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St. Mary's University

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School of Graduate Studies MBA Program

ASSESSMENT OF LOCAL SUPPLY CHAIN MANAGEMENT AND EXPORT CHALLENGES ON SESAME SEED; THE CASE OF AMBASEL TRADING AND SELIT HULLING

Kokit Traders on cleaning

Genet Misganaw

June 2015

Addis Ababa, Ethiopia

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By

Genet Misganaw

A Thesis Submitted to the School of Graduate Studies of St. Mary's University; in Partial Fulfillment of the Requirements for the Degree of Master's of MBA general

Advisor: - Mesfin Lemma (Ph.D., Asso.Prof.)

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ACRONYM/ ABBREVIATION

SCM	Supply Chain Management
JI	Just In Time
ATA	Agricultural Transformation Agency
MOT	Ministry of Trade
MOA	Ministry of Agriculture
MOFA	Ministry of Foreign Affairs
EPOSPEA	Ethiopia Pulses Oilseeds & Spices Processors Exporters Association
ECX	Ethiopia Commodity Exchange
CSA	Central Statistics Agency
COMESA	Common Market for Eastern and Southern Africa
EU	European Union
EBA	Everything-But-Arms
USA	United Stat of America
AGOA	African Growth and Opportunities Act
GSP	Generalized System of Preference
BLRA	Binary logistic regression analysis

ABSTRACT

Oil seeds, are the second largest source of foreign currency for Ethiopia's next to coffee, contributing significantly for the achievement of the country's high economic growth over the last five successive years (Hailu, 2009). The current literature indicates that if the sesame oilseed supply chain is operated wisely it can be productive, profitable and competitive in the global market in the future than the current condition. This research also try to observe the supportive idea and get the solution by carrying the objective of concentrating on the assessment of supply chain management of sesame from production to exporting systems and its challenges by taking the two processor and exporter companies, Ambasel Trading and Selit Haling by using the Methods and materials of data collection from both primary (qualitative and quantitative) and secondary sources. The primary data for this study were collected from total size of 393, from Metema farmers & Union, suppliers and exporter through application of appropriate statistical procedures. For the qualitative preparation 17 purposively selected focal persons are interviewed. Additionally, secondary data was also gathered using pervious research works in the sector and different documents. The collected data was analyzed using SPSS. To see the association between each independent variable with outcome variable Binary Logistic Regression analysis was carried out and variables that show significant associations were included in a single model and Multiple Logistic Regressions were performed to identify the most significant predictors.95% CI and P-value (0.05) were used to assess the degree of statistically significance. The founding show that the major actors in the supply chain management of sesame from production to exporters were farmers, suppliers and exporters .The main challenges faced by the chain actors were lack of improved seed, unexpected rain during harvest, shortage of labor force, shortage of capital, and transportation from storage to market area, default, lack of skill , financial capability problem and EXC price posting, delay on ECX process, raising transport price and large scale gap between ECX's price and local traders prices and very poor network service. Generally, this study revealed that marriage, strategic supplier partnership, customer relationship and level of information quality were the stronger predictors of work improvement in supply chain management of sesame from production to exporter. Based on the above findings the following recommendations are suggested. Enhancing production and productivity, expansion of road infrastructures to reduce transport costs to attract private investment in the area and to facilitate the supply of labor as the production system is highly labor intensive, encourage local value addition, communication skill proxies, improve credit facilities and Banking services e.t.c.

Key words: - *Ambasel treading, Export market, Sesame, Selit hulling, Supply Chain Managem*

CHAPTER ONE

INTRODUCTION

1.1Background

Now a day sesame trade shows growth all over the world including Ethiopian. Ethiopian sesame export quantity shows from 2001- 2006, 11.4% and the country gates foreign currency of 46.38% by the growth of 6 consecutive years. At the same time there are challenges on the production and marketing activities of sesame (SSDSWD 2013-2017, 2014).

Oil seeds, are the second largest source foreign currency for Ethiopia's next to coffee, contributing significantly for the achievement of the country's high economic growth over the last five successive years. Though coffee continues to dominate the export market, its historical place in the Ethiopian economy is being rivaled by floriculture and oil seeds, particularly sesame. Cognizant of this fact, this crop profile study is intended to identify the major challenges in sesame production and marketing and propose remedial actions to be taken to enhance sesame trading through the ECX system (Haile, 2009).

In the last few years, sesame production and marketing has demonstrated highly significant growth. In 1997 (Kindie, 2007), The practice of sesame production has also expanded from the traditional regions (Northwest Humera, Wellega and North Gonder) to many new areas, including Benishangul, Illubabor and many other places (CSA, 2006-07). Similarly, the quantity of sesame produced during the same period, which is mainly intended for export, has also increased from 42,000 tones (Kindie, 2007) to about 149,000 tones (CSA, 2006-07), which is again an increment of over 250%. The potential to increase the area, production and productivity of sesame is still large. Similarly, there is considerable international market demand for Ethiopian sesame seed, and this is expected to continue increasing. In 1998, the total export of sesame was about 50,000 tones, but by 2006 it had exceeded 100,000 tones (Wijnands et al, 2008).

Sesame is strategically important to Ethiopia, as it consistently ranks as a top performing export crop. From 2007-2011, Ethiopia was the world's 3rd largest sesame exporter, supplying to China and Turkey. However, despite its strong position in the global sesame market, Ethiopia only reaches lower value markets, with 95% of its sesame in raw form. Ethiopia is not leveraging diversified export market strategies and engaging in agro-processing unlike its major competitors, India and Nigeria. Going forward, Ethiopia should explore diverse end markets and value addition in the near future. In particular, Ethiopia should focus on (1)Continuing to supply to its conventional market (2) diversify further towards to higher value conventional market (3) enter premium markets (4) increase value addition. A more focused and diversified approach will shift Ethiopia towards transforming its sesame sector (SSDSW, 2013-2017**,** 2014).

The traditional importers of Ethiopian sesame seed were China, Israel, Turkey and other Middle Eastern countries. These days, while the purchase volume of the traditional buyers is continuing to increase, other new buyers (including Greece, Germany, The Netherlands, UK, etc) are also coming to the market. Japan, the world's biggest importer of sesame, has not yet been adequately approached. Therefore, if the Ethiopian sesame sector were able to meet the market's various requirements, the demand for sesame could be potentially insatiable (Sorsa , 2009).

Today, South Korea has managed to transform itself from a poor agrarian country into a leading industrial country in one generation (in half a century). Korea is now taken as a model country for its rapid economic development and dynamic democracy. And **"**Many Korean dishes are prepared using toasted sesame seeds are garnish with them". in addition to the above reason Ethiopia and Korea have a strong social and political relationship but after all Korea is not the importer of sesame from Ethiopia in organized way; rather Koreans import from china even Ethiopian sesame after the value addition of china, it show we have a lot to do on marketing promotion activities to pull up Korean market of sesame to us. The presence of genetic diversity in sesame genetic resources, proximity of Ethiopia to the international market, an increased demand for Ethiopian sesame, the presence of relatively high oil content of sesame cultivars and suitability of environmental condition for sesame growth will give high opportunity for Ethiopia to improve the crop. More than 95% of sesame production in Ethiopia is for export purpose but the activities passes in different process with different chain of value addition point. Each value chain points have its own favorable and unfavorable side including ECX. This paper tries to

investigate the challenges on their activities to forward some possible ideas for the support of making better and shorter chain to have minimum or no complication on exporting trade.

The sesame supply chain can be seen as a huge coordination problem. Small amounts of sesame must be collected from a multitude of farmers, and then transported and sold to different markets, most of which are abroad in the case of sesame. Information about demand and supply and matching prices must also be distributed through the value chain. Weak infrastructure and the lack of support institutions exacerbate this problem of coordination (Sorsa, 2009). The proximity of the country to international market and the high market demand for Ethiopian sesame seed can be considered as another opportunity.

1.2 Problems Statement

The Ethiopian oilseeds value chain is essentially full of challenges yet replete with opportunities. Despite the immense potential for improving the production and productivity of the sector, it is believed that the primary producers lack the necessary technical and material input to improve their production and productivity; trade arrangements are not well organized; the necessary government policies and institutions, and the enforcement of regulations are either non-existent or functioning too ineffectively to ensure a smoothly operating chain (Sorsa, 2009).

Despite the high potential for increased production of sesame and the rapidly growing demand in the international market for Ethiopian sesame, it has been observed that the supply chain of sesame also suffers from different challenges including the adulteration of sesame or mixing of sesame with different sources of varying quality and a lack of transparency among chain actors. Sesame being sold as plain seed, while quality characteristics such as oil content, percentage of admixture, fatty acid profile are not commonly analyzed due to lack of capacity to accurately measure the quality standards of sesame (Zerihun, 2012).

As complained by the actors and researcher observation; The most important common crises are the price escalation of consumables, especially of industrial goods, drought and crop price, shortage of capital, lack of loan service, lack of improved seed poor soil fertility lack of information on quality standard and Pest infestation, shortage of organic sesame production.

There are also problems observed by the researcher these are related harvesting times; unexpected rain during harvest, Shortage of labor force, transportation from storage to market areas (poor roads, high transportation cost) and there are problems relating to selling because it needs immediate selling after harvest this is because; buyers come only during harvest, the need for cash during harvest, price declines later, fear of weight loss if stored and fear of color change if stored and Problems related to collectors; large scale gap between ECX's price and Local traders price, unable to sell sesame product outside specific market places, delay at ECX for performance, very poor network services. And also other trouble related to export sesame trade is default; default my happen in both sides i.e. importer and/ exporter; it is dipping of performing the promises according on the pre-agreements of the two companies. Even though there are several reasons for default, the main reason is unorganized and weak relationship between parties working on the chain; it his indicates the actors in sesame chain have very limited experience building institutional relationships between them.

However, this paper is mainly concentrating on the chain management of sesame from production to exporting systems by taking the two processor and exporter companies, Ambasel trading and Selit Haling to assess their experience of supply chain management activities with their suppliers and customers and with some concerned Governmental &non-Governmental partners organizations as well and to assess what challenges they face on the process, this paper is concerning and taking the domestic activities only and the data collection and analyzing work also prepared with domestic repliers and data only.

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1.3 Research Questions

The major questions the study answered are the following

1. Did the actors on the treading activities perform as expected?
2. How the current performance of the two sesame processor and/or exporters companies supply chain trend and the parties' cooperativeness?
3. How is the current performance of sesame production and quality in Ethiopia?
4. How is the current performance of value addition activities on sesame in Ethiopia?
5. What are the main drawbacks on sesame export process?

1.4 Objectives of the Study

1.4.1 General objective

The general objective of the study is to asses existing supply chain management trend on the sesame trade practice and to identify the potential challenges on the systems by taking the two sesame processing and exporting companies as a focused point.

1.4.2 Specific objectives

- To explore the parties activities participating on the supply chain.
- To identify existing trade arrangements.
- To assess the strength and weakness of the parties cooperativeness
- To identify the main drawbacks on the supply chain activities
- To assess the potential challenges that affects the performance of sesame export trading

1.5 Delimitation of the Study

Sesame seed is one of the main exported oil seed in Ethiopia next to coffee with more than 400 exporters, thousands of household farmers and hundreds of commercial farmers (Investor) in different part of Ethiopia mainly Metema, Humera & Wolega . However the study investigated the supply chain management practices and the export bureaucracies only the two processor and exporter companies (Ambasel trading & Selit huling) with their partners although from the production area Metema is selected by the researcher. More specifically, the study has been focused on the supply chain management practices on the main actors in the area , roles of marketing actors in the supply chain activities , Strategic supplier partnership between main actors and other supportive organizations, their information sharing quality and reliability and

timely flow, characteristics of exporter, export bureaucracies and certification practices, buying and selling strategies, traders' behavior in relation to storage and cleaning (value addition), transport, financial and professionalism constraints also assessed. Furthermore, institutions involved directly or indirectly in sesame marketing has been examined to generate relevant data like MOT, ATA, ECX and the like.

1.6 Limitation of the study

The major limitation of the study is the area coverage, because even if supply chain management is the management practices from the root to the leaf that means from the production to the end users rather the researcher gives more attention only on the domestic activities and also on the selected processors and exporter companies (Ambasel trading & Selit hulling), and selected Production area Metema Woreda. This is due to time and financial constraint the study would have better and completed result if it studied from the rout (production) to the end user (final consumer) these end users are the importer companies and/or the final consumer of the importer countries. This limitation is not only on the customer side, it happens also in the production area too because since there at list three major production areas of Ethiopia i.e Humera, Metema and Wolega still the researcher select only Metema because of the above challenges. In addition to the above the study also face challenges related to people understanding to give information for the study and challenges related to meeting of key peoples in the area and other.

1.7 Significance of the Study

- The purpose of the study is to create smooth and cooperative chain between the actors working on the supply chain by taking Ambasel trading and Selit hulling with their suppliers and customers and with other participants on the area like Unions, traders, and other supportive Governmental & non Governmental organization. Like ATA, MOT, MOA and so on as well. by carrying a target of giving insight for the policy makers or/and planners how is the trend now and what challenges are observed and to provided supportive ideas for resolving the challenges such as lack of timely flow of information, lack of coordination and cooperation, poor level of understanding about how critical export market for the country and low level of supporting one another between parties etc. This research has significance to the two processor and exporter companies,

producers, traders Unions, ECX, Ethiopian Agricultural Transformation Agency specially sesame value chain department, Ministry Of Trade Oil seed Marketing department etc

- In addition to the above the study expected to have a contribution providing information for further studies to be conducted in the area for future.

1.8 Operational definition of Key Terms

1. **Supply Chain Management**: is a network of relationships, with the goal to deliver superior value, i.e., the management of upstream and downstream relationships with suppliers and customers to deliver superior customer value at less cost to the supply chain as a whole
2. **Competitive advantage**: exists when a firm has a product or service that is perceived by its target market customers as better than that of its competitors
3. **Bargaining:** A process and activity involving two or more parties who are exchanging goods or services. The parties normally give and take depending on what is under discussion.
4. **Bargaining power:** This is the strength that a bargaining party has in relation to that of the other(s). It is in most cases what determines who wins and who loses during the bargaining process.
5. **Customer:** A person who buys something from another or a business. At times, the term customer refers to the more frequent buyer as opposed to the occasional one.
6. **Supplier:** A person or organization which provides raw materials, machinery, or other inputs to an enterprise on the basis of an agreement.
7. **Export market:** This is a place for selling goods and services away from one's location or home country.
8. **Globalization:** It is the increasing linkages between and among actors located in different countries. The linkages are social, economic, cultural and political.
9. **Integration:** The bringing together of different processes and actors to form one unified system or way of doing things.
10. **Labour**: This is energy expended on work. A worker's energy is their labour. It is usually measured in terms of person-hours, person-days, person-weeks

11. **Labour intensive:** An undertaking that mainly uses human energy. People are the ones who provide the needed effort for the outputs to be realized. Labour intensity can be measured by the ratio of labor to capital.
12. **Standards:** Something established as a rule, normally for measuring capacity, quality or other aspects
13. **Survey:** In research, it is a strategy in which one collects data systematically from everybody concerned (the population) or only from some (a sample).
14. **Value Chain:** This is the set of value-adding activities through which a product passes from the design to the consumption stages. The worth of the product increases at each point of the process, hence the term value chain.

1.9 Organization of the Study

The study consists of five chapters; The first chapter deals with problem and its approach; whereby background of the study, statement of the problem, research questions, objectives of the study, delimitation & limitation of the study, significance and definition of key terms.

The second chapter treats the review of related literature that lays conceptual framework of the study. The third chapter then contains the research design and methods.

Chapter four is concerned with the presentation, analysis and interpretation of the data with discussion of results. The final chapter presents summary of findings, conclusion and recommendation of the study. List of reference materials used for the study, sample questionnaire, Interview, observation, are attached as appendices at the end.

CHAPTER 2

LITERATURE REVIEW

This part reviews the related literature written by different authors and researchers on the study area. This section reviews and discuses the overall concept of supply chain management activities, theories and practices and all other related theories and practices of sesame seed and its trading activities and the aver all concept and practices in Ethiopia.

2.1Concept of Supply Chain Management

Supply chain management (SCM) is "the systemic, strategic coordination of the traditional business functions and the tactics across these business functions within a particular company and across businesses within the supply chain, for the purposes of improving the long-term performance of the individual companies and the supply chain as a whole."It has also been defined as the "design, planning, execution, control, and monitoring of supply chain activities with the objective of creating net value, building a competitive infrastructure, leveraging worldwide logistics, synchronizing supply with demand and measuring performance globally."

Today in the globalization world, SCM plays non substitutable role to make strong chain between supplier and demand,, However, apart from suggesting what the actors actually should do, most authors also comment on (even if they seldom discuss it extensively) and stress the importance of undertaking the actions with the “right” intentions, referring to trust, win-win thinking and common goals (Mårteen Fristedt, 2006).

Commonly accepted definitions of supply chain management

- The integration of key business processes across the supply chain for the purpose of creating value for customers and stakeholders
- The management of upstream and downstream value-added flows of materials, final goods, and related information among suppliers, company, re-sellers, and final consumers
- The systematic, strategic coordination of traditional business functions and tactics across all business functions within a particular company and across businesses within the supply

chain, for the purposes of improving the long-term performance of the individual companies and the supply chain as a whole.

- Supply chain strategies require a total systems view of the links in the chain that work together efficiently to create customer satisfaction at the end point of delivery to the consumer. As a consequence, costs must be lowered throughout the chain by driving out unnecessary expenses, movements, and handling. The main focus is turned to efficiency and added value, or the end-user's perception of value. Efficiency must be increased, and bottlenecks removed. The measurement of performance focuses on total system efficiency and the equitable monetary reward distribution to those within the supply chain. The supply chain system must be responsive to customer requirements".

Corporations are also extending outside their legal boundaries as a normal way of organizing and forming competitive networks of companies.

Thus, organizations need to develop strategically aligned capabilities not only within the company itself, but also among the organizations that are part of its value-adding networks.

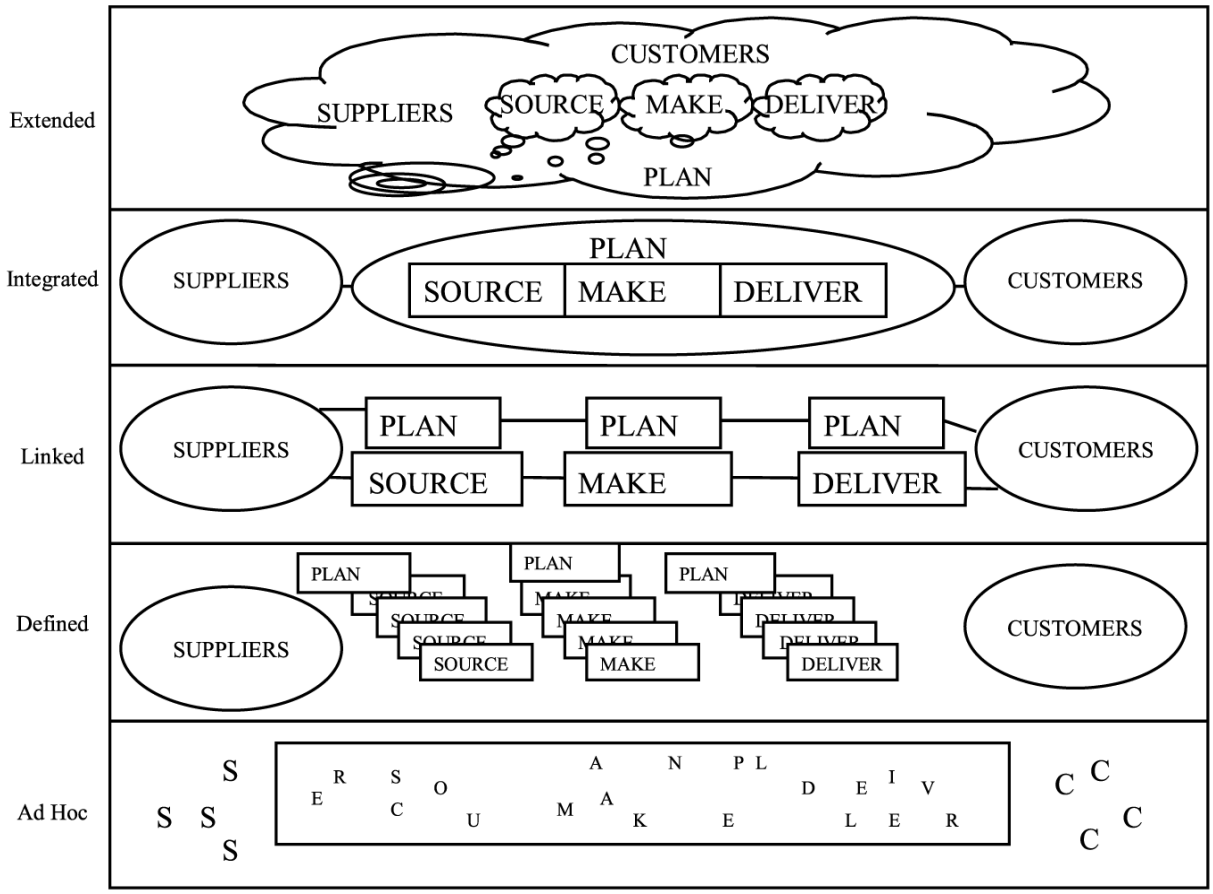


Figure 1: Supply chain

Development of a supply chain management process maturity model Archie Lockamy III and Kevin McCormack. Supply Chain Management: An International Journal. Volume 9 · Number 4 · 2004 · 272-278

Ad hoc – The supply chain and its practices are unstructured and ill-defined. Process measures are not in place. Jobs and organizational structures are not based on horizontal supply chain processes. Process performance is unpredictable. Targets, if defined, are often missed. SCM costs are high. Customer satisfaction is low. Functional cooperation is also low the other one is **Defined** – Basic SCM processes are defined and documented. Jobs and organization basically remain traditional. Process performance is more predictable. SCM costs remain high. Customer satisfaction has improved, but is still low. The third one is, **linked** – This represents the breakthrough level. Managers employ SCM with strategic intent and results. Broad SCM jobs and structures are put in place outside and on top of traditional functions. Cooperation between intra-company functions, vendors and customers takes the form of teams that share common SCM measures and goals that reach horizontally across the supply chain. Process performance

becomes more predictable and targets are often achieved. Continuous improvement efforts take shape focused on root cause elimination and performance improvements. SCM costs begin decreasing and feelings of esprit de corps take the place of frustration. Customers are included in process improvement efforts and customer satisfaction begins to show marked improvement the other one is **integrated** – The Company, its vendors and suppliers, take cooperation to the process level. Organizational structures and jobs are based on SCM procedures, and traditional functions, as they relate to the supply chain, begin to disappear altogether. SCM measures and management systems are deeply imbedded in the organization. Advanced SCM practices, such as collaborative forecasting and planning with customers and suppliers, take shape. Process performance becomes very predictable and targets are reliably achieved. Process improvement goals are set by the teams and achieved with confidence. SCM costs are dramatically reduced and customer satisfaction and esprit de corps become a competitive advantage rather the last one is **extended** which is based on multiform supply chains. Collaboration between legal entities is routine to the point where advanced SCM practices that allow transfer of responsibility without legal ownership are in place. Multi-firm SCM teams with common processes, goals and broad authority take shape. Trust, mutual dependency and esprit de corps are the glue holding the extended supply chain together. A horizontal, customer focused, collaborative culture is firmly in place. Process performance and reliability of the extended system are measured and joint investments in improving the system are shared, as are the returns (Archie Lockamy III and Kevin McCormack, 2004).

Every firm is a link in economic chain that usually comprises at least tree links: supplier firm and customers. A value chain stretch further in each direction, back to raw material imputes and forward to consumer and end-users (Chris Steward, 2003).

Improving partnership management by training team leaders, First time around team leaders and members have to learn by doing. The factor making this more difficult than usual is that learning is taking place in an environment shared by customer, who is at everything under microscope. Guidance can be obtained by hiring an external expert, with the emphasis on someone who has practical experience of the type of partnership envisaged (Chris Steward, 2003).

Andrew mentions, the supply chain is a longer channel stretching from raw materials to components to finished products carried to final buyers. Each company captures only a certain percentage of the total value generated by the supply chain's value delivery system. When a company acquires competitors or expands upstream or downstream, its aim is to capture a higher percentage of supply chain value. Marketing systems are undergoing rapid transformation. Traditional marketing channels with ad hoc sales are being replaced by coordinated links between farmers, processors, retailers and others (Andrew W.Shepherd, 2007).

SCM practices are defined as the set of activities undertaken by an organization to promote effective management of its supply chain. The practices of SCM are proposed to be a multi-dimensional concept, including the downstream and upstream sides of the supply chain upstream (strategic supplier partnership) and downstream (customer relationship) sides of a supply chain.

Donlon describes the latest evolution of SCM practices, which include supplier partnership, outsourcing, cycle time compression, continuous process flow, and information technology sharing, use purchasing, quality, and customer relations to represent SCM practices, in their empirical study. Alvarado and Kotzab include in their list of SCM practices concentration on core competencies, use of inter-organizational and elimination of excess inventory levels by postponing customization toward the end of the supply chain. Tan et al. identify six aspects of SCM practice through factor analysis: supply chain integration, information sharing, supply chain characteristics, customer service management, geographical proximity and JIT capability. Chen and Paulraj use supplier base reduction, long-term relationship, communication, cross-functional teams and supplier involvement to measure buyer–supplier relationships. Min and Mentzer identify the concept SCM as including agreed vision and goals, information sharing, risk and award sharing, cooperation, process integration, long-term relationship and agreed supply chain leadership. Thus the literature portrays SCM practices from a variety of different perspectives with a common goal of ultimately improving organizational performance.

The following distinctive dimensions mentioned as basic for supply chain management strategy

- Strategic supplier partnership, the long-term relationship between the organization and its suppliers, it is designed to leverage the strategic and operational capabilities of individual participating organizations to help them achieve significant ongoing benefits. Customer relationship the entire array of practices that are employed for the purpose of managing customer complaints, building long term relationships with customers, and improving customer satisfaction.
- Level of information sharing the extent to which critical and proprietary information is communicated to one's supply chain partner. Quality of information sharing Refers to the accuracy, timeliness, capability, and credibility of information exchanged (Suhong Lia, Bhanu,.Ragu-Nathanb, 2004).

2.2 SCM on agricultural products

Agro food systems are undergoing rapid transformation. Increasing concentration in processing, trading, marketing and retailing is being observed in all regions of the world and in all segments of production-distribution chains. The traditional way in which food is produced, without farmers having a clear idea in advance of when, to whom and at what price they are going to sell their crops, is being replaced by practices more akin to manufacturing processes, with far greater coordination between farmers, processors, retailers and others in the supply chain. Farmers increasingly produce to meet the requirements of buyers rather than relying on markets to absorb what they produce. As incomes increase, food consumption is changing.

Demand for fruits and vegetables, animal products and oil crops is growing and farmers are diversifying production to respond to this. Consumers are also becoming more demanding in terms of quality and safety and demographic and income trends are leading more affluent consumers to demand convenience foods such as frozen, pre-cut, pre-cooked and ready-to-eat items, together with assurances of product safety. Production, processing and distribution systems have been adapting to reflect this. These trends offer considerable threats for farmers, especially small, asset-poor and unorganized farmers, but, for the more efficient ones at least, may also present many opportunities. Thus concepts such as "Linking Producers to Markets" or

“Linking Farmers with Markets” are very much in vogue. “Linking farmers to markets” can embrace a whole range of activities; from the very small and localized to the very large Potential advantages for farmers of improving linkages with their buyers appear numerous.

Traders, processors, agro food companies and large retailers can obtain more reliable and regular supply from formal or informal linkages and have a greater control overproduce quality and safety. At the local level, small traders working with farmers to bulk-up produce can achieve scale economies and reduce costs. Purchasing from farmers in a variety of locations may also minimize production risk, especially from disease. On a larger scale, working with smallholders is also usually more politically and socially acceptable and can sometimes be more efficient than when using a company’s own farms. Offsetting these advantages are the transaction costs associated with providing extension and other support to farmers, costs that may not be borne by competitor firms who buy on the open market, and the tendency of farmers in some societies to be unreliable (FOP, 2013).

According to the following authors marketing chain is a term used to describe the numerous links that connect all actors and transactions involved in the movement of agricultural goods from the farm or point of production to consumers or final destinations (CIAT, 2004).Mendoza (1995) defined marketing channel as the path the goods follow from their sources of original production to their ultimate destination for final use. Hence, the analysis of marketing channels is intended to provide a systematic knowledge of the flow of goods and services from their origin (producer) to their final destination (consumer) (Kindie, 2007).

Small commercial farmers participate in vertical supply chains. They sell to traders or processors who, in turn, market through exporters or local distribution outlets. As a result, new agricultural production technology alone is often not sufficient to trigger small holder income growth; sustained income growth at the farm level depends also on access to final markets further up the supply chain. For this reason, groups involved in small holder agricultural development have become increasingly interested in understanding the full vertical marketing network linking farmers with the final markets they serve (Vorley 2003;Evans 2004; Magistro et al. 2004; Goletti 2005).

Since the early 1990's, structural changes in agricultural markets have heightened interest understanding these vertical marketing systems. Growing concentration, worldwide, in food retailing and export agriculture has led to fears that resulting upstream consolidation in rural marketing systems risks excluding smallholders from these increasingly concentrated supply systems (Weatherspoon and Reardon 2003; Reardon and Timmer 2005; Wiggins et al. 2005).

In Africa, direct public sector participation in agricultural markets has diminished substantially following structural adjustment and widespread liberalization. As a result, the private sector plays an increasingly important role in output marketing, input supply and service delivery (Kherallah et al. 2002; Zulu et al. 2000). To emphasize the value addition that takes place at each vertical step in the system, this article refers to the overall production and marketing system for a particular commodity as a value chain and to each competing vertical channel within as an individual supply channel (Maureen Chitundu1, Klaus Droppelmann2 and Steven Hagg blade, 2006).

In a recent article on industrialization strategies in less developed countries (LDCs), (Cramer 1999) argues that the processing of primary commodities can provide a major platform for economic upgrading. He further argues that no single strategy aimed at industrialization on the basis of primary commodity processing can be applied successfully across all primary commodities and across all LDCs.

Rather, strategies need to be tailored to particular cases. This argument is developed by way of a critique of various contributions to the existing literature on developing country industrialization. One of the main contributions criticized in this process is 'global commodity chain' (GCC) analysis. According to Cramer, GCC analyses of production and trade of primary commodities emanating from LDCs belong to a more general category of analyses which are essentially pessimistic concerning the prospects for upgrading. International trader-driven GCCs tend to take the form of shifting, highly filament upstream vertical networks of trade and finance, combined with more permanent downstream and horizontal ones. International traders may

establish a presence in particular supply markets for only a few years, and then only on the basis of seasonal contracts with particular local raw material suppliers.

Even where relations with suppliers are more permanent they are rarely institutionalized and investment in (as opposed to advance of working capital to) suppliers is rare. Relations downstream with processors tend to be not only longer-term but also denser and trust based, although not free of tensions. Likewise, because responding rapidly to processor demands requires flexibility beyond the capacity of any single international trader, there is a large and active secondary (inter-trader) market for most of these crops chain governance by international traders tends to be loose and indirect. International traders do not attempt to exercise much control over entry to the supply function, either by country or raw material trader. Prescriptions on commodity forms are much looser than in retailer/merchandiser driven ones and while prescriptive grading classifications exist in most cases, (Peter Gibbon, 2000). "The Value Chain describes the full range of activities that are required to take a product (or a service) from its conception, through design, sourcing of plant & equipment, raw materials, skills and intermediate inputs, its processing, marketing and distribution to the final consumer**.**

Still many perceive the VC Approach as a mere analytical tool, useful in revealing complex global commercial networking and often rigid and unilateral governance structures. That view expresses well in the recently heard term "value absorption chains". The perception of an analytical tool is deeply rooted in the long academic tradition of the Methodology dating back to the times of A.O. Hirschman, the 1950s and his famous concept of unbalanced growth based on "backward and forward linkages", as it was recalled by A. Stamm in a recently published Concept Study. Other important milestones have been the use of the concept by Michael Porter to develop the individual supply chain for firms and the French "filière" concept of the 70's with regard to the links between different production stages. More recent studies, very much influenced by the Institute of Development Studies in Brighton (IDS), concentrate more on the governance structure of Value Chains which is seen as a form of value chain coordination, mostly organized by lead firms from industrialized countries (Peter Richter, 2005).

The concept of the global value chain recognizes that the design, production and marketing of many products now involve a chain of activities divided among enterprises located in different places. The value chain describes the activities required to bring a product from its conception to the final consumer (Dorothy McCormick & Hubert Schmitz, 2001).

2.3 Cost savings of supply chain management

Many manufacturers and distributors are waking up to the potential for the major cost reduction and service improvements offered by implementing best practices in their supply chain. Research has shown that companies with best-in-class supply chain operations typically enjoy supply chain costs 40% less than average companies (Source: PRTM). That might well represent a potential saving of £5 million per £100 million of turnover for the average company; not something to be ignored in the current business environment. Supply Chain Management is now recognized as a critical business process for companies manufacturing or distributing products.

A primary concern of management is how to achieve strategic goals in ways that are least costly. This is of particular interest during times when economic growth is less than robust, supplies of almost everything are plentiful, and intense competition restricts price increases as a means of improving profits. Because expenditures for materials and services are very significant in most organizations (more than 50% of revenues in most manufacturing companies), supply chains offer an obvious potential source of cost savings.

2.4 Sesame seed in Ethiopia

Ethiopia is one of the major Sesame producing countries in the world, ranking 5th according to FAOSTAT (average: 2002 – 2012). Engaging more than 600,000 holders (CSA, 2013), the Sesame sector is one of the highest foreign currency earning sectors in Ethiopia. In just the first ten months of 2013, USD 345,967,164 has been generated from export of Sesame to different destinations, the prominent of which include China, Israel, Turkey, Jordan, and Japan. The exported Sesame is grown on the farms of small holders and commercial farmers in almost all the region of Ethiopia.

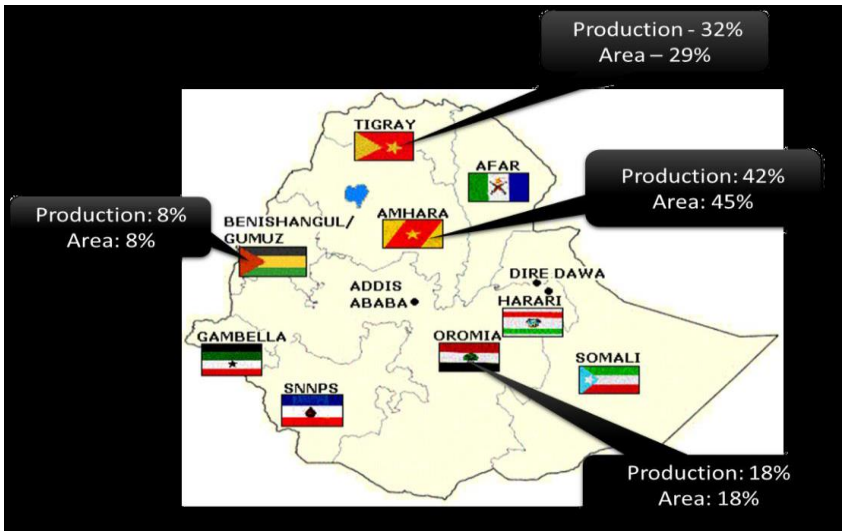


Figure 2: sesame seed production and area in Ethiopia 2012/13 Source: CSA

As in 2011/12, Ethiopia's largest production of Sesame in 2012/13 originated from Amhara Region. According to Central Statistics Agency of Ethiopia (CSA), the production of this region is 765,396 Quintal. The second highest Sesame production is attributed to Tigray Region, aggregating to 579,332 Quintals. The production in Oromia is estimated to be 152,268 Quintal, making it the third highest production area. According to recent estimates, 95% of this production is directly exported. The remaining 5%, local consumption, is highly restricted to bakeries and confectionaries. Sesame is a crop of the warmer regions of the tropics and sub tropics. It is mainly distributed between 25º N and 25 º S although it is also found up to 35 º N and S of the equator (Weiss 2000). In Ethiopia, sesame is cultivated within altitudes of 500 to 1300 meters above sea level of elevation both under irrigation and rain fall. However, it can also rarely be observed grown up to 1800m in small patches.

The total 92% of Ethiopian sesame is produced in 3 regions of the country with the following shares Amhara (48%), Tigray (27%), Oromia (17%) and others (Afar and Wollo) (8%). But out of 18 improved varieties, only 34% are released for Tigray and Oromia regions. No new varieties have been released for the largest sesame producing region over the last 30 years. Sesame seed is chiefly used for the oil extraction. The oil is colorless with distinctive nutty sweet flavor. Sesame oil is considered as prime vegetable oil in South East Asian dishes particularly China and Japan (Wijnands et al. 2007*).* In Addition sesame is used in confectionery, tahineh, halva and Pharmaceutical industries.

In Ethiopia, the amount of area under sesame, production and productivity has been increasing consistently during 1995-2011 (CSA 1995-2011). During 2011, 253,747 tons of sesame seed worth of 346 million USD was exported (Ethiopian Customs Authority 2013). The main Ethiopian sesame seed production regions are situated in the North West and South West. The North West regions have the highest yields per ha. In addition, North Eastern (Around Kobo), Middle Awash and Gode/Kelafo areas as well as Gamo Gofa Zone are sesame producers. It is believed that there are highly suitable areas for sesame production in Gam Gofa Zone and South Omo particularly Dasenech and Yengayatom Woredas.

The area under sesame in private small holders was never been more than 100, 000 ha until 1980 except the years1971-1975. During 1975 to 1980 the area under sesame, production and productivity was at its lowest. During the early 1990's the production and productivity of sesame started to increase and since then the production has been consistently increasing during the last ten years, the area under sesame in small private holders was estimated to be 91 520 ha with 614 600 quintal and productivity of about 6.7 quintal/ha. In 2012/2013, the area under sesame was 337 500 ha with total production of 2 447 800 quintals and productivity of 7.3 quintals/ha. The increase in production has come clearly from area expansion than productivity that comes largely from North West and Western Ethiopia. Sesame production in Ethiopia grew by about 22% during 2007 to 2011 primarily due to area expansion (MOT 2013-2017, 2014).

The Ethiopian government has indicated that the oil seeds such as sesame, Niger and Safflower seeds as high-priority export crops and ranks the second biggest export earner. Thus, production growth and quality improvement of oilseeds can substantially contribute to the economic development at national, regional and at family level (Wijnands *et al.*, 2009). Sesame is the third most important oil crop in Ethiopia and occurs both as cultivated and wild. Sesame in Ethiopia shows a high phenotypic diversity for number of days to maturity, plant height, pod shape and size, and for seed size and color (FAO, 1996).

Sesame production is increasing in Ethiopia especially in southwest and northwestern parts of the country which is driven by high market value and suitability of environmental conditions (Wijnands *et al.*, 2007). However, lack of wider adapting cultivates, shattering of capsules at maturity, non-synchronous maturity, poor stand establishment, lack of fertilizer responses, profuse branching, and low harvest index are the major constraints in sesame production worldwide (Ashri, 1994). Sesame being the most important export oil crop in Ethiopia, however, there is no adequate information available in Ethiopia.

Other deficiencies include the exclusion of sensitive products which are of export interest to developing countries, mismatch between exports of beneficiaries and coverage of preferences, and non-economic conditionality. A limited awareness among the business community in preference-receiving countries of the preferences and their operations is another deficiency. This information lack when combined with the complex procedural requirements of preferences poses a major barrier to their exploitation by the economic operators in preference-receiving countries.

Supply-side constraints have been another source of difficulty, with most developing countries export profiles being dominated by a few commodities and minerals (Wijnands*et al*, 2009).

3.5 Sesame and its contents

Sesame (Sesamumindicum L.) plays an important role in human nutrition. Its seeds are used essentially for the production of oil, but also in the production of the paste (tehineh) and in food formulations such as Halaweh (sweetened tehineh). Study reports indicate that Ethiopia is among the top-five producers of sesame seed, linseed and Niger seed (Wijnands, 2008).

Sesame seeds are full of powerful disease-fighting phytonutrients. These versatile seeds have long been used by different cultures throughout the world, yet many people are unaware of their healthful qualities. Recent research has focused on the unique sesame lignans found in abundance in the seeds, which have shown great potential in reducing blood lipid levels and blood pressure, fighting inflammation and cancer, boosting the body's antioxidant capacity, and enhancing vitamin E bioavailability.

A wealth of evidence reveals the power contained within these tiny seeds in helping manage some of today's prevalent health disorders, and gives us plenty of reasons to add them to our daily diet. Reducing cholesterol is a well-known strategy to favorably alter one's risk-factor profile for heart disease. Sesame seeds are packed with two unique sesame seed lignans, called sesamin and sesamol, which are inducers of cholesterol reduction as revealed by a number of studies. Sesame seeds work by increasing both the alpha and gamma forms of tocopherol in the body. (Life Extension Magazine January 2008)

2.6 Sesame export trend in Ethiopia

The export of sesame from Ethiopia started with Mr. Markos Saunders farming at Humera during late 1950's and early 1960. MrMarkos was producing sesame and exporting through the port of Massawa during the 1950's and early 1960's. Latter the road from Humera and Tessenei to Messawa was frequently blocked by Eritrean rebels and MrMarkos left his sesame farm for his country Greece. However, there were also two Gonderite brothers Tilahun and Ferede Zerihun who were farming along with MrMakos and continued export through Massawa and latter Assab ports. The two brothers had also a transport company called Gosh Gonder and Co. They continued farming and export till their farm was nationalized by Derg regime. Their

siblings are still living in Gonder. When their farm was nationalized and put under the Ministry of State farms, North Western Corporation the production and export declined and the quality deteriorated. Weeding and harvesting was using forced labor or contributions from City and Town kebeles that further deteriorated the quality. The country lost its recognition among foreign importers till the economic liberalization and private ownership permit.

The export of sesame both in tonnage and monetary value has been consistently increasing for the last 17 years. Sesame is mostly exported raw as any other countries including Myanmar because it is utilized as confectionery and bakery products particularly in the Middle Eastern countries. Sesame export has been a major source of foreign currency earning next to coffee for many years in past. The value of sesame in the world market is valued based on grades. Grade 1 is classified as white with at least 50% oil having 99.9% purity. Therefore seed cleaning is a major parts of export market. There are modern seed cleaning machineries that contain gravity separator that can clean to the required purity in Gonder. The Ethiopian Commodity Exchange has been trading sesame since Nov 5, 2010. During the last few years Ethiopia exported sesame to almost all continents except Antarctica.

Sesame is one of Ethiopia's top performing export crops with an annual growth rate of 16% in output and 27% in value (ATA 2013). Unlike other major sesame producing countries Ethiopia exports up to 90 % of its produce (ATA 2013). Despite opportunities in higher value raw sesame markets, Ethiopia primarily supplies its raw sesame to lower value markets. Turkey and China import up to 60% of Ethiopian Sesame. Sesame has been exported through ECX since 2005 and currently 95% of sesame is exported via ECX by exporters to low value markets. Sesame is currently traded through three primary channels namely farmers to cooperatives and then to ECX or farmers to traders and ECX (ATA 2013).

Like other African countries, Ethiopia has faced deep rooted structural problems, weak policy frameworks and institutions, protection at domestic level and abroad for a long time. For instance, in 1983 the Provisional Government of Socialist Ethiopia noted that the basic constraints for Ethiopian exports include the low volume of exportable products, the limited degree of diversification of exports mainly due to unprocessed primary products, frequent economic crisis which substantially reduce the demand for and prices of primary products, artificial trade barriers by trading partners etc (Abay and Zewdu 1999). Moreover, after the

downfall of the Derg regime, the Transitional Government of Ethiopia stated that "it is essential to increase and diversify exports" (1991: 33, as cited in Abay and Zewdu 1999).

Over the past two decades, developing countries have progressively increased their share in global trade from just less than one quarter to about one third. Asia and particularly China account for most of the change, which has been facilitated by diversification of exports. While developing Asia's share in total world exports increased from 11.7% in 1985 to 21.5% in 2005, Africa's share decreased from 4.3% to 2.9% over the same period (Bacchetta, 2007). Deep rooted structural problems, weak policy frameworks and institutions, protection at home and abroad (IMF and World Bank, 2001), and the structure of African exports, which is characterized by dependence on primary commodities (Alemayehu, 2006; Biggs, 2007; UNCTAD, 2008) are considered as the reasons for Africa's poor export performance

Owing to this policy shift some improvements in export performance have been registered. Trade statistics show that export earnings have increased during the post reform period. According to the Ministry of Trade and Industry (MOTI), the real value of export earnings increased from ETB 5billion during the first six year period of the Derg regime (1973-1978) to ETB 39.7 billion in the last sJan-16ix years of the EPRDF regime (2000/1-2006/7) (Abay and Zewdu, 1999).

Regarding the composition of exports, until the 1990s the Ethiopian export sector could be characterized as a 'three-commodity sector' consisting of coffee, hides and skins, and oilseeds and pulses. Between 1966 and 1996, on average 59% of the country's export earnings came solely from coffee (Abay and Zewdu, 1999). According to MOTI data, although coffee is still the dominant export item, since 2001/02 its contribution to total export earnings has declined to 36.3% in 2007 and it became 30 % by 2010. On the other hand, the share of non-coffee agricultural exports and major manufacturing export commodities (leather and leather products; textile; and agro processing products) has increased remarkably.

However, Ethiopia's share in total world exports is still very low, amounting to 0.01% in 2006 (WTO, 2007). In this regard, Alemayehu (1999) and Abay and Zewdu (1999) argue that Ethiopia's external trade has major problems both on the supply side – due to its dependency on few primary products characterized by large fluctuations in volume; and a very high degree of concentration of exports on few commodities. On the demand side a low income elasticity for the

type of commodities that Ethiopia exports, declining prices for its exports, and limited destinations for Ethiopian exports. Both supply and demand side problems are typical African problems: For example, more than 50% of African countries' export earnings are derived from only three principal commodities such as coffee, tropical beverages and cocoa (Alemayehu, 2006).

2.7 Sesame Value Addition

Value addition is the process of transforming sesame locally so as to increase its value in the international market and contribute to vitality of the local economy. In this regard, only limited activities are taking place. Tahineh production by an Israeli company in Gonder now it is transferred (sold) to Ambasel trading and hulling initiative by Selit Hullin in cooperation with Tradin Trading (a Dutch International company) in Lege Tafo are some relevant examples.

2.8 Global Trend of sesame market

Sesame is produced in Asia (Myanmar, India, China, Thailand, and Pakistan), Africa (Nigeria, Uganda, Sudan, Egypt and Ethiopia) and Latin America (Mexico, Venezuela, Nicaragua and Colombia). The major suppliers of sesame in the world market are Myanmar, India, China, Ethiopia and Sudan (Table, 1). The average productivity of sesame is highest in China followed by Ethiopia. Table 1 also shows that the productivity of sesame in Ethiopia is well over the international average. The major importers are Japan, Egypt, South Korea, USA, Syria, Saudi Arabia, Israel and EU. Global sesame trade grew at annual rate of 18% and 7% in terms of value and output respectively (2007-2011) driven by increased consumption in traditional and emerging markets (MOT, 2013-2017, 2014).

Table 1: The world main sesame production countries and production in Million Ton (1998-2002 E.C) (2006-1010 G.C)

No	Countries	1998/2006	1999/2007	2000/2008	2001/2009	2002/2010	2010 contribution (%)	2010from 2009 (%)
1	Burma	0.69	0.78	0.62	0.858	0.72	18.8	-16
2	India	0.62	0.76	0.64	0.66	0.62	16.2	-6
3	China	0.663	0.56	0.586	0.62	0.59	15.4	-5
4	Ethiopia	0.16	0.15	0.187	0.26	0.328	8.5	26
5	Sudan	0.4	0.24	0.35	0.32	0.25	6.5	-22
6	Uganda	0.166	0.166	0.17	0.178	0.17	4.4	-4
7	Nigeria	0.1	0.12	0.11	0.11	0.12	3.1	9
8	Niger			0.05		0.09	2.3	-
9	Tanzania	0.055	0.048	0.048	0.048	0.048	1.3	0
10	Burkina Faso			-		0.09	2.3	
11	Somalia	-	-	-		0.07	1.8	
12	Others	0.816	0.826	1.069	0.926	0.744	20	-18.0
	Total	3.67	3.65	3.83	3.98	3.84	100	-4

Sources: FAOSTAT data: 2012

As shown on the table above comparing of 2009 with 2010 amount of production Berma 16%, India 6%, China 5%, Sudan 22%, Auganda 4% sows decreasing rather Nigeria shows increasing of 9%.

Ethiopia gives attention for the Agricultural sector to increase the sesame production because of this when comparing 2009 t0 2010 it shows 0.07 Million ton (26%) growth even though the global sesame

production shows decreeing of 4%. Total production of sesame 2010 is 3.84 Millon ton when it compeers with 2006 production of 3.67 Million ton 4.6% increasing is observed.

Table: 2 Africa crop productions 2013/2014 in Mt

COUNTRIES	SEASON 2012/13	SEASON 2013/4
ETHIOPIA	225.000	240,000
NIGERIA	145,000	150,000
TANZANIA	85,000	95,000
BFASO/ALLIED	80,000	85,000
MOZAMBIQUE	25,000	35,000
UGANDA	20,000	25,000
SUDAN	200,000	200,000
SOMALIA	30,000	30,000
TOTAL	810,000	860,000

Sesame production in Africa

Ethiopia though early, indicating Good crop to the tune of 240/250,000 Mt. as shown above on Table 2.

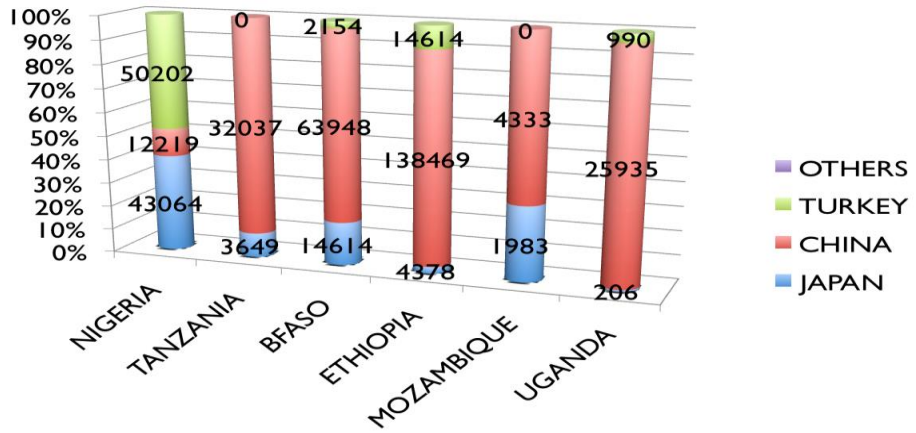


Figure 2: "Major Africa exports, 2014. "Alok Bhargavaast enterprises Inc Dubai 2014/15"

China is buyer and with border trader reducing direct trade increased Turkey will be a buyer, less carry over but wants to buy and are covering Nigeria patiently and slowly demand to continue from china and Turkey which will hold the market to reasonable levels in short term.

Table 3: Production and trade

Top ten sesame producers in 2010		
Country	Production (million ton)	Yields (ton/hectare)
Burma	0.72	0.46
India	0.62	0.34
China	0.59	1.22
Ethiopia	0.31	0.99
Sudan	0.25	0.19
Uganda	0.17	0.61
Nigeria	0.12	0.38
Burkina Faso	0.09	0.72
Niger	0.09	0.50
Somalia	0.07	0.96
World Total	3.84	0.49

The total global harvest was about 3.84 million metric tonnes of sesame seeds in 2010. The largest producer in 2010 was Burma (Myanmar), and the top three producers, Burma, India, and

China, accounted for 50 percent of global production. (www. Wikipedia the freeencyclopedia, sesame seed)

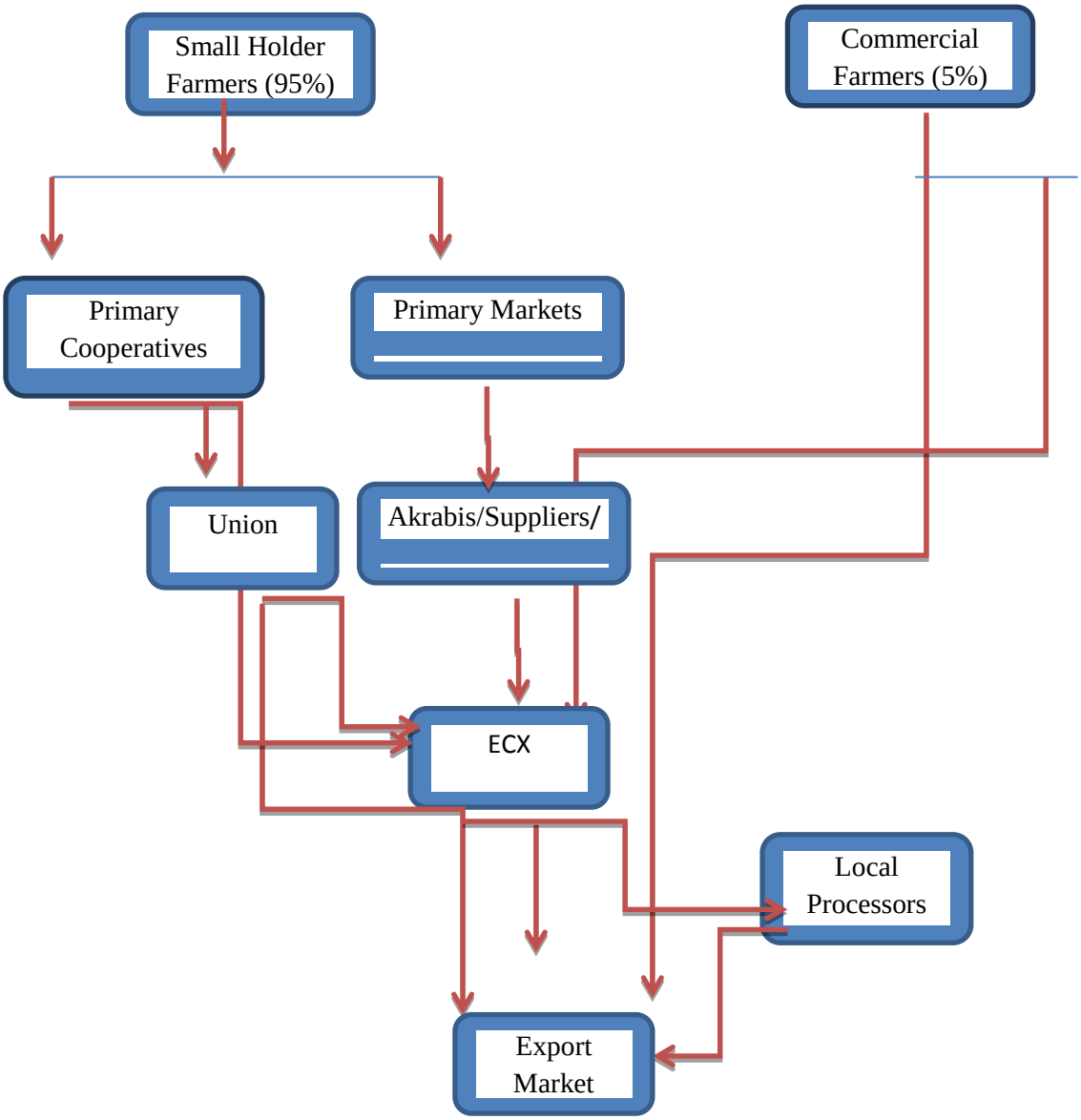
2.9 Market relationship

According to Kotler (1999), Marketing is an exchange process between the two forces that is a social and managerial process by which individual and group obtain what they need trough creating and exchanging products and value with others, (Cathy and Power ,2002) stated that marketing is the creation of satisfied customers and it involves discovering consumer need and satisfying those needs. Kitchen and Plelsmacker (2004) emphasized marketing in terms of relationship among buyers and sellers. Marketing is established, maintain and enhance relationship with customers and other partners (Gronroos, 1994cited in CIM 2006). In order to have well-organized marketing system, the reported presented by FAO (Food and Agriculture Organization) in 2007 suggested that a commodity exchange could fill this critical need by generating market information to both producers and consumers. (Dereje, 2011)

Ethiopia has a large population and thus potentially one of the largest domestic markets in Africa. Beyond the domestic market, by virtue of its membership to the Common Market for Eastern and Southern Africa (COMESA) embracing 19 countries with a population of 400 million, Ethiopia enjoys preferential market access to these countries.

Ethiopia's proximity to the Middle East also offers potential market opportunities. The country also qualifies for preferential access to European Union market under the EU's Everything-But-Arms (EBA) initiative and to USA markets under the African Growth and Opportunities Act (AGOA) and the Generalized System of Preference (GSP). Thus, most Ethiopian products can enter into these markets quota and duty free. Furthermore, a broad range of manufactured goods from Ethiopia are entitled to preferential access under the Generalized System of Preference (GSP) in USA, most countries of the EU and other developed countries. No quota restrictions are placed on Ethiopian exports falling underthe 4800 products currently eligible for GSP treatment.

2.10 Sesame seed value chain in Ethiopia



Foreign Market **Figure 3: The new value chain since 2003.**

2.11 Exportable Items in Ethiopia

Agricultural products dominate the exportable items of Ethiopia. Agro-processed products and manufactured products contribute some portion of the export commodities. Common agricultural exportable items includes: Coffee, Cereals, Fruits, Vegetables and flowers, livestock and meat, pulses and oilseeds, spices, Natural Gum and Incense and cotton. Agro-processed products include Beeswax, Honey and Civet, Fish, Hides and skins. The manufactured products include leather products, Tea, Textiles and Wool, Building materials, Beverages, Marble and Granite and Traditional Handcrafts.

The coffee-dominated export sector of the country has exhibited high price variations from season to season. These variations are a combined effect of the factors affecting domestic supply and the periodic trends of the global coffee demand and supply situations. Also, the variation can be seen between different varieties and grades of coffee. Some varieties like the Yeirgacheffe and Sidama command considerable premium in the international market. Export receipts were US$ 528.3 million in 2009/10.

Export earnings from oil seeds, the second largest export commodity, went up from US$ 356.1 million in 2008/09 to US$ 358.5 million in 2009/10 due to the increase in the international market prices. In 2009/10, the receipts from the export of pulses, leather and leather products as well as fruits and vegetables were US$ 130.1, US$ 56.4 and US$ 31.5 million respectively.

Earnings from meat and meat products exports rose to US$ 34 million in 2009/10 from US$ 26.6 million in 2008/09 due to higher exports to the Middle East. There was also an increase in earnings from the export of live animals, which reached US$ 90.7 million in 2009/10 due to the better International prices. The receipt obtained from the export of cut flowers was US$ 170.2 million in 2009/10 compared to US$ 130.7 million in 2008/09. Similarly, the income from chat reached US$ 209.5 million in 2009/10. Gold export also increased from US$ 97.8 million in the year 2008/09 to US$ 281.4 million in 2009/10. (*www.ecea.org.et)*

2.12 The major actors in sesame trading

There are various actors in sesame value chain. These include producers, small traders (collecting middle men**),** Wholesalers/brokers, oil millers, retailers, local consumers and exporters (ECEA 2009, Winands and Biersteker, 2007).

2.14 Variables

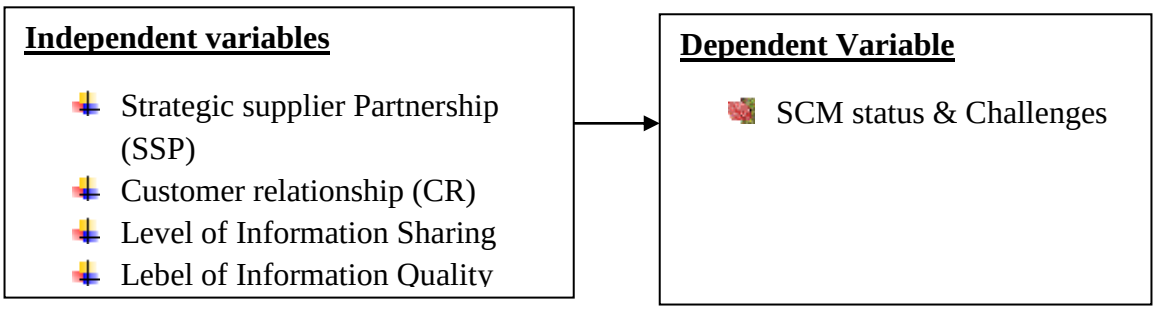


Figure 5: Dependent & Independent Variables

2.14.1 Dependent variable

Supply Chain Management Status and Challenges; meeting customers' demand more efficiently by providing the right product, in the right quantity, at the right location, on the right time, and in the right condition. There was a yes/ no question that measures the supply chain management implementation status and its challenges.

2.14.2 Independent variable

1. **Strategic supplier partnership (SSP):** The long-term relationship between the organization and its suppliers. It is designed to leverage the strategic and operational capabilities of individual participating organizations to help them achieve significant ongoing benefits
2. **Customer relationship (CR):**.The entire array of practices that are employed for the purpose of managing customer complaints, building long-term relationships with customers, and improving customer satisfaction.
3. **Level of information sharing:** The extent to which critical and proprietary information is communicated to one's supply chain partner
4. **Level of information quality:** Refers to the accuracy, timeliness, adequacy, and credibility of information exchange

CHAPTER THREE

RESEARCH DESIGN AND METHODS

3.1 Description of the Study Area

The study was carried out to see the sesame export trade supply chain trend from the production area which is selected by a researcher Metema woreda located about 900 km North West of Addis-Ababa and 188km West of Gondar town and have an estimated area of 440 square km; bordering with Sudan, Tigray region, and the Woredas of Quara, Chilga, Alefa, and Tach Armachiho in the Amhara Region. Sesame producers of Metema woreda grow different types of local sesame varieties. The area is one of the three most important sesame production area of Ethiopia and in other hand the major input of Ambasel trading is from this woreda. In the area, there are more than 21,000 small holder farmers, 47 Investors and 523 traders (suppliers).

In addition to the above, the study try to assess the challenges of the trading journey in each destinations these are the two sesame processor and exporter companies in Ethiopia i.e. Ambasel trading Addis Ababa head office and factory found in Amhara region Gondar which is727km from Addis Ababa and Selit Hulling found in Legetafo Addis Ababa, Legedade and EPOSPEA Addis Ababa and other partners working on the area as partners (sesame export). The major aspire of the study is to assess the journey of sesame from production to last point of export.

In Ambasel Trading and Selit Hulling companies sesame processing and exporting activities are accomplished. On both organizations there are different kinds of processing activities made. Form such activities, sesame cleaning and hulling is done by both companies and rather Roosting and making paste (tehineh) is processed only in Ambasel trading for the time being. Unfortunately there is no oil making company yet even though they have plan for future rather other governmental organizations are vital to facilitate the trading activities directly or in directly.

3.2 Research Design

In this study, descriptive research method is used. In order to answer the research questions the researcher deployed quantitative and qualitative method. Qualitative method deals with number and measurable manifestation, whereas qualitative allows for smaller samples and more interested in the depth of the data, quantitative methods tolerate larger samples and make generalization easier. Bryman (2001) also emphasizes that qualitative methods tend to be associated with words as unit of analysis, whereas qualitative tend to linked with number.

3.3 Population

The source of population that was used for the quantitative as well as qualitative method was for the small holder farmers by taking a calculated sample size from more than 20,000 of total farmers, registered investors which have a total size of 47 also taken randomly, and also 523 traders (suppliers) found in Metema Woreda, employees of the two companies which ware 400 in number (Ambasel trading found in Addis Ababa and Gondar, employees of Selit hulling Adiss Abeba & Legetafo) and other supportive actors on the industry like EPOSPEA, ECX, MOT, MOA, ATA, MOFA, FUA.

3.4 Sample and Sampling Techniques

For the quantitative study, in order to select representative sample the simple random sampling technique was implemented to select the study participants from the woreda, and from the organization of Ambasel trading and Selit hulling. The sampling technique which was used to draw a sample from the target population was lottery system.

For the qualitative part, purposive the sample taken from the first producer to the last exporter; that is from investors and farmers (Union) in Metema, representative of traders (suppliers in Kokit), Ambasel trading export marketing department Addis Ababa and (processing place Gondar) and Selit haling (Legetafo) the two companies are exporter of row sesame and major exporters of processed sesame. In this case, especially for Tahineh and roosted sesame Ambasel is the only company in Ethiopia doing well and exporting it until now. Rather cleaning & Hulling is performing by both companies, in this case Selit hulling also have a plan of doing roosting and other value addition in the near future and other partners are selected.

To select the interviewee the researcher used a method of purposive sampling technique 17 manager, investors and small holder farmers were interviewed until the saturation of idea on the implementation of supply chain management and its challenges. The interview was made on selected day and time that was favorable to the respondents.

The main respondents are Investors in Metema who is capable to fill the questionnaire properly, a manager of Metema farmers Union he is a representative of a members, two traders representatives, employees of the two companies in Ambasel trading export department staffs, Selit Hulling stuffs and first producer (Investors) in Metema are selected by using census survey method because they all are the population related to the study. Rather the export manager of Ambasel trading, Financial manger of Selit Hulling, ECX members and customer relation manager Addis Ababa, Ministry Of trade oil seed marketing directorate case team leader, Ministry of agriculture export crops quality controlling case team leader, Federal Union Agency Marketing officer, who were selected purposively based on accessibility of information and the level of knowledge on supply chain activities and operations on the sample area.

The next step was determining the actual sample size. The sample size was determined based on the following simplified formula (Yemane, 1967).

$$n = \frac{N}{1 + N(e)^2}$$

Where, **n** is number of respondent farmers,

N is the total number of employees involved in the SCM =**21,604**

e is the precision level. A 95% confidence level was taken and **e= 0.05,**

Then **n= 393**

The total sample size of respond based on the above sample size determination was 393

Table 4: Sample population that have role in SCM sampling technique

Name of the samples	Total population size =21604	Sample size proportionally allocated =393
Smallholder farmers, Registered Investors	20,767	377
Suppliers	523	10
Exporters	315	6

Source: survey output

3.5 Data Sources Tools and Procedures

3.5.1 Data Sources

The data for the study were obtained from both primary and secondary sources, to get adequate information about the study. The primary sources data was collected from Metema farmers, Union which has more than 20,000 member on it, suppliers (traders) which are a first destination for farmers to sell and are also suppliers for exporter and/ or processors, Commercial farmers Investors), the two processor and exporter companies, EPOSPEA (Union with a member of more than 115 exporters) and from their partners including ECX and other Governmental and non Governmental partners that affect their work directly and/ or indirectly. Like MOT, ATA, MOA and Federal Unions Agency.

Secondary data such as different records of Ethiopian sesame production and export trend in different years, sample letter for negotiation of default on export trade and other related data obtained from the following organizations. ATA, MOT, MOA, MOFA, EPOSPEA, ECX & CSA. Including websites of the two companies (Ambasel Trading and Selit Hulling).

3.5.2. Data Gathering Instruments

3.5.2.1. Questionnaire

To collect primary data, questionnaires were developed for farmers, investors, traders & Union, found in Metema Woreda, employees of the two companies (Ambasel Trading and Selit Hulling). The questionnaire contains mainly closed-ended and few open-ended questions. It is an appropriate instrument to obtain variety opinions with in a relatively short period of time (Best and Khan, 2003).

Depending on the type of question items, choices and rating were used in the questionnaire. The questionnaire was first constructed in English and later translated to "Amharic" for the purpose of clarity, to avoid language barriers and to make them understandable by the respondents. The questionnaire consisted different parts that address different issues like background information and the main issues of the trade of sesame seed between two parties supply chain activates.

3.5.2.2 In-depth Interviews

An Interview is typically defined as face to face discussion or communication via some technology like the tape recorder, telephone or computer between an interviewer and respondent. (Kultar, 2007).

Carolyn and Palena (2006) the primary advantage for in-depth interview is that they provide much more detailed than what is available though other data collection method as surveys. The interviewees are selected purposely from different organizations they are engaged on the activity of sesame trade supply chain wither directly or indirectly. The researcher believes that this enables to get the right information on the area in detailed.

Interview guides incorporating semi-structured questions were prepared to obtain qualitative information from; the manager of EPOSPEA, Ambasel trading export department manager because this department is responsible for sesame trading activities both in supply and customer side. Finance Manager of Selit Haling because he is the one who is responsible for handling such activities, Members and customer relation manager ECX, MOT oil seed marketing team leader, MOA crop health quality inspection directorate inspection and certification case team inspector, Federal Union Agency Marketing Officer, and other selected from Investors, Farmers and

suppliers representatives. To see the supply chain activity and the potential challenges on sesame seed clearly.

3.5.2.3 Observation

Direct observation of the fist marketing activities in Metema; the traders (suppliers place Kokit) and warehousing activities in the nearby ECX (Genda wuha Center), andthe two valuesadding companies (Selit Haling, Legetafo)and Ambasel Trading Gondar all the processing activities are observed by the researcher.

3.6 Variables

3.6.1 Dependent variable

Supply chain management status and challenges: meeting customers' demand more efficiently by providing the right product, in the right quantity, at the right location, on the right time, and in the right condition. There was a yes/ no question that measures the supply chain management implementation status and its challenges..

3.6.2 Independent variable

1. **Strategic supplier partnership (SSP):** Respondents were asked five questions (e.g. we consider quality as our number one criterion in selecting suppliers, we regularly solve problems jointly with our suppliers etc) to describe their level of agreement in a five scale response format from "strongly disagree" to "strongly agree". The 5-point Liker scale response options, scored from1 to 5, were strongly disagree, disagree, neutral, agree, and strongly agree. Subscale scores were obtained by summing item scores and dividing by the total number of items. If it is above or equal to the average it will be indicative for there is strong strategic supplier partnership in the trading system .based on this idea classified as: strong strategic supplier partnership if the average mean (median) value is greater than or equal to 15 and strong strategic supplier partnership if the average mean value is less than 15.
2. **Customer relationship (CR):** Respondents were asked five questions (e.g. we frequently measure and evaluate customer satisfaction, we frequently determine future customer expectations.etc) to describe their level of agreement in a five scale response format from "strongly disagree" to "strongly agree". The 5-point Liker scale response options, scored

from1 to 5, were strongly disagree, disagree, neutral, agree, and strongly agree. Subscale scores were obtained by summing item scores and dividing by the total number of items. If it is above or equal to the average it will be indicative for strong customer relationship in the trading system .based on this idea classified as: strong customer relationship if the average mean (median) value is greater than or equal to 11 and weak customer relationship if the average mean value is less than 11.

3. **Level of information sharing:** Respondents were asked six questions (e.g. we inform trading partners in advance of changing needs, our trading partners share proprietary information with us.etc) to describe their level of agreement in a five scale response format from "strongly disagree" to "strongly agree". The 5-point Liker scale response options, scored from1 to 5, were strongly disagree, disagree, neutral, agree, and strongly agree. Subscale scores were obtained by summing item scores and dividing by the total number of items. If it is above or equal to the average it will be indicative good level of information sharing in the trading system .based on this idea classified as: good level of information sharing if the average mean (median) value is greater than or equal to 20 and poor level of information sharing if the average mean value is less than 20.
4. **Level of information quality:** Respondents were asked five questions (e.g. Information exchange between our trading partners and us is timely., Information exchange between our trading partners and us is accurate ,etc) to describe their level of agreement in a five scale response format from "strongly disagree" to "strongly agree". The 5-point Liker scale response options, scored from1 to 5, were strongly disagree, disagree, neutral, agree, and strongly agree. Subscale scores were obtained by summing item scores and dividing by the total number of items. If it is above or equal to the average it will be indicative good level of information quality in the trading system .based on this idea classified as: good level of information quality if the average mean (median) value is greater than or equal to 14 and poor level of information quality if the average mean value is less than 14.

3.8 Method of Analysis

Editing and sorting of the questionnaires was done to determine completeness manually. Data entry and analysis was performed using SPSS version 21.0. The responses in the completed questionnaires were collected, coded, and entered into a data entry template. Summary tables and charts were used for describing data. Binary logistic regression analysis was carried out to see the association between each independent variable with outcome variable and then variables that showed significant associations were included in a single model and multiple logistic regressions were performed to identify the most significant predictors by using 95% CI (confidence interval) and P-value (0.05) to assess the degree of statistical significance. For the qualitative part, data was translated and transcribed in to English by the principal investigator. Then it was analyzed manually using the thematic analysis method and interpreted accordingly.

3.9 Data quality control

Standard questionnaire was adopted and adapted from the literature (Suhong Lia e.al, 2004). It was prepared first in English language and later translated in to Amharic language. Another translator translated the Amharic version back into English version. Comparison was made on the consistency of the two versions. These questionnaires were tested for reliability test using Corombaches alpha; that is Strategic supplier partnership (SSP**)** =0.450, Customer relationship (CR) =0.884, Level of information sharing =0.458 and Level of information quality =0.652. Prior to the actual data collection, pre-testing was done on 20 respondents farmers, investors and employees (5%of the sample size) at Metema, Gondar and Addis Ababa. The participants for pre-testing were not included in the final study participants. Data collectors and supervisors were trained for one day on the study instrument and data collection procedure. The principal investigator and the supervisor checked the collected data for completeness and corrective measures were taken accordingly. The collected data was cleaned, coded and explored before analysis.

3.10 Ethical consideration

The title of the study& proposal was approved by Ethical Review Committee of college of Business Administration of St. Mary's University, before the conduct of the study. Official letter was obtained from St. Mary's University. All the study participants were informed about the purpose of the study and finally their written and oral consent was obtained before collecting data. The respondent has the right to refuse or terminate at any point of the data collecting. Concerning the right to anonymity and confidentiality, the participants were not required to write their names on the questionnaire and assured that their responses will not in any way be linked to them. The dissemination of the finding was not referring to specific respondent. In any case, the aim of the study, confidentiality issue, and informed consent was explained and ensured to the study subjects.

3.11 Dissemination plan

The final result of this study will be presented to St. Mary's University, School of Business Administration. It is also disseminated Metema Woreda, Ambasel &selit hulling Trading and other concerned body and possible publication in journal.

CHAPTER FOUR

RESULT AND DISCUSSION

4.1 Introduction

This paper was mainly concentrating on the supply chain management implementation and its challenges on sesame from production to exporting systems by taking the two processor and exporter companies, Ambasel trading and Selit Haling with their suppliers. This part covers the demographic and general information of the respondents that involve in the whole process of sesame production to exporting system, descriptive analysis on the strategic supplier partnership, customer relationship, level of information sharing**,** level of information quality and improvement of work place as a result of SCM, result of the qualitative part on the selected variables. From 4393 self administered questionnaires all have been returned making response rate of 100% this is because 20 questioners ware disseminated for pre-tasting which is not included here and the data collector ware assisting and follow up the respondent whenever they needed. Descriptive analysis is used in attempt to understand the socio-economical and institutional characteristics of the sample in the study area. The first part presents the finding from questionnaires observation and in-depth interview rather the second part presents the result on the in-depth interview.

4.2 Analysis of Socio demographic characteristics of the respondents

The marital status of the respondents were dominated by married; i.e., the overwhelming majority of the respondents 273 (69.5%) were married, followed by single which accounts for 101(25.7%) and 19(4.8%) were divorced. From the table we can understand that the majority respondents are married.

Table 5: **Socio demographic characteristics of the respondents**

S/No	Demographic characteristics	Frequency	%
1.	Sex		
	Male	378	96.2
	Female	15	3.8
2.	Age		
	18-25	5	1.3
	26-35	249	63.4
	>35	139	35.4
3.	Marital status		
	Single	101	25.7
	Married	273	69.5
	Divorced	19	2.8

Source: own survey May, 2015

As it is shown in Table 5, the sex distribution of the participants were largely male dominated; i.e., 378 (96.2%) and 15 (3.8%) were females it also happens on the in depth interview from the total of 17 participants that was purposively selected and volunteered to participate in the in-depth interview 5, (29.410%) were female and the rust70.89% male. Hence, the majorities of the respondents were male in the selected area. This implies that the participation of women in the

production of sesame was very low; this might be related with the culture and belief of the society. The participant's age was ranged from 18 to 45 with mean age of 38.9 ±6.4 years. Most of the respondents lied with the age group from 26 to 35 with 249(63.4%), >35 138(35.4%) and the rest 5(1.3%) were between 18 and 25.

4.3 Academic status of the respondents

The following figure shows the academicals back grown of the respondents

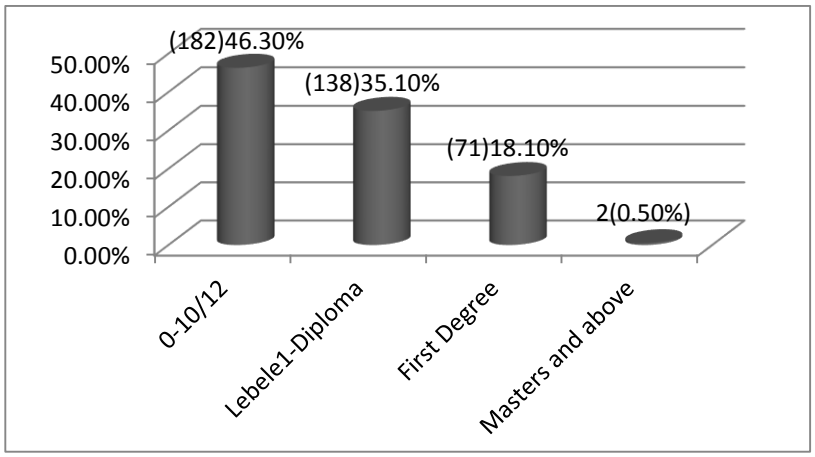


Figure6: Educational status of the respondents

The study has revealed the profile of sample respondents as shown in the figure 6 that the majority of the sampled respondents 182(46.3%) were 0-10/12, followed by who can level one diploma and first degree holder which accounts to 138(35.1%) and 71(18.1%) respectively, while the remaining educational level, master holders were very small in comparison with others 2 (0.5%).Therefore, the majority of the sampled respondents were laid in the range from 0-10/12.

4.4 Work experience of the respondents

The work experience of the respondents in the area is shown on the following figure and interpreted.

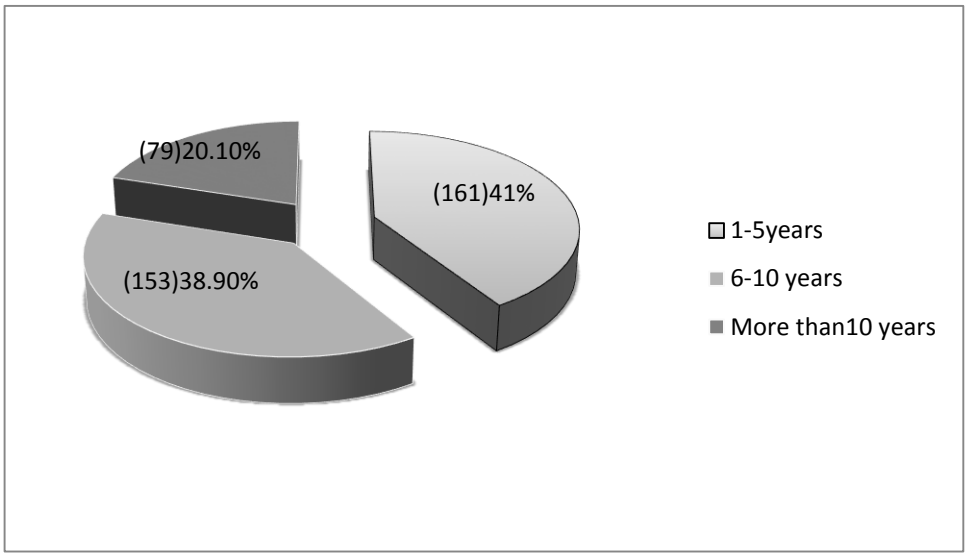


Figure7: work experience of the respondents

Regarding to work experience, 161(41%) of sampled respondents had 1-5 years experience followed by 153(38.9%) of the respondents had 6-10 years and the rest 79(20.1%) had more than 10 years experience with a minimum and maximum of 2 and 18 years work experience respectively, and a mean of 8, ± 3.4 experiences related to sesame production and expiries (see figure 7).

4.5 Strategic supplier partnerships

In determining the strategic supplier partnership of implementation the supply chain management practices on the sesame seed, respondents at the selected area rated their responses as follows in Table 6.

Table 6: Participants' application of supply chain management

It is evident that, 38(9.7%) and 54(13.2%) of the respondents ''strongly agree" and ''agree"

S/No	Item	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
		No %	No %	No %	No %	No %
1	We consider quality as our number one criterion in selecting suppliers	53 13	201 51.1	47 12.0	54 27.2	38 9.7
2	We regularly solve problems jointly with our suppliers	17 4.3	182 46.38	94 23.9	80 20.3	20 5.08
3	We have helped our suppliers to improve their product quality.	26 6.6	206 52.4	14 3.6	146 37.2	1 0.3
4	We have continuous improvement programs that include our key suppliers.	47 12.0	230 58.5	85 21.6	31 7.9	0 0
5	We actively involve our key suppliers in new type of production and process	1 0.3	216 55.0	151 38.4	20 5.1	5 1.3

respectively that they considered quality as their number one criterion in selecting suppliers. While more than half of respondents 201(51.1%), disagree with the idea of "Considering quality as their number one criterion in selecting suppliers", 47(12%) remain neutral and 53(13%) strongly disagree with the idea of "considering quality as their number one criterion in selecting suppliers". This means majority of the respondents disagreed in selecting suppliers quality was not their number criteria.

The above idea also developed by the interview taken from 30 years old male worker in the head office of Selit hulling which is one of studed company doing hulling & cleaning of sesame seed and exporting to Sweden (Truden Trading) a sister company of Selit hulling; he explained the quality related problems that affect the performance of hulling & cleaning of sesame seed "lack of pure organic product, since their company uses organic product, the farmers (unions) sometimes fail to provide fully organic sesame"

Regarding to the improvement of product quality, 6.6% of the respondents strongly disagreed and 52.4% disagreed with the statement they helped their suppliers to improve their product quality 3.6% remain neutral and only 0.3% of the respondents agreed; they helped their suppliers to improve their product quality.

Sesame production in Ethiopia has to pass through a series of long chains, before reaching at export processing and storage level. MoARD (2006/07) disclosed that sesame exporters are facing problems of impurities such as dirt, branches, stones etc. The percentage of these foreign bodies is estimated to be 7 - 9% where as the internationally agreed standard is 2% for first grade, 4% for second, and 6% for third grade sesame. Cleaning this low quality sesame to make it exportable would obviously require high costs of labor and machinery which in turn reduces competitiveness in the global market.

This also mentioned by the interview engaged with 28 years old female worker; from EPOSPEA (Ethiopia Pulses Oilseeds & Spices Processors Exporters Association) membership services and development offices, "shortage of quality and quantity since they are not on mechanized farming in the producer".

Among the respondents, 4.3% strongly disagreed, 46.38% disagreed, 23.9%neutral, 20.3 agreed & 5.08 strongly agreed on the topic of regularly solve problems jointly with their suppliers which shows that most of the respondents didn't solve problems jointly with their suppliers even though still some of them are working well.

On the issue of continuous improvement programs, 7.9% agreed, 58.2% disagreed, 21.6% neutral 12% strongly disagreed and no one strongly agreed that they have continuous

improvement programs that include their key suppliers. This means most of the respondents have no continuous improvement programs including their key suppliers.

For the subject actively involvement of their key suppliers in new type of production and process, 1.3% strongly agreed, 5.1% just agreed, 38.4% neutral, 55% disagreed, and 0.3% strongly disagreed. This means most of the respondents didn't involve on the actively of their key suppliers in new type of production and process.

To conclude 252(64.1%) of the sampled respondents have strong strategic supplier partnership while the rest 141(35.9%) have weak strategic supplier partnership.

According to the interview engaged with 33 years old male worker; leader at Ministry of Trade (MOT) oil seed marketing department. Said that "….. The main duty of our department is: - since sesame is a cash crop product next to coffee we are doing the regulatory part from the production to the marketing activities (supply chain). The major duties are creating modern trading activities, supporting facilitating and follow up, making the supply chain short, clear, fulfilling the logistic from production to end, minimizing the time cost and working promotion, price and other information transmission and other international market relationship. Expalins that "the main actors of the supply chain are producers, suppliers & exporters, the main challenges related to those actors example related to exporters was skill gap with international trading, default, luck of Technology, (results delay in certification), exporters are not coming to us on time are the problems related to of the chain actors (specially traders)". It shows how important to have strong supply chain activities.

4.6 Customer Relationship (CR)

Finding out the customer relationship of implementation the supply chain management practices on the sesame seed, respondents at the selected area rated their responses as follows in table 7.

Table 7: Participants' application of supply chain management

S/No	Item	Strongly disagree No %	Disagree No %	Neutral No %	Agree No %	Strongly agree No %
1	We frequently interact with customers to set reliability, responsiveness, and other standards for us.	47 12.0	239 60.8	1 0.3	76 19.3	30 7.6
2	We frequently measure and evaluate customer satisfaction.	105 26.7	265 67.4	0 0	0 0	23 5.9
3	We frequently determine future customer expectations.	23 5.9	211 53.7	134 34.1	25 6.4	0 0
4	We facilitate customers' ability to seek assistance from us.	47 12.0	284 72.3	15 3.8	27 6.9	20 5.1
5	We periodically evaluate the importance of our relationship with our customers.	26 6.6	334 85.0	4 1.0	29 7.4	0 0

About 7.6 % of the respondents strongly agreed, 19.3% agreed, 0.3% is neutral, 60.8% which is majority of the respondents just disagreed and 12% strongly disagreed on having frequently interaction with customers to set reliability, responsiveness, and other standards. This shows most of the respondents have no frequently interact with customers to set reliability, responsiveness, and other standards.

Regarding frequently measure and evaluate customer satisfaction, 5.9% of the respondents were strongly agreed, 67.4% disagreed,26.7% strongly disagree and no one replied agreed and neutral that they frequently measure and evaluate customer satisfaction which means most of the respondents disagreed that they measure and evaluate customer satisfaction frequently.

Among the respondents, 7.4% agreed, 1% was neutral, 85% disagreed and 6.6% strongly disagreed no one replied strongly agreed that they periodically evaluate the importance of their relationship with their customers. This means the greater part of the sample respondents were not periodically evaluate the importance of their relationship with their customers.

For the question asked that do you frequently determine future customer expectations, about 6.4% of the respondents answered agree, 34.1% replied neutral,53.7% disagreed 5.9% strongly disagreed and no one strongly agreed, which was more than half of the respondents said they didn't determine future customer expectations frequently.

Regarding question rose to the respondents about facilitating customers' ability to seek assistance from them, 5.1 % replied strongly agree, 6.9% replied agree, 3.8% replied neutral, 72.3% disagree and 12% strongly disagreed which shows there were no facilitation customers' ability to seek assistance from us.

To summarize, 273 (70%) of the participants have weak customer relationship and the rest 120 (30%) have strong customer relationship.

According to the interview engaged with 28 years old female worker of EPOSPEA, "the main and first challenges related to supply chain management on the sesame exporters is default, after they send the product the importer will make default or in the other way, after the negotiation made between them and after the exporter will fail to full fill as promised. This happens after

they spend their logistic expenses etc, this leads the exporters to loss their trust on the sector and the importer us well. The second problem was related to the skill and knowledge of trend

On marketing, they are not capable on export market skill and they don't know how they can be computable on international market. Sometimes even they didn't understand the languages on the contract, and even they have a problem of replaying timely the email". It shows they have less interaction between them, then default and or other problem will happen.

4.7 Level of Information Sharing

Concerning the level of information sharing with each other for the seek out of achieving their goal respondents at the selected area rated their responses as follows in table 8.

Table 8: Participants' application of supply chain management

S/No	Item	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
		No %	No %	No %	No %	No %
1	We inform trading partners in advance of changing needs.	0 0	35 8.9	98 24.9	168 42.7	92 23.4
2	Our trading partners share proper information with us.	0 0	5 1.3	63 16.0	322 81.9	3 0.8
3	Our trading partners keep us fully informed about issues that affect our business	0 0	92 23.4	68 17.3	233 59.3	0 0
4	Our trading partners share business knowledge of core business processes with us.	0 0	8 2.0	54 13.7	331 84.2	0 0
5	We and our trading partners keep each other informed about events or changes that may affect the other partners.	12 3.1	23 5.9	86 21.9	263 66.9	9 2.3
6	We and our trading partners exchange information that helps establishment of business planning.	49 12.5	52 13.2	27 6.9	265 67.4	0 0

Among the respondents, 23.4% strongly agreed, 8.9 % agreed, 24.9%neutral, 8.9% disagreed and no one was strongly disagreed on the topic of inform trading partners in advance of changing needs. This means the greater portion of respondents inform trading partners in advance of changing needs.

Regarding their trading partners share proper information with them , 0.8 %strongly agreed, 81.9%agreed, 16 %neutral, 1.3% disagrees and no one answered strongly disagree which shows majority of the respondents their trading partners share proper information with them.

For the third category of question, 59.3% agreed, 17.3% neutral,23.4% disagree and no one replied strongly agree or strongly disagree on their trading partner's keep them fully informed about issues that affect their business. This also shows also most of the sample trading, trading partner's keep them fully informed about issues that affect their business.

concerning question rose to the selected trading about sharing business knowledge of core business processes,84.2% replied agree,13.7% replied neutral, 2% replied disagree and no respondent replied strongly disagree and strongly agree which means the greater part of the respondents their trading partners share business knowledge of core business processes with them. On the subject of informed about events or changes that may affect the other partners, 2.3% strongly agreed, 66.9% agreed, 21.9% neutral, 5.9%disagreed, and 3.1% strongly disagreed that they and their trading partners keep each other informed about events or changes that may affect the other partners.

Regarding exchange information that helps establishment of business planning, 67.4%agreed, 6.9 % neutral, 13.2% disagreed, 12.5% strongly disagree and no one strongly agreed. This shows majority of the sample traders exchange information that helps establishment of business planning.

The summery of this all questions showed that only 77(19.5%) of the respondents have poor level information sharing practice and the majority part 316 (80.9%) have strong level of information sharing practice.

4.8 Level of Information Quality

As it is shown in Table 9, about 23.9% of the respondents agreed, 12.5% are neutral, 61.3% which is majority of the respondents just disagreed, 2.3% strongly disagreed and no one replied for strongly agreed respondent on information exchange between their trading partners and them was timely. This shows most of the respondents information exchange between their trading partners and them was not timely.

Table 9: Participants' application of supply chain management

S/No	Item	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
		No %	No %	No %	No %	No %
1	Information exchange between our trading partners and us is timely.	9 2.3	214 61.3	49 12.5	94 23.9	0 0
2	Information exchange between our trading partners and us is accurate.	256 65.1	104 26.5	12 3.1	0 0	21 5.3
3	Information exchange between our trading partners and us is complete.	3 0.8	288 73.3	52 13.2	41 10.4	9 2.3
4	Information exchange between our trading partners and us is adequate.	50 12.7	294 74.8	2 0.5	38 9.7	9 2.3
5	Information exchange between our trading partners and us is reliable.	109 27.7	222 56.5	52 13.2	7 1.8	3 0.8

For the second category of question, 5.3% of the respondents strongly agreed,3.1% neutral, 26.5%disagreed and 65.1 strongly disagreed and no one respond agreed on the topic of on information exchange between their trading partners and them was timely. This shows most of the respondent's information exchange between their trading partners and them was accurate.

Regarding question rose to the respondents about complete information exchange,2.3 % replied strongly agree, 10.4% replied agree,13.2% replied neutral, 73.3 % replied disagree and

0.8%respondent replied strongly disagree which means the greater part of the respondents information exchange between their trading partners and them was not complete.

Among the respondents, 0.8% strongly agreed, 1.8% agreed, 13.2%neutral, 56.5 %disagreed, and 27.7%strongly disagreed on the topic of Information exchange between their trading partners and them was reliable.

Majority 307(78%) of the respondents have poor level of information quality and the rest 86(22%) have good information quality.

4.9 Work Improvement Analysis

The following table shows the work improvement by applying SCM practices and the challenges

Table 10: work improvement as a result of applying the SCM and its challenges

S/No	Item	Frequency	Percent
1	Is there any improvement of your work as a result of applying the SCM?		
	Yes	139	35.4
	No	254	64.6
2	**Challenges related to the farmers**		
	shortage of capital	304	80.6
	lack of loan service	92	24.4
	lack of improved seed	377	100
	poor soil fertility	145	38.5
	lack of information	253	67.1
	quality standard	23	6.1
	unexpected rain during harvest	377	100
	Shortage of labor force	324	85.9
	transportation from storage to market areas	292	77.5
3	**Challenges related to suppliers/collectors**		
	large scale gap between ECX's price and Local traders price	10	100
	Unable to sell sesame product outside specific market places	6	59.8
	Delay at ECX for accepting sesame	10	100

	Raising transport price	10	100
	very poor network services	7	71.1
	Tight relations exist between buyers and supplier in quoting best prices	8	80
4	**Challenges related to exporters**		
	Default	5	100
	Luck of skill	5	100
	financial capability problem	3	60
	EXC price posting	4	80

4.9.1 Work improvement as a result of SCM applying

As the result stated in the table 10 related to the question raised on work improvement as a result of applying the supply chain management on the Sesame production and exports' shown on the above table most of the respondents 254(64.6%) replied no while the rest 139(35.4 %) replied yes.

4.9.2 Challenges related to the farmers, suppliers and exporters

Regarding to the problems of farmers associated with sesame production, harvesting and transportation were lack of improved seed, unexpected rain during harvest, Shortage of labor force, shortage of capital, and transportation from storage to market areas with 100%, 100%, 85.9, 80.6%, 77.5% respectively .this research also tried to find out problems related to suppliers/collector, All of the respondents (100%) have problem like delay at ECX, raising transport price and large scale gap between ECX's price and Local traders price followed by tight relations exist between buyers and supplier in quoting best prices 84.5% and very poor network services 71.1%.

The main problems related to exporters were both default and lack of skill 100%, financial capability problem and EXC price posting 61.3% and 91.4% respectively. This idea is also highly stressed by the interview from EPOSPEA and Trade Minster. According to the interview engaged with 28 years old female worker; from EPOSPEA (Ethiopia Pulses Oilseeds & Spices Processors Exporters Association) membership services and development offices, the mains challenges related to supply chain management on the sesame exporters are "default, lack of skill and knowledge, financial capability, price posting on ECX". This also emphasized by the

interview taken from 33 years old male; leader at Ministry of Trade (MOT) oil seed marketing department. According to her explanation these are some of the main challenges which affects by the following ways. Some of the exporters are not capable on export marketing skill and they don't know how they can be computable on international market, sometimes even they didn't understand the languages on the contract, and even they have a problem of replaying timely the email. On the other hand the financial problem is also another hindrance, even most of them they are interested to join the value addition work but still they face financial shortage. The fourth challenge stated by the worker found in the EPOSPEA related to posting price on ECX affect the because since the price posting on international and since it doesn't conceder their logistic cost; (It is a hope cost) then it will kill their competitiveness on prices because other countries' companies can offer with less price since they have low logistic cost. The last problem mentioned by her is shortage of quality and quantity since they are not on mechanized farming. .

4.9.3 Major actors and supply chain management participants

In general terms, the most important actors of sesame marketing in Metema woreda in particular and in the Amhara region in general are listed as: producers(both smallholder farmers and large scale farmers), Cooperatives(primary and Union), assemblers and /or village collectors ,suppliers, wholesalers and exporters.

In Metema woreda basically two types of producers have been identified based on the land holding size. According to the informal discussion made with Woreda agricultural experts, those farmers who own over 20 hectare lands are considered as commercial farmer and those who owned below 20 hectare were identified as smallholder farmers.

4.10 Correlation analysis of the variables

Using the binary logistic regression an association between the improvement of work as a result of applying the supply chain management and socio demographic characteristics (age, sex, marital status, educational status and work experience) and the main challenges related to the strategic supplier partnership, level of information quality, level of information sharing and customer relationship of the respondents that was people working from the sesame production to exports was made

Table 11: Associations of work performance with socio demographic characteristics and other selected variables

S/No	Variables	Improvement of work performance		Crude OR(95% CI	Adjusted OR(95%CI)
		Yes	No		
1	Sex				
	Male	135	243	1.1(0.83,1.45)	
	Female	4	11	1	
2	Age				
	18-25	0	5	0.9(0.34.2.98)	0.5(0.12,4.02)
	26-35	93	156	0.6(0.23,1.45)*	0.4(0.22,2.89)
	>35	46	92	1	1
3	Work experience				
	1-5	59	101	0.8(0.47,1.46)	0.9(0.33,2.45)
	6-10	54	100	0.9(0.23,2.34)*	0.3(0.12,4.45)
	>10	26	53	1	1
4	Marital status				
	Single	64	130	3.5(2.56,6.76)	2.0(1.99,3.78)
	Married	68	120	3.1(1.65,5.67)*	3.5(2.34,4.89)**
	Divorced	7	4	1	1
5	Educational status				
	0-10/12	68	114	1.6(0.56,4.34)*	2.3(1.34,3.56)
	Level one diploma	47	92	0.6(0.23,5.45)*	0.9(0.67,2.34)
	First degree holder	24	46	1.2(0.67,3.78)*	1.2(0.34,5.34)
	Master and above	0	2	1	
6	Strategic supplier partnership				
	Weak	42	210	1.6(0.64,3.52)*	2.6(1.23,4.78)**

	Strong	21	120	1	1
7	Customer relationship				
	Weak	25	248	0.8(0.54,1.23*	2.5(1.45,4.34)**
	Strong	34	86	1	1
8	Level of information sharing				
	Poor	20	57	0.8(0.56,1.37)	0.6(0.12,1.45)
	Strong	109	207	1	1
9	Level of information quality				
	Poor	25	282	2.5(1.56,4.66)*	3.2(2.33,5.23)**
	Good	16	70	1	1

NB * statistically significant as the P value is <0.2 for crude OR

**** Statistically significant as P value is <0.05 for adjusted OR**

This result shows there was significant difference in the probability of improving work among those who are married, single and divorced. Those who were divorced were 3.5 times less likely to perform their work compared to those who were married as shown above.

Regarding to strategic supplier partnership there was statistically significant difference in improvement of work between those who have strong strategic supplier partnership and weak strategic supplier partnership and those who have strong strategic supplier partnership 2.6 times more likely to perform their work compared to those who have weak strategic supplier.

Concerning to the customer relationship there was statistically significant difference in improvement of work between those who have strong and weak customer relationship, those who have strong customer relationship 2.5 times more likely to perform their work compare to those who have weak customer relationship.

Furthermore, there was statistically difference in the improvement of work those who have good level of information quality and poor level of information quality .those who have poor level of information quality were 3.2 less likely to perform their work compared to those who have good information quality as shown above.

4.11 Discussion

Despite its nutritional and high value crop, research on sesame has been limited world widen and so that it has been produced under traditional management practices. Sesame yields are highly variable depending upon the growing environment, cultural practices and the type of cultivar. Sesame is a low yielder and worldwide average yields are low (Brigham, 1985). So the main aim of this study was to assess the implementation status of supply chain management on sesame from production up to exports.

In order to improve competitiveness of a Trading industry and build better reputation amongst consumers and competitors it is important to maintain level of quality of the sesame production. Quality affects all aspects of the organization and has dramatic cost implication. The most obvious consequence occurs when poor quality creates dissatisfied customers and eventually leads to loss of business. Effective quality improvements should result in a future stream of benefits, such as: reduced failure costs, lower appraisal costs, increased market share, increased customer base and more productive workforce. Improved quality increases productivity, hence, many world class industries use quality as a powerful competitive tool. There are many aspects of quality in trading of sesame one of them in this study raised was selection of suppliers. Half of respondents 253(64.1%), disagree with the idea of "considering quality as their number one criterion in selecting suppliers".

According to the study done on Analysis of Sesame production, supply, and demand and marketing issues in Ethiopia sesame quality grading was performed by the Ethiopian Quality and Standards Authority until the recent inclusion of sesame in the Ethiopia Commodity Exchange (ECX) system. Export sesame seed types have to fulfill the standards set by the authority as well as the minimum agreed international standards. Ethiopian sesame is mostly identified and graded as Humera, Gondar, and Wellega and to some extent mixed types and its oil content is 43-56%. The minimum international standard of oil content is 52%, 48%, and 45% for first, second and third grades respectively. On the other hand, the minimum acceptable moisture content is 6-8% for all grades (Winands and Biersteker 2007). Before reaching at export processing and storage level, sesame production in Ethiopia has to pass through a series of long chains. MoARD (2006/07) disclosed that sesame exporters are facing problems of impurities such as dirt, branches, stones etc. The percentage of these foreign bodies is estimated to be 7 - 9% where as the internationally agreed standard is 2% for first grade, 4% for second, and 6% for third grade

sesame. Cleaning this low quality sesame to make it exportable would obviously require high costs of labour and machinery which in turn reduces competitiveness in the global market. (Haile Abera, 2009)

This study also added only 1(0.3%) of the respondents agreed on ‘‘they have helped their suppliers to improve their product quality”. this result was also concurrent with the qualitative part. An interviewee were made with 28 years old male worker from Selit Hulling, related with the problems that affect the performance of hulling & cleaning of sesame seed were. Since their company use organic product, the farmers (unions) sometimes fail to provide quality (fully organic) sesame.

Regarding solving problems jointly with suppliers, most of the respondents (76.1%) disagreed on the topic of regularly solve problems jointly with their suppliers. On the contrary on the qualitative part most of the interviewee responded this question as follows. One of the EPOSPEA (Ethiopia Pulses Oilseeds & Spices Processors Exporters Association) membership services and development office said that “…..EPOSPEA existing on behalf of exporter, so we do on exporting activities to solve the problem faced on the directly exporters and indirectly suppliers.”

The regression analysis also suggested that there was statistically significant difference in improvement of work between those who have strong strategic supplier partnership and weak strategic supplier partnership and those who have strong strategic supplier partnership were 2.6 times more likely to perform their work compared to those who have weak strategic supplier.

The major sesame producing areas of the country are located around North Western and South Western low lands where communication networks are not yet expanded to the required level. This has resulted in low bargaining position of farmers due to lack of adequate market information. Sesame being an export commodity requires the dissemination of market information on regular bases. From the discussions held with the heads of EPOSPEA it was disclosed that many producers and small traders tend to hold large stocks of sesame while the international price was showing a declining trend. This obviously will incur costs and results in loss of money.

Even if this study field to demonstrate the relation between level of information sharing and improvement of work performance .but other researches tries to linked this idea for example, According to Shiferaw, et al. (2007) the degree of trust and relationship among chain actors depends on the strength of the chain and in conditions like sharing of information is poor and actors performs in ways that demoralize the activities of the others, the chain is under develop and largely inefficient and inequitable.

A study made by Kodigehalli (2011) supports to the finding of this study. The study on value chain of coffee made by Kodigehalli reported that, coffee marketing have been dominated by the intermediaries who have made small producers to remain at their early stage and the result also showed that the linkage between producers and other value chain actors and access to information were restricted with and among intermediaries. In addition to the above, the result also revealed that coordination among actors characterized by less market coordination, low transparency in the flow of information and less bargaining power for small producers of coffee.

Moreover, the study made by Baloyi (2010), revealed that the participation of smallholder farmers in high value markets was constrained due to poor access to comprehensive agricultural support services and there are also relatively few direct linkages between smallholder farmers and fresh produce markets, supermarkets and agro processors.

In addition, farmers‟ sales activities are also either at the local or at the farm gate level. Other studies done on similar area as well support rather than negate the findings of this study. This can be evidenced by the study by Arsema (2008) found that there was very weak with little or no communication among the value chain actors in Bamboo forest products.

Even though considerable proportion of sampled respondents 316(80.5%) had access to market information, the quality of market information and timeliness was so uncertain. The information was delivered untimely and was not reliable. Besides, it was not accessed equally among the channel members.

Historically, extension services can contribute to boost production and productivity and thus increase marketed surplus. According to the study done on Sesame market chain analysis: the case of Metema by Kindie Aysheshm(2007) we have learnt that only 42.5% of the respondents had access to extension services. The contacts they made with development agents were not

regular and consistent. The study result indicated that 50% of the respondents reported untimely contact with extension agents, and over 57% of the respondents also explained irregular visits of extension personnel. Besides, from the informal discussion with producers it is learnt that extension agents and sesame producers have equal knowledge about the existing farming practices (Kindie Aysheshm, 2007).

In addition, this study showed that there was statistically difference in the improvement of work those who have good level of information quality and poor level of information quality .those who have poor level of information quality were 3.2 less likely to perform their work compared to those who have good information quality.

The in depth interviews issues related to customers' level of information quality emerged quiet consistent with the quantitative data .This is also confirmed by one of the ministry of trade (MOT) oil seed marketing team leader said that "….. The main aim of supply chain management is to have the right product in the right time and right amount but this is not happing because of information quality…"

Similar idea was also raised by kellick Marketing has often been conceived as unproductive or as an activity of exploitation, especially when differences between the producer price and the consumer price are significant. The main reason to this notion is related to a fundamental question of economic science: which distribution structure will allocate products and services in the society most efficiently? Getting right price is a major objective in agricultural policies (Killick, 2009).

The customer relationship for sesame trading carries great importance like the customer service for other sectors carry. Especially, if it is considered that gaining new customers create four times more costs than protecting existing customers from leaving, it can be seen that the customer service plays a great role for the firms. The significance of good customer service can be shown in financial terms, as it costs at least five times as much to win a new customer as it does to keep a current one. Many companies consider investments in complaint handling as means of increasing customer commitment and building customer loyalty. Firms are not well informed, however, on how to deal successfully with service failures or the impact of complaint handling strategies (Khan, S., 2013).

Effective complaint handling can have a dramatic impact on customer retention rates, deflect the spread of damaging word of mouth, and improve bottom-line performance (Lamming, R. C, 2010). Effective resolution of customer problems and relationship marketing are linked closely in terms of their mutual interest in customer satisfaction, trust, and commitment (Morgan, 2009).

This study also quiet consistent with this idea as this evidenced by the quantitative data, there was statistically significant difference in improvement of work between those who have strong and weak customer relationship, those who have strong customer relationship 2.5 times more likely to perform their work compare to those who have weak customer relationship.

SCM assists the business organization to compete in the dynamic international market. The objective of SCM is to incorporate activities across and within organizations for providing the customer value. This should also be applicable to the sesame production, which represents a type of profit organizations. The goal is to provide the customer value by producing high quality sesame and sesame outcomes. An integrated supply chain involves coordination and information sharing up and down the process among all stakeholders. With technology facilitating information flow, a coordinated supply chain can be designed to meet the strategic, planning, and operating objectives of the trading organization. It also means establishing effective and feasible relationships both inside and outside the organization (Sandelands, 1994).

Similarly a study revealed that the sesame supply chain can be seen as a huge coordination problem. Small amounts of sesame must be collected from a multitude of farmers, and then transported and sold to different markets, most of which are abroad in the case of sesame. Information about demand and supply and matching prices must also be distributed through the value chain. Weak infrastructure and the lack of support institutions exacerbate this problem of coordination (Sorsa, 2009)

Despite the high potential for increased production of sesame and the rapidly growing demand in the international market for Ethiopian sesame, it has been observed that the supply chain of sesame also suffers from different challenges including the adulteration of sesame or mixing of sesame with different sources of varying quality and a lack of transparency among chain actors. Sesame being sold as plain seed, while quality characteristics such as oil content, percentage of

admixture, fatty acid profile are not commonly analyzed due to lack of capacity to accurately of measure the quality standards sesame. Thus, it is believed that selecting and grading sesame according to its quality and clearly specifying its characteristics, such as its origin (for traceability), or whether it is organic or a specialty etc, can create higher market prices as well as fulfill buyer expectations in the end market (Sorsa, 2009).

This necessitates the coordination of different stakeholders at any stage in production, post harvest handling and processing steps to obtain better quality. Regarding to the problems of farmers associated with sesame production, harvesting and transportation were lack of improved seed, unexpected rain during harvest, Shortage of labor force, shortage of capital, and transportation from storage to market areas with 100%, 100%, 85.9, 80.6%, 77.5% respectively.

This is similar with the study done in Sesame market chain analysis: the case of Metema showed that 74% of producers had access to credit and the major source of credit (88.30%) was ACSI which's maximum loan able fund (Birr 5000) has been below the requirements of the majority of respondents. Hence, shortage of finance was explained as the critical problem for both traders. The high percentage share and the incredibly high interest rate (38.40%) of usurers in credit provision activities can be a simple justification of the existence of finance shortage and absence of strong development oriented financial institutions (Kindie Aysheshm, 2007)
Some importers (China, Israel, etc.) developed the test and preference of our sesame seeds.
However, the world sesame market demands white sesame together with other preferred traits.
To explore the world export market, we need to improve the quality and natural conformity of our sesame seeds through research. For instance, the share of our sesame seeds sales in 2005 to Japan which is number one world importer of sesame seeds was almost null i.e. 0.33%.

Hence, from our trial we can learn more and explore the best price offers in the world market.
The main problem reported by 70.34% of producers was poor quality of packing pp bags. Out of the major sesame producing areas, Metema woreda is relatively good in terms of road Condition, availability and transport rates. However, these factors are not evenly distributed to all PKAs and have their own problems. Many are constrained with lack of all weather access roads to and fro farming areas that made difficult transporting outputs soon after threshed. The rate of

transportation was so high for localities away from the main road. This high transportation cost had implications on the price paid to producers. Beside, at local level there existed seasonal shortage of transport vehicles consequently created high transportation costs.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 Summary of Major Findings

The study examined the various aspects the local supply chain management and the major challenges encountered on sesame from production to exporter chain particularly the case of Ambasel and Selit hulling .The Major findings are summarized as follows.

- Evaluating the socio demographic characteristics of the respondents, majority 378(96.2%) of the participants were male with the age group of 26-35 249(63.4%). The educational status of the respondents were 0-10/12 182(46.3%), followed by level one diploma 138(35.1%) (%) and the marital status of the respondents were dominated by married; i.e., the overwhelming majority of the respondents 273 (69.5%) were married. The correlation regression also showed there was significant difference in the probability of improving work among those who are married, single and divorced. Those who were divorced were 3.5 times less likely to perform their work compared to those who were married.
- In the descriptive analysis part, tried to demonstrate 252(64.1%) of the sampled respondents have strong strategic supplier partnership while the rest 141(35.9%) have weak strategic supplier partnership. In the qualitative part also added one of the interviewee from the Ministry of Trade (MOT) said that “the main problem that faced to their company was lack to manage the actors on the area …” the correlation regression analysis also strengthens this idea. There was statistically significant difference in improvement of work between those who have strong strategic supplier partnership and weak strategic supplier partnership and those who have strong strategic supplier

partnership 2.6 times more likely to perform their work compared to those who have weak strategic supplier.

- Regarding the customer relationship, 273 (70%) of the participants have weak customer relationship and the rest 120 (30%) have strong customer relationship. and there was statistically significant difference in improvement of work between those who have strong and weak customer relationship, those who have strong customer relationship 2.5 times more likely to perform their work compare to those who have weak customer relationship. Compared with the other study done on customer handling by Khan, S., 2013 it is quiet consistent.
- Even though considerable proportion of sampled respondents 316(80.5%) had access to market information, the quality of market information and timeliness was so uncertain. The information was delivered untimely and was not reliable. Besides, it was not accessed equally among the channel members. As this is evidence in the qualitative and quantitative of this study and other related studies. This study showed that there was statistically difference in the improvement of work those who have good level of information quality and poor level of information quality .those who have poor level of information quality were 3.2 less likely to perform their work compared to those who have good information quality.

- Most Farmers are faced by shortage of capital/Lack of loan services, lack of improved seed and inputs, high price inputs high price of labor and poor soil fertility. Unable to sell sesame outside prepared market places, Delay at ECX performance which causes high transport prices that make retailers to lower purchasing prices and Poor network conditions are among the listed problems by the exporters and suppliers.

- 83.33% of the main actors are faced with shortage of capital/Lack of loan facilities and 72.22% are not satisfied with the quality of sesame brought by farmers.
- From the nature of the value chain and the discussions held with the Ethiopian Pulses, Oil seeds and Spices Processors and Exporters Association (EPOSPEA) it was learned that sesame market in Ethiopia has the following major challenges.

- The low productivity as a result of erratic rain fall has reduced the supply of sesame and quality of the seed.
- Inadequate market infrastructure such as ware houses and road net works raised transport costs and the competitive edge of the commodity.

5.2 Conclusions

From the study conducted it was observed that every stakeholder in sesame supply faces challenges with different degrees of importance. The introduction of Exclusive sesame trading through ECX from November 2011 has created some discomfort to some parties in the chain as it is a new system but it is believed to gear sesame export chain to a better stage with short span of time. Generally the main findings of the study can be summarized as follows

1. The main actors of the supply chain management of sesame from production to exporters were producers (farmers), suppliers and exporters.
2. Other than packaging no value adding activities are conducted at farmer level. Excluding production and harvesting.
3. The main challenges faced by the farmers were shortage of capital/Lack of loan services, lack of improved seed and inputs, high price inputs, high price of labor and poor soil fertility. Unable to sell sesame outside prepared market places, Delay at ECX for which causes high transport prices that make seller to lower purchasing prices and Poor network conditions are among the listed problems by the exporters and suppliers
4. Generally, this study revealed that the most strong predictor variable for achieving or hindering for work performance or improvement were marriage, strategic supplier partnership, customer relationship and quality of information.

5.3 Recommendation

Based on the summarized findings and conclusions of the study, the following recommendations that could calls for policy measures (interventions) so as to improve sesame production and marketing are forwarded:

1. Enhancing production and productivity through:
   - ❖ Provision of appropriate improved varieties adaptable sesame seed to the specific areas,
   - ❖ Improving the extension service, farming practices and agricultural credits,
   - ❖ Expanding private commercial farms.
   - ❖ Improve the knowledge of farmers and trading actors about the product characteristics of the different oilseeds and avoid blending of seeds having distinct qualities and applications.
2. Expansion of road infrastructures to reduce transport costs, to attract private investment in the area and to facilitate the supply of labor as the production system is highly labor intensive. The road construction and making of transportation availability is not a one party work, so the national and regional road authority offices must work by organizing with other supportive Governmental & Non-Governmental organization involved on.
3. Encourage Local Value Addition, It is hoped that processing sesame locally into different forms will help economic development in the country and increase the competitive power of sesame in the international market. By getting better premium price and better market penetration in different part of the world especially European and US countries rather it will minimize the dependability of China's market, this will come out by providing better facilities of infrastructure including adequate Electric power.
4. Communication skill proxies by number of foreign languages spoken influenced positively the volume of marketable supply of sesame especially on exporters. Thus, there is a need to promote this skill in the area; this must slam by providing sufficient language skill up grading training (refreshment courses) for the exporters. Rather the main instrument to solve the above problem is, like tourism management or other professions export trading must be given as a separate department study in the University and at the same time anyone who want to have exporter license must be certified. Even if it may take time on the short run anyone

who want to have export license must take at list training related to the international marketing activity and other related ideas including language before getting the license to be competitive in the area after.

5. Different study shows that good packaging protects commodities from quality and quantity deteriorations. However, producers and traders complained for the poor quality of pp bags available in the market. Hence, owners of the pp bag and loading containers companies should give emphasis to improve the quality and quantity of their supply.

6. Improve Credit Facilities and Banking Services; all the chain actors from producers at the beginning of the process to the ultimate exporters complain about a shortage of working capital and a lack of access to proper and efficient financial services. Actors at the central market level and exporters in particular complain that a shortage of capital and stringent conditions imposed by banks for securing loans have deterred their performance. Therefore, they expect the government and the public-private partnership project to study the problem and create an enabling situation; so they have easier access to credit and other banking services.

7. Facilitate institutional arrangement to achieve smooth relations and governance among chain actors business relationships between chain actors are characterized by opportunistic behavior and governed by price. In such situations, the risks of uncertainty caused by human behavior are very high. Local buyers cannot confidently deal with their forward linkages (international buyers) since they cannot be certain about their supply. Similarly, suppliers (producers) cannot be certain about their sales since they don't know how much, under what conditions and for which price they can sell. Therefore, producers cannot be encouraged to make efforts and commit their resources for the production of the seed. As a result of this lack of coordination and lack of trust among chain actors, competitiveness in the sesame chain is limited, and the level of satisfaction among the ultimate buyers is predictably low, which in turn affects the performance of all the chain actor

8. Devise a system for regular access to market information, lack of access to market information quality is a common problem cited by all chain actors. Coupled with opportunistic behavior on the part of most of the chain actors and a lack of access to reliable and regular market information, this creates all sorts of confusion in the market. When prices

begin to increase, people tend to believe it will continue to increase and consequently continue to speculate, rather than using the opportunity to supply the market. Provision of reliable and timely market information to the farmers, traders, processors and/or exporters by using organized and networked technology to deliver timely information for the for the main actors of the trading (Producers, traders & Exporters) for updating international information about the market & production information including international and national forecasting is vital it could help chain actors make well-informed decisions.

REFERENCES

Abay Asfaw and Zewdu Belete (1999). "Export earning Instability and Structure: The Case of Ethiopia", Proceeding of Ethiopian Economic Association annual Conference on the Ethiopian Economy, Addis Ababa University, Ethiopia.

Alemayehu, G (2008). The Political Economy of Growth in Ethiopia.

Andaregachew Aresema (2008). Value chain analysis for Bamboo originating from shedem kebele, Bale zone. An MBA thesis submitted to Addis Ababa University, Addis Ababa. pp 94

Archie Lockamy III and Kevin McCormack (2004). Development of a supply chain management process maturity model Supply Chain Management: An International Journal Volume 9 · Number 4 ·2004 · 272-278

Azmera Andemo (2011). The Role of Government in Promoting Export: Comparative case study of Ethiopia, South Korea and Vietnam.

Baloyi, J (2010). An Analysis of Constraints Facing Smallholder Farmers in Agribusiness Value Chain: A case Study of Farmers in Limpopo Province. A Master thesis in Agricultural Economics submitted to University of Pretoria. pp104

Bryman, A (2001). Social Research Methods: Oxford University Press CA: Sage

CSA (Central Statistical Agency) (2014). Sample Survey Volume I Report n Area and Production of Major Crops Addis Ababa, Ethiopia.

CSA (Central Statistical Agency) (2007). Agricultural Sample Survey 2006-07, Volume I, Addis Ababa, Ethiopia.

CIAT (Centro International de Agricultural Tropical) (2004). Increasing the Competitiveness of Market Chains for Smallholder Producers .Manual 3: Territorial Approach to Rural Agro-Enterprise Development Project.

Dereje Tilahun (2011). The effect of marketing communication Channels: the case of Ethiopian commodity Exchange, Addis Ababa University, Ethiopia.

Dorothy McCormick and Hubert Schmitz November (2007). Institute for Development Studies University of Nairobi, Kenya and Institute of Development Studies University of Sussex, UK for Value chain research on Home workers in the garment

Donlon JP (1996). Maximizing value in the supply chain. Chief Executive 117:54–63.

Evans Hugh, E (2004). Policy Implications for RNFEs. Lessons from the PARUL Project in Indonesia. In The Indonesian Rural Economy: Mobility, Work and Enterprise, Chapter 11, ed. Thomas R. Leinbach. Singapore: Institute of Southeast Asian Studies.

ECEA (Ethiopia Commodity Exchange Authority) (2009). Crop market assessment study of wheat, maize, sesame and haricot bean, Addis Ababa, Ethiopia.

FAOUN (Food and Agriculture Organization of the United Nations) (2004). Recommendations on the prevention, control and eradication of highly pathogenic avian influenza (HPAI) in Asia. FAO Position Paper, Rome

FAOSTAT (Food and Agriculture Organization of the United Nations) (2008). (Available online http://faostat.fao.org/site/567/default.aspx#ancor (Accessed 20/07/2012).

FOP (Future of Place Organizer) (2013)

Goletti, Francesco (2005). Agricultural Commercialization, Value Chains and Poverty Reduction. Making Markets World Better for the Poor Discussion Paper No.7. Hanoi: Asian Development Bank.

Haile Abera (2009). Analysis of Sesame production, supply demand and marketing issues in Ethiopia. Hora Maya University, Ethiopia.

Janick J. and Whipkey, A (2008). Food, Industrial and pharmaceutical uses of sesame genetic resources

James, Mbwika (2003). Sesame market study. Ethiopia country report, Volume II.

Kemal Shikur (2011). Supply chain assessment of sesame oilseed From Humera to Djibouti Port

Killic T., (1989). A reaction too far: Economic Theory and the Role of the State in Developing Countries, London

Kindie Aysheshm Tesfahun (2007). Sesame production and market chain the case of Metema Woreda, Northe Gondar Zon, Amhara Regional State, MA Paper, Hara Maya University.

Koch, Gary.G (1985). Analysis of Categorical Data. Montréal University, Quebec, Canada.

Kodigehalli, B (2011). Value chain analysis for Coffee in Karnataka, India. M.Sc. Thesis Presented to Humboldt University of Berlin, Germany, pp 76

Khan, S (2013). "Attaining Customer Satisfaction"! The Role of Customer Value and Relation Base Marketing A Study of Policy Holders of Peshawar Pakistan", International Journal of Managing Value and Supply Chains, Vol. 4 No. 1, pp. 11-24

Magistro, John, Mike Roberts, Robert Yoder, Fritz Kramer, and Elizabeth Weight (2004).

PRISM: A Model for Smallholder Wealth Creation through Integrated Service Provision, Value Chain Market Development and Micro Irrigation Technology. Paper presented at the IWMI Regional Workshop and Policy Roundtable on Pro-Poor Intervention Strategies in Irrigated Agriculture in Asia, 25-27 August. Colombo, Sri Lanka

Mårten Fristedt, Andreas Hansson, Maria Huge-Brodin, Jakob Rehme & Erik Sandberg (2006). Supply Chain Management in practice. Case study of McDonald's Sweden

Maureen Chitundu1, Klaus Droppelmann2 and Steven Haggblade (2006). A Value Chain Task Force Approach for Managing Private-Public Zambia's Task ForceOn Acceleration of Cassawa Utilization

McCormack, K. and Johnson, W (2000). Business Process Orientation: Gaining the E-Business Competitive Advantage, St Lucie Press, Delray Beach, FL.

Miguel Rodriguez Mendoza (2009). Trade Rules in the Making: Challenges in Regional and Multilateral Negotiations. Washington, D.C. The Brookings Institution Press/Organization of American States

MoARD (2006/2007). Market-Oriented Development Master Plan, Addis Ababa, Ethiopia.

MOARD (Ministry of Agriculture and Rural Development) (2003). Draft sesame development plans. Addis Ababa, Ethiopia.

MOA, OSMD (Ministry Of Agriculture) (2013). Oil Seed Development Plan

MOT (2014). Sesame Sector Development Strategy working document, Addis Ababa, Ethiopia

MOA (2005 E.C). Crop Production Marketing Directoret, Oils Seed Trade Export Stastical Bulletin Augest Addis Abeba

MOTI (Ministry of Trade and Industry) (2004). Report on diagnostic trade integration study. Addis Ababa, Ethiopia

Mohamed Elleuch (2012). Quality characteristics of sesame seeds and by-products

MOARD (Ministry of Agriculture and Rural Development) (2013). Draft sesame development plans. Addis Ababa, Ethiopia

Orville C. Walker (2013). Marketing strategy, fourth edition

Peter Gibbon (2000) Working Paper Subseries on Globalization and Economic Restructuring in Africa no viii. Global Commodity Chains and Economic Upgrading in Less Developed Countries

Peter Richter (2005). The Application of the Value Chain Methodology in Development Projects Value Chain Promotion Component, Sri Lanka Reporting on the Sri Lankan Experiences

Reardon, T, Timmer, P, Barrett, C and Berdegué, J (2003). 'The rise of supermarkets in Africa, Asia, and Latin America', American Journal of Agricultural Economics, Vol 85 No 5: 1140-1146

Rome Andrew W. Shepherd, (2007). Agricultural Management, Marketing and Finance Service FAO Rural Infrastructure and Agro-Industries Division Food and Agricultural organization of the United Nations

Sandelands, E (1994). "Building supply chain relationships", International Journal of Physical Distribution & Logistics Management, Vol. 24 No. 3, pp.43-4

Shepherd Andrew W. (2007). Agricultural Management, Marketing and Finance Service

Shiferaw, B. Obare, G. and Muricho, G (2006). Rural institutions and producer organizations in imperfect markets: Experiences from producer marketing groups in semi-arid Eastern Kenya. Working Paper Series No. 23

Sorsa Debela Gelalcha (2009). Sesame trade arrangements, costs and risks in Ethiopia: A baseline survey, Ethiopia.

Suhong Lia, Bhanu Ragu-Nathanb, T.S. Ragu-Nathanb, S. Subba Raob (2004). The impact of supply chain management practices on competitive advantage and organizational performance

(SSDSWD) (2013-2017, 2014). Sesame Sector Development Strategy Working Document

Vorley, B (2003).'Food, Inc.: Corporate Concentration from Farm to Consumer', London, International Institute for Environment and Development and UK Food Group

Weatherspoon, Dave D, and Thomas Reardon (2003). The Rise of Supermarkets in Africa: Implications for Agrifood Systems and the Rural Poor. Development Policy Review 21.3: 333-55

Wijnands, J., J. Biersteker and R. Hiel (2007).”Oilseeds business opportunities in Ethiopia" Ministry of Agriculture, Nature and Food Quality, Ethiopia.

Zerihun J, (2012): Sesame (Sesame indicum L.) Crop Production in Ethiopia: Trends, Challenges and Future Prospects, Department of Plant Science Wolega, Ethiopia.

Zulu, Ballard, J.J. Nijhoff, T.S. Jayne, and Asfaw Negassa (2000). Is the Glass Half-Empty or Half Full? An Analysis of Agricultural Production Trends in Zambia. Working Paper No. 3. Lusaka: Food Security Research Project

Web sites

http://www.lef.org, Life Extension Magazine January 2008

www.epospea.org

www.ecea.org.et

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Annex 1 Questionnaire

Dear respondents, this questionnaire is designed to conduct an assessment of supply chain management of sesame seed tread on the case of Ambasel Trading and Selit Hulling for the partial fulfillment of graduate thesis for MBA program. I would like to express my warm appreciation in advance for the cooperation you will show in completing the questionnaires. Your identity will be maintained strictly confidential and your response will be merging and analyze with the other respondents for better result. Your support in answering the questionnaire is helpful for doing the right and meaning full problem solving research. I would like to let you know the result of my thesis after two month if you provide me your contact address.

Thank you in advance!

Contact: - genetmisganaw@yahoo.com

Mobile: - 251 913 91 40 83

I. General Information

1.1 Gender

a) Male ❑ b) Female ❑

1.2 Age a) 18-25 years ❑ b) 26-35 years ❑ c) above 35 years ❑

1.3 organization_____Occupation _____.

1.4 How long you stay on the area? a) 0-5❑ b) 6-10 ❑ c) more than 10 years ❑

1.5 Academicals status

a) 0-10/12 ❑ b) Lebele1-Diploma ❑ c) First Degree❑ d) Masters and above ❑

1.6 Marital status

a) Married ❑ b) Single ❑ c)Divorced ❑ d)Widowed ❑

1.7 Address of respondent, region _____woreda/ k.k_____ kebele_____.

2. Questions related to the study

I. With regard to of sesame seed production/tread, please put a sign X on the appropriate number to indicate the extent to which you agree or disagree with each statement. The item scales are five-point Likert type scales with 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree.

1. Strategic supplier partnership (SSP)	**1**	**2**	**3**	**4**	**5**
a) We consider quality as our number one criterion in selecting suppliers.					
b) We regularly solve problems jointly with our suppliers.					
c) We have helped our suppliers to improve their product quality.					
d) We have continuous improvement programs that include our key suppliers					
e) We actively involve our key suppliers in new type of production and process.					
2. Customer relationship (CR)					
a) We have continuous improvement programs that include our key suppliers, and other standards for us.					
b) We frequently measure and evaluate customer satisfaction.					
c) We frequently determine future customer expectations.					

d) We facilitate customers' ability to seek assistance from us.					
e) We periodically evaluate the importance of our relationship with our customers.					
3. Level of information sharing (IS)					
a) We inform trading partners in advance of changing needs.					
b) Our trading partners share proprietary information with us.					
c) Our trading partners keep us fully informed about issues that affect our business.					
d) Our trading partners share business knowledge of core business processes with us.					
e) We and our trading partners exchange information that helps establishment of business planning.					
f) We and our trading partners keep each other informed about events or changes that may affect the other partners.					
4. Level of information quality (IQ)					
a) Information exchange between our trading partners and us is timely.					
b) Information exchange between our trading partners and us is accurate.					
c) Information exchange between our trading partners and us is complete.					
d) Information exchange between our trading partners and us is adequate.					
e) Information exchange between our trading partners and us is reliable.					

II. **Open ended questions**

1. Is there any improvement of your work? a) Yes ❑ b) No ❑

2. If the above answer is yes, what is improved? What do you think the reason for improvement?_____
   _____
   _____.
3. Is there any organization supporting your work as a result of applying SCM?
   a) Yes ❑ b) No ❑
4. If the answer for question number 3 is yes what support you get? From whom you gate?
5. If the answer for question number 3 is yes; is the support enough? If not please point out what support could be more supportive for the improvement of your work and for the industry as
   well?_____
   _____
   _____.
6. What challenge you face on both suppliers and Customer? If it happen what techniques you use to resolve
   it?_____
   _____.
7. If you are working with ECX, can you explain if you face any challenge? What do you suggest to resolve these challenges?
   _____
   _____.

❖ ***Only volunteers:- your name _____ contact address_____.***

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Annex 2 Amharic questionnaire

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Annex 3 Interview questions for the main chain actors on sesame trade

a) What is your involvement on the supply chain of sesame seed trading?
b) How you make an agreement with your partners?
c) What are the challenges you face on the supply chain activities?
d) What are the potential confront that affects the performance of your company?
e) Have you conduct a survey in order to assess your supply chain management?
f) How can you make out your partners satisfaction?
g) How do you crack if problems turn out due to lack of coordination on the chain?
h) What do you suggest to have organized supply chain management tendency between the parties if you think there is an open air between them?

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Annex 4 Interview questions for the supportive organizations (MOT, MOA, ATA, ECX and FUA)

1. What is your involvement on the supply chain of sesame seed trading?
2. Do you give any support on the sesame seed trading?
3. What and to whom you give support on sesame trading?
4. What is the challenges face on the supply chain activities/processes of sesame?
5. What are the potential confronts/challenges that affect the performance of your company? Do you have success stories to be shared, how do you accomplish it?
6. Have you conducted a survey in order to assess how effectively the supply chain management of sesame?
7. What strategies do you employ to improve your performance and make your partners satisfied?
8. How do you crack if problems turn out due to lack of coordination on the chain?
9. What do you suggest to have organized supply chain management tendency between the parties if you think there is an open air between them? Which party should do what?
10. In the process of the supply chain management, which activities are critical to be improved urgently and which are to be strengthened?

Annex 5 – data collection Protocol Survey questionnaire

Date_____Name of house hold head_____

Sex

□ Male

□ Female

Woreda _____ Kebele _____

1. What are the basic problems you face during production of sesame?

□ Shortage of capital/Lack of credit service

□ Lack of improved seed

□ Shortage of input supply

□ High price of inputs

□ Shortage of labor power

□ Shortage of land preparation means

□ Drought/inadequacy of rain

□ Lack of information on quality standard

□ Pest infestation

□ wilting after germination

□ Problem of termite

□ Poor soil fertility

□ Problem of weed

□ Hailstorm

□ Others (Specify)

2. What problems do you face during the harvesting season?

□ Unexpected rain during harvest

□ Shortage of labor force

□ Theft

□ Lack of appropriate cutting/ transporting tools

□ Other (specify)

3. Do you have any value added activity on Sesame you produce?

□ Yes

□ No

If yes list?

□ Cleaning

□ Standard Packing

□ Process into oil

□ Other

4. What are the basic problems you face during Transport and Storage of sesame?

□ Shortage of transport means (labor, animals, vehicles...)

□ Insufficient storage space

□ Poor storage facilities

□ Poor roads

□ Termite attacks

□ High storage price

□ High transport price

□ Theft

□ Others (Specify)