange the data in a way that conclusions can be verified and drawn accordingly.
- Data display: In data display, the data is concentrated and organized so as to make it simpler for the basis of drawing a relevant conclusion.

- Conclusion drawing and verification: This includes the researcher's comments and clarification of issues on the research. This achieved by no regulations, patterns, explanations, configurations, casual flow, and propositions.

On top of the above three activities,the student researcher has made the data analysis process based on adopting relevant studies that relate to this thesis and assess the logistics performance of the company. In order to simplify the study, the process of linking the theories to the empirical data and draw relevant conclusion were carried out.

CHAPTER FOUR

4 FINDING AND DATA ANALYSIS

4.1 INTRODUCTION

This chapter presents the analysis of data collected and discussed the findings of the effects of outsourced logistics performance on the performance of the company's logistics in the case of LOEL. The result of the primary data was presented using explanatory analysis model and described using themes, whereas, the results of the secondary data were explained using description and analysis on variables, were applied.

Out of the nine oil companies in Ethiopia,only three companies operate aviation fuel business and Libya oil Ethiopia limited wereselected for the study, hence the unit of analysis is LOEL. To collect primary data a semi structured questionnairewas conducted to the 35selected logistics professionals that includes logistics manager, fleet manager, supply manager, safety officer and aviation manager and aviation super intendantsand out of which all personnelwere engaged and gave a response rate of 100%. Thus, the study concentrated on the oil company, which operates fuel business since 1902.

4.2 Finding and Analysis

4.2.1 General Background of Respondents

When we look the respondents of the interview based on gender 100% were male. Out of the 35respondents, 100% have above 10 years' work experience. The educational background of the respondents therefore is, 40% above first degree and 60% are First Degree Holders.

4.2.2Driving Factors for outsourcing

Most of the respondents reveal that, the aviation fuel is so sensitive and affected by the supplier, transporters in addition to the rest of internal operation. The lead time for the supply of aviation fuel are 7 days form Djibouti, thus, based on the agreement with EAL the company should notify the stock out position before 72 hours of its happening, so the logistics has to be perfect to predict the availability of the stock. On the suppliers side the government agent has placed a proclamation to hold a stock of 500MC at any time to curve up any interruption. The safety stock is also dependent on the capacity of the 3pl. regarding the capacity of storage, the company has no problem that the ithas 7 fullers. However, the company has no problem on storage capacity; the inventory cost is high and should be controlled. This again has a greater deal with the logistics capacity of the 3pl to avoid stock loss and at the same time stock out.

The justification on outsourcing also includes the government policy that the job of transportation has to be handled by other operators of not having two jobs at once have pushed the company, though the regulation is relaxed now. Logistics outsourcing have been practiced by most Oil Companies in Ethiopia. Competition is more on logistics as mentioned by most of the respondents and mainly due to the proclamation on the Ethiopian government, the competition is on utilities of logistics that is place and time value. According to one of the respondent's delay on aviation, supply has a greatest impact on competition because more flights of Ethiopian Airlines of the 43 destinations in Africa are connection flights.

4.2.3Logistics Outsourcing as Strategic Consideration

The strategy is instead of handling individual BRV owner's, the company has a strategy to sign a service agreement with a transporting companies with at least 10BRVs or has a sub contract with others to made up the minimum number of BRV's as 10. In this process, the company organized and managed 140 BRV's under 30 transporting companies operating aviation fuel.

As a strategy logistics is backed, by the safety,the transferring of risk as a strategy. The safety policy wasa great deal during shell and the 7 pillars should be considered as a strategy to get compliant provider.Thus, this strategy has been challenged in the market where companies fight for BRVs. The government'spolicy on the approval of the importation of such BRV's are also restricted to invite more investors. As a strategy, other competitors have a different strategy when they are engaging in the contract with the transporters regarding safety. Therefore, LOEL is trying to be in between the standards of the previous strategy i.e 7 pillars and the competition for BRV's on the market to get a compliant BRV and service provider on the other hand. Every time the company tightens the requirement as a strategy, the service providers look to other competitors for option.Therefore, the strategy is try to manage the situation, and lower up the criteria when there is a room for improvement and try to follow/support on their compliance. Since the availability of the transporters and BRV's were affected by these cases and owners favor the others, where they think is low pressure on safety issues.

4.2.4 Scope and Percentage of Logistic outsourced to external providers

The scope of services outsources is composed of all the logistics service to transport aviation fuel which is initially bought by the company from the sole supplier i.e, the EPSE at Djibouti port level to Addis Ababa and other six upcountry aviation airfields. Therefore, the scope of the service is transportation service only. The percentage of the outsourcing is 100% of the transportation service, which includes, total ownership of the assets, maintenance, drivers, and other management costs are outsourced and the supervisor is only made by the company.

4.2.5 Number of Service Providers

The number of the service providers are about 30 transportersas per the company's policy of reducing the communication to the lowest number possible &at least a transporter should have 10 BRV's to commit an agreement with the company.Therefore, many transport companies commit sub contract agreement with individual BRV owners.

4.3 Sucessful Logistics Outsourcing of 3pl provider with needed capabilities

According to the respondents, the company has seven pillars to evaluate the capabilities of the logistics providers with the following rankings:

Table 4.2 below summarized the key performance indicators (7pillars) of the logistics service providersas a logistics requirement of Libya Oil Ethiopia Limited as per the interview response.

Pillars	Ranking	Overall Score
HSE	5	1
Maintenance Management	5	1
Journey Management	5	1
Driver Management	5	1
Organisation	5	0.5
Financial	5	0.5
Customer Service	5	0.5
	Overall Score	5.5

Pillar ranking score		Overall Score Average Ranking	
Un-acceptable	1	0 > 1.0	High Risk
Poor	2	1.0 > 2.5	Less than acceptable
Developing	3	2.5 >3.75	Developing
Semi Professional	4	3.75 > 5.0	Semi Professional
Professional	5	> 5	Professional

Tabile 4.1 7 pillars on determining and selecting the capabilities of the 3pls

4.3.1 Provider Development

According to the respondents, the company also made a 7pillar audit at any time of the renewal and gives training to close the gap on the audit and to upgrade the level of professionalism of the transporters.

The company gives the transporters and their drivers with a defensive drivers training, even facilitates a training on driving for the drivers. Health and safety trainings are also given to the transporters and their drivers by the company to increase the awarenessof the service providers. A company facilitates a toolbox meeting every morning where a drivers share experience on the driving and incidents between them and raise any issue of concern. The toolbox meeting is usually accompanied by the management of the company and the transporters representatives.

The toolbox meeting is also a good setting when there is an accident to learn from the mistake of one to the other and best practice will be recorded for the future use.

4.3.2 Joint Meetings

Respondents mentioned, that joint meetings are conducted between the company management and the transporters officials. Where the challenges of any concern is raised and discussed. There is also a joint meeting when the first contract is concluded and at the time of renewal.

4.4Challenges in collaboration

Safety issue is so sensitive in connection to fire, contamination, adulteration, and loss of certain litters, and so much sensitive to the specification of the standard that highly dependent on the behavior of the drivers of the BRV, communication with the 3pl providers is difficult, it is only telephone and telephone,

Not responding on crisis. Maintenance issues are high, communication gap between the workers of the transporters and the company staffs, critical documentation problem, follow up of the BRV's usually the transporters did not follow the BRV's and not aware of the whereabouts when asked. Knowledge gap on the side of the drivers, professionalism of the drivers, prioritization which, has the greatest effect on stock management, and responsiveness are repeatedlymentioned problems in collaboration area. Drivers turnover after taking the required safety trainings are also the challenges in the transporters side, delay in delivery here the awareness of the business is still lacking in the transporters side. Belongingness in the side of the drivers have also contributed to the low performance/collaboration of the 3pl providers.

4.5Success in collaboration with 3pl providers

The sales volume is very high that one Air Cargo depending on its destination and the passengers, will consume like 80,000 litters equivalent to 2BRV's at once. There is a foreign currency sale to foreign airlines, though it is minimal at about 10% of the sales, competition is less compared to other products since there is only three operators in the field. The competition is dependent on logistics capabilities which is time and place value on top of customer service. Efficient utilization of BRV's with the support of the company's IT system. Truck compliance on the side of the transporters because of safety awareness creation is improved i.e minimum level of safety awareness is observed. The 7pillar audit helped the contractors to do cost benefit analysis. Replacement strategy is helping the owners of the BRV in support of the company, providers enjoy effective payment strategy of the service payment on weekly bases. Temperature is considered due to the product nature the high temperature expands the product and while loading at Djibouti, and contrasted at delivery site at Addis Ababa, the company appreciate the problem at hand and introduced tolerance margin for the drivers up to a certain level. i.e 1.03%of the loaded quantity when they deliver under the loaded quantity.

The company work process is highly supported by IT and have improved follow-up on any issues related to the performance of the providers. The use of GPS also contributes to the operational excellence on the providers' side. With all the above collaboration working process is somehow streamlined.

More on allocation of the trips based on the support of IT system on scheduling makes transparent and fair, payment effectiveness on the company side on weekly bases and witnessed by a minimum complaint, usually include them on a decision that affect them due to work transparency in the company side. Consider the transporters on different gatherings on the company side, like on customer day celebration, and joined them on the transporters side when there is any. Any strategy change is communicated so that the transporters buy the idea.

CHAPTER FIVE

5 SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 INTRODUCTION

The findings from the analysis reveals that the company have relatively predictable demand due to stable market and political condition in the country. The product life cycle of petroleum is long as it is the main energy source for the economy and due to increasing demand. On top of this, the Company uses availability as its main market winning strategy,since cost and product differenciation is not achived. A good logistics performance can be created through collaborative relationships with third party logistics providers to enable the company to create efficient utilization of the system. In order to keep the stability of the inventory at its aviation depots located at Addis Ababa and six upcountry depots the company is working closly with the 3pl providers and recommended to follow its followup.

5.2 Summary of the responses

Interview questions was designed to address two aspects i.e. to assess the practice of oil companies' logistics demand and to identify the main contributory factors for challenges and benefits of outsourcing logistics service providers. The questionnaires were positively stated so that the responses were not inclined.

The analysis was made based on the theoretical background collected from different materials and data collected from the company with integrating it to Comprehensive framework designed by Ambe (2012).

Summary of responses for the questions related to the trend of aviation fuel supply chain and logistics requirement of Libya Oil Ethiopia Limited.

Summary of the Response

Criteria	Description	Product Type	Responsiveness
Product characteristics	Demand uncertainty	Predictable	
	Product type	Functional products	
	Profit margin	Low	
	Product variety	Low	
	Order lead-time		Short 3-7 days
	Market winner		Availability
	Product life cycle	Long	
Decision drivers of supply chain/logistics	Integration		Integrate marketing, distribution, and information systems
	Collaborative relationships	High information sharing; traditional alliances	
	Information technology		Obligatory; collect and share timely, accurate data
	Facilities	Narrow focus; few centralized tanks	
	Inventory		High inventory levels
	Location		Many locations
	Transportation	large quantities	Frequent shipments
	Sourcing		Supplier attributes involve speed, flexibility, and quality
	Pricing		Price based on margins

Table 4.1 Summarizedresponses

5.3. CONCLUSION

Therefore, on top of the above findings, the student researcher concluded that the performance of the third party logistics service providers gives the company to look in to the big picture of the operation instead of taken up in the detail. The service providers gives the company a controlling position on the quality of service delivered and it is to look in to the refined outcome of the service delivered and the responsibility is only on the monitory level. All the respondents has agreed that the performance of the logistics providers are more or less satisfactory despite the challenges they have mentioned. The main challenge mentioned here is lack of safety compliance on the owned BRV's and challenges in the acquiring of new BRV's to inject the operation and the professionalism of the drivers.

As this entire project was intended to answer the stated four main research questions, this chapter will be give conclusion and recommendation in line with each of the question. Therefore, the organization of this chapter is in four main sections as follows as in the research question:

5.3.1Reasons for 3PL outsourcing

As reasons for third party logistics service outsourcing: the company is benefited from the use of the services of the 3pl in the areas of investment cost reduction, relief from the management of the drivers, equipment maintenance, relievethe management to concentrate on core business, transferring of operating risks, access of expertise of the drivers are frequently mentioned reasons for outsourcing logistics activities, even though it is in an infant stage i.e only transport. However, these was the most sited justifications mentioned by respondents.

5.3.2 Outsourcing strategy

One of important decision to make in outsourcing is to decide which activities to outsource and which ones to maintain in-house. The choice of activities to outsource depends on the company´s

history and the industry trend. Many of the studies revealed that transport outsourcing is the common and in the first list of the activities to be outsourced. Similarly, respondents consider outsourcing is the best strategy to consider on the activity of the transporting. It is also revealed that by most of the respondents that the outsourcing of the transport is considered 100% and only the supervision is in hours as a strategy to follow the performance of the 3pl providers.

5.3.3Evaluation of 3PL providers with relevant capabilities

In evaluation of the capabilities of the third party logistics providers, the company uses its own type of evaluation method i.e the seven-pillar audit which, helps the company to choose between the service providers. The difference from other procurement activities that the logistics providers are not as such many on the market that a company make an effort to invite them to work with it. Here a company will consider safety as a main criterion for engage in a contract

5.3.4 Collaboration with 3PL service providers

Many of the respondents reveal that collaboration with 3PL providers is a very powerful strategy to achieve effective outcome of outsourcing option.Because of this company can install the standard of the service expected on the provider's capability, the collaboration is witnessed by the joint meetings, especially during the first engagement of the contract and when there is any issue of concern to discuss, apart from that toolbox meeting of the drivers for sharing experience, and monthly meeting by the management meetings with the management of 3pl is arranged where, any issue of concern is discussed.

In addition, respondents emphasized to achieve the expected service, the company has to continue the 7pillar audit during the service period and give feedbackwherever there is a gap. As the product of aviation fuel is so sensitive on safety (can be checked as the number of accidents per kilometers driven, and adultration (as the products quality delivered) and on time delivery of

the products during a given period which was included in the agreement should be adhered. The company should follow 7-pillar audit periodically and surprise check is also recommended.

5.4 RECOMMENDATION

As from the study, the student researcher summarizes the findings and conclusions suggest possible solutions to help the company to be more efficient. First the company should be more cautious on sourcing, of 3pls, since sourcing is more challenged by the availability of the service providers with the required capabilities of the 3pl and compliant BRVs compromise is costly to handle. The study also recommends that the company should exert more effort to diversify their portfolio mix by having some backup trucks from within, in case of crises, and by trying to convince the government office at lease any loss should not account to the company on the agreed 500mc safety stock that would relieve the pressure on the function of logistics. The oil companies should form an association that should take initiative to regulate the market in collaboration with the government office by benchmarking the best practice of other African countries so as to shift the more controlled type of market to the free demand and supply market keeping the competition for a market. The company should also extend its collaboration with Third party logistics providers to uplift the gap up to the company's standard in the areas of safety, responsiveness and operational excellence.

Concentrating on core business was mentioned as a main advantage and due to their vast contribution on top of cost reduction, risk transfer, operational flexibility, providers' expertise;the student researcher suggested that it is great to use the service of the 3pl for the future as many scholars reveal and many organizations enjoy the benefits.

Reference

Chris Frost, (2000) "Outsourcing or increasing risks?", Balance Sheet, Vol. 8 Iss: 2, pp.34 – 37,

Cooper, R., & Kaplan, R. S. (1991). Profit priorities from activity-based costing. *Harvard Business Review, 69*(3), 130–135.

ebookbrowse, CEAM, Annual Meeting, Brooklyn Center, Minnesota, January 30, 2013,

Embleton, P.R., and Wright, C.P. (1998) "A practical guide to successful outsourcing", Empowerment in Organizations, Vol. 6 Iss: 3, pp.94 – 106,

Fan, Y. (2000), "Strategic outsourcing: evidence from British companies", Marketing Intelligence & Planning, Vol. 18 No. 4, pp. 213-9.

Greaver, M. F. (1999), Strategic Outsourcing: A Structural Approach to Outsourcing Decisions and Initiatives, American Management Association (AMA) Business.

Hines,T. , Supply Chain Strategies: Customer Driven and Customer Focused, Oxford University.2004

Holcomb, R. T. and Hitt A.M. (2007). Toward a Model of Strategic Outsourcing. Journal of Operation Management, Vol. 25, No 2, pp. 464-481

Intaher M. Ambe,(2012). Determining an optimal supply chain strategy,Journal of Transport and Supply Chain Management, Vol 6, No 1

Intaher M. Ambe,Determining an optimal supply chain strategy,Journal of Transport and Supply Chain Management, Vol 6, No 1 (2012)

Jiang, B. and Qureshi, A. (2006) Research on outsourcing results: Current literature and future opportunities. Management Decision, 44(1), 44-55.

John Pooley, 'A Review of modeling and evaluating shipment consolidation in a logistics system Eastern, Washington University and Alan J. Steger, the Pennsylvania State University, USA: - Journal of Business Logistics Vol. 13, No. 2, [1992], Pg.153

Kakabadse, N. and Kakabadse, A. (2000), Critical review – Outsourcing: a paradigm shift, Journal of Management Development, Vol. 19 Iss: 8, pp.670 – 728

Kale, R., Evers, P.T. and Dresner, M.E. (2007), "Analyzing private communities on internet-based collaborative transportation networks", Transportation Research Part E: Logistics and Transportation Review, Vol. 43 No. 1, pp. 21-38.

Lankford, M.W. and Parsa, F. (1999), "Outsourcing: a primer ", Management Decision, Vol. 37 Iss: 4, pp.310 – 316

Libya Oil Ethiopia Limited Company website, www.libyaoil.com

Lysons, K. and Farrington, B. (2006), Prchasing and Supply Chain Management, 7th edition**,** Publisher: Financial Times Management ISBN-13: 978-0273694380 ISBN-10: 0273694383

Marketing Manual, Liyba Oil Ethiopia Limited

Matiwos Ensermu, Logistics and Supply Chain Management, 2013

Mckinnon, A. C. (1999). The outsourcing of logistical activities. *Global Logistics and Distribution Planning*, 215–234.

Miles, M.B. and Huberman, A.M. (1994). Qualitative Data Analysis,

Negarit Gazea, News paper, August 15, 2014.

Philip Kotler, Marketing Management, and Millennium Edition: Tenth Edition: Prentic-Hall Incl.

Saunders, M., Lewis, P., & Thornhill, A. (2003). Research Methods for Business Students, Harlow, GB: Prentice Hall.

Soy, S. K. (1997). *The case study as a research method.* Retrieved April 2011, from University of Texas at Austin: http://www.ischool.utexas.edu/~ssoy/usesusers/l391d1b.htm

Visagie, C.J., (2003). The Maintenance Management Process at Mines, RAU Assignment

Yin, Robert K. (2003). Case study research: design and methods, Yin.-4th ed.

Zhao, X., &Tang, Q. (2009). Analysis and strategy of the Chinese logistics cost reduction. *International Journal of Business and Management*, (4), 188–191.

Online source

www.Emeraldsinsignt.com

WWW.bbc.com

WWW.google.com