



**ST.MARY'S UNIVERSITY
SCHOOL OF GRADUATE STUDIES**

**FACTORS AFFECTING VALUE CHAIN ANALYSIS OF
MEAT EXPORT ABATTOIRS:
IN CASE OF LUNA AND ELFORA**

**BY
ANTENEH GETAHUN**

**JUNE, 2017
ADDIS ABABA, ETHIOPIA**

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LIST OF ACRONYMS

AGP-LMD- Agricultural Growth Program Livestock Market Development Project

CCASG- Cooperation Council for the Arab States of the Gulf

CSA- Central Statistics Authority

EMDIDI- Ethiopian Meat and Dairy Industry Development Institute

EMPEA- Ethiopian Meat Producer- Exporters Association

ERCA- Ethiopian Revenue and Customs Authority

FAO- Food and Agricultural Organization

FMD- Foot and Mouth disease

GCC- Gulf Cooperation council

GDP- Gross Domestic Product

GTP- Growth and Transformation Plan

HCCP- Hazard Analysis Critical Control Point

ILRI- International Livestock Research Institute

ISO- Organization for Standardization

KSA- Kingdom of Saudi Arabia

MENA- Middle East and North African

MOARD- Ministry of Agricultural and Rural Development

SPS-LMM- Sanitary & Phyto sanitary Standards and Livestock & Meat Marketing Program

UAE- United Arab Emirate

USAID- United states Agency for International Development

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ABSTRACT

The study was conducted in Ethiopia to identify the determinant factors that influence the Value chain of meat Export Abattoirs In Case Of Elfora and Luna. The study indicated that, the two export Abattoirs were highly educated, the suppliers and producers not highly educated and most of them were male. The first export abattoirs that started exporting meat to the international market was during 1997, that was Elfora. Both Elfora and Luna exports abattoirs produced and exports fresh chilled shoat carcass, frozen shoat carcass and fresh chilled beef fore quarter. Due to high cost of production and low quality of the products can make competition at global level become difficult especially at MENA market. The two export abattoirs adopted a strategy for price fluctuations by increasing volume when the price decrease and decrease in volume when price increase. The study showed that most of the export abattoirs used their own source of money. The two export abattoirs improve their export performance since establishment. The main reasons for improving export performance were improved government policy and administrative support, increased volume and diversified export items, market diversification and enhanced promotion and improved quality. Most of the producers were male and their educational background was at primary school level. There was a significant and negative relationship between diseases of animals and animal producer's performance because producers have no enough money to buy the vaccinations, poor support from the government and low expertise. There was also a significant and positive influence between distance and animal producer's performance because the producers cannot move from place to place to sell their animals instead the suppliers and middleman can collect the animals from the farmer's home. But the benefit where they can generate by selling their animals was not satisfactory, only the middle man or the agents can be beneficiary. In the last three years both Elfora and Luna export Abattoirs faced shortage of the animals. The main reason for the shortage of the animals was poor quality animals, prevalence of diseases and the illegal brokers. The main factors affecting animal's suppliers performance was input availability and it has significantly and positively affects, the main reason for this was the existence of live animals throughout the year, but the only enough quantity of animals not guarantee the performance of animals suppliers instead quality of animals also necessary. Transportation and trade logistics also significantly and negatively affect the performance of animal suppliers; the main reason for this was the geographical location of Ethiopia which was difficult to transport the animals to slaughter houses.

Key words: Value-chain Analysis, meat export, Animal producers, Animal suppliers.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

A value chain describes the range of activities from the producer to the consumer. In its analysis, it is broken into networks of activities controlled by categories of functionaries and distinguishes the stages in the supply process and support services to accomplish the tasks. Various dimensions will be analyzed in the chain.

There are about nine (9) private meat Export Abattoirs in Ethiopia. Some of them ELFORA Agro-industry Pvt.Ltd.co:- Elfora Agro-industries pvt.ltd.co. Member of the MIDROC Technology Group was established in 1997 to be a partner in the development of the Agro-industry in Ethiopia. The company operates in distinct sectors. To satisfy the ever increasing demands and stringent requirement of its clients for quality and safe products, ELFORA is constantly engaged in developing and up grading abattoir facilities and procedures of slaughtering and processing of chilled or frozen carcasses of beef, mutton and goat meat.

Two ELFORA abattoirs have fulfilled hygienic standards and are approved and registered by the MOARD (ministry of Agriculture and Rural Development) as “Export Standard” abattoirs. Two of Elfora abattoirs namely Methara and Debrezeit are pioneering in the implementation of Hazard Analysis critical control point (HACCP) system. (Source, from company’s web site).

Luna Farm export slaughter house was a family owned private limited company established to supply fresh chilled meat, mainly goat and sheep meat, to the Middle East and African countries. The major motive to the Middle East and African countries. The major motive to established Luna Export Slaughter house p.l.c emanated from the rich animal resources available in the country.

The main animal's sources of the company are the pastoralists in the low land areas of the company. The company deploys its own animal trucks to collect animals from different locations and check their health and physical fitness by keeping them for awhile at the company's animal reconditioning farm. To maintain and ensure the export quality standards of the meat, the company has established its own animal feed production and processing unit. Our meat- processing unit with a capacity to process more than 20 tones of meat per day is Halal certified by the Middle East and North African countries Veterinary standards. Since the company's establishment in the year 2003, its export volume has increased considerably with the destination markets increasing from time to time.

Recently, several large scale meat processing abattoirs have been established in Ethiopia in response to the emerging meat export opportunities to the Middle East and North African countries. There are also several meat export abattoirs under construction and more are planned to be established in the near future in different regions of the country. These developments are in the right direction toward diversifying and increasing Ethiopia's foreign exchange earnings and improving the livelihoods of livestock producers and other actors engaged in the livestock related activities (Asfaw and Mohamed, 2007).

Meat exports from Ethiopia, (Mostly chilled but some frozen and some canned), grew from almost nothing in the early 1990s to an average of about 2000 tons by the year 2002. The expansion on trade was mainly due to the emergency of the private slaughter house and their ability to meet the sanitary standards of Saudi Arabia and the UAE. In principle Ethiopia has a strong comparative advantage in the region because it can provide, because of its proximity, those markets with chilled meat in customer tailored quantities, with short delivery times in contrast to countries such as Australia which supply mostly frozen meat in bulk, provide preferred products and in particular meat from the favored fat-tail sheep such as the Black Head Ogaden and serve niche markets such as that for the fifth quarter (organs, other offal,etc) in West Africa (MOARD,2007)

Both live animal and meat export has been increasing rapidly from the earlier low and unstable levels. As a result between 2005 and 2012 meat and live animal exports from Ethiopia increased in volume and revenue. From a base of \$18.5 million in meat export in 2005/06, the country reached \$166 million in live animal export and \$74 million in meat export in 2012/13 (EMDIDI, 2014).

Ethiopia, like most of the countries in sub-Saharan Africa, is heavily dependent on agriculture. The agriculture sector plays an important role in the overall development of the country's economy. The sector plays a major role in the national economy and it is the source of income and employment for the rural population. Ethiopia is the largest livestock producer in Africa and ranks eighth in livestock ownership in the world. According to the Central Statistics Authority Sample survey (CSA) of 2010/2011, Ethiopia had 53.4 heads of cattle, 25.5 million heads of sheep, 22.78 million heads of goats and 2.5 million heads of camel.

The importance of agriculture to the Ethiopia economy is enormous. It contributes for about 47% of GDP, 90% of export earnings, and employs 88% of the total labor force. Livestock is central to the Ethiopian economy, contributing 20% of the GDP, supporting the livelihoods of 70% of the population and generating about 11% of annual export earnings. Meat production is the most important function of these animals in the country. There is high demand for live animals as well as meat from small ruminants by consumers in the Middle East and North and West African countries. There is also a high domestic demand for small ruminant meat, particularly during religious festivals. The country has been earnings foreign currency by exporting meat(mainly chilled shoats' carcass) and live animals namely cattle, sheep, camels and goats to major destination markets of united Arab Emirates(UAE) and kingdom of Saudi Arabia(KSA), Yemen and Egypt. Given the large porous border, a large amount of cross- border exports also go un-recorded. Therefore, the official estimates of foreign exchange earnings do not necessarily reflect the actual volume of exports. As the country has the largest number of livestock in Africa, Ethiopia has much to gain from the growing global markets for livestock products (SPS-LMM, 2010).

1.2. Statement of the Problem

The livestock sector in Ethiopia is unique in that there has been limited direct Government intervention in the sub-sector, instead with the government playing a facilitation role through the provision of land and other incentives. As result, many private investors now are engaged in meat as well as live animal export trade. In addition, export-oriented meat processing facilities have started to emerge around the country and revenue from meat export trade, primarily shoat carcasses, is on the rise. As part of its overall economic development plan, and in line with a need to improve foreign exchange earnings, the government has established the five year Growth and Transformation Plan (GTP) 2010/11-2014/2015 and expected to raise the 10,000 ton annual meat production to 111,000 ton at the fifth year of the GTP and it is planned to get 1 billion dollars from the exports of meat and live animals. The overwhelming majority of this increase will need to be achieved through the export of beef, chilled meat products, and to be competitive in the industry (MOARD, 2009).

One of the major challenges facing the meat export abattoirs has been that the competitiveness of these firms in the domestic and export markets has been limited by the underutilization of their meat processing capacities. It has been observed that the live animals supply is inadequate and as a result the existing meat processing facilities at less than 50% of their operational capacities (EMDIDI, 2013).

According to (Tam consult, 2008) desk report the other challenges on the meat export industry is due largely to low productivity and the prevalence of livestock diseases. The livestock diseases commonly encountered that are economically important to livestock production include Foot and Mouth, CBPP, Anaplasmosis, Enterotoxaemia, Lumpy-skin diseases and Hemorrhagic Septicaemia. Other diseases, such as Black leg and Anthrax, occur sporadically. Liver flukes and gastro-intestinal worms (example tape worms). According to (Status of animal Health services in Ethiopia, 2006). The diseases that cattle in feed lot commonly contact include, BRD (Bovine Respiratory Diseases) caused by *Mannheimiahaemolytica*, *Pasteurellamultocida*, and *Haemophilussomnus*. Furthermore,

the pastoral nature of production makes the creation of diseases – free zones problematic; indeed, government policy has shifted away from this concept.

The other major challenges in the Export meat Abattoirs are the length of market. That is it starts from producers to cooperatives live animals value chain actors.

Producers: - the largest share of meat and live animals for export are produced by low land pastoralists: they account for 90% of all such production in Ethiopia, however; there is a growing share of high land animals entering the export supply chain.

Producers rear cattle, sheep's, and camel, in order of importance. They often located in rural areas where access to market and infrastructure is insufficient. Market and pricing information is difficult and often impossible to come by. Hence pricing received by the producers, when they go to market, is either the previous week's price or not the best price they would obtain if they had access to better and more timely information. (ILRI, 2011).

Collectors: - these important markets agents collect animals, usually from remote locations and gather animals to the producer areas where watering points are found. They are usually constrained by financial capacity that limits their operations. They may operate as Agents for exporters and traders usually on a fixed- fee or commission basis. (ILRI, 2011).

Feedlots: - the feed lots or fattening operations include small scale private feed lots. Feed lots are primarily located in and around urban areas. (ILRI, 2011).

Traders:-there are both animal's traders buying on average 100 animals per week and small traders (buying on average 15 animals per week) in the market. The small traders lack access to the detailed market information that large traders possess, thus creating a situation where the small traders do not have accurate market information which further compounds the problem of limited market information. (ILRI,2011).

Cooperatives: - Most of the livestock co-operatives operate in the shoats market because of the low financial requirement of shoats compared with cattle and camel. The cooperative do not have an equal level of business skills, most of them lack

entrepreneurial skills required to compete in the market with individual traders. (ILRI,2011).

There are various observed problems faced by the meat export Abattoirs. Some Of them will be illustrated as follow:

Both Quality and Quantity of livestock will the major problems observed in the livestock market. Diseases will be the other major problems that will hinder the Quality of livestock's, Distance will also other main factor and there will also no enough standardized market place who both the traders and the buyers meet.

I select these two export abattoirs because Elfora was established in 1983 E.c and Luna Export Abattoirs was established in 1998 E.c. so, that we can compare these two old and young Export abattoirs respectively. They also a good potential for export chilled, Caracas and other meat by products to generate high income and also these two export abattoirs highly operates there activity by using technology, they have also well trained employs.

1.3. Research Questions

Some of the research questions raised in this paper are:

Does competitiveness both in domestic and abroad can affect the performance of Elfora and Luna export abattoirs?

Does low productivity of the export Abattoirs can affect the performance?

Does the prevalence of livestock diseases can affect the performance of producers, Animal suppliers and export abattoirs in case of Luna and Elfora?

Does the length of market can hinder the performance of producers, Animal suppliers and Export abattoirs?

Does the quality of livestock's can affect the performance of producers, Animal suppliers and Export abattoirs?

Does the quantity of livestock's can affect the performance of producers, Animal suppliers and Export abattoirs?

1.4. Objectives of the Study

1.4.1. General Objective

The general objective of this study will be to identify the determinant factors that influence the Ethiopian meat export market along the value-chain in case of Elfora and Luna export abattoirs.

1.4.2. Specific Objectives

The specific objectives of the study are:

- To identify factors that affect the performance of export abattoirs on the export meat industry in the case of Luna and Elfora;
- To assess the factors that affect the performance of these two export abattoirs to operate on full capacity; and
- To assess major opportunities and challenges in Ethiopia meat export industry

1.5. Research Hypothesis

This study hypothesized factors that affect value chain of meat export abattoirs in case of Elfora & Luna and those factors are empirically tested and these empirical studies are illustrated in the review of the related literature.

- H1: Distance won't have a positive effect on value-chain of Ethiopian export abattoirs in case of Elfora and Luna.
- H2: Continuity of supply won't have a negative effect on Value chain of Ethiopian export abattoirs in the case of Elfora and Luna.
- H3: Market promotion and expansion will Not have a negative effect on value chain of the Ethiopian meat export abattoirs in case of Luna and Elfora

- H4: Animal diseases will not have a positive effect on value chain of the Ethiopian meat export abattoirs in case of Luna and Elfora.
- H5: Transportation and Logistics will not have a negative effect on value chain of the Ethiopian meat export abattoirs in case of Luna and Elfora
- H6: Prices will not have a positive effect on value chain of the Ethiopian meat export abattoirs in case of Luna and Elfora
- H7: Volume won't have a negative effect on Value chain of Ethiopian export abattoirs in the case of Elfora and Luna.
- H8: Quality won't have a negative effect on Value chain of Ethiopian export abattoirs in the case of Elfora and Luna.

1.6. Definition of Terms

Distance= is a numerical description of how far apart objects are.

Sustainability= is the ability to be supported, upheld, or confirmed

Value-Addition= is the process of changing or transforming a product from its original state to a more valuable state.

Market promotion= is refers to raising customer awareness of a product or brand, generating sales, and creating brand loyalty.

Expansion= is the increase of something in size, number, or importance.

1.7. Significance of the Study

There was limited formal study which understands with formal methodologies on the value chain of Ethiopian meat export abattoirs in case of Luna and Elfora. The main reason for these was because the research was a case study that focused on Luna and Elfora Export abattoirs and these was not totally reflect other meat export abattoirs and it needs further research on these sector not only the Export abattoirs but also samples that were taken from the producers(farmers) not reflect the whole producers which was found in Ethiopia and there was about sixty Animal suppliers found in Ethiopia but for this research we only took twelve (12) animal suppliers.

This study was undertaken to point out factors influencing animal producers, animal suppliers and the value-chain of export abattoirs on the export meat industry. Identification of factors that affect value-chain of meat export abattoirs on the export market will help experts for informed intervention and it will also help them to devise alternative strategies that can increase value-chain and address all the problems in the sector so as to earn higher foreign exchange. The study results are expected to provide valuable and informative information on the meat export market to the responsible organization, decision and policy makers that deal with promotion and regulation of the sub-sector. Consequently, it is hoped that the output of this study will contribute to an in-depth understanding of the performance of Ethiopian export abattoirs in terms of efficiency, problems and opportunities in operation by identifying lessons from positive- and less positive-experience from the sector that can be built upon. The study result might also initiate other researchers to conduct different research works from different perspectives, which may contribute for strengthening of the value-chain of the two export abattoirs in the meat market.

1.8. Delimitation/Scope of the Study

The research will concentrate on the two Export abattoirs and the sector is vast and to be specific. In particular, it considered only Export abattoirs who own state of the art slaughter houses with livestock reception pens, automatic and semi-automatic mechanical abattoirs, chilling rooms and deboning facilities, rendering and effluent treatment plant. Moreover, the study did not considered the whole meat export abattoirs in Ethiopia, but only Luna and Elfora value- chain which encompass input delivery production and management, transportation, processing and packaging, Exporting and consumption by the end users.

1.9. Organization of the study

This research paper was organized in to five chapters. The first chapter, the introduction part, includes: background of the study that includes statement of the problem, research questions, objectives of the study, research hypothesis, Definition of terms, significance

of the study, and scope of the study as well as organization of the study. The second chapter deals with Literature Review. The third chapter had Methodology of the study. The fourth chapter is dedicated to demonstrate data presentation, Analysis and findings, while the fifth chapter contains conclusions and recommendation

CHAPTER-TWO

Review of the Related Literature

2.1. Introduction

Basically, a value chain describes the range of activities from the producer to the consumer. In its analysis, it is broken into networks of activities controlled by categories of functionaries and distinguishes the stages in the supply process and support services to accomplish the tasks. Various dimensions will be analyzed in the chain:

Input-output structure and geographical coverage and by analyzing the value added in the chain, the level of economic rent can be stabilized. In livestock marketing, the chains have a wide geographic coverage and margins vary by regions.

Institutional frame work which identifies key players in the livestock sub-sector. These includes producers, assemblers, middlemen, traders, brokers, transporters, providers of services (regional offices, veterinaries department and other governmental agencies) and consumers. Analysis of the Value Chain The promise and potential of the Ethiopian livestock value chain will become a thriving industry that can produce packaged meats destined for Middle Eastern, European and East African markets. To reach this level of growth and development, operators and investors along the value chain might consider how to improve the quality and value of meat exports by establishing a standardized grading system for meat and live animals; encouraging more supply into the abattoirs to increase capacity utilization thereby lowering costs, improving cost competitiveness and providing more raw material for leather producers; and introducing proper and improved feeding, fattening, animal health care and other services while encouraging foreign and domestic investment at all points along the value chain. Under this analysis the actual value chain map for the meat processing industry, economic analysis as well as analysis of opportunities and constraints will be done. Then after strategic analysis based on business model canvas will be done followed by identification of fields of investment or intervention areas for other development partners Consumption for consideration into relevant projects and routine services for members operating within this sector.

2.2. Theoretical Review

2.2.1 Meat livestock Actors

Most of the export abattoirs like Elfora and Luna and live animals exporters collect animals either through their own purchasing agents assigned in major livestock markets or through other small and large scale traders. Sometimes livestock trading cooperatives are also directly supplying animals to the exporters. Exporters purchasing agents in turn collect animals either from collectors, small traders, livestock trading cooperatives, farmer groups or directly from producers. Producers have the option of selling their animals to the collectors in their village, small traders, and livestock trading cooperatives or directly to the exporters. Some farmers also form groups and supply animals to the market (Getachewet, 2008).

Producers

The producers of live animal especially goat and sheep for meat export are found in the lowland areas such as low lands of oromia, Afar, Somalia and south Omo. The marketing behaviors of producers varies from place to place. Pastoralists consider larger herd size as symbols of prestige. Sales of live animals are taken as a last resort and animals are generally sold when the producers face financial shortage and drought. When there is rain fall/ summer season, there is shortage of live animal in the market due to over flooding of rivers and road problem. In addition, the pastoralists want to reproduce their animals in order to increase their animal wealth (Adugnaw, 2009).

Live animals traders

The live animals suppliers/agents (especially sheep and goat) might be mostly found in Metehara, Borena and Afar. They buy live animals either directly from the farmers' /producers/ pastoralists or buy from other traders at different village markets. The process of supplying the live animals to companies passes through different channels. These are:

The agent directly buys from the producers/pastoralists at the open markets held around their villages and transport to his/her staying center by Isuzu or on foot (Adugnaw, 2009).

The agent also buys from other small traders/collectors who buy either from the producers/ pastoralists directly or from primary, secondary, and tertiary markets. In this case, more than one, two, three or even four traders/ middlemen may participate in live animals trading before the agent's forwards the animals to the abattoirs. The term small trader refers the amount of live animals he/she can buy directly from the producers and resell to other traders or the agent/ supplier to the abattoirs with marginal profit.

The agent keeps the live animals/sheep and goat he/she bought from the traders or directly from the producers. In the producers in his/her feedlot for three day to rehabilitate- and transports them to the abattoir by Isuzu. The agents buy sheep and goats either by visual guess or by weighing them using balance. But, the abattoirs buys the animals by weighing them using balance. The live weight of sheep and goats, on average, ranges from 14Kg to 30Kg (Adugnaw, 2009).

Animal feed suppliers

There are different millers which supply animal feed for the fattening centers and abattoirs. Most of the time the abattoirs use grass only for the animals, because they keep their animals for the maximum of three days in the abattoirs compound. The abattoirs get grass from selale, sululta and sendafa (Adugnaw, 2009).

Export abattoirs

Among the existing nine export abattoirs, only 8 are currently functional including Luna and Elfora. All of the existing abattoirs have facilities for sheep and goats, but facilities for cattle are limited in all of the abattoirs and none of the export abattoirs are currently exporting beef. These abattoirs get their animals supplied by traders or through their agents. When the demand is high and supplies are limited from their usual sources, some of them buy animals from big traders at their factory gate. Upon arrival animals undergo physical examination and are rested for two to three days in a holding area where they

receive feed and water. Before slaughtering, they are held in lairage for 12 to 24 hours with access to water but not feed. During their stay in the lairage, animals undergo ante mortem or pre slaughter examination. Animals that pass the examination are slaughtered using the Halal procedure (Adugnaw, 2009).

Afterward the carcass is chilled at -2 to 2 degree Celsius for 24 hours. In most cases slaughtering is done when abattoirs receive orders from their consumers. The only processing that local abattoirs do is putting the carcass in stock net for shipping. Depending on demand and availability of freight, carcasses are loaded on to trucks fitted with coolers and transported to the airport. Both Luna and Elfora export abattoirs have their own trucks which they use for transporting. Upon arrival at the airport, the chilled carcasses are transferred to cold stores and held there until loaded onto the air plane shortly before the flight time. Both export abattoirs (Luna and Elfora) have networks in destination markets through which they sell their product (Adugnaw, 2009).

The export abattoirs currently in operation are operating below their capacity (57-75%) due to the shortage of export quality animals, an issue that is frequently raised by abattoirs owners. The 5-year export data analysis signifies that the export abattoirs on average use only 30% of their capacity, which represents only a fraction of their capabilities. There are indeed some paradoxes with regarded to supply shortage of livestock. On one hand pastoralists are complaining of lack of buyers for their livestock and on other hand abattoirs and live animals exporters raise the issues of shortage of animals frequently (EMDIDI, 2014).

The below-capacity operation of export abattoirs is not only emanated from the supply side problem, but also due to complex problems from the abattoirs side. These stakeholders frequently point out the problems of aligning the fluctuating supply with the often unpredictable demand requirements which poses a major constraint to growth. Additionally, abattoirs frequently raise their inability to consistently source high quality animals, as there is a lack of sustainable livestock supply. The inconsistent supply of livestock to market is attributed to the notably nonmarket orientation of the other constraint to operations of abattoirs are the poor road and market infrastructures, which

inhibit the ability to transport stock quickly and efficiency across the country (Getachew L.etal,2008).

The above mentioned functional export abattoirs are engaged in the export of chilled mutton, cattle and camel meat mainly to Gulf countries. Meat products in the form of chilled or frozen cattle, sheep and goat carcasses as well as cuts are then exported to Saudi Arabia, the United Arab Emirates and other regional countries such as Yemen, Egypt, Congo-Brazzaville, Djibouti and Cote d'Ivoire. All export abattoirs are accustomed to receiving sheep and goat through their purchasing agents located in strategic areas throughout the region. However as a recently, they have started to purchase these animals directly from large traders at the gate of the abattoirs itself. Some of the export abattoirs namely, Mojo Modern, Organic, Luna, HELIMEX, Abyssinia and Halal already have HACCP and ISO 22000:2005 Luna Certificates. Mean while and Elfora is in the process of implementing Hazard Analysis Critical Control Point(HACCP) and ISO 22000:2005 (EMPEA, 2014).

As reported by different studies, the Djibouti livestock holding facility developed by the Red Sea Livestock commission and United states Agency for International Development (USAID) was sold to a Saudi Arabian livestock importer. The impact of this sale is not clearly known at this time, but it is speculated that there might be added regulations in animals entering and existing the facility to the Gulf markets. Saudi livestock traders have been setting up their operations not in Djibouti but also Sudan. Finally, there is the concern of countries such as Australia, New Zealand, India, and Brazil that will continue to put pressure on price margins for livestock and meat sales, which is to the apparent determinant of Ethiopian meat exporters (USAID, 2012).

Luna and Elfora export abattoirs sell both meat and by-products. Contrary to the approach taken by abattoirs elsewhere, the abattoirs try to sell as much of the byproducts as they can because it is by selling the by-product of the animals-hides, skins,blood, intestines, organs, etc that they make enough money to break even. Consistently selling the meat into the market is the road to profitability for the abattoirs in both Luna and Elfora even for abattoirs in Ethiopia (EMPEA, 2014).

In Ethiopia, some of the by-products are being exported; however, there is an active domestic market for by-products as well. These includes gastro intestinal tract (GIT), liver, Kidney and lung. Of these products the lung is usually sold as a pet food (cat) and other products are used in some dishes preferred by consumers in the market. Some export abattoirs have recently started exporting by-products like kidney, brain and intestines. There seems to be a prospect for expanding the export of by-products as new markets for these products are appearing. Two by-products processing plants which are located in Dukem (Turkish company) and Debre Zeit (Chinese company) process intestines and other GIT products and export to various countries including Vietnam, china, Turkey and the Gulf states. It is notable that the cost of these by-products has increased to 10ETB per Kg, up from just 2ETB/Kg only two years ago (Getachewet. al. 2008).

2.2.2. Live Animals Value Chain Mark-Up with Broker Involvement

Average Prices for Cattle

1. Producers (6500ETB/H)
 ↓
2. Broker (100ETB/H)
 ↓
3. Small Traders (6600ETB/H)
 ↓
4. Broker (400ETB/H)

 ↓
5. Big traders (6900 ETB/H)
 ↓
6. Broker (450ETB/H)
 ↓
7. Feed lot operators or slaughter house (7350ETB/H)

Source, LMD Research, 2003

2.3. Empirical Review

Three pertinent research findings will be reviewed that had been conducted in Malawi, Botswana and Ethiopia.

The first research attempted to identify value chain Analysis of Beef in central and Southern Malawi and the study conducted by Joseph Dzanja 1, Prince Kapondamgaga 2 and Hardwick Tchale 3 (International Journal of Business and Social science, 2013).

Most of Malawi's beef production comes from the small holder cattle population estimated about 900,000 in 2008. Malawi's consumption of beef and other livestock-based commodities is low compared to regional and international standards. The share of beef on the total meat supply has declined from 45% in 1996 to about 20% in 2007, being surpassed by the proportion of chicken and pig meat.

The result of the study displayed Malawi's beef value chain comprises a number of key stake holders such as breeding, veterinary, feed manufacturers and input suppliers that form the primary layer of stakeholders. This chain pretty much mirrors the Malawi's scenario.

The second research also attempted to identify beef value chain findings, strategy and proposed interventions in Botswana and the study conducted by Pablo Lo Moro, Subhrendu Chatterji, Agapitos Hatzipetros, Stephan Ghanie and Christopher Tsopito (PEER Review Drafts, 2014)

In 2013, the global beef export market was estimated at us\$42.4 billion, divided broadly equally between fresh or chilled, and frozen beef. Botswana is relatively small exporter of beef in the global context. In 2013, its total beef exports were us\$116.6 million, representing a world export markets share of 0.3%. Botswana was ranked 22nd and 28th in the world in the export of frozen and chilled beef, respectively.

The third research attempted to identify beef cattle value chain in Ethiopia and the study conducted by Harko Halala (Industrial Engineering Letters, vol.5, No.7, 2015).

Ethiopia, like most of the countries in sub-Saharan Africa, is heavily dependent on Agriculture. Ethiopia’s livestock population is the largest in Africa. In 2008/09, Ethiopia sedentary private holdings were estimated at about 49 million heads of cattle, 25 million heads of sheep, 22 million heads of goats and 38 million poultry (CSA, 2009).

According , to the findings in this study between 1995/96 and 2005/06, the livestock sub-sector’s share averaged 24 percent of agricultural GDP and 11 percent of national GDP, with the highest shares recorded at 27 percent and 13 percent respectively.

Table 2.1 Export of meat from Ethiopia

	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012
Volume (metric tons)	5,850	6,487	7,468	10,183	16,877	17,666
Revenues(millions USD)	15.4	20.9	26.6	34	63.2	78.7

Source: LMD Research, 2013.

The researcher also point out that in developing a commercial livestock sector is to shorten the time from farm to Abattoirs and to make more use of commercial fattening services. Ideally, the animal’s progression from birth to arrival at the abattoirs would be 24 months.

2.3.1 Global Meat Demand

The world demand for beef has been on the rise. For the periods of 2005 to 2015 global demand will continue to grow, but at a decreasing rate. Meat consumption in 2015 is expected to reach 316 million metric tons (mmt), given an expected 2 percent growth per year. The world meat export market was worth USD 113 billion in 2012 (WTC). For the past five years it has shown an average growth rate of 5%, despite the fact that the meat

sector has had to adjust to the supply and demand imbalances in the feed sector for the past three years. The world price of beef is expected to decline from its high of \$350 per 100Kg in 2005 to around \$280 per 100Kg in 2015. In the atmosphere of falling future real prices of beef, it will be important that there be an emphasis on developing viable commercial industries. The risk of animal disease outbreaks will continue to create added uncertainty in the beef market. Below is the world meat export for the past five years (UN COMTRADE, 2013).

The global market for beef is driven by the increase in house hold incomes, population growth and urbanization. These factors have a positive impact on the growth of consumption of beef in the target markets. Over the past 10 years, worldwide meat consumption patterns have changed dramatically. Recent data shows that global meat consumption has grown significantly. Such continuous growth of global meat consumption is attributed mainly the increase in human population and personal disposable income.

In 2010, global meat per-capita consumption was 33.7 Kgs (OECD, 2013), with the developed countries consuming 65Kg and the developing countries consuming 25.9 Kg on average. According to OECD, the global consumption per capita is estimated to reach 35.8 in 2022, with an average consumption of 67.8 Kg for developed countries and 28.6 Kg in developing countries. Government regulations, changing lifestyles, incomes and attitudes about the relationship of meat consumption to health are among the factors reshaping worldwide demand. According to OECD report, world consumption of meat is projected to increase from 292 thousand MT in 2013 to 327 thousands MT in 2018.

Table 2.2 Empirical Projection of world consumption of meat in thousands tons

Worldwide consumption	2010-12 (Average)	2013	2014	2015	2016	2017	2018
Beef and veal							
production	66,891	67,212	67,955	68,934	70,066	71,180	72,438
consumption	66,404	67,071	67,744	68,726	69,830	70,947	72,220
Pig and poultry							
Production	213,050	220,207	224,482	229,088	233,534	237,221	241,173
consumption	212,588	219,801	224,055	228,648	233,085	236,790	240,747
Sheep meat							
Production	13,854	14,102	14,331	14,332	14,620	14,683	14,952
consumption	13,804	14,084	14,316	14,315	14,607	14,670	14,939
Total	292,796	300,956	306,115	311,689	317,522	322,407	327,906
Per- capita consumption	33.7	33.9	34.1	34.4	34.6	34.8	35.1

Source: OECD, 2014

2.3.2. Ethiopian Livestock and Meat Supply

Ethiopia holds the largest livestock population in Africa, estimated at about 53.9 million heads of cattle, 25.5 million sheep, 24 million goats, 6.6 million donkeys, 2.6 million horses, 0.4 million mule, 0.9 million camels, 0.05 million chicken and 5.1 million beehives. Similarly, the income contribution of the livestock sector to pastoral communities is up to 87%. In fact the subsistence of some of these pastoral communities is entirely dependent upon livestock and livestock products (CSA,2012/13).

The total population of livestock reached 104.5 million in the year 2012/13, which represents an increase of 5% from the previous year. The share of cattle, sheep, goat and camel for the same period is 52%, 24%, 23% and 0.09% respectively. With this high

population of livestock, the country stood first in Africa and ninth in the world. In spite of the contribution of livestock to the economy and to smallholders' livelihood, the production system is not adequately market-oriented (CSA, 2012/13).

There is small evidence of strategic production of livestock for market oriented purposes except in the case of targeted sales during traditional Ethiopian festivals. The primary reason for selling livestock is to generate income to meet expenses. The sale of live animals is considered a last resort measure and large ruminants are generally sold when they are old, culled, or barren. In the highlands, large numbers of cattle are kept to supply draft power for crop production whereas prestige and social security are the predominant factors in the lowland pastoral areas (CSA, 2012/13).

Realizing the untapped livestock resource with a wide range of breed and huge demand for the products in the Middle East and African countries, Jenna International Venture PLC is planning to invest in the livestock sub sector by establishing cattle fattening ranches and slaughtering houses. The company will be mainly engaged on meat export for foreign market as well as meeting the demand of the local market through producing various types of hygienic and quality fresh meat (CSA, 2012/13).

2.3.3. Ethiopian Meat Production (Supply)

Meat production is gauged by mix of livestock population, productivity, and age, sex of the animals and off take rates. Based on cattle, sheep, goats and camel off take rates of 10%, 35%, 38% and 6.5% respectively and an estimated carcass weight of 130 Kg for cattle, 10 Kg for shoats and 200 Kg for camels, the annual meat production of Ethiopia is estimated at 0.58 million ton. Beef production accounts for 70%, goat meat for 15%, sheep meat for 12% and camel meat for 3% of the total country's meat output (FAO, 2014).

Table 2.3 Ethiopian meat production (thousands MT's)

Description	2007	2008	2009	2010	2011	%
Cattle meat	363	380	390	400	412	70%
Camel meat	18	22	22	20	20	3%
Goat meat	65	65	65	66	68	12%
Sheep meat	85	82	85	86	85	15%
Total	530	549	563	572	585	100%

Source: FAO, 2014

2.3.4. Ethiopian Meat Export

In the last five to ten years, processed meat export is becoming an important industry and as a result total meat exports increased greatly. Ethiopia earned \$93.801 million USD during 2014/15 by exporting meat to different countries especially to the gulf countries (FAO, 2014).

The United Arab Emirates is a leading importer of meat, purchasing 57% of the total meat exported: next is the Kingdom of Saudi Arabia, which accounts for 30% of the exports and finally Angola with 5% of the exports (ERCA, 2013/14).

Table 2.4 Major Ethiopian Meat Importing Countries

Major importing countries	% shares
Saudi Arabia	30%
UAE	57%
Angola	5%
Egypt	2%
Bahrain and others	6%
Rest of the world	4%

Source: ERCA, 2013/14

2.3.4.1. Target Market and Export Market Competition

The main destination of Ethiopian livestock and meat are the Gulf States. The rapid growth in the food service industry in the Gulf, particularly for hotels, is widely recognized as a major opportunity for meat exports. The GCC countries are considering adopting a common food standard. They impose common trade bans and have other similar requirements, such as the requirement that meat imports be accompanied by a Halal Slaughtering Certificates issued by an Islamic organization (UN COMTRADE).

Despite the challenges of repeated trade bans, the Gulf States and Egypt are currently the primary targets for Ethiopian livestock and meat. Faced with competition from Australia, New Zealand, Brazil, India and Pakistan, Ethiopian meat is traded at the lower price end of the market in these countries. The market in the export destinations is segmented according to incomes; higher income individuals prefer fresh meat, while the lower-income segment (usually low-income expatriates) opts for low-cost meats that are usually frozen. This is therefore the segment of the population that consumes chilled Ethiopian shoat carcasses (UN COMTRADE).

Ethiopia's livestock sector's growth and future prosperity is closely linked to the slaughter houses' ability to seize opportunities arising from changing global economies through forging long-term and meaningful relationships with key international partners, including the Gulf Cooperation Council (GCC) countries, also known as the cooperation council for the Arab States of the Gulf (CCASG). These countries include: the United Arab Emirates (UAE), the Kingdom of Saudi Arabia (KSA), Qatar, Oman, Kuwait and Bahrain. GCC countries will be the major markets for Ethiopian livestock and some of the significant prospects of the region are as follow:

Continued economic growth coupled by an increase in sovereign and private wealth relative to other parts of the world. Countries such as Qatar having the highest GDP per capita in the world at \$102,000 and the world's fastest GDP growth rate.

Increased focus on diversifying their economies and integrating into the global economy. The GCC countries are actively investing in skilled services and creative industries in order to prepare for a future that is less reliant on oil and natural gas reserves.

Strong population growth driving increased consumption and as a result growing demand for imported goods and services. GCC countries import 90% of their food products to meet their own needs and to re-export to other parts of the Middle East, North Africa, Central Asia and the Indian sub-continent. As the Middle Eastern and North African (MENA) population alone are expected to reach 700 million by 2050, demand for high-quality food imports are predicted to soar, furthermore reiterating the importance of the GCC as a trade hub for the region.

Table 2.5 GCC population in millions (2011-2025)

country	Total population 2011	Percentage of Expatriate population	Expatriate population 2010	Projected population 2025	Annual Increase
Saudi Arabia	27.9	27.8%	7.8	36	1.8
UAE	7.9	70%	5.5	9.9	1.2
Kuwait	2.8	68.8%	1.9	3.7	1.6
Qatar	1.7	86.5%	1.5	2.1	1
Bahrain	1.3	39.1%	0.5	1.7	1.3
Oman	3	28.4%	0.9	3.9	1.7
GCC Total	44.6	40.5%	18	57.3	Average annual increase =1.4

The countries in the Middle Eastern region have unique political, religious, cultural and social systems and this has allowed for recognized trade blocs, specifically within the GCC. The GCC currently imports 80% of Ethiopian livestock. The first category of end markets for Ethiopian meat/ livestock export includes GCC, Yemen and Egypt. The Kingdom of Saudi Arabia is the largest economy in the GCC and the Middle East as well. It is the world's largest oil producer and holds around 20% of the world's oil reserves. Riyadh hosts the headquarters of the GCC trade bloc. Jeddah, located on the eastern coast of the Red Sea, is Saudi Arabia's commercial capital and serves as a key entry point to the rest of the Arabian Peninsula (UN COMTRADE).

The Saudi population has more than tripled over the past 34 years, with a population growth rate among the highest in the world. The country's population is more than 27 million, of which 18.7 million are Saudi Arabia citizens and the remainder are expatriates. The ministry of Economy and Planning's "Long Term Strategy for the Saudi Economy" outlines the Government's vision to capitalize on its oil wealth and manage its growing population for a sustainable economic future. Areas of focus include improved skills and education, infrastructure development, supporting the development of the private sector and undertaking public sector and undertaking public sector reforms to better encourage business and investment (UN COMTRADE).

2.4. Conceptual Framework

The two export abattoirs utilized inputs and exercised improved agricultural technologies to bring about a boost in export production through being involved in extension packages. The production, however, could not be as high as expected. Moreover, there are significant variations in productivity among the two export abattoirs, through technologies could be exercised in similar industry.

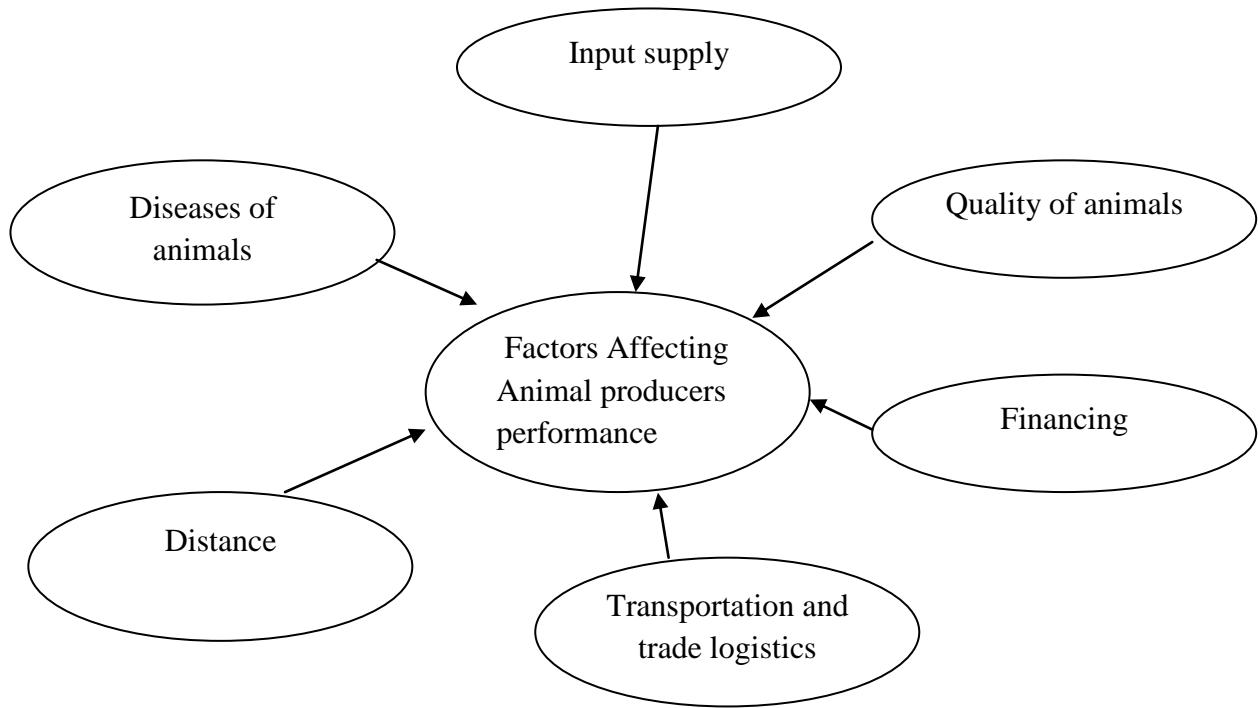
This study, therefore, efforts was made to identify those factors that affect the value chain of the two export abattoirs. Accordingly, the conceptual frame work was designed from the hypothesis of the research which in turn is conceptualized from literatures, practical experience and field observations.

In the conceptual frame work different factors supposed to influence the animal producers in meat export abattoirs value chains. Particularly, those related to Distance, Quality of live stock and Quantity of livestock's, institutional variables like technical issues expertise skills were considers.

In the conceptual frame work different factors supposed to influence the export abattoirs in the value chain of the meat export abattoirs. Particularly, those related to output, export products, competition at global level, International price fluctuation responses and sources of money was considers and factors like input supply, financing, transportation and trade logistics, major factors which contributed to enhance performance and major factors attributes to the poor performance was considered in animal suppliers.

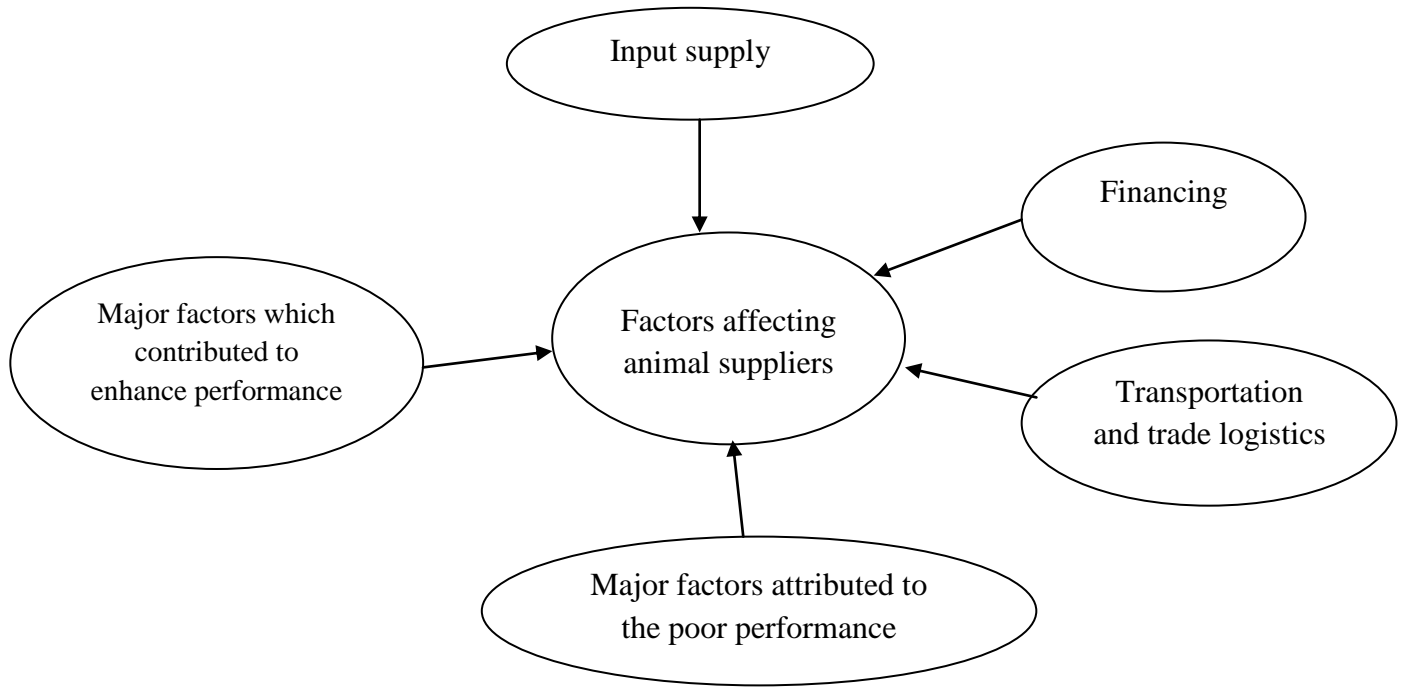
The conceptual frame work was emphasizes mainly on the relationship of Dependent with independent variables.

Graph 1: Factors Affecting Animal producers' performance



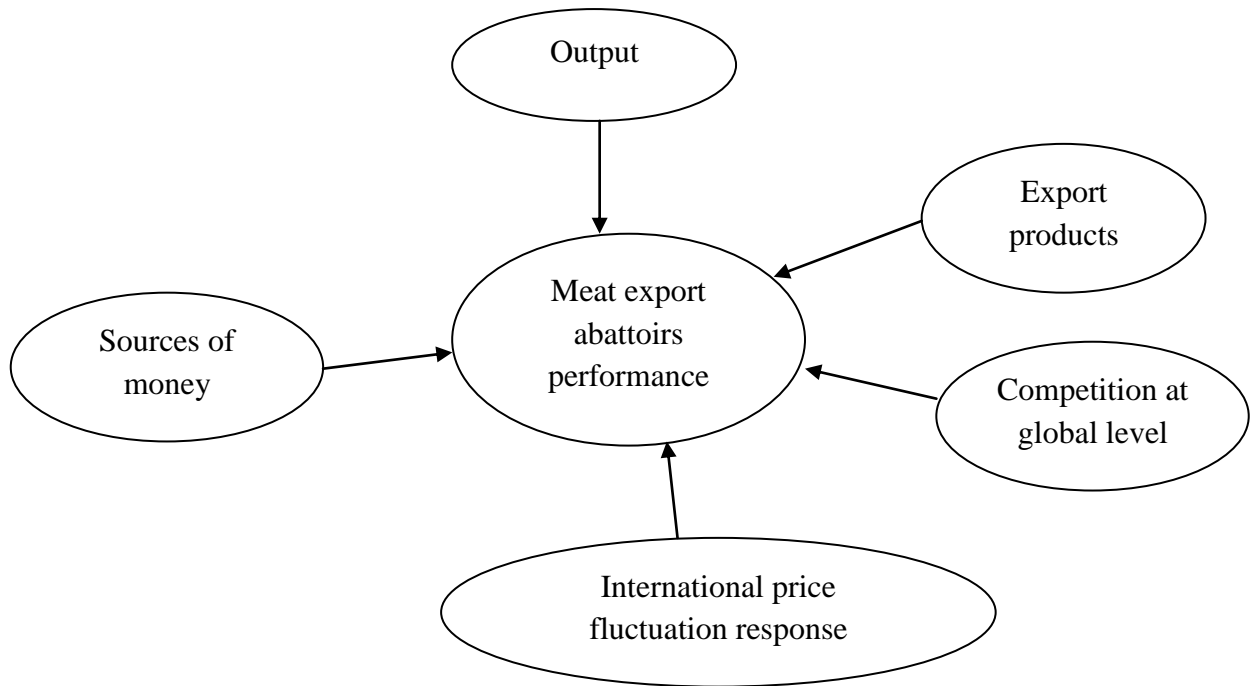
Source: Own computation, 2017

Graph 2: Factors Affecting Animal Suppliers Performance



Source: Own computation, 2017

Graph 3: Factors Affecting Meat Export Abattoirs Performance



Source: Own computation, 2017

CHAPTER THREE

Research Design and Methodology

3.1. Research design

As indicated in the objective of the study, the very purpose of this research was to identify and examine factors that affect the value chain of meat export abattoirs in the case of Luna and Elfora. Therefore, Descriptive type of research design was used to evaluate the cause and effect relationship between the independent (factors that affects animal producers, animal suppliers and meat export abattoirs) and the dependent variables (the value chain of the export abattoirs).

3.2. Population, Sampling Technique and Sample size

In this study total population was one hundred Animal producers, sixty animal suppliers and two export abattoirs, and simple random sampling techniques were applied for these one hundred Animal producers and sixty animal suppliers and the case study research design was also applied for the two export abattoirs namely, Luna and Elfora. The sample size for animal producers was thirty and for Animal suppliers was twelve.

There are about sixty (60) major animal suppliers for two export abattoirs and twelve (12) suppliers were interviewed by selecting them randomly. key informants from different Actors such as Ministry of Agriculture, Ministry of industry, Ministry of trade, Ethiopian meat and dairy industry development institute, AGP-LMD Ethiopia and Ethiopian meat producers and exporters association who were working directly for the development of the sector were selected and interviewed randomly.

3.3. Types of Data and Tools/Instruments of Data Collection

Both primary and secondary data were used. The primary data were collected from these thirty farmers, two export abattoirs, Key informants and twelve randomly selected suppliers through brokers and producers interviewing them using structured questioners

prepared for the purpose. In addition, primary data was also collected from key informants through group and individual discussions from Ministry of Agriculture, Ministry of industry, Ministry of trade, Ethiopian meat and dairy industry development institute, AGP-LMD Ethiopia and Ethiopian meat producers and exporters association using checklists. These stakeholders are direct relationship with the Ethiopian farmers, animal suppliers and export abattoirs activities.

Field trips were made before the actual survey to observe the overall features of the sector. The questioners pre-tested and its contents were refining on the basis of the results obtained during the pre-test. Primary data was collect in two different ways: structured questioner and distributed to the respondents so that they can fill it by their own and the researcher made discussions with Key informants and actors to gather additional primary information using checklists. Continuous supervision was also be made to reduce error during data collection and to correct possible errors right on the spot.

The Secondary information was data, reports, published and unpublished documents from the two Export abattoirs, Ministry of Agriculture, Ministry of trade, Ministry of industry, Ethiopian meat and dairy industry development institute, AGP-LMD Ethiopia and Ethiopian meat producers and exporters association.

I try to collect the secondary data's from different stakeholders by visiting them. For instance I try to visit Ministry of Agriculture especially Animal resource directorate.

3.4. Data Analysis

Based on the objectives of the study appropriate tools and techniques of analysis such as, Econometrics or inferential analysis (correlation and regression) and Descriptive analysis (such as age, sex, and education) was employed.

For both descriptive and inferential analysis five level likert scale was employed.

3.4.1. Descriptive Analysis

Demographical (such as age, sex, and education) and socio-economic (such as asset and financial capital) conditions of sample respondents and factors affecting value chain

(distance, organic nature of meat, supply, quality and market promotion aspects) analyzed by using descriptive statics like mean, standard deviation and percentage.

3.3.2 Likert Scale and Multiple Regression Model

To measure factors affecting value chain of meat export Abattoirs in case of Luna and Elfora likert scale were used. A Likert scale (Likert,1932) is a popular instrument to measure people’s attitudes, preferences, images, opinions, conceptions, etc., (Gob, Mc Collin, & Ramalhoto, 2007; Wu, 2007. It’s important to distinguish between a Likert scale and a Likert item. The Likert scale is the sum of responses on several Likert items. Because Likert items are often accompanied by a visual analog scale (e.g., a horizontal line, on which a subject indicates his or her response by circling), the items are sometimes called scales themselves.

A Likert item is simply a statement which the respondent is asked to evaluate according to any kind of subjective or objective criteria; generally the level of agreement or disagreement is measured. It is considered symmetric or “balanced” because there are equal numbers of positive and negative positions. Often five ordered response levels are used although many researchers advocate using seven or nine levels; a recent empirical study found that items with five or seven levels may produce slightly higher mean scores relative to the highest possible attainable score, compared to those produced from the use of 10 levels, and this difference was statistically significant.

The format of a typical five-level Likert item which was used for this study could be: 1= strongly disagree, 2= Disagree, 3= I, don’t know, 4= Agree and 5= strongly agree. After the questioner is completed, each item were analyzed separately or in some cases item responses were summed to create a score for a group of items. Hence, Likert scales are often summative scales. Hence, the model which was used in this study was multiple Linear Regression model which can be estimated using Ordinary Least Squares (OLS) METHODS. The models are shown below:

$$Y_i = f(x_i) + U_i \dots \dots \dots (1)$$

Where, Y_i = summative likert scales of the dependent variable which is Value chain

X_i = summative likert scale of independent variables

Then $Y = a + b_1 X_1 + b_2 X_2 + b_3 X_3 + b_4 X_4 + U$

Where;

X_1 = Geographical locations of animal producers to animal suppliers

X_2 = Types of outputs that the Export abattoirs produced and exports

X_3 = Continuity of animal supply throughout the year and Volume required quantity at a time to Export abattoirs

X_4 = the availability of transportation and trade logistics like tracks and other logistics

X_5 = the availability of financial issues like credit facilities from government institutions, credit associations, etc

X_6 = Diseases occurrences in livestock's

X_7 = Quality of animals

Table 3.1 Variables Definitions and Measurement

Variables	Measurement	Expected sign (hypothesis)
Dependent Variable		
Value chain (Y _i)	Summative likert scales value on perceptions of respondents on price and market preference aspects of Ethiopian meat to MENA market	
Independent Variable (X_i)		
Distance	Summative likert scales value on perceptions of respondents on geographical location of Animal producers to Animal suppliers and Ethiopian meat to MENA market	+
Output and Exports	Summative likert scales value on perceptions of respondents on Types of outputs that are exported	+
Input supply	Summative likert scales value on perceptions of respondents on continuity of animal supply throughout the year, volume required quantity at a time, quality (age, weight and dressing percentage to Ethiopian export abattoirs	-
Transportation and trade logistics	Summative linker scales value on perceptions of respondents on availability of transportation modes like Tracks and logistics	-
Financing	Summative linker scales value on perceptions of respondents on availability financial issues like credit facilities from government institutions, credit associations, etc	+
Diseases of animals	Summative likert scales value on perceptions of respondents on diseases occurrence in livestock's.	-
Quality of livestock	Summative linker scales value on perceptions of respondents on Animals quality.	+

CHAPTER FOUR

Results and Discussions

4.1. General Information about Export Abattoirs

Table 4.1 General Information about Export Abattoirs

Indicators	Values	Frequency	Percentage
Age	46-64 years	2	100
Sex	Male	2	100
Education	Master's Degree and above	2	100
	1-5 Years	1	50
	More than 10 Years	1	50
Received any training in international trade topics	Yes	2	100
Faced shortage of inputs	Yes	2	100

Source: Own computation, 2017

As indicated in table 4.1 above, the two export abattoirs are highly educated (Master's Degree and above) and all of them are male. Both export abattoirs top managers were receiving training in international trade topics and these was important for improvement of the companies efficiency and they also faced shortage of inputs like Goats, Sheep's, Cattles, etc. The shortage of inputs occurred mostly illegal traders can enter in the market so that, they can purchase the animals at high price.

4.2. Factors Affecting Meat Export Performance of Export Abattoirs

Table 4.2 Factors affecting meat performance of export abattoirs

Indicators		Frequency	Percentage
Output and Exports			
Fresh Chilled shoat carcass produced and export	Agree	2	100
Frozen shoat carcass produced and export	Agree	2	100
Fresh chilled beef fore quarter produced and export	Agree	2	100
Frozen beef fore beef quarter produced and export	Disagree	2	100
Competition at global level			
High cost of production	Agree	2	100
Low quality of the products	Agree	2	100
Poor demand abroad	I don't know	2	100
Weak marketing strategy	I don't know	2	100
Low cost of production	Disagree	2	100
Strong Marketing strategy	I don't know	2	100
High quality of products	Disagree	2	100
High demand abroad	I don't know	1	50
	Agree	1	50
International price fluctuation response			
Increase in volume when price increase	Disagree	2	100
Increase in volume when price decrease	Agree	2	100
Decrease in volume when price increase	Agree	2	100
Decrease in volume when price decrease	I don't know	1	50
	Agree	1	50
Sources of money used to in your business			
Relatives and Friends	I don't know	2	100
Credit institutions	I don't know	2	100
Commercial banks	I don't know	2	100

4.2.1. Output and Exports

Both Elfora and Luna export abattoir respondents agree that they produced and exports Fresh Chilled shoat carcass, Frozen shoat carcass and Fresh chilled beef fore quarter. The two respondents agree that the main factors that can affect the performance of the export abattoirs was High cost of production and Low quality of the products because of the prevalence of animal diseases, shortage of medicines for animals at farm level, there was minimum research and development works in order to improve the animal breeds these was because research and development needs much funds. These also make competition at global level was high and strong. Luna meat export abattoirs agree that High demand of meat in MENA market can also affect the performance of export abattoirs these could increase the countries' revenue and the export abattoirs and Elfora meat export abattoir not know that high demand at MENA market can affect the performance of meat export abattoirs.

4.2.2. Competition at Global Level

As indicated above on the table 4.2 the respondents agree that High cost of production and Low quality of the products can make competition at global level become difficult especially at MENA market and the two respondents not know that poor demand abroad and weak marketing strategies can make competition at global level become high and the two respondents not agree that low cost of production can affect performance of the two export abattoirs.

4.2.3. Response of Export Abattoirs for International Meat Price Fluctuation

The study indicated that the meat export was highly dependent on international meat price fluctuations. Thus, the two export abattoirs adopted a strategy for price fluctuations. The two export abattoirs responded by Increase in volume when price decrease and Decrease in volume when price increase and one export abattoir developed the strategy of Decrease export volume for the decrease in the international price.

4.2.4. Sources of Money Used to in Your Business

The study showed that most of the export abattoirs used their own source to undertake the business while the others not dependent on relative credit institutions and Commercial banks. The study also indicated that the two export abattoirs had no access to formal credit due to the reasons like complex application procedures requirements.

4.3. Meat Export Abattoir Performance

Table 4.3 Meat Export Abattoirs Performance

Indicators	Values	Frequency	Percentage
The external factors like competition, price and market promotion can affect the performance of the meat export	Strongly agree	2	100
Above factors strongly affect the value chain of the meat export Abattoir in case of Luna and Elfora	Strongly agree	2	100

Source: Own computation, 2017

As indicated in the table 4.3 above the two Export abattoirs improve their export performance since establishment. The main reasons for improving export performance were improved government policy and administrative support, increased volume and diversified export items, market diversification and enhanced promotion and improved quality. The main factors for not improving the export performance through time were lack of availability of inputs such as livestock and lack of demand in the international market.

4.4. General Information for Animal Producers

4.4.1. General Information about Animal Producers

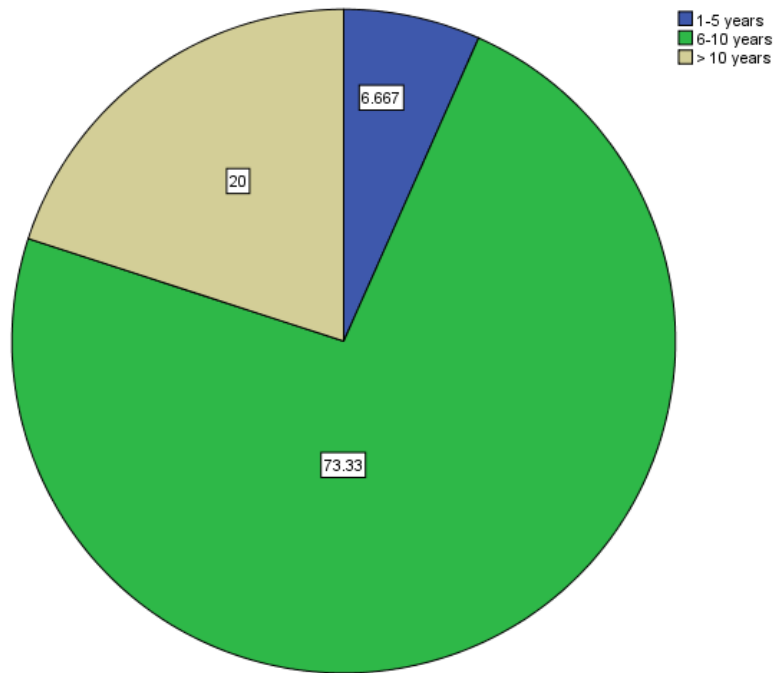
Table 4.4. General information about animal producers

Indicators	Values	Frequency	Percentage
Age	30-45 years	10	73.3
	46-64 years	15	50.0
	> 64 years	5	16.7
Sex	Male	22	73.3
	Female	8	26.7
Education	Primary school	22	73.3
	1-6 Secondary School	7	23.3
	Diploma	1	3.3

Source: Own computation, 2017

As indicated in table 4.4 above, about 73.3% of the producers were at the age of 30-45 years, 50% of the producers were at the age of 46-64 years and only 16.7% were at the age of great than 64 years. Most of the producers were male and about 73.3% of the producers educational background was primary school.

Graph 4: Numbers of Year's Producer at this Business



Source: Own computation, 2017

As indicated in the graph above about 73.33% of the producers engaged in this business 6-10 years, 20% of the producer's were great than 10 years and the rest 6.667% of the producers engaged in this business in between 1-5 years.

4.4.2. Factors Affecting Animal Producers

Table 4.5 Factors affecting animal producers

Measurements	Mean	Std. Deviation
Distance	2.09	0.672
Financing and other facilities	2.06	0.673
Diseases of animals	3.02	0.410
Quality of livestock's	2.75	0.569
Animal producer's performance	4.47	0.414

Source: Own computation, 2017

From the descriptive result of factor affecting animal producers had disagree and common understanding about the distance from the producer to suppliers (Mean =2.09, S.D = 0.672) this had an implication for the animal producers that most of the producers not agree on the factor that had distance had not impact on the performance of animal producers. From the descriptive result of factors affecting animal producers had disagree and common understanding about the financing and other facilities (Mean=2.06, S.D=0.672) and this implies that most producers can operate their business by their own sources of money.

From the descriptive result of factors affecting animal producers had agree and common understanding about the diseases of animals can affect the performance of animal producers (Mean=3.02, S.D=0.410). From the descriptive result factors affecting animal producers had strongly affect the performance of animal producers (Mean=4.47, S.D=0.414).

4.4.2.1. Correlation

Table 4.6 Correlation

	Distance	Financing and other facilities	Diseases of animals	Quality of livestock's
Animal producer's performance	.094	.255	-.063	.476 ^{**}

Source: Own computation,2017

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

Quality of livestock's had strongly and significantly correlated with the performance of animal producers. The first and the most important issues in the performance of animal producers was quality of livestock's.

Diseases of animals had a negative correlation with the performance of animal producers. These indicate that if the prevalence of animal diseases occurs the production and productivity will decrease, these can affect the producers, animal supplies and export abattoirs. If the animals not affected by diseases these indicates the production and productivity of animals increase so that

producers, animal suppliers and Export abattoirs benefit from these and the country can get revenue from these actors.

Distance had a positive correlation with the performance of animal producers but it is insignificant.

From this descriptive analysis we had conclude that distance of the farmers from the suppliers and export abattoirs positively correlated but it was insignificant.

4.4.2.2. Regression Result

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	3.528	.713		4.947	.000
Distance	-.068	.136	-.110	-.500	.622
Financing and other facilities	.139	.141	.225	.981	.336
Diseases of animals	-.026	.183	-.025	-.140	.890
Quality of livestock's	.317	.132	.436	2.396	.024

a. Dependent Variable: Animal producer's performance

Source: Own Computation, 2017

Diseases of animals: It has a negative influence on the performance of animal producers. The main reason for this was the animal producers have no access for animal's diseases medication because of the producers has no enough money to buy the vaccinations, poor support from the government and low expertise or veterinary expertise.

Distance: It has a significant and positive influence on the performance of animal producers. The main reason for this was if Roads are built in good condition, this implies that animal producers can get access to sell their animals directly to the legal buyers. So that, the participation of illegal brokers can be minimized.

Quality of livestock's: It has a significant and positive influence on the performance of animal producers. The main reason for this was if the animals were quality and organic in their nature the producers can get more benefit compared to that of non- quality animals.

4.5. General Information for Animal Traders

4.5.1. General Information for Animal Traders

As indicated in the table 4.7 below, most of animal suppliers in Ethiopia educational backgrounds were at primary school and male.

The importance of the general information about animal traders was to understand their socio-economic background.

Table 4.7 Socio-economic profile of animal suppliers

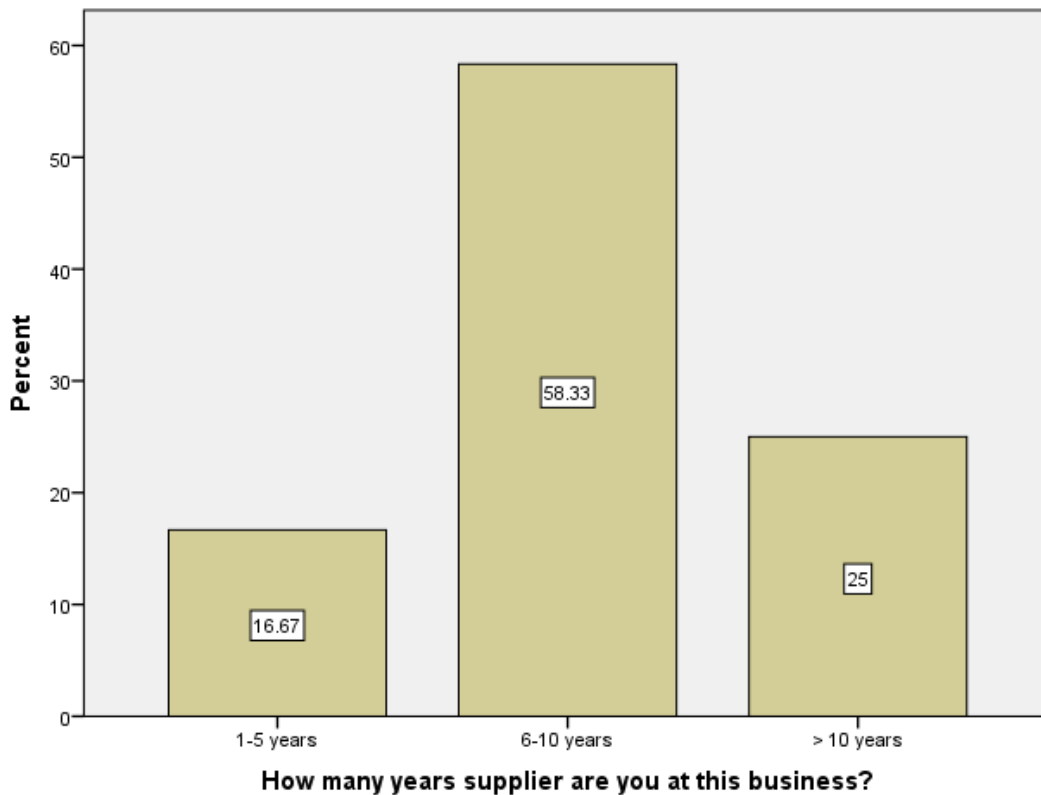
Indicators	Values	Frequency	Percentage
Age	31-45 years	3	25.0
	46-64 years	8	66.7
	> 64 years	1	8.3
Sex	Male	9	75.0
	Female	3	25.0
Education	Primary school	5	41.7
	Secondary School	4	33.3
	Diploma	2	16.7
	First degree	1	8.3
The company faced shortage of animals in the last three years?	Yes	2	100
Input availability and quality a major challenge for the company.	Yes	2	100

Source: Owen computation, 2017

As stated in the table 4.7 above, about 66.7% of animal traders' age was 46-64 years, 25% of the animal suppliers' age was 31-45 years and 8.3% of them were at the age of greater than 64 years. Most (75%) of the animal suppliers were male and 41.7% of their educational background was at primary school.

In the last three years both Elfora and Luna export Abattoirs faced shortage of animals like Goats, sheep's, castles within the home land. The main reason for the shortage of the animals was poor quality animals, prevalence of diseases occurrence in the livestock's and the illegal brokers can make the animals not existed.

Graph 5: Number of year's supplier at this business.



Source: Own computation, 2017

Table 4.8. Mean and Standard deviation for performance of Animal Supplier's

	Mean	Std. Deviation
In put supply	2.58	0.793
Transportation and trade logistics	2.50	0.905
Financing	2.42	0.058
Major factors Attributed to the poor performance	3.58	0.515
Major factors which contributed to enhance performance	3.22	0.687
Animal Supplier's performance	4.00	0.369

Source: Own computation, 2017

From the study in table 4.8 we can conclude that from the descriptive analysis input supply like food for animals, medical services, water and other inputs not agree that can affect the performance of animal suppliers at (Mean=2.58, S.D=0.793) and from the descriptive analysis major factors attributed to the poor performance such as poor support from government and other associations had a positive effect on the performance of animals suppliers at (Mean=3.58, S.D=0.515).

From the descriptive analysis we can conclude that major factors which contributed to enhance the performance like availability of quality animal in the market, increased your selling price to the export abattoirs and improved government policy and administrative had a positive effect on the performance of animals suppliers at (Mean=3.22,S.D=0.687).

Generally, from the descriptive analysis we conclude that the performance of animal's suppliers strongly affected by the variables discussed above like financing, input supply, transportation and trade logistics.

The importance of this general information was in order to know the profile of animal suppliers and to understand export abattoirs challenges.

4.5.2: Factors Affecting Animal suppliers Performance

As indicated in Table 4.10 below, five explanatory variables which were hypothesized to influence the performance of animal suppliers only three variables which were found significant in the multiple linear regression model.

In put supply: It has affected the performance of animal suppliers significantly and positively. The main reason for this was the existence of live animals throughout the year to the export abattoirs. But these inputs like animals were not enough quantity and quality of live animals supply at a time with required age, weight and good dressing percentage.

Transportation and trade logistics: It has affected the performance of animal's suppliers significantly and negatively. The main reason for this was the Geographical location of Ethiopia which difficult to transport the animals, because of the roads not built in good conditions and during the summer seasons transportation was become so difficult.

Financing: It has affected the performance of animal's suppliers significantly and positively. The main reason for this was most suppliers not apply for any loans or lines of credit and main source of money for their business was own source.

Major factors Attributed to the poor performance: It has affected the performance of animal's suppliers significantly and positively. The main reason for this was poor support from government and other Associations and inadequate and poor supply of live animals.

Major factors which contributed to enhance performance: It has affected the performance of animal's suppliers significantly and negatively. The main reason for this was no enough availability of quality animals in the market, there was no improved government policy and administration and it was difficult to increase the selling price of animals for export abattoirs.

Table 4.9 Factors affecting Animals Suppliers Performance

	In put supply	Transportation and trade logistics	Financing	Major factors Attributed to the poor performance	Major factors which contributed to enhance performance
Animal Supplier's performance	.310	.272	.426	.239	.120

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

From the analysis we had conclude that input supply such as availability of water for animals, food, and other inputs were positively correlated (0.310) with the performance of animal suppliers, but it was insignificant. Transportation and trade logistics such as mode of transportation use to transport animals to the export abattoirs were positively correlated (0.272) with the performance of animal suppliers, but it was insignificant. Financing such as application of loans or lines of credit had positively correlated (0.426) with the performance of animal suppliers, but it had insignificant effect. Poor support from government and other associations had positively correlated (0.239) with the performance of animal suppliers but it had insignificant.

4.6. Value chain Analysis of the Sector

From the study, we can analyze that the value chain of the meat export Abattoirs was very vast and the main factors that can affect the producers, Animal suppliers and Meat export abattoirs especially Luna and Elfora had an impact on the performance of them.

The main factors for animal producers was Distance, Financing and other facilities and from the correlation table we had conclude that these factors had positively correlated but it had insignificant compared to the quality of livestock's. I.e. it had strongly and significantly correlated to the performance of animal producers (farmers).

If farmers had quality of animals they had generate income by selling them to the animals suppliers and the animal suppliers also generate benefit from selling their animals to the

export abattoirs, this can increase the export abattoirs and the government revenues by selling their outputs at MENA market.

Diseases of animals had a negative impact on the value chain. i.e. animals had diseases that could hinder the price of animals and these can reduce the performance of animal suppliers and Luna and Elfora meat export abattoirs and also it can reduce revenues generated from the sector.

When we talk about value chain of Luna and Elfora meat export abattoirs first we had to focus on the animal producers. I.e. those factors that had an impact on farmers performance that also impact on animal suppliers and meat export abattoirs and Economy of the country which generated from the sector.

CHAPTER FIVE

Conclusions and Recommendation

5.1 Conclusions

The two export Abattoirs were highly educated, the suppliers and producers not highly educated and most of them were male. The first export abattoirs that started exporting meat to the international market were during 1997 that was Elfora. Both Elfora and Luna exports abattoirs produced and exports fresh chilled shoat carcass, frozen shoat carcass and fresh chilled beef fore quarter. Due to high cost of production and low quality of the products can make competition at global level become difficult especially at MENA market. The two export abattoirs adopted a strategy for price fluctuations by increasing volume when the price decrease and decrease in volume when price increase. The study showed that most of the export abattoirs used their own source of money. The two export abattoirs improve their export performance since establishment. The main reasons for improving export performance were improved government policy and administrative support, increased volume and diversified export items, market diversification and enhanced promotion and improved quality.

Most of the producers were male and their educational background was at primary school level. There was a significant and negative relationship between diseases of animals and animal producer's performance because producers have no enough money to buy the vaccinations, poor support from the government and low expertise. There was also a significant and positive influence between distance and animal producer's performance because the producers cannot move from place to place to sell their animals instead the suppliers and middleman can collect the animals from the farmer's home. But the benefit where they can generate by selling their animals was not satisfactory, only the middle man or the agents can be beneficiary.

In the last three years both Elfora and Luna export Abattoirs faced shortage of the animals. The main reason for the shortage of the animals was poor quality animals, prevalence of diseases and the illegal brokers. The main factors affecting animal's

suppliers performance was input availability and it has significantly and positively affects, the main reason for this was the existence of live animals throughout the year, but the only enough quantity of animals not guarantee the performance of animals suppliers instead quality of animals also necessary. Transportation and trade logistics also significantly and negatively affect the performance of animal suppliers; the main reason for this was the geographical location of Ethiopia which was difficult to transport the animals to slaughter houses.

Major factors attributed to the poor performance has significantly and positively affect the performance of animal suppliers, the main reason for this was poor support from government and other associations and major factors which contributed to enhance performance has significantly and negatively affect the performance of animal suppliers, the main reason for this was no improved government policy and administration.

5.2. Recommendation

To increase the performance of animal producer's quality of live stocks should need.

The animals should be hybrid in their nature rather than native. These can increase milk production and meat production. These should make the producer's to get high income when compare to the native one.

The availability of enough water for animals should be necessary. It should be done by the stakeholders, especially by the government.

All stake holders both governmental and non-governmental organizations should participate to increase quality of animals and quality of animals important for farmers (producers), for animal suppliers and export abattoirs.

The availability of food for animals is necessary. These foods can be stored in good places and should be available at summer and dry seasons.

There should be well trained professionals for farmers (producers) at farm level such as Animal production experts and veterinaries.

Training for professionals such as veterinaries and animal production experts is necessary in order to up-date their knowledge.

The environment which the animals live should be clean and safe and there should be well established quarantine for their safety.

Training for farmers (producers) about animals handling, food preparation, about diseases of animals and their vaccinations should be done.

The government and other stakeholders participate on quality of animals and the farmers benefit from this sector.

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Appendix

Data collection questionnaire for export abattoir

St. Mary University, school of Graduate studies value chain analysis on meat export abattoirs in case of Luna and Elfora.

Dear Respondent,

The main purpose of this questionnaire is to gather information for M.Sc thesis work on the factors that affect the value chain of meat export abattoirs in case of Luna and Elfora. The information gathered will remain confidential and will be used for the intended purpose only.

Part I. General information

Direction: you are therefore kindly requested to fill your response in this questionnaire. Put “circle” corresponding to the response that indicate your level of satisfaction.

Thank you very much in advance for your time.

1.1 Name of the export Abattoirs?

1.2 Your age?

- | | |
|----------------|----------------|
| 1) 18-30 years | 3) 46-64 years |
| 2) 31-45 years | 4) >64 years |

1.3 Your gender?

- | | |
|---------|-----------|
| 1) Male | 2) Female |
|---------|-----------|

1.4 Educational level?

- | | | |
|---------------------|-----------------|-----------------------------|
| 1) Primary school | 3) Diploma | 5) Masters Degree and above |
| 2) Secondary School | 4) first Degree | |

1.5 How many years meat exporter are you at this business?

- | | |
|---------------|--------------|
| 1) 1-5 years | 3) >10 years |
| 2) 6-10 years | |

1.6 In what year did this establishment or company establish? _____
Years (E.C)

1.7 In what year did this establishment begin exporting in this country? _
__ Years (E.C)

1.8 How many employees (both permanent and temporary) works at your
company in fiscal year 2016/2017? _____

1.9 Do any of your current managers or staff have export marketing or
international sales experience?

2/ Has your management team received any training in international
trade topics in the last 3 years?

1) Yes 2) No

2.1 Has the company faced shortage of inputs in the last three years?

1) yes 2) No

Part II. Factors affecting meat export performance

Direction: you are therefore kindly requested to fill your response in this questionnaire. Put “circle” corresponding to the response that indicate your level of satisfaction.

Thank you very much in advance for your time.

No	Statement	Level of Agreement				
		Strongly Disagree	Disagree	I don't know	Agree	Strongly Agree
1	Out put and exports					
1.1	Fresh Chilled shoat carcass produced and export	1	2	3	4	5
1.2	Frozen shoat carcass produced and export	1	2	3	4	5
1.3	Fresh chilled beef fore quarter produced and export	1	2	3	4	5
1.4	Frozen beef fore beef quarter produced and export	1	2	3	4	5
2	Competition at global level					
2.1	High cost of production	1	2	3	4	5
2.2	Low quality of the products	1	2	3	4	5
2.3	Poor demand abroad	1	2	3	4	5
2.4	Weak marketing strategy	1	2	3	4	5
2.5	Low lost of production	1	2	3	4	5
2.6	Strong Marketing strategy	1	2	3	4	5
2.7	High quality of products	1	2	3	4	5
2.8	High demand abroad	1	2	3	4	5
3	International price fluctuation response					
3.1	Increase in volume when price increase	1	2	3	4	5
3.2	Increase in volume when price decrease	1	2	3	4	5
3.3	Decrease in volume when price increase	1	2	3	4	5
3.4	Decrease in volume when price decrease	1	2	3	4	5
4	Source of money used to in your business					
4.1	Relatives and Friends	1	2	3	4	5
4.2	Credit institutions	1	2	3	4	5
4.3	Commercial banks	1	2	3	4	5
5	Market promotion					

Part III. Meat Export Abattoir performance

Direction: you are therefore kindly requested to fill your response in this questionnaire. Put “circle” corresponding to the response that indicate your level of satisfaction.

Thank you very much in advance for your time.

No	Statement	Level of Agreement				
		Strongly Disagree	Disagree	I don't know	Agree	Strongly Agree
1	The external factors like competition can affect the performance of the meat export	1	2	3	4	5
2	Competition at global level, international price fluctuation response, source of money used to strongly affect the value chain of the meat export Abattoir in case of Luna and Elfora	1	2	3	4	5

Data collection questionnaire for animal producers

St. Mary University, school of Graduate studies value chain analysis on meat export abattoirs in case of Luna and Elfora.

Dear Respondent,

The main purpose of this questionnaire is to gather information for M.Sc thesis work on the factors that affect the value chain of meat export abattoirs in case of luna and Elfora. The information gathered will remain confidential and will be used for the intended purpose only.

Part I. General information

Direction: you are therefore kindly requested to fill your response in this questionnaire. Put “circle” corresponding to the response that indicate your level of satisfaction.

Thank you very much in advance for your time.

1.1) Your age?

- | | |
|----------------|----------------|
| 1) 18-29 years | 3) 46-64 years |
| 2) 30-45 years | 4) > 64 years |

1.2) Your gender

- | | |
|---------|-----------|
| 1) Male | 2) Female |
|---------|-----------|

1.3) Educational level

- | | |
|---------------------|-----------------------------|
| 1) Primary school | 4) First degree |
| 2) Secondary School | 5) Masters Degree and above |
| 3) Diploma | |

1.4) How many years producer are you at this business?

- | | | |
|--------------|---------------|---------------|
| 1) 1-5 years | 2) 6-10 years | 3) > 10 years |
|--------------|---------------|---------------|

Part II. Factors Affecting to supply animals to Animal trader

Direction: you are therefore kindly requested to fill your response in this questionnaire. Put “circle” corresponding to the response that indicate your level of satisfaction.

Thank you very much in advance for your time.

No	Statement	Level of Agreement				
		Strongly Disagree	Disagree	I don't know	Agree	Strongly Agree
1	Distance					
1.1	Road Facilities are in good conditions	1	2	3	4	5
1.2	Transport mode (S) do you generally use to transport Animals to the export Abattoirs in enough	1	2	3	4	5
1.3	Transportation cost are available	1	2	3	4	5
2	Financing and other facilities					
2.1	Any loans or lines of credit	1	2	3	4	5
2.2	Producers can influence on pricing of Animals during selling	1	2	3	4	5
2.3	Producers can get full benefit from selling of their animals to suppliers	1	2	3	4	5
3	Diseases of animals					
3.1	Animal Diseases occurred frequently	1	2	3	4	5
3.2	Medical Facilities are available at farm level for animals	1	2	3	4	5
3.3	The government support the producers	1	2	3	4	5
4	Quality of live stocks					
4.1	The animals are native in their breeding					
4.2	Enough in puts like water, forage, medicines are available at producers level					

Part III. Animal producer's performance

Direction: you are therefore kindly requested to fill your response in this questionnaire. Put "circle" corresponding to the response that indicate your level of satisfaction.

Thank you very much in advance for your time.

No	Statement	Level of Agreement				
		Strongly Disagree	Disagree	I don't know	Agree	Strongly Agree
1	The Animal producers can affect the performance of meat export abattoirs	1	2	3	4	5
2	Distance, financing and other facilities, diseases of animals and quality of live stocks can affect the value chain the meat export abattoirs in case of Luna and Elfora	1	2	3	4	5

Data collection questionnaire for animal traders

St. Mary University, school of Graduate studies value chain analysis on meat export abattoirs in case of Luna and Elfora.

Dear Respondent,

The main purpose of this questionnaire is to gather information for M.Sc thesis work on the factors that affect the value chain of meat export abattoirs in case of Luna and Elfora. The information gathered will remain confidential and will be used for the intended purpose only.

Part I. General information

Direction: you are therefore kindly requested to fill your response in this questionnaire. Put “circle” corresponding to the response that indicate your level of satisfaction.

Thank you very much in advance for your time.

1.1) Your age?

- | | |
|----------------|----------------|
| 1) 18-29 years | 3) 46-64 years |
| 2) 31-45 years | 4) > 64 years |

1.2) Your gender?

- | | |
|---------|-----------|
| 1) Male | 2) Female |
|---------|-----------|

1.3) Educational level

- | | |
|---------------------|------------------------|
| 1) Primary school | 4) First Degree |
| 2) Secondary school | 5) Maters Degree above |
| 3) Diploma | |

1.4) How many years supplier are you at this business?

- | | |
|---------------|---------------|
| 1) 1-5 years | 3) > 10 years |
| 2) 6-10 years | |

1.5) In what year did you started supplying animals to the export Abattoirs? _____ Years (E.C)

1.6) Has the company faced shortage of animals in the last three years?

- | | |
|--------|-------|
| 1) Yes | 2) No |
|--------|-------|

1.7) Is input availability and quality a major challenge for the company?

- | | |
|--------|-------|
| 1) Yes | 2) No |
|--------|-------|

Part II. Factors affecting Animal supplier's performance

Direction: you are therefore kindly requested to fill your response in this questionnaire. Put “circle” corresponding to the response that indicate your level of satisfaction.

Thank you very much in advance for your time.

No	Statement	Level of Agreement				
		Strongly Disagree	Disagree	I don't know	Agree	Strongly Agree
1	In put supply					
1.1	Supplying enough live animals to the export Abattoir in 2016/2017	1	2	3	4	5
1.2	Over the last three years had your animals supplying performance improved	1	2	3	4	5
2	Transportation and trade logistics					
2.1	Mode of transportation use to transport animals to the export Abattoirs in available	1	2	3	4	5
3	Financing					
3.1	In the last three years, did your company apply for any loans or lines of credit	1	2	3	4	5
3.2	Main source of money for your business is own source	1	2	3	4	5
3.3	Relatives and Friends	1	2	3	4	5
3.4	Commercial banks	1	2	3	4	5
3.5	Credit institutions	1	2	3	4	5
4	Major factors Attributed to the poor performance					
4.1	Poor support from government and other Associations	1	2	3	4	5
4.2	In adequate and poor supply of live animals	1	2	3	4	5
5	Major factors which contributed to enhance performance					
5.1	Availability of quality animal in the market	1	2	3	4	5
5.2	Increased your selling price to the export Abattoirs	1	2	3	4	5
5.3	Improved government policy and administrative	1	2	3	4	5

Part III. Animal Supplier's performance

Direction: you are therefore kindly requested to fill your response in this questionnaire. Put "circle" corresponding to the response that indicate your level of satisfaction.

Thank you very much in advance for your time.

No	Statement	Level of Agreement				
		Strongly Disagree	Disagree	I don't know	Agree	Strongly Agree
1	Suppliers can affect the performance of meat export Abattoirs	1	2	3	4	5
2	Factors can Affect the value chain of the meat export Abattoirs in case of luna and Elform	1	2	3	4	5

DECLARATION

I, the undersigned, declare that this thesis is my original work, prepared under the guidance of Dr. Geti Andualem. All sources of materials used for the thesis have been duly acknowledged. I further confirm that the thesis has not been submitted either in part or in full to any other higher learning institutions for the purpose of earning any degree.

Name

St. Mary's university college, Addis Ababa

Signature

June, 2017

ENDORSEMENT

This thesis has been submitted to St. Mary's university college, school of Graduate Studies for examination with my approval as a university advisor.

Advisor

St. Mary's University, Addis Ababa

Signature

June, 2017