



**Impact of supply chain management practices on
competitive positioning of Ethiopian Textile firms**

A RESEARCH REPORT

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by

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DECLARATION

"I declare that **Impact of supply chain management practices on competitive Positioning of Ethiopian Textile firms** is my original work, that all the sources I have used or quoted have been indicated and acknowledged as complete references, and that it has not been submitted for degree purposes previously."

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ABSTRACT

The textile sector in Ethiopia has many supply chain problems. According to Rahel (2007), the major problems are absence of well developed supplier-customer relationship, lack of access to international market information and technology, outdated processing facilities, lack of raw material and accessories, lack of paved roads, communication infrastructure, and internet services. These challenges impact on a sector's competitiveness in the global market. In 2008, out of 129 textile exporting countries, Ethiopia ranked 112th in market share (ITC, 2010). The main reason for these problems could be the lack of conceptual framework and basic knowledge of SCM among textile firms.

Aware of these problems, this study was conducted mainly to create awareness about the concept, principle and practices of supply chain management in Ethiopian textile firms so as to make them more competitive in the global textile marketplace. The study focuses on analyzing the extent of supply chain management practices and their impact on competitive positioning of Ethiopian textile firms. A descriptive survey design was used. A total of 25 structured questions were developed to find possible responses to the research questions that were used to test 8 research hypotheses. Thirty medium and large Ethiopian textile firms were selected randomly out of 64 textile firms and the questionnaire was mailed through e-mail, distributed in person, through fax and postal service to 90 top management members. Fifty three (58.9%) respondents completed and returned the questionnaire. The data was coded and analyzed using SPSS V-15 statistical tools including descriptive statistics, chi-square, Spearman's rank order correlation, Kruskal-Wallis and One-way ANOVA.

The findings showed that supply chain management practices in Ethiopian textile firms are weak and the firms do not use SCM as competitive weapon. In terms of relationship between SCM practices and competitive positioning, it was found that internal operation flexibility practice positively impacts on the competitive positioning in most of the textile firms. Strategic supplier partnership, customer relationship and information sharing were not influential in increasing competitive positioning of firms. The research was conducted solely using quantitative method, descriptive survey. It

had not made use of secondary data and interview to substantiate respondents' response. So, generalization of these results is limited. Despite this limitation, the study is believed to create awareness about the concept, principle and practices of SCM in Ethiopian textile firms.

Thus, the Government of Ethiopia, academicians and other concerned organizations which assist Ethiopia in its effort to reduce poverty and foster development should assist the sector by providing/sponsoring effective SCM training for business leaders and investors so that the firms will increase their competitiveness in global marketplace and contribute to the economic development of the country.

Key words: Supply chain management (SCM), competitive positioning, Ethiopia, textile firms, strategic supplier partnership, customer relationship, information sharing, internal operation flexibility, supply chain partners.

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ABBREVIATIONS

LMSMI: Large and medium scale Manufacturing Industry

CSA: Central Statistics Agency

AGOA: African growth and opportunity act

SC:-Supply chain

SCM: Supply chain management

IT: Information Technology

CHAPTER 1: ORIENTATION

1.1 Introduction

This chapter comprises the background of the study, objectives of the study, statement of the problem, research questions and hypotheses. It also includes delimitations, relevance of the study and explained the organization of the research report.

1.2 An overview of the Manufacturing sector in Ethiopia

Ethiopia has a very long history of manufacturing handcrafts but Modern manufacturing has not yet contributed to the development of the country (Loop, 2003). According to Loop, manufacturing was started in Ethiopia following the emergence of a strong central government, political stability, installation of the railway to Djibouti and the establishment of Ethiopian foreign relations in 1900. The increasing settlement of foreign citizens from Armenia, Greece, Italy and India also brought entrepreneurial concept to the country.

Befekadu and Berhanu (1999/2000) indicated that the role of government as a direct producer was limited. Out of 273 establishments about 90.5% were wholly private owned. The government facilitated the establishment process by offering generous incentives to foreign investors (as cited in Loop, 2003). The ownership structure and organization of the manufacturing sector changed radically after the military regime came to power in 1974, and all privately owned manufacturing enterprises were nationalized. The participation of private sector was discouraged through the imposition of capital ceilings as preference was given to government owned enterprises in terms of allocating foreign exchange, market access, subsidies and the like. The number of establishments was 273 at the start of the Derg regime and after 17 years this number has grown to 279. under the current government (Ethiopian People's Revolutionary Democratic Front- EPRDF) in 1991, the country began to implement Agricultural Development-led Industrialization strategy focusing on labor-intensive and export-oriented manufacturing industries (Shiferaw, 2007). This Industrial Development Strategy is based on the overall progress strategy of the

country and aims at achieving an optimum utilization of the human and natural resources of the country. The strategy gives due attention to import substitution and export oriented industries such as textile and garment, leather and leather products, sugar industry, production of flowers, high-value fruits and cement industries (Admas University College, 2010).

According to Central Statistics Agency (2008) LMSMI survey report, there were 1930 large and medium scale industries employing 133, 803 people in 2007/2008. The structures of manufacturing sector were broadly categorized into non-metallic mineral products, food and beverages, textile and garments, leather and footwear, basic metals and engineering, wood and furniture, paper and printing, chemical and plastic industries (see Table 1.1).

Table 1.1 Number of LMSMI establishments, employees and value 2007/08

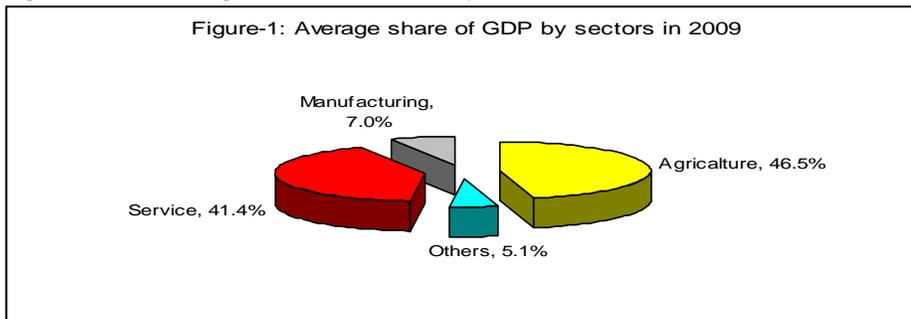
s/n	Category	No. of Establishments		Number of employees		Gross value of production in '000 birr	
		Number	% from total	Number	% from total	Value	%
1	Food products and beverages	485	25.1	41,265	31.3	8,751,377	38.2
2	Tobacco products	1	0.1	1,254	1.0	568,662	2.5
3	Textile	64	3.3	19,701	14.9	1,081,903	4.7
4	Leather and leather products	83	4.3	8,586	6.5	1,447,236	6.3
5	Wood and furniture Products	369	19.1	10,300	7.8	411,161	1.8
6	Paper products and printing	143	7.4	8,917	6.8	1,236,481	5.4
7	Chemical and chemical products	80	4.1	7,762	5.9	1,733,375	7.6
8	Rubber and plastic products	82	4.2	8,727	6.6	1,484,548	6.5
9	Non-metallic mineral products	488	25.3	16,853	12.8	3,068,948	13.4
10	Metal and Electrical	135	7.0	8,438	6.4	3,102,659	13.6
Total		1930	100.0	131,803	100	22,886,350	100

Source: www.csa.gov.et accessed on August 7, 2010.

Industries that produce non-metallic mineral products such as glass and glass products, structural clay products, lime and cement constituted about 25.28 % of the establishments. The second and third positions from the total establishments in the country were food and beverages and furniture accounting for 25.13% and 15.49% respectively. The share of the three sectors combined was 65.9 % out of the total. This indicates that the manufacturing sector is characterized by the production of consumption goods such as food, textile and beverages and accounted for more than 50 percent of the gross value productions in the country. On the other hand, the basic metal and engineering industries, which are commonly called industrializing industries are at low level of development.

According to Addis Ababa Chamber of Commerce (2009), the industry's share of the gross domestic product (GDP) is limited to 7% whereas agriculture accounts for 46.5% see Figure 1.1).

Figure 1.1 Average share of GDP by sector in 2009



In terms of value, the share of manufactured exports is about 15% of the total export of the country. And the proportion of persons engaged in industry accounts for less than 5% (CSA, 2009). The Ethiopian economy has grown stronger since the introduction of the free market economy in 1991. Average real GDP growth rate during the period 2004 – 2008 was 11% (World Bank, 2010). In this period, the industry growth rate was about 8% per annum. So, it is expected that an encouraging performance will be registered in the coming years. The next section deals with the overview of textile sub-sector which is the core concern of this study.

1.2.1 The textile sub-sector in Ethiopia

Ethiopia has a long history of traditional cottage textile sub-sector. Since long, people

make traditional Ethiopian dresses from cotton supplied by small holder farmers using home spun yarns. This traditional cloth making is inherited and being performed by generation (China Textile Planning Institute of Construction, 2004).

According to Admas University College (2010), Dire Dawa textile mill was the first textile factory in the country, established in 1939 by foreign investors. Even though, the cloth making in Ethiopia has performed for more than a century, its development and modernization is still at low stage (Loop, 2003). After the overthrow of the Derg Regime in 1991, the current government (EPRDF) introduced liberal economic reforms that encourage the inflow of private investors. Since then, the sector has been increasing in both number of establishments and contribution to development of the country (CSA, 2009).

As stated in the previous section, the Government of Ethiopia has given due attention to Ethiopian industrial sector with a particular emphasis to the textile and garment sub-sector. They are assumed to have comparative advantage due to the availability of raw cotton and cheap labor force locally. Thus, the Government has expressed commitment and has expanded the establishment of leather and textile development center to assist the development of the whole supply chains (MoIT, 2009).

As noted above, the textile sub-sector development program shows that the textile sub-sector is one of the selected strategic sub-sectors to bring about the intended development in the industrial sector in Ethiopia. The export earning from sub-sector is expected to have reached US\$ 500 million in 2010 (Textile and Leather Industries Development Centre, 2008/9). Accordingly, continuous investment support and expansion activities are carried out by the Government. It has given license for 191 investors with investment capital worth US\$1.6 billion in the textile sector (Admas University College, 2010). But most of the investors did not start operation yet.

There are several reasons for supporting the textile sub-sector: It contributes a lot to employment creation; has growth and market potential and it has already attracted a number of local and international investors. Export opportunities to the United States of America markets have also increased since the country gave an opportunity for textile producers of poor Sub-Saharan African countries by abolishing trade restrictions such as AGOA.

The current Ethiopian textile sub-sector can be divided into three major categories. These are large and medium manufactures that produce integrated textile and garment products and small scale and cottage/handicrafts that produce one or more textile products (yarn, grey fabric and finished fabric) (Admass University College, 2010). According to CSA (2009), there are 64 textile industries that actively produce textile products. Concerning the product type, the Ethiopian textile sub sector mainly produces 100 % cotton fabrics such as cotton yarn, bed sheet, blankets, knitted and other similar products. Most of the cotton yarns are produced and supplied to local markets and to the traditional handlooms as well. The product specialization of these firms and their share is summarized in Table 1.2.

Table 1.2 Types of textile products in Ethiopia

s/n	Textile	Number of establishments	% from total textile industries
1	Integrated plants i.e. (spinning-weaving- processing)	4	6.3
2	Spinning (yarn)	2	3.1
3	Textile (yarn and fabric)	4	6.3
4	Weaving (weaved fabric)	1	1.6
5	Garment	38	59.4
6	Knitting (knitted fabric)	3	4.7
7	Other (blankets, socks, fiber and canvas)	12	18.8
Total		64	100

Source : Textile and leather industries development centre, MoTI, 2010.

As shown in Table 1.2, the number of integrated factories in Ethiopia is very low. While the number of garment factories is 59.4% from the total textile and garment factories in the country. This could be because of high capital and technology requirement of the integrated textile processing (spinning, weaving/knitting and finishing) compared to the garment processing. This has its own disadvantage to the supply chain of garment. Here, low level of textile products means lack of input to the garment factories and hence low level of production in the garment sector (Admas University College, 2010).

According to the Textile and Leather Industries Development Centre (2009), currently there are about 10 textile factories under construction by foreign ventures. Out of these, 8 are investing to produce integrated textile products. The rest two foreign investors are investing on producing yarn and garment. This means that almost 80% of the foreign investment focuses on establishing factories that produce integrated textile products. Similarly, out of the total of 26 local new investors, only one investor invested on producing textile products, twenty four investors invested on garment and one on silk production (MoTI, 2009).

1.2.1.1 Supply of cotton

The textile sector is highly dependent on cotton, and sufficient quantities of this raw material are being produced in Ethiopia. In this regard, Ethiopia is fortunate in that it has the potential to provide the textile sector with basic production inputs (China Textile Planning Institute of Construction, 204).

According to the Ministry of Agriculture and Rural Development, the country has 2,575,810ha of land suitable for cotton production, which is equivalent to that of Pakistan, the fourth largest producer of cotton in the world. Pakistan harvests about 4.5 - 5.7 million MT of cotton annually from a total cotton area of 2.9 million hectare. In Ethiopia, out of the total 2.6 million ha of land suitable for cotton production, 1.7 million ha or 65% is found in 38 high potential cotton producing areas and the remaining 0.9 million ha or 35% is in 75 medium potential districts. Currently, the main categories and areas that can produce cotton are Selam from the Gondar in the Northwest of the country, and Awash from the Awash in the East (China Textile Planning Institute of Construction, 2004).

This report also stated that cotton production in Ethiopia is conducted by three groups of producers; namely state owned farms, private commercial farms, and small scale farms. Public and private commercial cotton farms are highly mechanized. Cleaning of the remaining plants, tilling, raking, leveling, sowing, riding and preventing and curing diseases are mostly done by machines. Cotton processing, blowing and ginning are also done by large machineries. The cotton farms distribute products to the local and foreign textile factories and distributors.

The cotton plantation and harvesting is also supported by Scientific Research and Education Center. The main duties of this technology and research center are to train farmers on cotton breeding systems, cultivation, fertilization and control of disease fighting (MoTI, 2009).

1.2.1.2 Structure of the Ethiopian Textile sector

The introduction of new economic systems that advocate privatization and adjustment of incentives, increases inflow of foreign and domestic investors into the textile sub-sector (MoIT, 2009). Accordingly, private investment in the textile sector has shown improvements. During this period, the numbers of both public and private owned medium and large scale operational textile enterprises has increased from 31 establishments in 1991/92 to 64 in 2007/8 (CSA, 2009).

In addition, private enterprises play a significant role in enhancing various macroeconomic variables such as employment generation, total value of output, value of fixed asset, sales revenue and per capital output. These elements have improved over the last 10 years. For instance, the study conducted by China Textile Planning Institute of Construction (2004) estimated the share of public enterprises in terms of the number of employees; total value outputs and total sales revenue were 68.99%, 73.63 % and 75.52 %, respectively. In recent years, the public textile enterprises part in the textile industry is gradually declining due to privatization. The role of the private textiles outpaced the public enterprises in terms of employment generation and production value added at factor cost. The following table shows the role of private textiles vs. public textiles.

Table 1.0.3: Public and private textile industries share of production, 2006/07

Macroeconomic indicator	Performance (2006/07)			Share in %	
	Public	Private	Total	Public	Private
Number of employee	10,182	19,154	29,336	34.71	65.29
Production, in '000 Birr	351,934	1,018,859	1,370,793	25.67	74.33
exporting earning , in '000 Birr	69,160	150,811	219,971	31.44	68.56

Source: www.csa.gov.et: Annual statistics. Accessed on August 11, 2010

As shown in Table 1.3, the share of the private textile industries on employment

generation, production value and export earning has reached 65.29%, 74.33% and 68.56% respectively, representing the highest rate compared with that of state owned textile firms.

1.2.1.3 Ethiopian Textile firm's Export Market

According to the Ministry of Industry and Trade (2009), during the period 2006/7, the value of Ethiopian textile exports was 11.1 million USD and later in the two consecutive years it increased to USD 12.6 and 14.6 million respectively. The major Ethiopian textile products include yarn, woven products and garment. Textile products and garment take higher share. The average share for the period 2006/07 to 2008/9 for the textile products and garment was 34.65% and 62.97%, respectively. The other fact observed in the period was the shift in the type of product from textile to garment. Accordingly, the share of textile products has reduced from 37.66% in 2006/07 to 31.24% in 2008/09; while in the same period, the share of garment product has increased from 59.80% to 66.20% (See Table 1.4).

Table 1.4: Mix of Ethiopian textile exports products

S/N	Product type	2006/7		2007/8		2008/9		Average %, share
		Export value	%, share	Export value	%, share	Export value	%, share	
1	Textile products	4,180,839	37.7	4,420,573	35.03	4,565,399	31.24	34.65
2	Yarn	209,247	1.9	63,213	0.50	-	0.00	1.19
3	Woven products	73,399	0.7	195,003	1.55	373,329	2.55	1.59
4	Garment	6,638,616	59.8	7,939,009	62.92	9,673,591	66.20	62.97
5	Others							1.19
Total		11,102,101	100	12,617,798	100	14,612,319	100.00	98.81

Source, MoTI (2009)

As learnt from MoTI (2009), the Ethiopian textile firms export their products mainly to European and Asian markets. Other major textile export destinations are the USA and Africa. The destination for most of the products is Europe with average share of 62.96% of the total export value of Ethiopian textile products for the period of 2006/07 to 2008/9. During the same period, the USA and Asia were also among the major importers of the Ethiopian textile products with respective average share of 20.22% and 12.78% (Table 1.5).

Table 1.0.5: Regional export destination of Ethiopian textile products

S/N	Country	2007/8		2008/9		2009/10		Average %, share
		Export value	%, share	Export value	%, share	Export value	%, share	
1	Europe	9,464,707	75.65	9,381,267	64.58	6,996,236	48.47	62.90
2	USA	2,310,371	18.47	3,264,369	22.47	2,846,826	19.72	20.22
3	Africa	386,207	3.09	587,615	4.05	207,454	1.44	2.86
4	Asian	294,801	2.36	1,283,565	8.84	3,919,291	27.15	12.78
5	Australia	45,004	0.36	5,256	0.04	13241	0.09	0.16
Total		12,617,798	100.00	14,612,319	99.97	14,433,891	96.83	

Source: MoTI (2009)

The main export destinations in Europe are Italy and Germany with average share of 23.90 % and 17.06 % respectively in the period of 2007/8 to 2009/10. USA is the third major destination of Ethiopian textile with average share of 20.22% at the same period.

1.3 Objectives of the study

The main objectives of this study are:

- To assess the extent of Ethiopian textile firms' understanding and know-how about SCM practices and their level of implementation;
- To analyze the relationship between supply chain management practices and competitive positioning in the Ethiopian textile firms;
- To create awareness about the concept of supply chain management in Ethiopian textile firms; and
- To provide suitable recommendations based on findings of the study so as to make Ethiopian textile firms more competitive in the global textile marketplace. This in turn will bring an economic development of the country.

1.4 Statement of the problem

Nowadays, making correct decisions in a dynamic business environment is a major challenge for textile firms all over the world (UNIDO, 2009). The challenge is more intensive for developing countries like Ethiopia because of their poor infrastructure, weak management, shortage of foreign exchange, lack of capital, limited research

and development practice, and technological obsolescence (CSA, 2008). The business environment of textile is also characterized by short-term and long-term uncertainties in business processes, combined with a short-term focus on meeting customer requirements since the nature of textile products is more fashionable and their product life cycle is too short (UNIDO, 2009). In addition to short product life cycle, business today has faced different challenges. According to Thompson et. al (2007), Hill (2007) and Grant (2008), some of the major challenges facing the businesses today are:

Competitive pressures. These have resulted in an increased number of new products, short product development cycles, an increased demand for customized products, the adoption of quick response strategies and efforts to reduce lead times.

The need to improve operations. In the previous decade, many businesses adopted practices such as lean production and TQM. This resulted in their being able to achieve improved quality while eliminating excess costs from their systems. Opportunities to sustain a competitive advantage lie largely with the management of the supply chain.

Increasing transportation costs. Since these costs are increasing, they need to be carefully managed. This also lies within the domain of supply chain management.

The need to manage inventories. Inventories play a major part in the success or failure of a business. Shortages can disrupt the timely flow of work and have far-reaching effects, while excess inventories add unnecessary costs. Supply chain management includes the management of inventories throughout the entire supply chain.

Increasing levels of outsourcing. Many businesses buy goods or services instead of producing or providing them in-house. Increasing levels of outsourcing result in businesses spending more time on supply-related activities such as packaging, sorting, moving, loading and unloading.

Increasing importance of e-commerce. This has added a new dimension to businesses' purchasing and selling. The efficient management of the supply chain determines the success of the use of e-commerce.

These led to an increased number of management concepts such as total quality

management system, business process re-engineering and balanced score card performance measurement that promised to provide solutions to these challenges. Among these business solutions, Supply Chain Management (SCM) has probably been one of the most important sources of competitive advantage (Spekman et al., 2002 and Li et al., 2006). SCM is a process for designing, developing, optimizing, and managing the internal and external components of the supply system in a manner that is consistent with the overall firm's objectives and strategies. From this literature, it is understood that supply chain management practices play decisive roles in the competitive positioning and the new sources of business competition that lie outside the walls of the company; SCM determined by how effectively firms link their internal operations with their supply chain partners such as suppliers, distributors, wholesalers, retailers and end customers (Burt *et al.*, 2002).

In spite of these world-class management practices, Ethiopian textile firms supply chains are far from these trends. The firms faced many problems that hinder their competitiveness in the global and local market (Rahel, 2007). According to her, the major challenges include the following.

- The supplier-customer relationship is not well developed and traditional ways of doing things are still applied;
- Lack of access to international market information and technology;
- Outdated product processing facilities; and most products do not meet US and EU quality standards;
- High cost of inputs in the manufacturing sector which affects competitiveness;
- Customs clearance delays; and
- Due to lack of raw material and accessories, delays in processing orders on time.

Ethiopian CSA (2009) also stated that the textile firms were poor in their resource utilization and low productivity was a common feature for most of them. Frequent machine break down, poor quality of materials, excessive inventory, shortages of materials, poor plant layout, idle workers, poor scheduling, long lead times were also considered as the cause for their low competitiveness in the global textile marketplace.

Table 1.6: Competitive positioning of Ethiopian textile firms

	Indicator's description		Rank
1	Number of exporting countries in the textile sector	129	
2	Value of exports in thousand US\$ ('000)	14,612	
3	Shares in national exports	1%	
4	Shares in national textile imports	2%	
5	Relative trade balance	-88%	
6	Shares in world market	0.00%	112

Source: International Trade Center, trade performance index by sector. www.itc.org; accessed on august 20, 2010

As shown in table 1.6, in 2008, out of 129 textile exporting countries, Ethiopia ranked 112th in market share. The value of exports in USD was only 14,612,319 and shares from national exports and world market were 1% and 0.00% respectively. The trade balance also shows -88%. This results are under a situation that AGOA has given Ethiopia the opportunity to export textiles and garments to the United States duty free and quota-free. Ethiopian's share from AGOA among the sub-Saharan African Countries has decreased from 0.03% in 2002 to 0.02% in 2003 (Rahel, 2007). Raw cotton and semi-finished products are shipped to other countries for processing and packaging and returned back to local market with expensive price.

The performance of textile firms is not proportional to Government's support and availability of cotton and labour resources for the sector. Currently, policy-makers in Ethiopia encourage more competitive textile firms to compete in local and global markets (Admas University College, 2010 and Rahel, 2007). The main reason of their low performance could be the lack of conceptual framework and basic knowledge of SCM amongst the business practitioners.

In this regard, the researcher could hardly find studies related to know-how and implementation of SCM practices as well as their impact on competitive positioning in Ethiopian textile firms. The related literatures on Ethiopian textile firms focus on internal operation value chains. For example, Gebremedhin (2008), Assebe (2009) and Solomon (2007) focused on the performance of internal value chain analysis rather than on end-to-end linked supply chains. Therefore, the researcher needs to

study from the comprehensive concept of the subject including strategic supplier partnership, customer relationship, internal operations flexibility and degree and quality of information sharing among Ethiopian textile supply chain partners.

1.5 Research questions and Hypotheses

Based on the above statement of research problem, the following main research questions were formulated.

- What is the extent of the Ethiopian textile firms' understanding and know-how about supply chain management practices?
- To what extent do the Ethiopian textile firms implement supply chain management practices?
- Is there any relationship between supply chain management practices and competitive positioning in textile firms?

Eight research hypotheses were developed and used to test the strength of SCM practices and implementation of SCM as well as its impact on competitive positioning among Ethiopian textile firms.

Rational for hypotheses H1 – H4

As stated earlier, many Ethiopian manufacturing firms including the textile sub-sector are experiencing serious problems in managing their supply chain, especially due to lack of best practices. The main reason could be lack of conceptual framework and basic knowledge of SCM amongst the business practitioners. This leads to the following null and alternative hypotheses (denoted by H_o and H_a respectively).

H_{o1}: The strategic supplier partnership practice in Ethiopian textile firms is not weak.

H_{a1}: The strategic supplier partnership practice in Ethiopian textile firms is weak.

H_{o2}: The customer relationship practice in Ethiopian textile firms is not weak.

H_{a2}: The customer relationship practice in Ethiopian textile firms is weak.

H_{o3}: The information sharing practice in Ethiopian textile firms is not weak.

H_{a3}: The information sharing practice in Ethiopian textile firms is weak.

H_{o4}: The internal operations flexibility practice in Ethiopian textile firms is not weak.

H_{a4}: The internal operations flexibility practice in Ethiopian textile firms is weak.

Rational for hypotheses H5 – H8

SCM practices have been found to be positively related to competitive positioning (price, quality, delivery dependability, product innovation, and time to market) (Li et al., 2006). Practicing SCM has become an essential requirement to staying competitive and growing profitable in today's global competition among industries. Samiee et al (2006) found that developing strategic supplier partnerships also leads to cost effectiveness of the focal firm. Day et al (2006) also stated that, the greater the collaboration, at all levels, between supplier and customer, the greater the likelihood that competitive advantage can be gained by organizations. Coordination with suppliers and involving them in new product development processes has been found to enhance the ability of organizations to develop new products successfully, and thus gain competitive positioning in the marketplace.

According to Richards et.al (2008), in highly competitive global market, there has been a reorientation of management practices toward collaboration among supply chain partners. Strong collaboration between supply-chain partners is an important way of sustaining companies' competitive advantages. Manufacturing flexibility has also been considered a major competitive weapon for manufacturing organizations. Manufacturing flexibility is capable of providing organizations with the ability to change volume and mix of production, to rapidly and frequently develop new products, and to better respond to competition (Thatte, 2007). By taking the data available and sharing it with supply chain partners, an organization can speed up the information flow in the supply chain, improve the efficiency and effectiveness of the supply chain, and quickly respond to customers' changing needs(Li et al., 2005). Information sharing will bring competitive positioning to the organization. Therefore, the above literature leads to the following null and alternative hypotheses (denoted by H_0 and H_a , respectively).

H₀₅: There is no relationship between the strategic supplier partnership and Competitive positioning in Ethiopian textile firms.

H_{a5}: There is a relationship between the strategic supplier partnership and Competitive positioning in Ethiopian textile firms.

H₀₆: There is no relationship between the customer relationship and competitive Positioning in Ethiopian textile firms.

- H_{a6}:** There is a relationship between the customer relationship and competitive Positioning in Ethiopian textile firms.
- H_{o7}:** There is no relationship between information sharing and competitive positioning in Ethiopian textile firms.
- H_{a7}:** There is a relationship between information sharing and competitive positioning in Ethiopian textile firms.
- H_{o8}:** There is no relationship between internal operations flexibility and competitive positioning in Ethiopian textile firms.
- H_{a8}:** There is a relationship between internal operations flexibility and competitive positioning in Ethiopian textile firms.

1.6 Significance of the study

The researcher believes that the study will create awareness about the concept, principles, and benefits of supply chain management for Ethiopian textile industry. The study helps textile firms to understand how strategic supplier partnership, customer relationship, internal operations flexibility and information sharing can play on its competitive positioning. Managers of large and medium scale manufacturing firms and owners might also use the findings of this study to evaluate themselves, determine their competency needs and integrate supply chain management with business strategy. Finally, this study might also give green-light for academicians to further research on related areas in Ethiopian business context. Generally, the results of the study will be useful to the following categories of the main.

- Academics, scholars or students who are interested in conducting research on supply chain management practices in a developing country context,
- Sectoral associations,
- Policy-makers and consultants; and
- Business managers who want to integrate supply chain management into their business strategy.
- Organization assisting Ethiopia in its poverty reduction and development programs.

1.7 Definition of terms

To clarify the concepts denoted by some technical words/phrases used in this study, the following words/phrases have been explained.

Large and medium scale manufacturing firm: According to CSA (2009) of Ethiopia, the scope of the large and medium scale manufacturing firm is confined to those establishments which engage over 10 persons and use power-driven machinery as well as covers both public and private industries across the country.

The Supply Chain: The total sequence of business processes within a single or multiple enterprise environment, those results in a customer demand for a product or service to be satisfied.

Supply Chain Management: The management of material flow, information flow and money flow along the pipeline in a supply chain.

Supply Chain Management Practice: This means a set of activities under taken by an organization to promote effective management of its supply chain.

Categorical variables are those variables that differ across two or more distinct categories. The researcher assigns arbitrary numbers to the categories, but the numbers have no interpretable numerical meaning.

Textile- It is any type of material made from fibers or other extended linear materials such as thread or yarn. Classes of textiles include woven, crochet, knitted, knotted and non-woven fabrics. The term textile in this study refers to yarns, threads, fabric, as well as clothing/apparel/garments.

Bullwhip effect: The Bullwhip effect is a deformation in information when it goes upstream in the supply chain. More precisely, the demand of the customer is put out of shape each time it goes from a company to another. Common symptoms of the effect are excessive inventory (shortage of working capital), poor product forecast, insufficient or excess capacities, and poor customer service, due to unavailable products and long backlogs, uncertain production planning, and high cost for correction.

AGOA: AGOA is a market opportunity provided by the US Government to sub-Saharan African countries to export their products free from tariff and quota. AGOA, came to effect on October 1, 2000 after president Clinton signed the historic law called “AGOA 2000” on May 18, 2000. The opportunities established by AGOA are targeted towards 48 sub-Saharan African countries.

Core competency: Core competencies are those capabilities that are critical to a business achieving competitive advantage. Firm’s core competencies may include any combination of skills, technologies, processes, knowledge or expertise and are often achieved as a result of long-term development processes and experiences. Core competencies have to make a significant contribution to the perceived customer benefits of firm’s product/service and can be difficult for competitors to imitate easily.

Dependable partners- refers to the dependability of supply chain partners to deliver customer’s order in terms of the right quantity of the right quality in the right place at the right time.

1.8 Scope and key assumption of the study

The scope of the study is limited to Ethiopian textile firms that are registered as a public or a private company and are classified as large and medium scale manufacturing industries in CSA data base. International companies doing business in Ethiopia also included in the study. SCM practices are very wide field of area. Out of these different SCM practices, this study focused only on four SCM dimensions: Strategic supplier partnership, customer relationship, internal operation flexibility and information sharing and their impacts on competitive positioning of Ethiopian textile firms.

It is assumed that there was no causal ambiguity and cognitive biasness in respondents’ response. The sample drawn from the government institutions databases was also assumed to be a representative sample for all textile firms.

1.9 Organization of the research report

This research report is organized as follows. It starts with the front matters (title page, abstract and content outlines) and then follow the main chapters. Chapter one discusses background of the study, objectives of the study, purpose and importance

of the study, research questions and hypotheses. It also provides a brief description of the key concepts, defines the scope and explaining the overall organization of the report. Chapter two deals with the literature review. It gives an overview of the body of knowledge applicable to the research problem. The previous related studies have been critically discussed in order to show how supply chain management practices contribute to the competitive positioning of firms and support the findings of this research. Chapter three describes the research methodology. It explains the research design, the sample population, data collection strategy, measuring instruments, and data analysis techniques used to test each hypothesis. Chapter four incorporates data analysis and the findings of study are also interpreted. The final chapter, contains discussion of the findings and recommendations made based on the results of the study.

CHAPTER 2: LITRATURE REVIEW

In this chapter, researcher reviewed the related literatures on supply chain management and its practices as well as their impacts on competitive positioning of Ethiopian textile firms. Finally, the theoretical foundation and main focus of the research was also discussed.

2.1 Supply Chain Management

Supply chain management (SCM) is the management of a network of interconnected businesses involved in the ultimate provision of product and service packages required by end customers (Chen et.al, 2004). SCM spans all movement and storage of raw materials, work-in-process inventory, and finished goods from point of origin to point of consumption. Advanced productivity, innovation and competitive success (APICS) dictionary defined SCM 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." Other common and widely accepted definitions of SCM include the following.

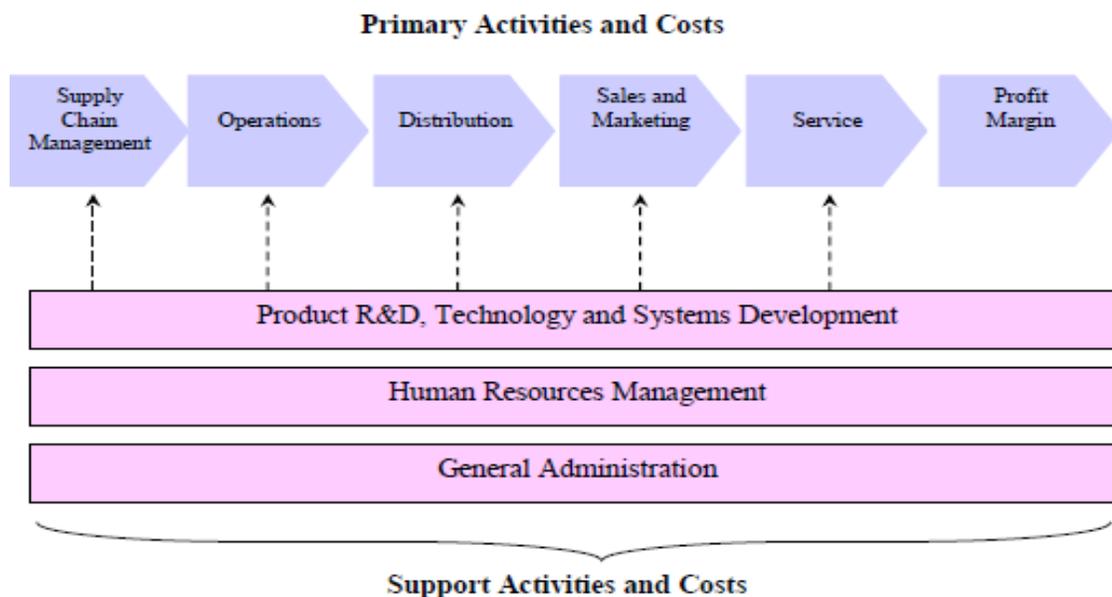
- According to Global Supply Chain Forum, SCM is the integration of key business processes across the supply chain for the purpose of creating value for customers and stakeholders (Lambert, 2005).
- According to the Council of Supply Chain Management Professionals (CSCMP), Supply chain management encompasses the planning and management of all activities involved in sourcing, procurement, conversion, and logistics management. It also includes the crucial components of coordination and collaboration with channel partners, which can be suppliers, intermediaries, third-party service providers, and customers. In essence, supply chain management integrates supply and demand management within and across companies such as sourcing raw materials and parts, manufacturing and service, warehousing and inventory tracking, order entry and management, distribution across all channels.

Mentzer et al (2001) also explained supply chain management as managing of a set of supply chains directly linked by one or more of the upstream and downstream flows of products, services, finances, and information from a source to a customer. From these definitions it is clear that supply chain management comprises all activities , processes and relationships included the flow of material, finance and information from end to end of the supply chain partners.

2.1.1 The Supply Chain Concept

The supply chain concept forms the basis of the supply chain management approach. Thus to understand the role and position of the supply chain, the study first discusses the economic concept of the value chain. When describing the supply chain in manufacturing companies, the value chain of Porter (1985) is taken as a term of reference (as cited in Thompson, 2007). Michael Porter identified a systematic means for examining all the activities a firm performs and how those activities interact.

Figure 2. 1: Michael Porter's value chain model



Source: Thompson et al 2007:96

As shown in the model, the value chain consists of both primary and support activities. Primary activities include manufacturing, marketing, delivery of products and customer services. The support activities help the primary ones make inputs

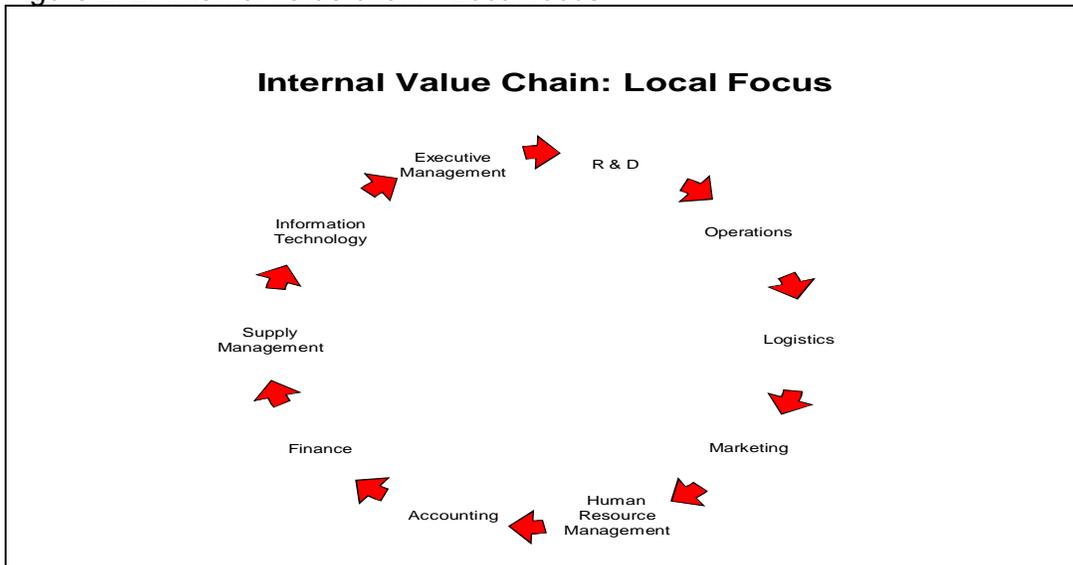
available. According to Porter, the value chain is a tool that disaggregates a firm into its core activities to help reduce costs and identify sources of competitiveness. The concept of supply chain management is actually extending the economic concept of the value chain. The value chain focuses on the internal process of value adding to the products and services whereas supply chain management looks beyond the internal processes and links the upstream and downstream entities. Chopra and Meindl (2001) state that a supply chain consists of all stages involved, directly or indirectly, in fulfilling a customer request.

According to Fawcett et al (2007), for so many years, success was depending on building internal processes that can design, make and deliver the innovative, high quality, low cost products and services customers demand. Fawcett et al further explained that as managers try to do this, they often find their companies lack required resources and skills. Hence they proactively look beyond their companies' value chain to consider the competitive advantage of suppliers and customers resources. These efforts to align goals, share resources, and collaborate with the whole supply chain are the essences of supply chain management (SCM).

Supply chain management is also derived from Adam Smith's economic theory of comparative advantage applied at the company level. SCM is collaborative specialization that allows a company to do a few things very well for which it has unique skills. Therefore, relationships with suppliers and customers shall be established to ensure the success of the company. Strategy consultant Kenichi Ohmae has pointed out, "companies are just beginning to learn what nations have always known: In a complex, uncertain world filled with dangerous opponents, it is best not to go it alone." (as cited in Fawcett et al., 2007). This implies that all supplier and buyer organizations involved in the process from raw materials to final consumer products are perceived and managed as a unified entity. The objectives of SCM include customer satisfaction, value addition, long-term profitability and the achievement of a competitive advantage of the supply chain as a whole. The building blocks of this management approach focus on managing information flows, financial resource flows, and product flows between the various organizations to the benefit of the supply chain (Cronin 2001).

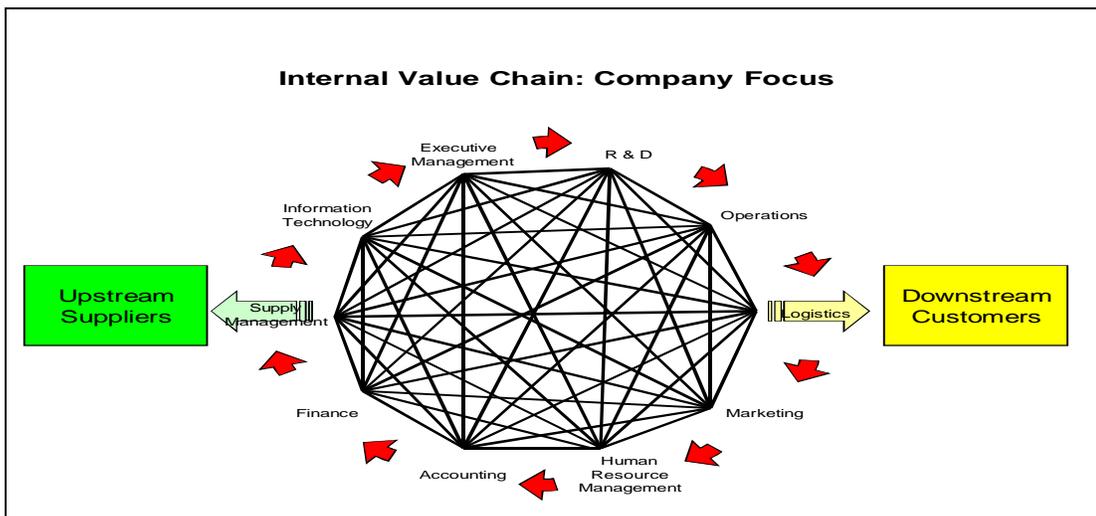
The supply chain includes suppliers, manufacturers, distributors, retailers and customers. Within each of these companies a supply chain includes all functions involved in fulfilling customers' needs. These functions include, but are not limited to, marketing research and development, operations, distribution, human resources, logistics, finance, purchasing and customer services. SCM also includes the managing of external activities such as supplier partnership and customer relationship (See figs 2.2, 2.3 and 2.4).

Figure 2. 2: Internal value chain - Local focus



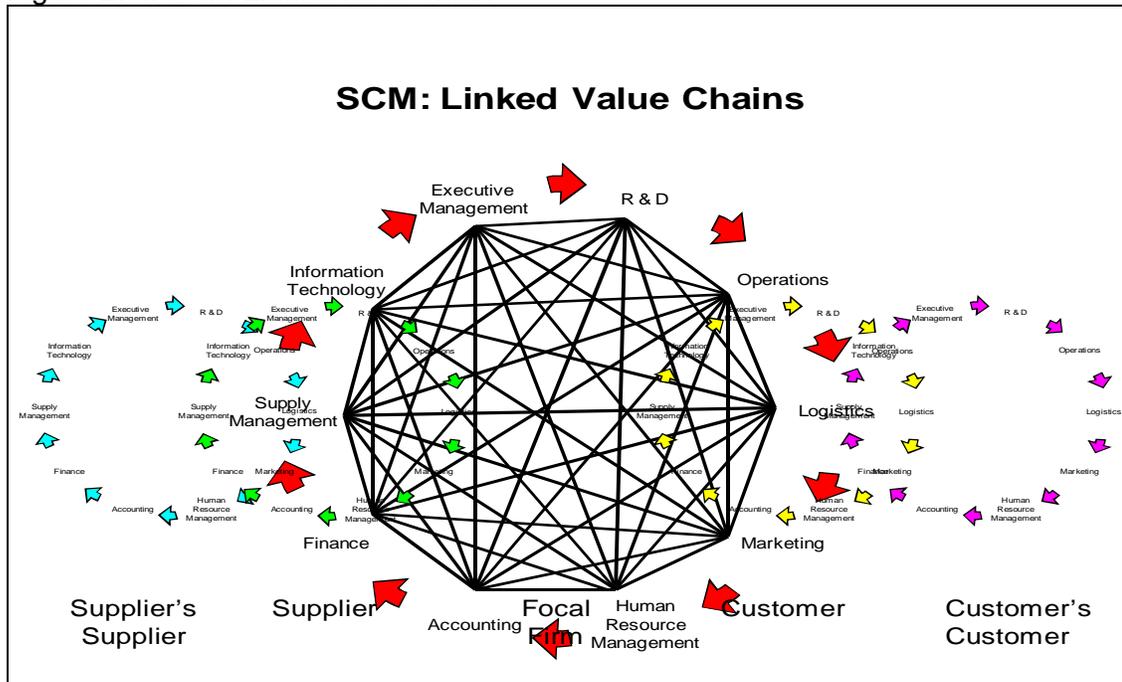
Adapted from: Supply chain management module (MBL93HY-2010)- University of South Africa lecture notes

Figure 2. 3: Internal value chain- Company focus



Adapted from: Supply chain management module (MBL93HY-2010)- University of South Africa lecture notes

Figure 2. 4: SCM-Linked value chain



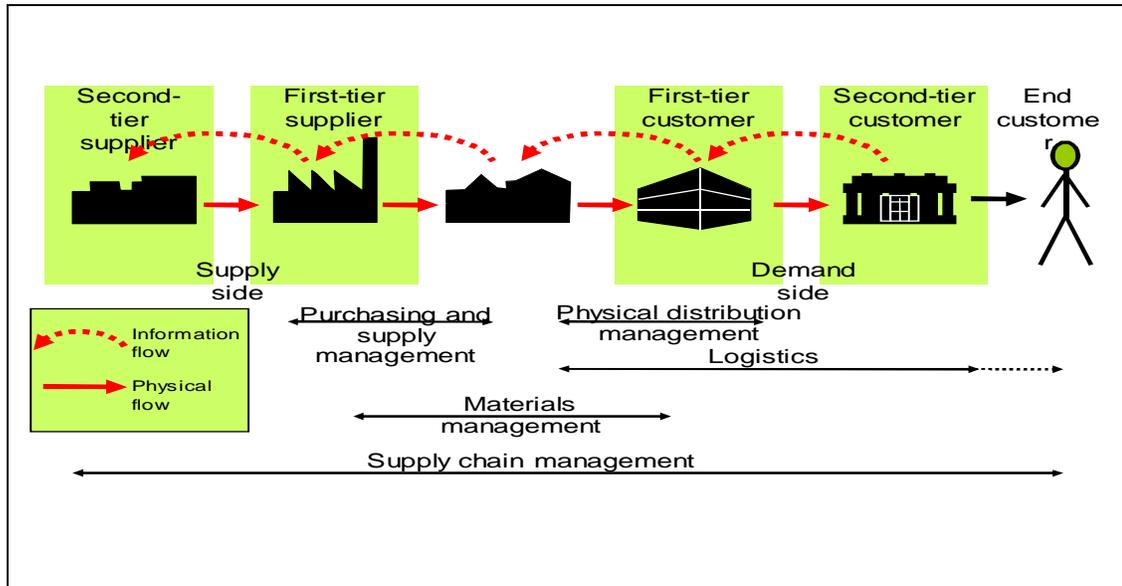
Adapted from: Supply chain management module (MBL93HY-2010)- University of South Africa lecture notes

From figures 2.2 – 2.4, it is clear that supply chain links suppliers and customers. Thus, the chain starts from the extraction of raw materials and runs to the point where the product reaches to the ultimate end users. A supply chain can therefore be viewed as the formation of a value chain network consisting of individual functional entities committed to the controlled sharing of business data and processes (Lee, 2002).

2.1.2 Scope of Supply Chain Management

Supply chain management (SCM) is the term used to describe the management of the flow of materials, information, and money across the entire supply chain, from suppliers to component producers to final assemblers to distribution (warehouses and retailers), and ultimately to the consumer. SCM also extends to purchasing, distribution, logistics, material management for both supply and demand sides (Figure 2.5).

Figure 2. 5: Tiers of supply chain management



Adapted from: Supply chain management module (MBL93HY-2010)- University of South Africa lecture notes

It consists as a set of three or more entities (organizations or individuals) directly involved in the upstream and downstream flows of products, services, finances, and/or information from a source to a customer. The supply chain may include internal divisions of the company as well as external suppliers that provide input to a focal company. A supplier for this company has its own set of suppliers that provide input (also called second tier suppliers). Supply chains are essentially a series of linked suppliers and customers until products reach the end customer.

The concept of SCM is diverse. According to Croom et.al (2000) SCM is a field at the confluence of many other disciplines such as marketing (customer relationships management, buying strategies), industrial economics (make-or-buy, international purchasing procurement, supplier evaluation), operations management (just-in-time, inventory management, production and distribution planning, transportation management), international business and organizational management (teams and internal coordination, strategic issues, organization and procedure, partnering and strategic alliance), and information technology (electronic data interchange, online bidding, bar coding) (as cited in Lejeune et.al, 2005).

Generally, the scope of supply chain management encompasses firm's activities from the strategic level through the tactical and operational levels since it takes into account the efficient integration of suppliers, manufacturers, wholesalers, retailers, and end users.

2.1.3 Supply chain activities/functions

Several models have been proposed for understanding the activities required to manage supply chain across organizational and supply chain partner boundaries. According to wikipedia free encyclopedia, supply chain activities can be grouped into strategic, tactical, and operational levels, each containing specific details.

Strategic

- Strategic network optimization, including the number, location, and size of warehousing, distribution centers, and facilities.
- Strategic partnerships with suppliers, distributors, and customers, creating communication channels for critical information and operational improvements such as cross docking, direct shipping, and third-party logistics.
- Product life cycle management, so that new and existing products can be optimally integrated into the supply chain and capacity management activities.
- Information technology chain operations.
- Where-to-make and what-to-make-or-buy decisions.
- Aligning overall organizational strategy with supply strategy.
- It is for long term and needs resource commitment.

Tactical

- Sourcing contracts and other purchasing decisions.
- Production decisions, including contracting, scheduling, and planning process.
- Inventory decisions, including quantity, location, and quality of inventory.
- Transportation strategy, including frequency, routes, and contracting.
- Benchmarking of operations against competitors and implementation of best practices.
- Focus on customer demand.

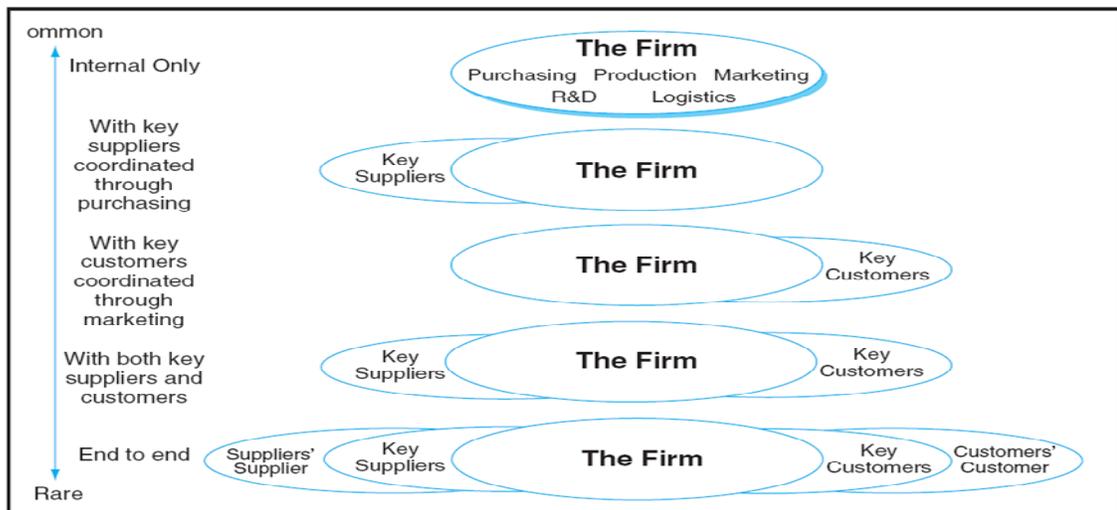
Operational

- Daily production and distribution planning, including all nodes in the supply chain.
- Production scheduling for each manufacturing facility in the supply chain.
- Demand planning and forecasting, coordinating the demand forecast of all customers and sharing the forecast with all suppliers.
- Sourcing planning, including current inventory and forecast demand, in collaboration with all suppliers.
- Inbound operations, including transportation from suppliers and receiving inventory levels.
- Production operations, including the consumption of materials and flow of finished goods.
- Order promising, accounting for all constraints in the supply chain, including all suppliers, manufacturing facilities, distribution centers, and other customers.

2.1.4 Supply chain integration strategy

Successful SCM requires a change from managing individual functions to integrating activities into key supply chain processes (see fig. 2.6).

Figure 2. 6: Supply chain integration model



Source: supply chain management module (MBL93HY-2010)- University of South Africa lecture notes

Integrating supply chain business process involves collaborative work between buyers and suppliers, joint product development, common systems and shared information. According to Moberg et al (2002), operating an integrated supply chain requires a continuous information flow. However, in many companies, management has reached the conclusion that optimizing the product flows cannot be accomplished without implementing a process approach to the business. The key supply chain processes stated by Lambert et al (2005) are:

- customer relationship management,
- procurement,
- product development and commercialization,
- manufacturing flow management/support,
- physical distribution,
- outsourcing/partnerships,
- performance measurement, and
- collaboration with supply chain partners

Customer relationship management process

According to Ramaseshan et al (2006), customer Relationship Management concerns the relationship between the organization and its customers. Customer service is the source of customer information. It also provides the customer with real-time information on scheduling and product availability through interfaces with the company's production and distribution operations. Successful organizations use the following steps to build customer relationships:

- determine mutually satisfying goals for organization and customers
- establish and maintain customer rapport
- produce positive feelings in the organization and the customers

Procurement process

Strategic plans are drawn up with suppliers to support the manufacturing flow management process and the development of new products. In firms where operations extend globally, sourcing should be managed on a global basis. The desired outcome is a win-win relationship in which both parties benefit, and a

reduction in time required for the design of cycle and product development. Also, the purchasing function develops rapid communication systems, such as electronic data interchange (EDI) and Internet linkage to convey possible requirements more rapidly. Activities related to obtaining products and materials from outside suppliers involve resource planning, supply sourcing, negotiation, order placement, inbound transportation, storage, handling, and quality assurance. Many of these activities include the responsibility to coordinate with suppliers on matters of scheduling, supply continuity, hedging, and research into new sources or programs.

Product development and commercialization

Here, customers and suppliers must be integrated into the product development process in order to reduce time to market. As product life cycles shorten, the appropriate products must be developed and successfully launched with ever shorter time-schedules to remain competitive. According to Ounnar et al (2007), managers of the product development and commercialization process must:

- coordinate with customer relationship management to identify customer-articulated needs;
- select materials and suppliers in conjunction with procurement, and
- develop production technology in manufacturing flow to manufacture and integrate into the best supply chain flow for the product/market combination.

Manufacturing flow management process

The manufacturing process produces and supplies products to the distribution channels based on past forecasts. Manufacturing processes must be flexible to respond to market changes and must accommodate mass customization. Orders are processes operating on a just-in-time (JIT) basis in minimum lot sizes. Also, changes in the manufacturing flow process lead to shorter cycle times, meaning improved responsiveness and efficiency in meeting customer demand.

Physical distribution

This concerns movement of a finished product/service to customers. In physical distribution, the customer is the final destination of a marketing channel, and the

availability of the product/service is a vital part of the marketing effort of each channel participant. It is also through the physical distribution process that the time and space of customer service becomes an integral part of marketing, thus it links a marketing channel with its customers.

Outsourcing/partnerships

This is not just outsourcing the procurement of materials and components, but also outsourcing of services that traditionally have been provided in-house. The logic of this trend is that the company will increasingly focus on those activities in the value chain where it has a distinctive advantage, and outsource everything else. This movement has been particularly evident in logistics where the provision of transport, warehousing and inventory control is increasingly subcontracted to specialists or logistics partners. Besides, managing and controlling this network of partners and suppliers requires a blend of both central and local involvements. Hence, strategic decisions need to be taken centrally, with the monitoring and control of supplier performance and day-to-day liaison with logistics partners being best managed at a local level.

Performance measurement

Experts found a strong relationship from the largest arcs of supplier and customer integration to market share and profitability. Taking advantage of supplier capabilities and emphasizing a long-term supply chain perspective in customer relationships can be correlated with firm performance. Internal measures are generally collected and analyzed by the firm including:

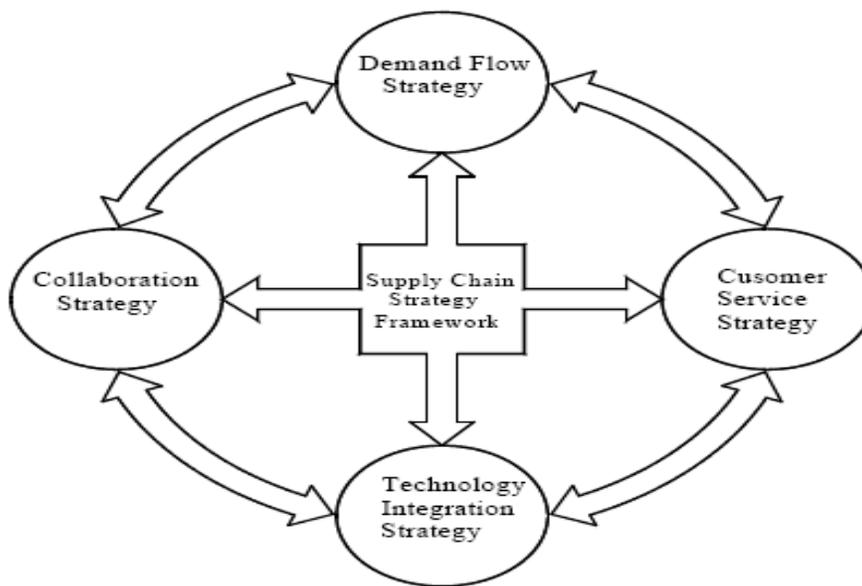
- Cost
- New product design and development
- Productivity measures
- Market share, and
- Quality of products and service.

External performance measurement is examined through customer satisfaction measures, dependability and on-time delivery of orders and benchmarking.

Collaboration with supply chain partners

Collaboration enables partners to jointly gain a better understanding of future product demand and implement more realistic program to satisfy that demand. Collaboration can be manufacturer with suppliers, manufacturer with customers or close collaboration of suppliers. Manufacturers can help both parties to enhance the value of the combined activities of the network. Manufacturers could derive benefits in such key activities as product development, order fulfillment and capacity planning by close collaboration with suppliers. Collaborative product development enabled by sharing and modifying design documents can help manufacturers to develop products in better manner and with short time. Furthermore collaborative production scheduling with tier suppliers can eliminate the absence of raw materials and hence result in improved order fulfillment and increased capacity utilization of the manufacturers.

Figure 2. 7: Supply Chain Strategy Framework



Source: Assebe (2009)

2.1.5 Basic objectives of supply chain management

Many organizations today are forced to increase their global market share in order to survive and sustain growth objectives. At the same time, local organizations must defend their domestic market share from international competitors. The challenge in this case is how to integrate and manage internal and external supply chain

networks. Long-term competitiveness therefore depends on how well the company meets customer preferences in terms of service, cost, quality, and flexibility, by designing the supply chain, which will be more effective and efficient than the competitors. Optimization of this equilibrium is a constant challenge for the companies.

SCM is increasingly becoming a vital economic growth engine improving the quality of products and services, reducing total cost, increasing flexibility, integrating relationships, creating lean manufacturing and optimizing value (Mentzer et al., 2001). They indicate that supply chain management focuses on control of the entire supply chain – placing strategic emphasis on value-added activities and total cost savings.

According to Chopra & Meindl (2001), the basic objectives of supply chain management are to maximize the overall value generated by the supply chain, as well as by benefiting the organizations involved in the supply chain. The value a supply chain generates is the difference between what the final product is worth to the customer and the effort the supply chain expends in filling the customers request. For most supply chains, value will be strongly correlated with supply chain profitability, the difference between the revenue generated from the customer and the overall cost of the supply chain. From these we can summarized that the supply chain management practices can increase the competitive positioning of firm and the supply chain as a whole in terms of market share, product/service quality, dependability and on-time delivery and new product design ability compared to competitors.

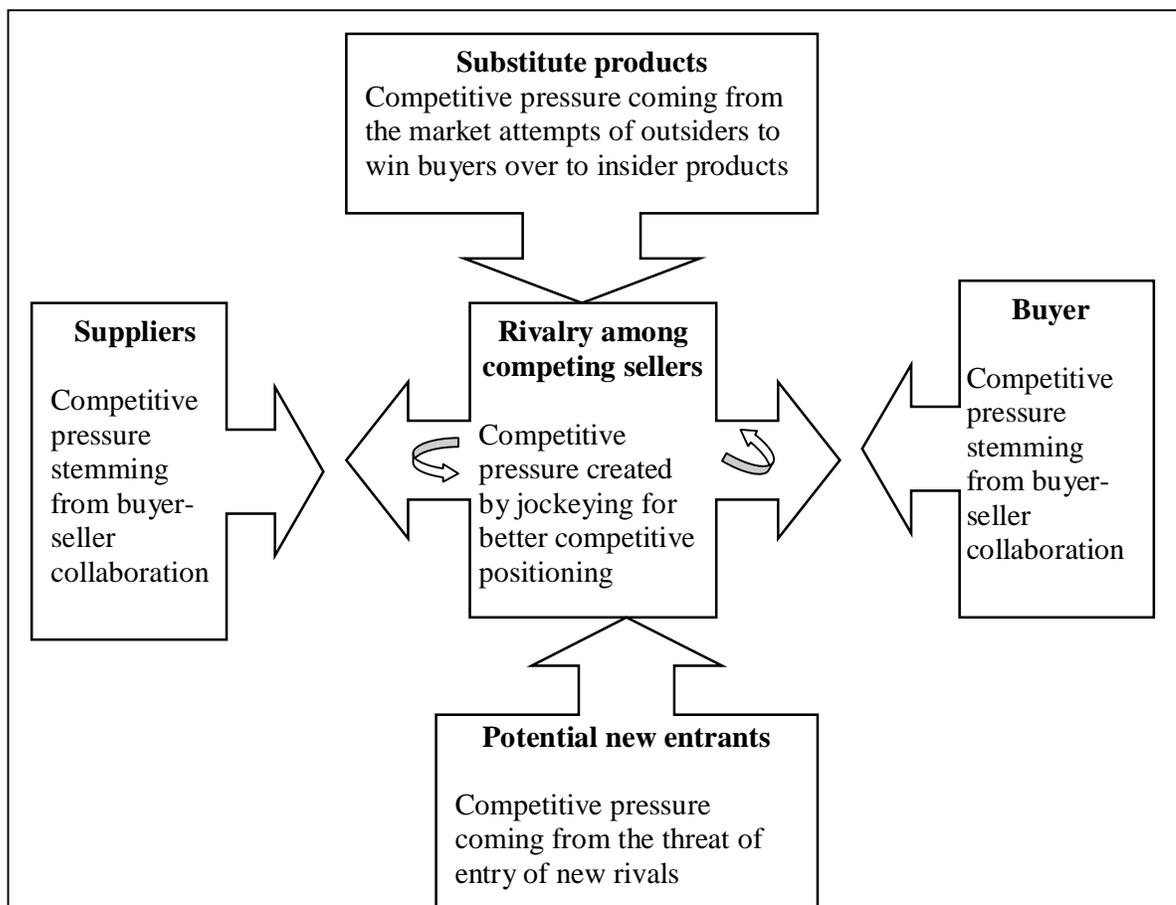
2.2 Competitive Positioning of firms

According to best (2005), competitive positioning means the process by which organizations try to create an image or identity in the minds of their target market for its product, brand, or organization. The competitive positioning is the relative level of dominance or lack thereof a firm has in its market place compared to its competitors. The basic measures of the competitive positioning of a firm are its market share and financial positions. Other measures like market leader, challenger, follower, or niche

player or be positioned, product/service quality, low price/cost provider, innovator, dependable and on-time delivery, customer loyalty and retention, reputation are also used as measures of competitive positioning (Murali et al, 2008).

According to best (2005), choosing competitive positions is a critical step and has been depending on competitive forces that shape competitive position. These forces are mainly Michael Porter's five forces of competitive positioning model that can analyze the competitive strength and positions of a business organization (See Fig.2.8).

Figure 2. 8: Porter's five forces of competitive positioning model



Source: Thompson et al (2007)

These five forces shape the market's attractiveness and competitive positioning of firms in an industry (Thompson et al., 2007). Powerful buyers demand products with lower prices. The cost of raw materials and other inputs is underlying according to

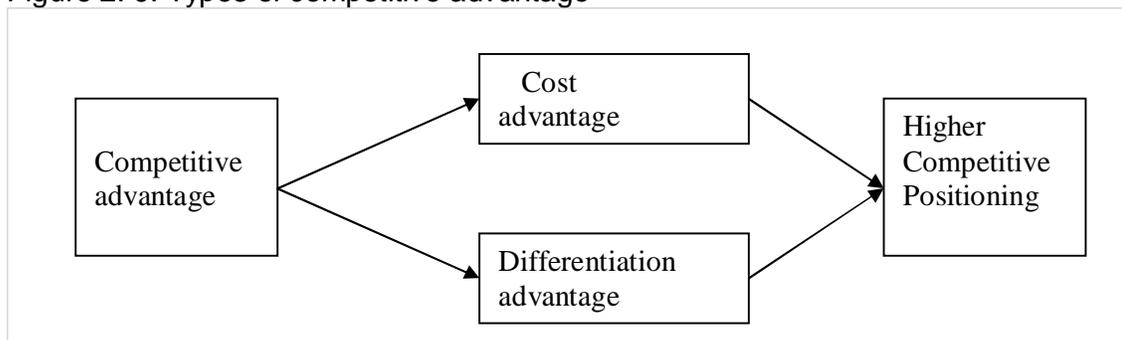
the bargaining power of suppliers. The intensity of the rivalry also affects selling prices.

Therefore, firms must always analyze these forces and establish good relationships with customers and suppliers to remain competitive. Within an industry, it is important for a firm to benchmark its competitive position. External market measures of relative product quality, service quality, customer satisfaction, brand awareness, and market share are crucial market metrics that benchmark the strength of a business's competitive position. Internal metrics such as unit cost, order cycle time, delivery cost, operation flexibility are also equally important (Best, 2005).

Best further explained that to achieve a superior level of competitive position, the business needs to attain a source of sustainable competitive advantage. This could be a cost advantage that yields more attractive price, a differentiation advantage that enhances product/service preference or price premiums, or a marketing advantage that achieves greater customer awareness and availability.

Basic competitive advantages that lead to higher competitive position of firms identified by Grant (2008) are cost and differentiation advantages as shown in figure 2.9.

Figure 2. 9: Types of competitive advantage



These competitive advantages combined with the scope of activities lead to the following three generic strategies: cost leadership, differentiation and focus (Grant, 2008).

Overall cost-leadership—cost-leadership is gained by being the lowest-cost producer in the industry. This affords the company flexibility in responding to

competitive moves by always being able to offer the lowest price to the consumer. This strategy usually wins the company a large market share. **Differentiation**—this strategy creates competitive advantage by offering products with unique customer benefits or features not available from competitive offerings. Here the company concentrates on creating a highly differentiated product line and marketing program so that it comes across as the leader in the industry. This image helps it to compete against lower cost rivals. In so doing, the firms might employ different strategic elements (see Table 2.1).

Table 2. 1: Generic strategic elements of a firm

Generic strategy	Key strategy elements	Resources and organizational requirements
Cost leadership	scale-efficient plant	access to capital
	Design for manufacturing	Process engineering skills
	Control of overheads and R&D	Frequent report
	Process innovation	Tight cost control
	Outsourcing	Specialization of jobs and functions
	Customer relationship	Incentives linked to quantitative target
	Strategic supplier partnership	
	Information sharing and its quality	
Differentiation	Emphasis on branding advertising, design, services, quality, and new product development, dependable and on-time delivery of orders.	marketing ability
		product engineering skills
		Cross-functional coordination
		Creativity
		Research capability
		Incentives linked to performance

Source: Adopted from Thompson et al (2007) : *Crafting and executing strategy*

2.2.1 Cost advantage

Historically, strategic management has emphasized cost advantage as the primary basis for competitive advantage in an industry (Grant, 2008). To achieve a low-cost edge over rivals, a firm's cumulative costs across its overall value chain must be

lower than competitors` cumulative costs and the means of achieving the cost advantage must be durable (Thompson et al, 2007)

2.2.2 Differentiation advantage

A firm differentiates itself from its competitors when it provides something unique that is valuable to buyers beyond simply offering a low price. Differentiation advantage occurs when a firm is able to obtain from its differentiation a price premium in the market that exceeds the cost of providing the differentiation.

Michael Porter (1985) identifies a number of drivers of uniqueness which are decision variables for the firm (as cited in Thompson et al., 2007 and Grant, 2008):

- Product features and product performance.
- Complementary services (e.g., credit, delivery, repair).
- Intensity of marketing activities (e.g., rate of advertising spending).
- Technology embodied in design and manufacture.
- The quality of purchased inputs.
- Procedures influencing the conduct of each activity (e.g., rigor of quality control, service procedures, frequency of sales visits to a customer).
- The skill and experience of employees.
- Location (e.g., with retail stores).
- The degree of vertical integration (which influences a firm's ability to control inputs and intermediate processes).

Differentiation strategies are not about pursuing uniqueness for the sake of being different (Grant, 2008). Differentiation is about understanding customers and how the product can meet their needs. To this extent, the quest for differentiation advantage takes the firm to the heart of business strategy. The fundamental issues of differentiation are also the fundamental issues of business strategy: Who are our customers? How do we create value for them? And how do we do it more effectively and efficiently than anyone else? Because differentiation is about uniqueness, establishing differentiation advantage requires creativity – it cannot be achieved simply through applying standardized frameworks and techniques. This is not to say that differentiation advantage is not amenable to systematic analysis. As we have observed, there are two requirements for creating profitable differentiation. On the supply side, the firm must be aware of the resources and capabilities through which it

can create uniqueness (and do it better than competitors). On the demand or customer side, the key is insight into customers and their needs and preferences.

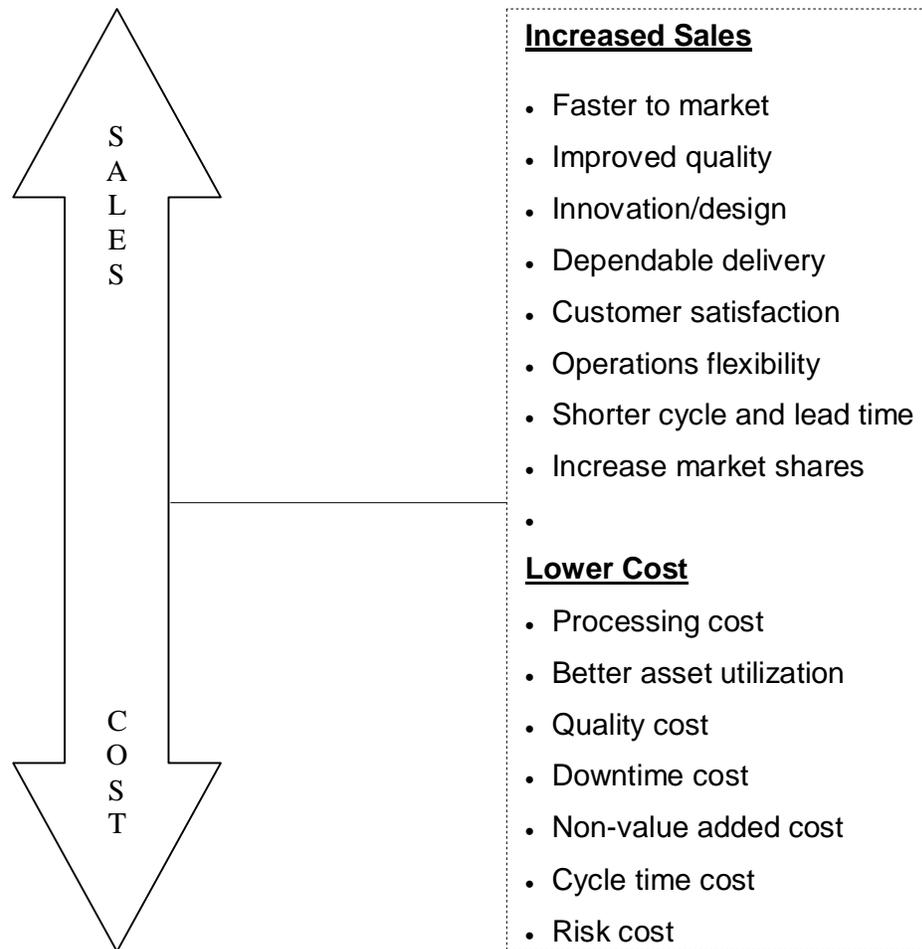
2.3 supply chain management and competitive positioning

According to Li et.al (2006), effective supply chain management has become a potentially valuable way of securing competitive advantage and improving organizational performance since competition is no longer between organizations , but among supply chains. Thus, it is not enough to improve efficiencies within an organization, but their whole supply chain has to be made competitive and the understanding and practicing of SCM becoming an essential prerequisite for staying competitive in the global race and for enhancing profitability (Moberg et al., 2002 and Tan et al., 2002). Day et al (2006) has tried to explain the link of SCM and competitive positioning based on core competencies. These competencies can be explained by the resource-based theory.

Resource-based theory asserts that possession and development of unique combinations of resources to develop core competencies and capabilities (Grant, 2008). Any market driven organization to compete with the competitors must sustain certain core competencies, such as business process re-engineering, integration of knowledge and diffusion of learning. These competencies help the firms design better business strategies such as SCM practice, that yield competitive advantage by increasing customer values (Li et al, 2006).

As mentioned in the previous section, the supply chain management practices are the main business processes associated with producing a company's products; it is significant to link them to the competitive positioning of the firm. In other words, a firm is obliged to develop strategic capabilities in order to manage supply chain, which is the foundation for achieving high level competitive positioning. As indicated in figure 2.10, supply chain management affects two issues that dominate the bottom line, total cost and sales.

Figure 2. 10: Graphic representation of SCM impact on net income



Source: Burt et al (2010)

The activities to increase sales and lower costs can be regarded as sub- objectives to attain the main objectives of supply chain management, that is, to enhance customer satisfaction and add value in terms of increased sales and decreasing costs (Burt et al, 2006). According to Grant (2008), customer pressures for lower prices and high quality of services are forcing firms to make supply chain efficient and this enhances the competitive positioning of the firms. As Tan (2002) indicates, higher level of supply chain management practices can improve the competitive positioning of supply chain and individual firms. Tracy et al (2005) also showed that there is a strong relationship between SCM practices and competitive position of a firm.

Thus we can conclude that the supply chain management practices can increase the competitive positioning of firm and the supply chain as a whole in terms of market share, product/service quality, dependability and on-time delivery and new product design ability compared to competitors. Therefore, it is possible to say that there is a link between SCM and a firm's competitive positioning. The current status of supply chain management practices and competitive positioning of Ethiopian textile firms is discussed below.

2.4 Supply chain management practices in Ethiopia

Ethiopia is situated in eastern Africa and is a landlocked highland country which has an area of 1,127,127km². With its average elevation of 2500m, the land is usually referred as the "roof of Africa". Thirty six percent of its land is 1500m above sea level forming two production systems: highland and lowland. The country has many rivers and receives abundant rainfall; thus it earns the name, "The water tower of Africa" (Investment Guide to Ethiopia, 2004). In addition, it is blessed with the most fertile agro soils in the world. About 56 % of its territory is arable land. If we take the textile sector, Ethiopia has a comparative advantage in producing textiles products. It has also a large and cheap labor force given its population of about 78.4 million, which is growing at 2.5 percent each year (CSA, 2009). The country's climatic conditions and land resources favor cotton growing. The Ethiopian Trade Minister once stated, "If the textile industry cannot be profitable in Ethiopia, it cannot be profitable anywhere" (MoIT, 2009).

Even though the country has abundant resources, it is still one of the poorest countries in the world (UN, 2002). Currently, most Ethiopians live in rural areas where agriculture is the only means of generating income for existence. Among 78.4 million people of Ethiopia, 85% directly or indirectly depends on the agricultural sector (CSA, 2009). According to Investment Guide to Ethiopia (2004), Agriculture accounts for 46% of the gross domestic product (GDP), 63% of exports, and 85% of employment. Other sectors' contributions to the national GDP are: service 41.4% and industry 12.6%.

Compared to other countries, Ethiopia has not been an important player in international trade (ITC, 2008). Goods have entered the country in great quantities,

but international trade relations have not benefited the country until now. For example, Ethiopia used only 0.01% textile from African Growth and opportunity Act (AGOA) which offers substantial opportunities for sub-Saharan countries to export textile products to the USA without tariff (Loop, 2003).

The country has weak transportation and communication links. It continues to have one of the lowest road densities in the world (UN, 2002). Similarly, with communication systems, Ethiopia has one of the lowest tele-density rates in the world. Also other infrastructures such as internet, power supply and storage (warehouse) systems are at very low stage. These low levels of infrastructure create a challenge for most companies in doing business in Ethiopia. Generally, the major impediments for SCM implementation in Ethiopia can be categorized into three groups: low level of physical infrastructure, lack of know-how, and undeveloped institutional framework.

Insufficient physical infrastructure increases the cost of transportation, works as an informal market barrier, forms a wedge between the supplier price and consumer price, and increases the loss of perishable and fashionable products such as flower, food, and apparel. Even though the main trunk roads between the major cities are often in a good condition, these roads are scarce (MOFED, 2008). Most Ethiopian cities and regional markets cannot be reached by a good road throughout the year. This increases the cost of transport to these areas and creating an additional market barrier. The producers in the area face this challenge if they wish to sell their products to the national market; and it is difficult to keep customers' order on-time. In addition to higher transportation costs, poor infrastructure also limits the size of the market with neighboring countries to Sudan and Kenya, which might provide a viable source of customers for Ethiopian business people. Air freight is also very limited access and at the same time the carrier cost to use this route is too high.

Lack of SCM know-how is reflected in poor market orientation and business skills and leads to difficulties in managing supply chains. The reason amongst others is inability to use supply chain management principles to integrate the resources. For example, if we take leather and textile sectors, the country exports raw leather and cotton to developed countries for processing and then imports it back to sell locally at

high price (MoIT, 2009). The lack of understanding of supply chain management and its link to long term quality service and product delivery, human capital development and associated socio-economic growth are the root causes of the problems. The business leaders still consider supply chain management and procurement or logistics management interchangeable (Assebe, 2009). But supply chain management and procurement management are two different concepts as described below.

Supply Chain management is a sequence of decision making and execution processes and material, information and money flows that aim to meet final customer requirements. It would also take place within and between different stages along a continuum, from production to final consumption. SCM is not only includes the producer and its suppliers, but also, depends on the logistic flows, transporters, warehouses, retailers, and consumers themselves. In a broader sense, supply chain management also includes new product development, marketing, operations, distribution, finance and customer service.

Procurement management, on the other hand, is one of the elements within a supply chain, primarily focusing on the sourcing and purchasing of goods and services within the supply value chain. In line with the views of the Chartered Institute of Purchasing and Supply (CIPS) and Council of Supply Chain Management Professionals (CSCMP), procurement can be described as one of the macro processes within a supply chain. It is the activity to plan, implement and control the sourcing and purchasing of tangible or intangible goods.

Weak institutional framework creates a barrier to practice SCM that can help supply chain partners in negotiating trade agreements and enforcing their contracts (Loop, 2003). According to Gebre medhin (2001), business transaction in Ethiopia is mostly based on long-term personal relationships, which is seen as the only functional way for trading in absence of adequate market information and weak legal frameworks for enforcing contracts between strangers. Thus, the supply chain from producer to the final consumer is a long process. Most of the time brokers are needed in several parts of the supply chain in Ethiopian business transaction to transfer information such as price, quality and acting as guarantors of the two parties with a commission

(Gebre Medhin, 2001). These long supply chains are costly in terms of time and money.

To overcome such challenges, in 2002 the Government of Ethiopia drafted “The sustainable development and poverty reduction program” in which it identified development and poverty reduction strategy through “agricultural development-led industrialization”, which can integrate the supply chain of agriculture with industry. One of the eight major policy tasks identified was: “Rapid export growth through production of high value agricultural products and increased support to export oriented manufacturing sectors particularly intensified processing of high quality skins/leather and textile garment” (FDRE-MOFED 2002: i).

Accordingly, over the last ten years, the government has been investing in infrastructural development throughout the country, including the construction of roads, telecom, hydro electric power, universities, etc. Of the total capital budget in 2009, economic, social and general developments have taken respective shares of 63 percent, 27 percent and 10 percent. This reflects the government’s commitment to foster economic development ((MoFED, 2008).

The performance of the economy over the last ten years has been encouraging and commendable. The real GDP growth rate between 1998/99 and 2007/08 has been on the average more than 8 percent, except for the drought year of 2002/03. In 2009, the real GDP growth registered an average growth rate of 11 percent per annum (MoFED, 2008). The growth in the service sector has outweighed growths in the agricultural and the industrial sectors registering an average annual growth rate of 9 percent. The agricultural sector has registered an average annual growth rate of 6.2 percent and industry 8.3 percent in the same period. This poverty reduction and development program is expected to solve the supply chain problems in the near future.

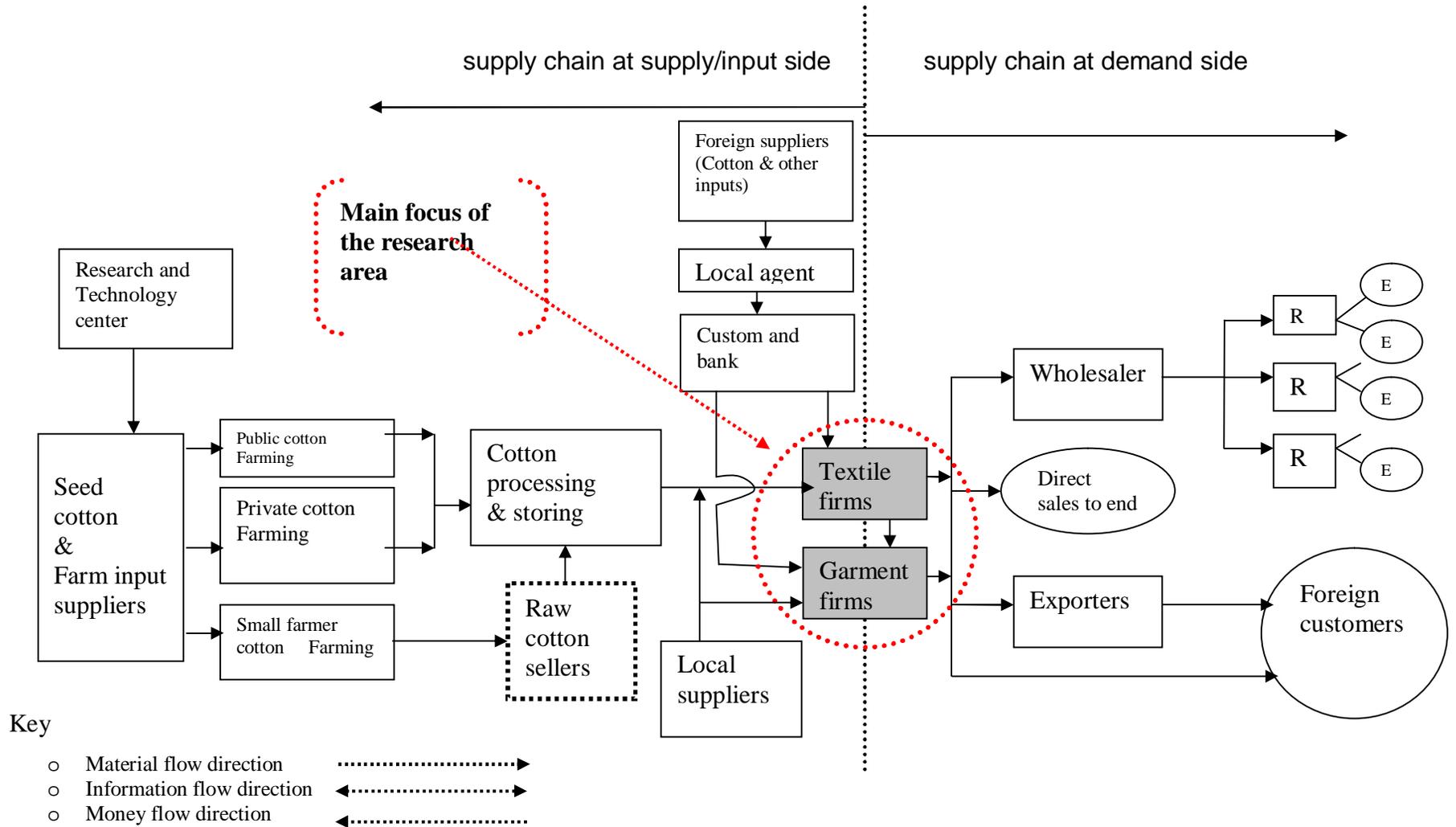
2.4.1 Supply chain management practices among Ethiopian textile firms

Textile products in Ethiopia are produced from natural and synthetic fibers. These fibers are produced from raw materials such as cotton, wool, animal fibers, and chemicals. These raw materials are spun into yarn which is used in the production of

woven or knitted fabric. The fabrics are then finished, dyed and printed as required and used to produce different clothes.

As it can be seen from Figure 2.11, these conversions of raw cotton to cloth involve many parties to deliver the final product to the end customer. The supply chain begins with a raw material extraction or production stage (i.e., harvesting cotton, or developing new synthetic fibers) that supply the second stage of primary manufacturing. The second stage usually produces a standardized output of commodity material (fibers and fabrics) used to fabricate textile products. The next stage includes marketers of consumer products, followed by distributors and finally, the retailers who sell to the final consumer. These supply chains contain value-adding actors such as, cotton farmers, ginneries, spinning plants, weaving/knitting plants, wet processing/finishing plants, garment manufacturing plants, wholesalers, retailers, dealers and end users at the supply and demand sides. These supply chain actors are interconnected and material, information and money pass through a number of stages. The full description of supply chain management practices is described in the next section in terms of material flow, information flow and money flow within the supply chain partners.

Figure 2. 11: Typical supply chain of Ethiopian textile sector: compiled by the researcher



2.4.1.1 Information flow practices between SC partners of Ethiopian textile firms

In the supply chain of textile industry of Ethiopia, the information sharing begins when the customer sends an inquiry of products to the supplier using FAX, telephone, and internet (Assebe, 2009). According to him, whenever there is a request of inputs and their products from potential suppliers or customers, the following information is considered and documented.

- Product name and description;
- Name of supplier and location;
- Material, specification and colour;
- Quality;
- Quantity;
- Possible delivery date;
- Conditions for delivery;
- Price;
- Payment conditions; and
- Date of order.

The supply chain partner then sends information in response to the inquiry of the client that contains price of the product, minimum order quantity, delivery destination, price validity time, term of payment and so on. Then the requested party sends information to express its interest and negotiate the price and other terms of the deal. When both parties come into agreement, they sign contract that describes all contents of the transaction. For a small quantity, there is no contractual agreement between two parties.

2.4.1.2 Material flow practices between SC partners of Ethiopian textile firms

When raw cotton seed is harvested, large farms keep it in the temporary storage close to the farms (Admas University College, 2010). Most of the large farms use their own ginneries and some of them use the services of the nearby ginneries by truck transportation. The smallholder cotton farmers basically couldn't handle the logistics to take to the ginneries and sell the lint cotton for the textile firms. They directly sell to the local cotton traders from their farms, nearby village markets or homes. Most farmers sell

their cotton during harvesting period and few of them keep stock and sell whenever they need money; then the local traders collect and take the raw seed cotton to the nearby ginneries (Assebe, 2009).

After the completion of the ginning process, the large cotton farms and cotton traders sell their lint cotton for the textile factories. Large farms also export certain amount of lint cotton to different countries. The textile factories use the lint cotton and other man-made fibers to produce industrial yarn to supply for their weaving/knitting plants or for other external industries for weaving/knitting process. They also hank yarn for micro and small level handloom weavers, knitters/sweater and manufacturers through wholesalers and retailers (Admas University College, 2010). The weaving and knitting plants supply the gray fabric to the wet processing/finishing plants of the same or other external factory in the local market. The wet processing/finishing plants supply the bleached or dyed fabric to local garment industries, wholesalers, and export to abroad. Transportation of products to Djibouti especially timely transportation is not available and also is costly when available (Rahel, 2007). This makes the firm not to be competitive in price and to keep delivery time.

The garment industries produce garments and supply to the local market and export to different countries. Sometimes, they outsource fabrics and trims (labels, button, badges, etc) from local sources or import from Asian countries (MoIT, 2009). Most garment firms import fabrics and /or trims from abroad and use cut-make or cut-make-trim services from the local garment factories (Admas University College, 2010). The wholesalers distribute the products to the different parts of the country through their channels of retailers.

2.4.1.3 Money Flow practices between SC partners of Ethiopian textile firms

The flow of money along the supply chain of textile and garment firms in Ethiopia varies in different transactions (Assebe, 2009). According to him, the textile firms purchase lint cotton from the cotton farms or ginneries with mode of payment either cash, cheque or transferring to the beneficiary account or on long-time payment. They sell their products to local garment industries, wholesalers and other organizations in the local market

through similar modes of payments. Some of them do have their own outlet shops where they sell their products for the end users in cash payment mode.

The export market is a little bit longer procedure as compared to local market. When the textile firms export their products to abroad, the buyer bank communicates the seller bank to send the agreed upon advance payment. The local bank, then, gives export permit to the seller by client's copy and to the Custom Authority by custom's copy. The seller/exporter ships the required products to the agreed destination/port. At the end when the buyer's bank receives the documents, it transfers the remaining amount of money to the beneficiary/seller's bank when the term of payment is Letter of Credit (L/C) and all amount of money for cash against document (CAD) term of payment. This process is too long and lacks trust between supply chain partners as a result money does not transfer to beneficiaries account on time (Rahel, 2007)

2.4.2 Impact of SCM practices on competitive position of Ethiopian textile firms

The Global textile value chain is buyer-driven, dominated by large retailers, branded manufacturers and marketers which control global production networks and stipulate supply specifications (UNIDO, 2009). In buyer-driven value chains retailers can have significant power over manufacturers in terms of price, quality, lead times and raw material inputs. Information flows directly from retailers to textile manufacturers, where decisions are made on patterns, colours and material. The buyers in these global textile value chains are extremely demanding. Consumer preferences have changed. Consumers no longer want standardized products but instead are demanding increased variety of product choice, leading to shorter product seasons, more rapid product cycle turnover and smaller minimum orders (Gibbon, 2002). Furthermore, they are becoming more demanding in terms of price. In this manner, they create pressures to reduce costs, improve quality and variety to manufacturers, mainly in developing economies. This move is assisted by advances in technology, such as bar coding and point-of-sale scanning, that provided retailers with accurate and up-to-date information on sales. The information is used for replenishment orders, linking the textile value chain both vertically and horizontally and making decisions about where products are made, at what price and how quickly they need to be moved, while at the same time controlling

many aspects of the production process itself, for example, design, fabric sourcing, lead times, quality and price (Robert et. al, 2003).

Thus, the manufacturers either have to absorb the costs and lower their margins, or improve productivity to compete in such type of hyper-competition marketplace. As a result, management practices such as just in time (JIT), total quality management (TQM) and business process reengineering (BPR) are already in use in the global textile supply chains (Bruce et al, 2004).

In spite of these management practices, supply chains of Ethiopian textile firms are far from these trends (Rahel, 2007). As stated in section 1.5, the textile sector in Ethiopia has many supply chain problems. According to China Textile Planning Institute of Construction (2004), the sector suffers significant problems of logistics, market information and warehouse facility. Under such conditions, the raw materials and final products face quality deterioration. This poor quality of raw material leads to low competitiveness of the textile firms. Also Rahel (2007) stated that Ethiopian textile firms faced problems that hinder their competitiveness in the global and local market. According to her, their major challenges are: the absence of well developed supplier-customer relationship, lack of access to international market information and technology, outdated product processing facilities, lack of raw material and accessories suppliers and lack of paved roads, communication infrastructure, and internet services. These challenges impact on a sector's competitiveness in the global market. According to International Trade Center (www.itc.org: accessed on august 20, 2010), out of 129 textile exporting countries in 2008, Ethiopia ranked 112th in global market share.

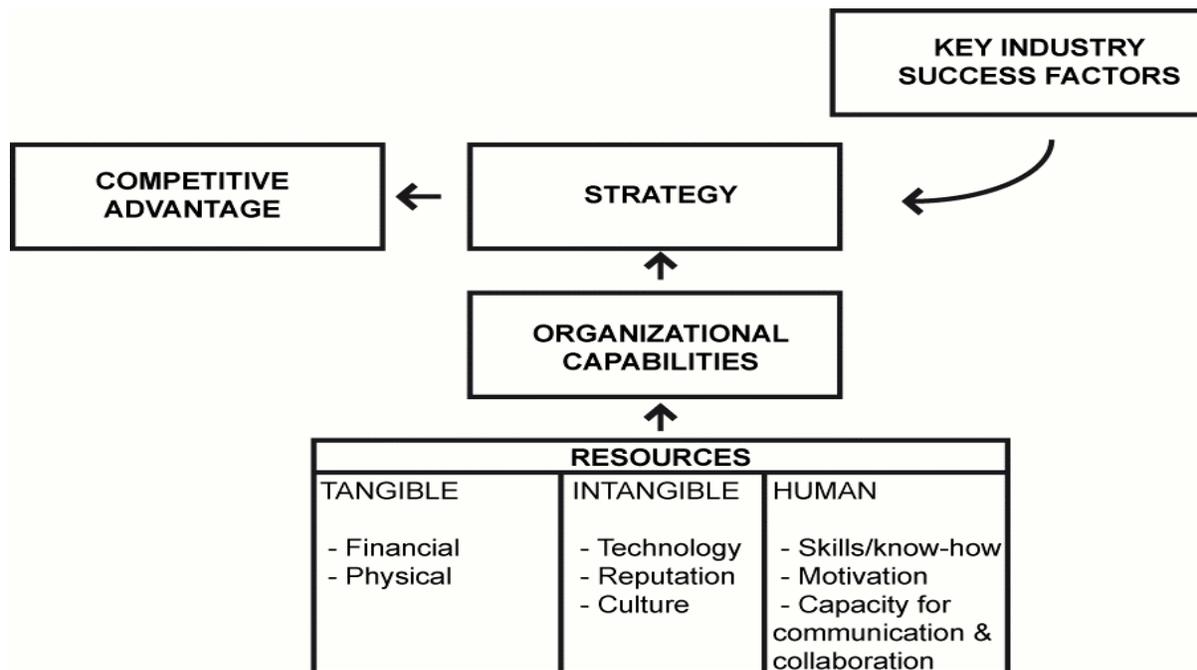
2.5 Theoretical foundations of the research

During the 1990s, the basics in strategy formulation shifted from a view on the external environment to internal resources and capabilities as the primary source of competitive advantage are in accordance with the resource-based view (RBV) of the firm(Grant, 2008). The role of resources and capabilities used as a source of competitive advantage that leads to higher competitive position of a firm is the result of two factors. First, as the

external environment is unstable and internal resources and capabilities are securer base for formulating strategy. Second, it has become that competitive positioning rather than industry attractiveness is the primary source of superior profitability.

This recognition gave birth to the term resource-based view (RBV), where every single firm, by theory, would seek for different marketing strategies based on their specific resources and capabilities (Grant, 2008). The formulation of a competitive strategy determines how a firm can act differently within a market and thereby deliver a unique set of marketing activities and add value to its customers. The durability of such a strategy based on a firm's resources and capabilities has been of greater success compared to previous long-term strategies that have to be based on external business environment and market focus. See Fig. 2.12 for the link between internal resources and competitive positioning.

Figure 2. 12: The link between internal resources and competitive position



Source: Grant (2008:131)

According to Grant (2008), the resources constitute the foundation for creating organizational capabilities and can be characterized as tangible, intangible and human resources. Financial statements and physical equipment can determine the tangible resources. The intangible resources are more difficult to access and determine as they consist of owned technology, firm culture, relational resources as well as brands and reputation. The last resources, human resources, are the know-how the firm possesses through its employees. There, how good the firm communicates in order to exploit them, as well as to motivate them should be taken as the very issue.

Relational resources are the relationships that exist between an organization and any outside party, both with key individuals and other organizations (Kaleka, 2002). These can include customers, intermediaries, employees, suppliers, alliance partners, regulators, pressure groups, communities, creditors or investors. Relationships tend to fall into two categories – those that are formalized through, for example, contractual obligations with major customers and partners, and those that are more informal. In today's integrated economy and just-in-time supply chains, relationships with trading partners and suppliers are crucial (Flint, 2004).

The resources are not productive on their own and an organizational capability/core competencies/ is required to deploy resources for a desired end results. The core competencies, which involve collective learning and which are based on knowledge, will enhance them. By applying the RBV, a firm can determine its uniqueness for exploiting differences. To exploit the uniqueness a firm has to formulate strategies based on the availability of resources and capabilities within the firms. Firm's value chain analysis capability is among the core competencies. The concept of value chains reflects the value-added, natural sequence of operations or stages in a chain of supply (Grant, 2008). Products that pass through all activities of the chain help firms gains some value. The chain of activities gives the products more added value than the sum of added values of all activities. This value-chain concept has been extended beyond individual organizations. It can apply to the whole supply chains of the firm such as the value chain of suppliers, value chain of focal firm and value chain of customers to

gain and sustain competitive advantage that leads to higher competitive position of firms. The value chain of the company is interconnected to the value chain of upstream and downstream partners.

The delivery of a mix of products and services to the end customer mobilizes different economic factors, each managing its own value chain. The industry synchronized interactions of different value chains to create an extended value chain, sometimes global in extent. Porter explains this larger interconnected system of value chains as the “value system.” A value system includes the value chains of a firm’s supplier (and their suppliers all the way back), the firm itself, the firm distribution channels, and the firm’s buyers (and presumably extended to the buyers of their products, and so on). Capturing the value generated along the chain is the new approach taken by many management strategists as supply chain management (Kaleka, 2002).

For example, the value chain in the textile and apparel industry begins with a raw material extraction or production stage (i.e., harvesting cotton, or developing new synthetic fibers) that supplies the second stage of primary manufacturing. The second stage usually produces a standardized output of commodity material (fibers and fabrics) used to fabricate commodity products. Progressing downstream, commodity products from the previous stage are used by manufacturers who apply product development technologies, patents, and proprietary features to further add value. The next stage includes marketers of consumer products, followed by distributors and finally, the retailers who sell to the final consumers. The stage a firm occupies along its industry's supply chain has important implications for its strategy development and, therefore, its ability to compete.

Thus, resource-based theory has adequately explained the development of core competencies that can be used to design better supply chain management practices (Murali et al, 2008). These SCM practices in turn improve the competitive position of firms.

2.6 Main focus of the research

There have been some studies which provide a framework for identification of different dimensions under the supply chain management practices. For instance, the study by Donlon (1996) considers supplier partnership, outsourcing, cycle time compression, continuous process flow and information sharing as key dimensions of supply chain management (as cited in Alvarado et al., 2001).

Tan et al. (2002) recognize Just in time (JIT) capabilities; use purchasing, quality, customer relationship, integration of supply chain activities, and information sharing as key dimensions of supply chain management practices. Lambert et al (2005) also identified the following components: customer relationship management, customer service management, demand management, order fulfillment, manufacturing flow management, supplier relationship management, product development and commercialization and return management.

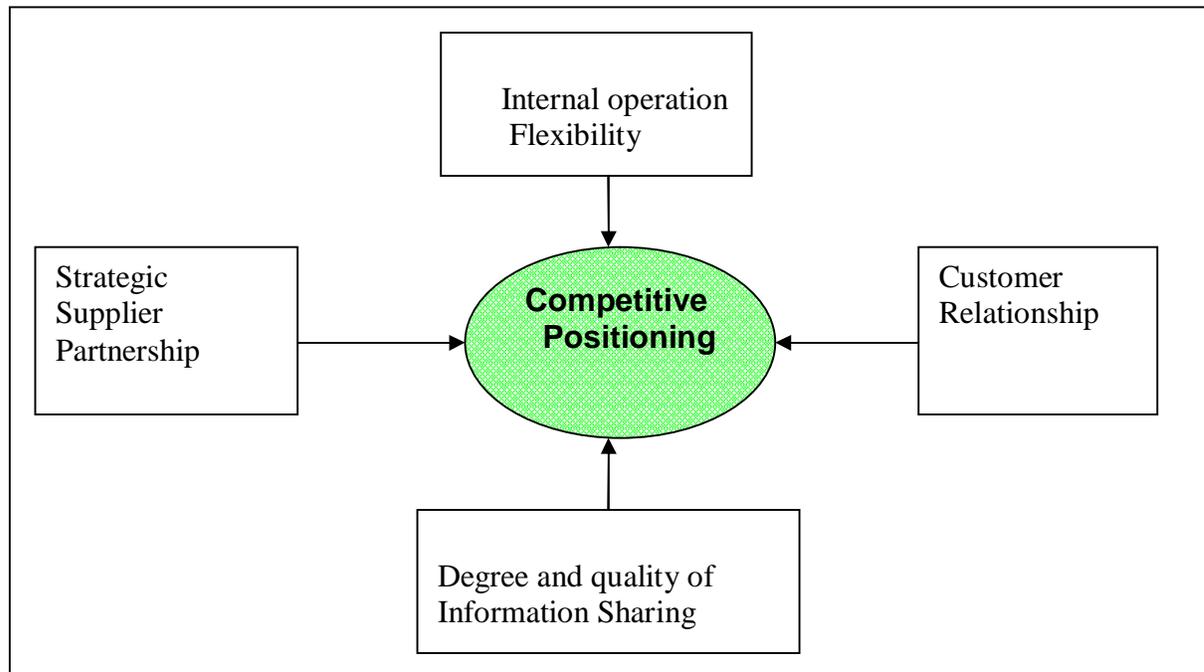
Narasimhan and Das (2004) use three categories of supply chain management practices along with purchasing integration such as buyer, supplier relationships, development, supplier performances evaluation and supply base leveraging.

Alvarado et al (2001) include in their list of SCM practices concentration on core competencies, use of inter-organizational systems such as electronic data interchange (EDI), and elimination of excess inventory levels by postponing customization toward the end of the supply chain. Tan et al (2002) identify six aspects of SCM practice: supply chain integration, information sharing, supply chain characteristics, customer service management, geographical proximity and JIT capability. Chen et al (2004) also use supplier base reduction, long-term relationship, communication, cross-functional teams and supplier involvement to measure buyer–supplier relationships.

Out of the above SCM practices studied by different researchers, the SCM practices that are selected in this study are classified into four dimensions. These are strategic

supplier partnership, customer relationship, internal operation flexibility and information sharing. These four SCM practices can cover upstream (strategic supplier partnership), downstream (customer relationship), internal operation flexibility and information sharing that coordinates both focal firms, and upstream and downstream supply chains. Based on the SCM practices, the following research framework was developed (See Fig. 2.13).

Figure 2. 13: Research framework



2.6.1 Strategic supplier partnership

Strategic supplier partnership is defined as “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” (Li et al., 2006).

Tang (2006) identified four types of supplier relationships: vendor, preferred supplier, exclusive supplier and partner. These four types differ from each other in terms of contracts, length of contracts, types of information exchange, pricing scheme, delivery schedule, etc. As firms expand their business globally, their supply chains would involve

more global partners for different regional markets. Accordingly, a firm may follow different partnership strategies; consequently, it is quite common for a firm to source from multiple suppliers. In addition, some firms may source from multiple supplier so as to reduce the impact of various operational and disruption risks.

Supplier involvement and collaboration has been touted as necessary to improve supply chain effectiveness and a firm's competitiveness (Chang et al., 2006; Samiee et al., 2006; Shin et al., 2000). The collaboration activity has an advantage of quality improvement; cost minimization, new product development and so on. These collaboration activities improve firm's responsiveness to the market (Chang et al., 2006). According to Narasimhan et al (2004) the supplier involvement can be an important source developing manufacturing flexibility and competitive advantage. Wathne and Heide (2004) argue that supplier involvement enhances manufacturer responsiveness to downstream customer changes. Zhang et al., (2003) suggested that better coordination of product design, production and delivery could improve flexibility and add value to customers.

Stank et al (2001) also explained that business leaders increasingly build competencies to integrate with suppliers and customers; and find that these competencies lead them to supply chain excellence. Supplier involvement in product development allows firms to make better use of their suppliers' capabilities and technology to deliver competitive products. Coordinating operational activities through joint planning with suppliers also results in inventory reduction, makes production process smooth, improve product quality and lead time reductions.

From the discussion thus far, it is understood that strategic supplier partnership in supply chain management can be a key competitive weapon to be competitive in the global marketplace.

2.6.2 Customer relationship

According to Li et al (2006), customer relationship is defined as 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. The ultimate objective of supply chain management practices is to deliver products to the satisfaction of end customers. Close customer relationships allow companies to be more responsive to customer's needs by proactively seeking their requirements. The ability to build close relationship with customers will bring companies into a lasting competitive edge. Most researchers consider customer relationship management as an important component of supply chain management practices. As pointed out by Day et al (2006), committed relationships are the most sustainable advantages because of their inherent barriers to competition since changes in technology and globalization of products and services have resulted in more dynamic markets and greater uncertainty in customer demands. Customers have greater access to new products that are emerging at a faster pace (Cheung et al.,2010).

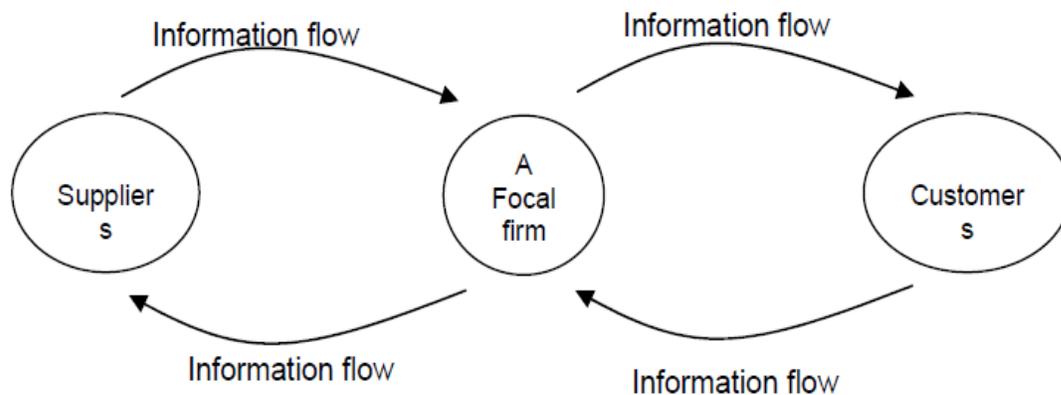
This has significant implications for organizational culture and operations, thereby influencing the value of relationships between buyers and sellers. Adopting customer value delivering operations requires organizations to learn about their markets and target customers (Flint, 2004). Flint further explains that the growth of mass customization and personalized services is leading to an era in which relationship management with customers is becoming crucial for survival of organizations. A part of this relationship truly represents innovative ways of doing things and can be examples as well as benchmark practices for other firms. For example, the supply chain partnering efforts can provide simpler purchasing procedures and eliminate supplier searches while guaranteeing a fixed, or even decreasing, price for defined parts (direct and indirect materials). With this relationship, efficiency programs can be developed to achieve cost reduction, quality improvement, process improvement, and improved product development (Richards et.al, 2008). Understanding these changes and acting accordingly leads an organization to competitive advantage locally and even globally.

2.6.3 Degree and Quality of Information Sharing

“Information sharing refers to the extent to which critical and proprietary information is communicated to one's supply chain partners” (Li et.al., 2006). According to Li et al (2006) information quality includes the accuracy, timelines, adequacy and credibility of

information exchanged. Many researchers suggested that the key to success of supply chain is making available information about every point of supply chain and its quality. Making the information available throughout the supply chain can be used as a source of competitive advantage. See Fig. 2.14 for the information flow model.

Figure 2. 14: Information flow model



Thatte (2007) states that information sharing ensures competitive advantage when the right information is available for the right supply chain partners in the right place at the right time. According to Li et al (2005), shared information can vary from strategic to tactical in nature and could pertain to logistics, customer orders, forecasts, schedules, markets or more. Some of the elements that comprise information sharing include data acquisition, processing, storage, presentation, retrieval and broadcasting of demands and forecasting data, inventory status and locations, order status, cost related data, and performance status. Through information sharing the demand forecasting information flows upstream from the point of sales, while product availability information flows downstream in a systematic manner that can reduce the bullwhip effect and business risk.

2.6.4 Internal operation flexibility

In addition to upstream and downstream integration, supply chain management also emphasizes the importance of both effectiveness and efficiency of focal firm's internal operations. A firm's internal operations are the basis for developing a competitive

positioning before embarking into external relationship. Poor internal operations can cause failure in coordinating with external partners (Narasimhan et.al, 2004).

Manufacturing flexibility is defined as the ability of the manufacturing system of an organization to adapt to change (Sheu et al., 2006). According to them, manufacturing flexibility has been considered as a major competitive weapon for manufacturing organizations due to its ability to help cope with uncertain environments and turbulent markets. It has been argued in the literature that manufacturing flexibility is capable of providing organizations with the ability to change volume and mix of production, to rapidly and frequently develop new products, and to better respond to customer's demand. Manufacturing flexibility has also been said to focus on the ability to adjust to changes in uncertainty with the least penalties in time.

There has been extensive literature on the manufacturing flexibility concept. Some of the basic dimensions of manufacturing flexibility in the literature are: volume flexibility (the ability of the manufacturing system to vary aggregate production volume economically), mix flexibility (the ability of the manufacturing system to switch between different products in the product mix), new product flexibility (the ability of the manufacturing system to introduce and manufacture new parts and products), process flexibility (the ability to change between the production of different products with minimal delay), and material handling flexibility (Zhang et.al, 2003).

In this research, internal operations include all activities related to production, purchasing and logistic flows. SCM requires flexibility in all internal operations such as dynamic teaming, logistics, purchasing, finance, research and development and production in order to be responsive for the market demand in volume and variety to textile products.

2.6.5 Competitive positioning

Competitive positioning can be broadly constructed as cost and differentiation advantage. Cost advantage provides customers with a parity product at a lower price; whereas differentiation advantages offer customers a superior product that is perceived

by customers as consistently different in important attributes when compared with its competitors` offerings.

From the previous studies, most researchers concluded that firms with high levels of SCM practices will have high levels of competitive positioning. Having a competitive positioning means that firms can have one or more of the following capabilities when compared to their competitors: lower prices, higher quality, higher dependability, and shorter delivery time. These capabilities will, in turn, enhance the organization's overall performance (Mentzer et al., 2001). Competitive positioning can also lead to high levels of customer satisfaction and loyalty, and relationship effectiveness. Brands with higher consumer loyalty face less competitive switching in their target segments thereby increasing sales and profitability (Thompson et al., 2007). An organization offering high quality products can charge premium prices and thus increase its profit margin on sales and return on investment. An organization having a short time-to-market and rapid product innovation can be the first in the market, thus enjoying a higher market share and sales volume.

CHAPTER 3: RESEARCH METHODOLOGY

3.1 Introduction

This chapter discusses the research methodology of the study. It describes the research design, research approaches, study population, data collection and analysis strategies employed to answer the research questions.

3.2 Research design

According to Kotzar et al (2005), research design is define as the plan and structure of investigation and the way in which studies are put together. Cooper et al (2003) also define research design as the process of focusing on the researcher's perspective for the purpose of a particular study.

In this study, the researcher used the descriptive survey research design. According to Leedy et al (2005) the descriptive survey involves acquiring information about one or more groups of people asking them questions and tabulating their answers. Leedy et al (2005), further explained that the ultimate goal of survey research design is to learn about a large population by surveying their representative sample, summarizing their responses in percentages, frequency, or more sophisticated statistical tools. Finally, drawing inferences about a particular population from the responses of the sample would be possible. Accordingly, the researcher used descriptive survey (quantitative approach) to test the hypotheses. The next task was to design research instruments and questionnaire. Even if, there should logically be a correlation between two variables the researcher may not necessarily find the same if the measurement instruments have poor validity and reliability (Leedy et al., 2005).

Accordingly, a 5-point Likert scale was used to measure the respondents` strength of likelihood with the research variables. The Likert scale does not provide an accurate measure of attitude towards a topic, but helps place different respondents relative to

each other in terms of the intensity of their attitude towards an issue (Kotrar et.al, 2005). The Likert scale used in this research is expressed as categories, not numerical points. The following conversions were used:

1 = Not at all 2 = To a small extent 3 = To a moderate extent
4 =To a great extent 5 = Not applicable

The questionnaire design was another concern. Without a logical and reasonable questionnaire, the whole process of the future analysis will be garbage-in –garbage-out (Leedy et al., 2005). In this study, a structured questionnaire was developed. The rational for this approach and the quantitative questionnaire was that the quantitative (descriptive survey) method allows direct investigation of the perception of respondents involved in SCM practices (Leedy et al, 2005). According to Leedy et al (2005), survey research is a commonly used method and large amount of information can be collected and quantitatively described. It also allows a researcher to measure what cannot be observed and investigate relationships between dependent and independent variables.

Therefore, this approach was used to extract the opinions, understanding and experiences of people with regard to the first and second questions (extent of the SCM practices) and used to answer the third question, correlation between the SCM practices taken by textile firms and the outcomes of this practices (competitive positioning). Thus, the main reasons to select only the descriptive survey approach were that:

- This survey method is the most economical method of obtaining information via email and postal service from a sample that is geographically widespread area (Leedy et al., 2005).
- Descriptive survey study is not time taking to collect data from large populations.

3.3 Research population and sample

According to Diamantopoulos (2004), a population is a group of items that a sample will draw. A sample, on the other hand, refers to a set of individuals/companies/ selected from an identified population with the intent of generalising the findings to the entire population. A sample is drawn as a result of constraints that make it difficult to cover the entire research population (Leedy et al., 2005).

The population for this study comprised large and medium textile firms in Ethiopia. The population was drawn from the 2009 Business directories of Addis Ababa Chamber of Commerce, the Ministry of Trade and Industry, Leather and Textile Development Center, and Textile Manufacturers' Association data bases. These data bases contain a list of 64 textile firms with relevant information such as product types, production capacity, business names, the contact address (telephone, email and fax), the physical location and name of representatives.

The respondents were senior officers/executives in charge of SCM practice of the targeted companies who can be expected to have an experience about the operation and management of supply chain practice in their organization, such as General Managers of the companies, Commercial Managers and Production and Technical Managers. The researcher believed that these persons have enough knowledge to comprehend and respond to questions concerning the competitive positioning and SCM practices in their respective companies. Thus, the total population for this study was 192 assuming that 3 management members are taken as target population in each of 64 textile firms.

The conventional value 0.05 for significant level was adopted in planning the sample size. The sample size also depends on the number of independent and dependent variables. The variables considered in this study were: three independent variables (strategic supplier partnership, customer relationship, internal operations flexibility and information sharing), one dependent variable (competitive advantage as price/cost, quality, delivery dependability, product innovation, and time to market). The sample size concerns to what Cooper et al (2003) suggest that the sample size for most researches should be in a range of 30-500. According to Diamantopoulos et al (2000), a sample size at least 30 should be considered to use statistical procedures. Considering the resources and capabilities that are available, 90 respondents (47%) from 30 textile firms were selected randomly for this study.

3.4 Data collection strategies

In person distribution of questionnaire, postal service and mail were considered to collect data for this study (see Appendix B). These tools were complemented by a follow-up telephone discussion with selected executives to confirm understanding and gain insight into the answers given to the close-ended questions. The questionnaires were dispatched with covering letter that explains the purpose of study and gives general instructions (see Appendix A).

3.5 Data analysis strategies

Data analyses depend on both the objectives of the study and the nature of the variables in the data collected. In this study, the hypotheses described in Chapter 1 were tested using the Statistical Package for Social Science (SPSS) version 15 software. Based on SPSS, both descriptive and inferential statistics were used. Descriptive statistics involve summarizing and describing quantitative information in meaningful ways. For example, frequency distribution, measures of central tendency and data variability to present quantitative descriptions and describe the basic features of the survey data. Inferential statistics were also used to make conclusions beyond the description of data collected. Hypotheses H1 through H8 were tested by using of non-parametric chi-square, Spearman rank correlation coefficient, Kruskal-Wallis test and one-way ANOVA.

Chi-square test: This is a non-parametric test of significance that is particularly useful in tests involving nominal data (but can be used for higher order data). It tests for significance of differences between the observed and the expected distributions of data. The greater the difference, the lower the probability that the difference can be attributed to chance (Cooper et al., 2003).

Spearman rank correlation is a technique used to measure the direction and strength, either positive or negative, of the relationship between both variables involved; are ordinal or ranked-order data (Leedy et al., 2005).

Kruskal-Wallis test: The Kruskal-Wallis test is used to determine whether the independent variables (supply chain management practices) have an effect on dependent variables (competitive positioning of firms).

One-way ANOVA is an inferential statistical method which is used for comparing the means of one or more groups based on a classified independent variable in order to reduce the probability of a type I error.

3.6 Validity and Reliability

3.6.1 Validity

According to Leedy et al (2005), validity is the ability of an instrument used to measure what it is designed to measure. They further explained two basic questions: does the study have sufficient control to ensure that the conclusions the researcher draw are truly warranted by the data? And can the researcher use what he has observed in the research situation to make generalization to the population beyond that specific situation? The answers to these two questions address the issues of the content validity, internal validity and external validity.

3.6.1.1 Content validity

In order to check content validity for the descriptive survey studies, Leedy et al (2005) suggests three tactics: using multiple sources of evidence, establishing chain evidence and having key informants reviewing draft of the study report. By taking these tactics into account, the researcher constructed the main research framework upon published and acknowledged theory. For the resource-based view Grant (2008), and complement the concept with different sources within the field in order to match the establishment of a competitive positioning. The framework for choosing supply chain management practices was based on Li et al (2006), Li et al (2005) and Thatte (2007).

3.6.1.2 Internal validity

The internal validity of a research study is the extent to which its design and the data it yields allow the researcher to draw accurate conclusions about the relationships within

the data. In this case, there may be Hawthorne effect since the respondents have different backgrounds, experience and knowledge in supply chain management practices in their firm and they may change their behavior simply because they know they are in research study. In this regard, the respondents were well informed with the covering letter about the ethical issues such as confidentiality of the information they provide, and brief description of research objectives. They also gave their consent and the questionnaires were free from ambiguous words/phrases.

3.6.1.3 External validity

External validity is related to the extent to which the findings from one research can be applied to other similar situations. In other words, how the conclusions drawn can be generalized to other contexts (Leedy et al., 2005). To increase the external validity and the generalizability of the results of the study, the researcher used the three commonly used techniques that enhance the external validity of research. These three strategies are: a real life setting, a representative sample and replication in different settings Leedy et al (2005). In this case, based on one survey questionnaire, it is difficult to generalize the findings to other firms.

3.6.2 Reliability

According to Cameron et al (2007), reliability is a measure of the extent to which the result of the research can be repeated with the same result if the research is replicated. Furthermore, Cameron et al (2007) states that in order to increase reliability, the researcher should use the same template as far as possible and use static methods. The researcher believes that this study is reliable since the respondents are selected based on their experience related to SCM practices in their firms. The respondents are involved in the business and have therefore given credible answers. The same answers would probably be given to another independent researcher. Furthermore, ambiguous terms were not used in questionnaires to avoid confusion.

3.7 Ethical issues for the research

According to Leedy et al (2005), there are a number of key ethical issues that protect the rights of research participants. These are protection from harm, informed consent, the right to privacy and honesty with professional colleagues.

The principle of **informed consent** requires that respondents not be forced to participate in research. This means that prospective research participants must be fully informed about the procedures and risks involved in research and must give their consent to participate. In this study, the participants were well informed about the nature of the study and participation was on voluntary basis (see appendix A).

Ethical standards also require that researchers not put participants in a situation where they might be at **risk or harm** as a result of their participation. Harm can be defined as both physical and psychological. There are two standards that are applied in order to help protect the privacy of research participants. The researcher assured that the participant's responses will be treated confidentially and with anonymity of the respondents. No person or firm will have access to their completed questionnaire (see Appendix B). Finally, the researcher reported the findings complete and **honest** without any change in the respondents' response to support personal interests.

2.8 Limitation of the study

At this point, it is important to acknowledge important limitations of the present study. This study was conducted only on the questionnaire survey since the time frame for this study was very short. As a result, it was difficult to triangulate it using qualitative methods. But the deeper insights can be obtained by conducting in-depth interviews with various decision makers related to supply chain partners. The study also depends solely on the perception of selected respondents when compared their firms to competitors. The study has not used secondary data on supply chain to substantiate their perceptions. So, generalization of these results is limited.

CHAPTER 4: RESULTS OF THE RESEARCH

4. Introduction

This chapter presents the results of the analysis of the data obtained from the respondents. The results are split into two groups: (1) Descriptive statistics of the supply chain management practices currently experienced in Ethiopian textile sector; and (2) hypothesis testing to accept or reject the null hypotheses.

4.1 Descriptive statistics and respondents profile

4.1.1 Response rate

The Textile and Leather Development Center, Textile Industries Association and Ministry of Trade and Industry data bases were taken as sample frame. The selected respondents were General Managers, commercial and operation managers of each industry considered in the study. In some private firms, marketing and purchasing managers are acting as commercial managers. A total of 90 questionnaires were emailed and posted to the respondents. In addition, hard copies of the questionnaires were disseminated in person to firms or liaison/branch offices found in Addis Ababa. The questionnaire included a covering letter. A follow-up email and telephone call were made to increase the response rate. The response rate for questionnaires distributed in person was high. Whereas, questionnaires sent through postal service were not returned.

While conducting this study, the researcher faced many challenges to secure respondents' good will; many of them repeatedly said "we are too busy"; respondents from the privately owned firms did not decide to fill the questionnaires without consulting the owners. In addition, many complained that there had been too many university students that requested them to complete questionnaires. Despite these challenges may

have impacted on response rate a total of 53 respondents or 58.9% completed and returned the questionnaire.

$$\text{Response rate} = \frac{\text{Number of respondents that cooperated}}{\text{Total number of selected respondents}} = \frac{53}{90} = 58.9\%$$

4.1.2 Data processing

The completed questionnaires were coded in word processing and inserted into SPSS 15.0 for windows evaluation version. This software program was used to analyze the data. Descriptive statistical analyses were used to reduce large amount of data to summarize frequencies, means, and standard deviations. Based on descriptive statistics, the collected data for each question and respondents were summarized.

4.1.3 Profiles of respondents

Table: 4. 1: Current employment position of respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	General manager	13	14.4	24.5	24.5
	Commercial manager	20	22.2	37.7	62.3
	Production/technical manager	12	13.3	22.6	84.9
	Marketing manager	5	5.6	9.4	94.3
	Purchasing head	3	3.3	5.7	100.0
	Total	53	58.9	100.0	
Missing	System	37	41.1		
Total		90	100.0		

As indicated in Table 4.1, most of the respondents were Commercial Managers (37.7%), General Managers (24.5%) and Production and Technical Managers (22.6%) accounting for 84.9% of the total valid respondents. This was the assumption that at this level of position, they are well informed about SCM practices applied in their firms. As a result, their responses could be reliable.

Table: 4. 2: Respondent's service year in the current company

Service year		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than 2 years	8	8.9	15.1	15.1
	2 to 5 years	19	21.1	35.8	50.9
	6 to 10 years	15	16.7	28.3	79.2
	More than 10 years	11	12.2	20.8	100.0
	Total	53	58.9	100.0	
Missing	System	37	41.1		
Total		90	100.0		

From the above table 4.2, most of the respondents (35.8%) were working at their firms for 2 to 5 years, 28.3% for 6 to 10 years and 20.8 % for more than 10 years. The remaining 15.1% were working in their respective firms for less than 2 years. From this we can therefore deduce that the respondents were well informed about their company supply chain management practices.

Figure 4. 1: Number of service years of respondents

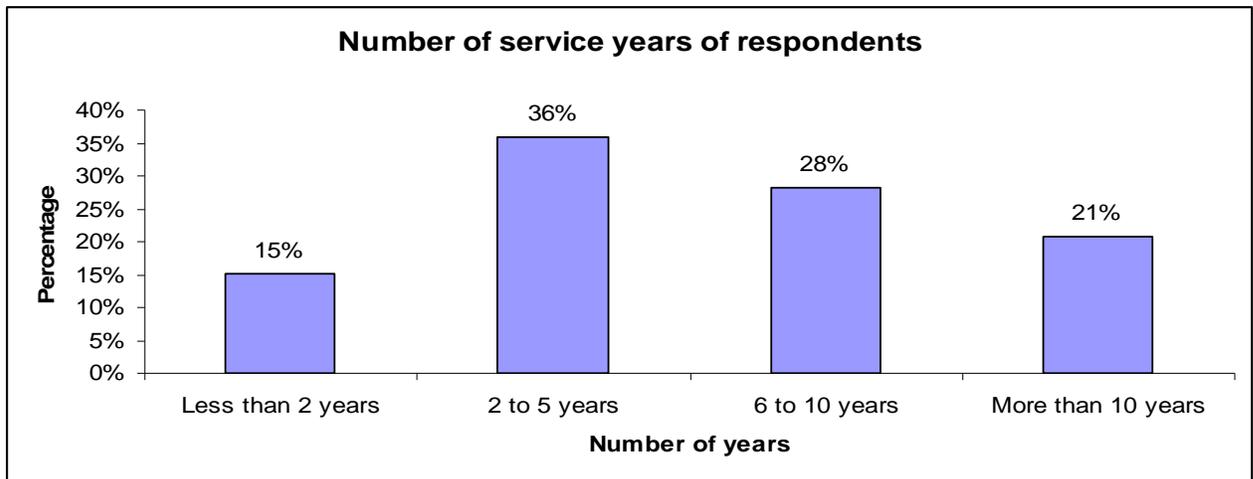
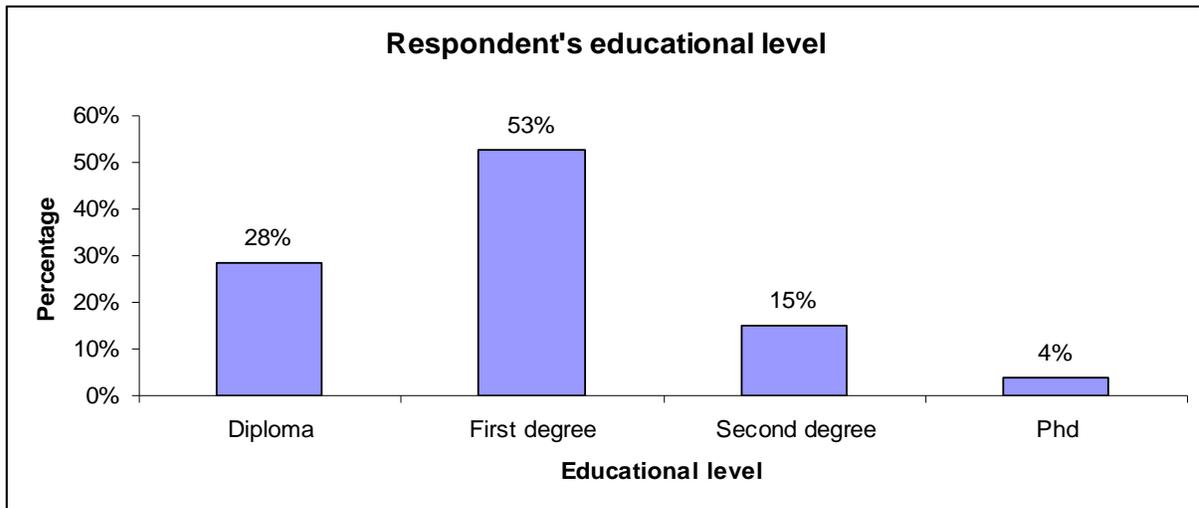


Figure 4. 2: Educational background of the respondents (N=53)

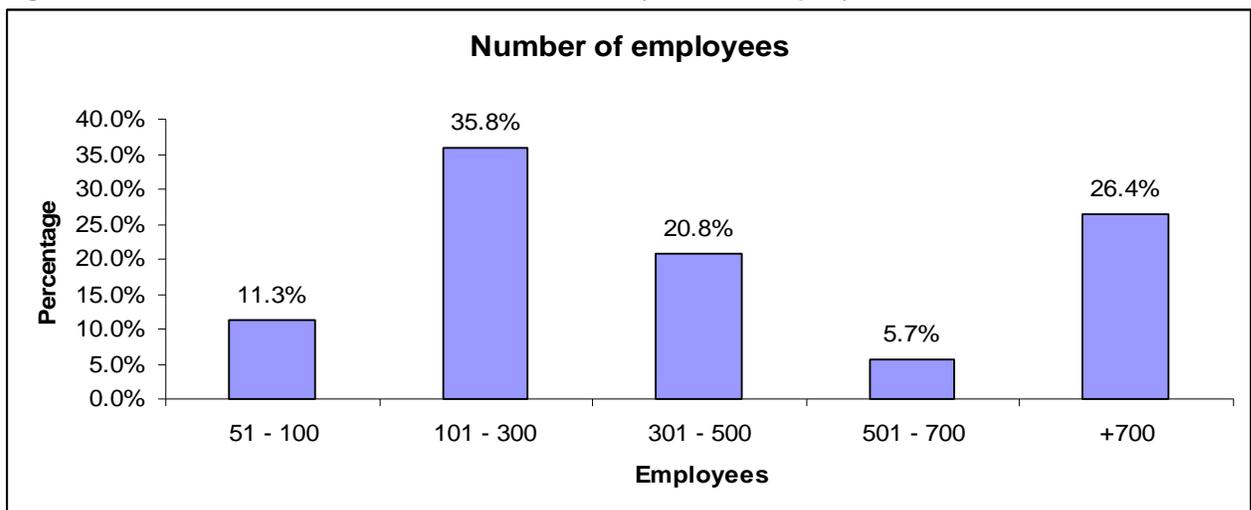


As indicated in Table 4.2, most respondents' educational level was first degree (53%), and diploma (28%). The remaining (15%) held their second degree. PhD holders are only 4%. This indicated that the respondents are well educated to understand the questions they were asked about.

4.1.4 The size of the selected textile industries

The size of selected textile firms can be measured in terms of number of employees and annual sales volume.

Figure 4. 3: Size of the selected textile firms by no. of employees



As can be seen from Figure 4.3, most of the textile firms studied (35.8%) employed between 101 and 300 employees; (26.4%) employed more than 700 employees. It is important to note that 5.7% of the responding textile firms employed between 501 and 700 employees and 11.3% between 51 and 100 employees. This shows that it may be difficult to generalize the research findings as firms size varies from medium to large firms.

4.1.2 Respondents' perception on the extent of SCM practices

In this section, the perception of respondents on each of the SCM practices was described in view of strategic supplier partnership, customer relationship, information sharing, internal operations flexibility and competitive poisoning variables.

4.1.2.1 Strategic supplier relationship (independent variable)

The respondents were asked about their practice of strategic supplier partnership in five variables. These variables indicate the extent of firms practice in terms of trust, involvement of suppliers in new product development, problem solving and selection of few dependable suppliers.

Table: 4. 3: Extent of strategic supplier partnership practices

Variables	Not at all (%)	Small extent (%)	Moderate extent (%)	Great extent (%)	Mean	Std.deviation
Long term contract arrangement with few dependable suppliers	39.6	35.8	18.9	5.7	1.91	0.904
The trends of solving problems jointly with our suppliers	20.8	45.3	32.1	1.9	2.15	0.770
Trust between the firm and suppliers	26.4	50.9	20.8	1.9	1.98	0.747
Participation of suppliers in planning and goal-setting activities	34.0	47.2	13.2	5.7	1.91	0.838
Involvement of suppliers in new product design & development processes	35.8	47.2	17.0	0	1.81	0.709

As presented in Table 4.3, it is understood that the mean values of all variables were between 1.81 and 2.15, which is “to a small extent”. Half of the respondents (50%) said that the trust between firms and their suppliers was at a small extent and 20.8% no trust at all with their suppliers. These findings suggest that the relationship of the textile firms with their suppliers depends much upon traditional way of business transaction and less concern pays to modern SCM practices such as solving problems jointly, trust of suppliers, long term contract with few dependable suppliers, and participation of suppliers in planning and new product design stages. As stated in the literature review section, selecting the right suppliers and forming strategic supplier partnership with firms are key to success.

4.1.2.2 Customer Relationship (independent variable)

The respondents were asked to give their practice of customer relationship practices in five variables. These variables indicate the extent of firms’ practice in terms of trust, participation in planning, long-term contract with customers, measure of customer satisfaction and follow-up procedures for customer complaints and inquiry.

Table: 4. 4: Extent of customer relationship practices

Variables	Not at all (%)	Small extent (%)	Moderate extent (%)	Great extent (%)	Mean	Std.deviation
Follow-up procedures for customer complaints	0	15.1	39.6	45.3	3.3	0.723
Measure customer satisfaction and retention	7.7	34.6	32.7	25.0	2.75	0.926
Trust between firm & customers	15.7	31.4	29.4	23.5	2.61	1.021
Long term contract with dependable customers	19.6	39.2	29.4	11.8	2.33	0.931
Participation of customers in planning and goal- setting	43.4	35.8	15.1	5.7	1.77	0.847

Results of the descriptive statistics presented in Table 4.4 shows that 45.3% of the

respondents practice follow-up procedures for their customer complaints and inquiry at a great extent and 39.6% at moderate extent, at a mean value of 3.3. This shows that many of the firms employed follow-up procedures for customer orders and complaints. In terms of measuring customer satisfaction and retention, 25% of the respondents said at great extent and 32.7% at moderate extent, with a mean value of 2.75.

4.1.2.3 Information sharing practices (independent variable)

The respondents were requested to share their practice of information sharing in five variables. These variables indicate the extent of firms' practice in terms of forecast of demand, reliability and completeness of information shared, web-based data exchange practice, exchange of on-time information and practice of information exchange during events that may affect supply chain partners' business. The perception of respondents is shown in Table 4.5.

Table: 4. 5: Extent of information sharing practices

Variables	Not at all (%)	Small extent (%)	Moderate extent (%)	Great extent (%)	Mean	Std. deviation
We inform suppliers and customers in advance of forecast of demands	22.6	52.8	20.8	3.8	2.06	0.770
The information flow between our firm and SC partners is reliable and complete	32.1	49.1	18.9	0	1.87	0.708
We use web-based data exchange with our supply chain partners	40.4	36.5	15.4	7.7	1.90	0.934
Information exchange between our SC partners and our firm is timely.	30.2	60.4	9.4	0	1.79	0.600
We and our SC partners keep each other informed about events or changes that may affect the other partners business.	18.9	41.5	32.4	7.5	2.28	0.863

About 52.8% of the respondents noted that they inform suppliers and customers in advance of forecast demands to a small extent; and 22.6% said not at all. Only 3.8% of

the respondents said the firms share forecast of demand with their supply chain partners at a great extent. About 40.4 % of the respondent said their firms did not use web-based data exchange at all and 36.5 % said they use to a small extent. In response to the time of information sharing, 90.6 % of the respondents indicated that they do not share information timely. Only 9.4% of the respondents said that firms share information at a moderate extent.

4.1.2.4 Internal Operations Flexibility Practices (Independent variable)

The respondents were asked to give their internal operation flexibility in five variables. These variables indicate the extent of firms' ability in terms of product volume, product mix, employees' flexibility to work at different job types and reallocate them when needed. Coordination of departments and consultation practices during decision making and demand change is also needed. The extent of respondents' perceptions of internal operations flexibility in their firm is shown in table 4.6.

Table: 4. 6: Extent of internal operation flexibility practices

Variables	Not at all (%)	Small extent (%)	Moderate extent (%)	Great extent (%)	Mean	Std.deviation
Product volume	5.8	30.8	34.6	28.6	2.87	0.908
Product mix	6	34	40	20	2.74	0.853
Reallocates employees	26.4	41.5	28.3	3.8	2.09	0.838
Coordination of departments	0	17.6	31.4	51	3.33	0.766
Consult other departments when making decisions	0	9.6	36.5	53.8	3.44	0.669

The internal coordination of departments and consultation with other departments when making decisions were above average mean value, which was 3.33 and 3.44 respectively (Table 4.6). On the other hand, the mean values to reallocation employees,

flexibility to change product volume and mix during were 2.09, 2.87 and 2.74 respectively which are below average mean value. This shows that textile firms are not capable of reallocating their employees to respond rapidly to changes in product volume and mix demanded by customers. But they are strong in internal coordination and joint decision making practices. In general, the internal operation flexibility practice is better than the other SCM practices mentioned before.

4.1.2.5 Competitive position of textile firms (dependent variable)

The respondents were asked to compare their level of competitive positioning in comparison to their competitors'. The researcher used the relative positions because the firms may not be willing to give information on actual financial performance. Five measures were used to assess their relative position: selling price, product/service quality, dependability and on-time delivery of orders, market share and new product design (innovation).

Table: 4. 7: Responses about dimensions of competitive position & their mean value

Dimension of competitive position	Not at all (%)	Small extent (%)	Moderate extent (%)	Great extent (%)	Mean	Std.deviation
Selling prices	1.9	18.9	58.5	20.8	2.98	0.693
Product quality	1.9	22.6	43.4	32.1	3.06	0.795
Market share	8.3	39.6	39.6	12.5	2.56	0.823
Dependable and on-time delivery	26.4	43.4	22.6	7.5	2.11	0.891
New product design & development	32.1	45.3	17.0	5.7	1.96	0.854

As indicated in Table 4.7, 58.5% of the respondents said that the firms have moderate competitive position in terms of selling price and quality of their products (mean value 2.98 and 3.06 respectively). The other dimensions of competitive position were weak

compared to their competitors. About 32.1% of the respondents perceived that their firms are not competitive in developing a new product to the market, while 45.3% said the competitive to a small extent. In terms of dependable and on-time delivery of customer orders, 26.4% of respondents said that they did not meet the due date of customer's order and 43.4% were perceived operating at a small extent of competitive positioning in this regard.

4.2 Hypotheses Testing

The objectives of this study were: (1) To understand and know about the extent of supply chain management practices; (2) To determine the extent to which the supply chain management practices are implemented; and (3) to determine the significance of relationships between supply chain management practices and competitive positioning of Ethiopian textile firms. In this study the supply chain management practices (strategic supplier partnership, customer relationship, information sharing and internal operations flexibility) were independent variables whereas five variables of competitive positioning (price/cost, quality, dependability, on time delivery and ability to design and develop new products) are dependent variables. In order to address these questions, 8 hypotheses were developed and empirical data were collected from the respondents to either accept or reject the null hypotheses.

There are some general assumptions for empirical tests, parametric or nonparametric (Diamantopoulos et al, 2004). Violation of them may or may not influence the reality of analysis. According to Diamantopoulos (2004), parametric tests have some general assumptions: continuous rather than categorical measure of dependent variable, random sampling, independent of observations, normal distribution of the data, and homogeneity of variance. However, nonparametric tests have far less restrictive assumptions on the data: random data and independent of the observations only. Therefore, nonparametric tests were applied to test the hypotheses. The statistical nonparametric tests that were conducted were the chi- square, Kruskal-Wallis and Spearman's rank order correlation and one-way ANOVA tests.

Hypotheses H1 to H4 were tested by chi-square statistical test. The chi-square test was used to determine whether there was a significant difference between the expected frequencies and the observed frequencies in one or more categories (Diamantopoulos et al, 2004). The researcher assumed that expected and observed frequencies are 50% in each category i.e half of the respondents will respond from “not at all” to “moderate extent” (categorized as weak supply chain management practices) and half of the respondents “to a great extent” (categorized as strong supply chain management practices).

This was done in order to check whether or not the null hypothesis was valid, by looking at the critical chi-square value and frequency distribution. If the calculated Chi-square was greater than the significance value ($p= 0.05$), then there was no evidence to reject the null hypothesis and it was concluded that the predictions made were correct and alternative hypotheses were rejected. In accordance with this principle, hypotheses H1 to H8 were tested as follows.

4.2.1 Testing Hypothesis 1

H_{01} : The strategic supplier partnership practice in Ethiopian textile firms is not weak.

H_{a1} : The strategic supplier partnership practice in Ethiopian textile firms is weak.

Table: 4. 8: Chi-square test statistics of strategic supplier partnership practices

	Long -term relationship with dependable suppliers	Regularly solve problems jointly with suppliers	Trust with suppliers	Planning and goal setting with suppliers	Involve supplier in new product design and development
Chi-Square(a, b)	15.755	21.491	26.019	23.000	7.396
df	3	3	3	3	2
Asymp. Sig.	.001	.000	.000	.000	.025

a 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 13.3.

The calculated chi-square values for all the five variables were less than the level of critical value at 5% (see Table 4.8). This indicated that the probability associated with

statistics $p < 0.05$ was significant. As a result, the null hypothesis, H_0 : “The strategic supplier partnership practice in Ethiopian textile firms is not weak” was rejected while the alternative hypothesis (H_a) stating, “the strategic supplier partnership practice in Ethiopian textile firms is weak” was supported. This implies that the Ethiopian textile firms have real weaknesses in practicing strategic supplier partnership practices. The Ethiopian textile firms are still doing business as usual and paying little attention to modern SCM practices such as solving problems jointly, building trust of suppliers, long term contract with few dependable suppliers, participation of suppliers in planning and new product design stages.

4.2.2 Testing Hypothesis 2

H_{o2} : The customer relationship practice in Ethiopian textile firms is not weak.

H_{a2} : The customer relationship practice in Ethiopian textile firms is weak.

Table: 4. 9: Chi-square test statistics of customer relationship practices

	Follow-up procedures for customer's complaints	customer satisfaction and retention measurement	Trust of customers	Long term contract with dependable customers	Involvement of customers in planning and goal setting
Chi-Square(a,b, c,d)	8.189	9.385	3.039	8.686	19.679
df	2	3	3	3	3
Asymp. Sig.	.017	.025	.386	.034	.000

a 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency was 12.8.

The chi-square test results in Table 4.9 indicate that all calculated chi-square values except trust of customers were less than the level of significance 0.05. Therefore, the null hypothesis “The customer relationship practice in Ethiopian textile firms is not weak” was rejected. As stated in the literature review, close customer relationships allow companies to be more responsive in meeting customers’ demand and improving customer satisfaction by proactively seeking customers need and requirements. However, Ethiopian textile firms are weak in this regard as shown in the above chi-square test results.

4.2.3 Testing Hypothesis 3

H_{o3} : The information sharing practice in Ethiopian textile firms is not weak.

H_{a3} : The information sharing practice in Ethiopian textile firms is weak.

Table: 4. 10: Chi-square of information sharing practices

	We inform SC partners in advance of forecast of demands	Reliable and completeness of information sharing	Web-based data exchange practice	Information sharing with our SC partners is timely	We informed each other about negative events that may affect others business
Chi-Square(a,b,c)	26.472	7.283	15.846	20.868	14.094
df	3	2	3	2	3
Asymp. Sig.	.000	.026	.001	.000	.003

a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency was 13.0.

From the chi-square test result, it was indicated that all calculated chi-square values were less than the level of significance 0.05. Therefore, the null hypothesis, “The information sharing practice in Ethiopian textile firms is not weak” was rejected. This chi-square test result was also supported by the descriptive analysis. The average mean value was 1.89 and the cumulative percentage 75% below “to a small extent”. All mean values on information sharing variables were below 3. This means that information sharing practices in textile firms supply chain are weak in both degree and quality of information.

As stated in the literature review section, web-based communication is a basic requirement of supply chain management practices in textile industries. However, the Ethiopian textile firms do not use web-based system to exchange data among the supply chain partners. This might have resulted from poor infrastructure in hardware and software as well as lack of skilled labour to use internet as a means of data exchange tool.

4.2.4 Testing Hypothesis 4

H_{o4} : The internal operations flexibility practice in textile firms is not weak.

H_{a4} : The internal operations flexibility practice in textile firms is weak.

Table: 4. 11: Chi-square test statistics of internal operations flexibility practices

	Capability to change product volume	Capability to change product mix	Reallocates people to address demand change	Internal Coordination	Consultation when making decisions
Chi-Square(a,b,c,d ,e)	10.615	13.840	15.604	8.588	15.500
df	3	3	3	2	2
Asymp. Sig.	.014	.003	.001	.014	.000

0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency was 12.5.

All chi-square values for the variables relating to internal operations flexibility practices were less than the level of significance 0.05 (See Table 4.11). Therefore, the null hypothesis “The internal operations flexibility practice in Ethiopian textile firms is not weak” was rejected. This shows that Ethiopian textile firms have problem regarding production process, reallocation of employees, and production capacity adjustments to compete at the time of rapid change of customers’ orders in both product mix and volume change. Whereas, they are relatively strong in internal coordination and joint decision making practices.

4.2.5 Testing Hypothesis 5

H_{o5} : There is no relationship between the strategic supplier partnership practices and competitive positioning in Ethiopian textile firms.

H_{a5} : There is a relationship between the strategic supplier partnership practices and competitive positioning in Ethiopian textile firms.

The aim of this hypothesis was to determine whether there was a correlation between strategic supplier partnership in the supply side of textile firms and their competitive positioning compared to their competitors. In order to determine this correlation, Spearman correlation coefficients were calculated by SPSS 15 and the null hypothesis was tested. In addition, the impacts of the independent variables on the dependent variables was analyzed by nonparametric test (Kruskal-Wallis) and one-way ANOVA.

Figure 4. 4: Proposed correlation between dependent and independent variables

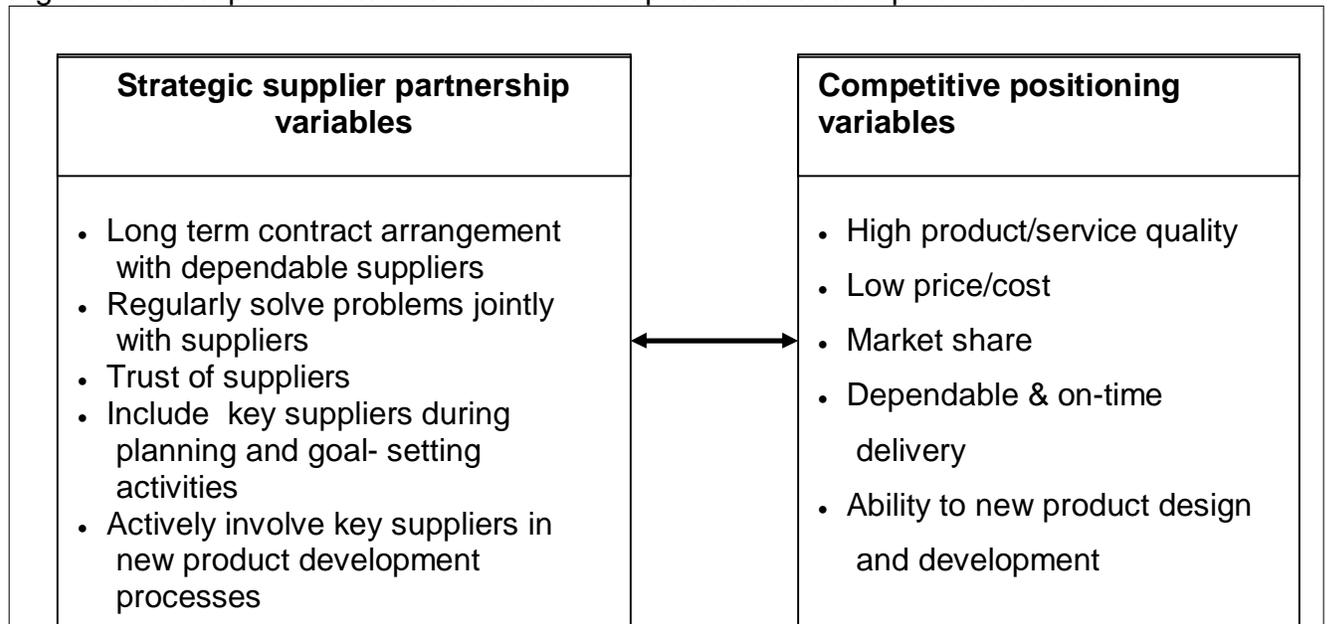


Figure 4.7 demonstrates the group of strategic suppliers' partnership practices that may have relationships with the competitive positioning of textile firms. The questionnaire was designed using this model. The test results are presented in Table 4.12

Table: 4. 12: Spearman's rank order correlation b/n supplier partnership & competitive position

		supplier partnership	Competitive positioning
Spearman's rho	Strategic supplier partnership practices	Correlation Coefficient	1.000
		Sig. (2-tailed)	.
		N	53
	Competitive positioning	Correlation Coefficient	.159
		Sig. (2-tailed)	.255
		N	53

Correlation is significant at the 0.05 level (2-tailed).

The statistical result was value 0.255, which is well above the significance value of 0.05. Thus, there is no evidence to reject the null hypothesis in favor of the alternative hypothesis.

Therefore, there is no statistically significant relationship between the independent variable (strategic supplier partnership) and the dependent variable (competitive positioning). The correlation coefficient 0.159 means very weak correlation, almost zero correlation. As a rule of thumb, correlation coefficients between .00 and .40 are considered weak, those between .40 and .80 are moderate and coefficients between .80 and 1.00 are considered high (Diamantopoulos et al, 2004).

The impact of strategic supplier partnership on competitive positioning was determined by Kruskal-Wallis and ANOVA tests. The Kruskal-Wallis test was used to determine whether the strategic supplier partnership had an effect on competitive positioning. This is indicated in Table 4.13.

Table: 4. 13: Kruskal-Wallis test result of supplier partnership practices and competitive position

Competitive position	
Chi-Square	.404
df	2
Asymp. Sig.	.817

a Kruskal Wallis Test

b Grouping variable: Strategic supplier partnership practices

The Kruskal-Wallis test gave the chi-square value, degree of freedom and significance. The values indicated that strategic supplier partnerships did not significantly influence on the competitive positioning of textile firms since the calculated p-value (0.817) was well above the critical value at 5% significance.

The mean variation of competitive positioning variables on the dimensions of strategic supplier partnership practice was also conducted by one-way ANOVA. This test can answer whether or not the competitive positioning of textile firms measured by low price/cost, quality, delivery dependability, market share and product design and development have significant mean differences for high and low strategic supplier partnership practices.

The researcher therefore performed a one-way ANOVA with strategic supplier partnership practices dimensions of supply chain management practices as independent variables with two categories –high and low; and five dimensions of competitive positioning (price, quality, market share, delivery dependability, new product design and development) as dependable variables. The strategic supplier partnership practices were measured from 1- “not at all” to 4- “to a great extent”. A score of above 3 was treated as high and a score 3 or below was treated as low for defining the two categories: high and low.

Table: 4. 14: ANOVA summary for strategic supplier partnership practices

Competitive positioning variables	Sum of Squares	df	Mean Square	F	Sig.
Price	7.547	9	.839	2.068	.054
Quality of products/service	1.933	9	.215	.299	.971
Market share growth	7.698	9	.855	1.348	.246
Delivery dependability	2.776	9	.308	.344	.955
New product design and development	3.451	9	.383	.478	.881

Correlation is significant at the 0.1 level (2-tailed).

ANOVA results indicated that the competitive positioning of textile firms based on low price ($F=2.068, p < 0.1$) (See Table 14) significantly differs for high and low level of strategic suppliers partnership practices. On the other hand, the ability of the respondent firms to compete based on high quality, market share, delivery dependability and new product design did not significantly differ for high and low levels of strategic supplier partnership practices since quality ($F= 0.299, p > 0.1$), market share ($F=1.348, p > 0.1$), delivery dependability ($F=.344, p > 0.1$) and new product design and development ($F=0.478, p > 0.1$)

4.2.6 Testing Hypothesis 6

H_{06} : There is no relationship between the customer relationship and competitive

positioning in Ethiopian textile firms.

H_{a6}: There is a relationship between the customer relationship and competitive positioning in Ethiopian textile firms.

The aim of this hypothesis was to determine whether there was a correlation between supply chain management practices (customer relationship) in the demand side of textile firms and their competitive positioning from competitors. In order to determine this correlation, Spearman correlation coefficients were calculated and null hypothesis was tested. Then impact of independent variable on dependent variables was tested. The findings are presented in the following tables.

Table:4. 15: Spearman's rank order correlation: customer relationship and competitive position

			Customer relationship practice	Competitive positioning
Spearman's rho	Customer relationship practice	Correlation Coefficient	1.000	.084
		Sig. (2-tailed)	.	.549
		N	53	53
	Competitive positioning	Correlation Coefficient	.084	1.000
		Sig. (2-tailed)	.549	.
		N	53	53

The statistical result indicates that the probability value is 0.549, which is well above the significance value of 0.05 (See Table 4.15). Thus, there is no evidence to reject the null hypothesis. This implies that there is no relationship between independent variable (customer relationship) and the dependent variable (competitive positioning). This relationship (correlation coefficient 0.084) implies that the independent variable has no impact on dependable variables. This finding was also tested with nonparametric test (Kruskal-Wallis) to determine whether the customer relationships has an impact on competitive positioning or not.

Table: 4. 16: Kruskal-Wallis test result: Customer relationship & competitive position
Test Statistics(a,b)

Competitive positioning	
Chi-Square	.185
Df	2
Asymp. Sig.	.912

a Kruskal Wallis Test

b Grouping Variable: Customer relationship practice

The Kruskal-Wallis value indicated that customer relationship did not influence on the competitive positioning of textile firms since the calculated p-value (0.912) was greater than 0.05 significant value (See Table 4.16).

The mean variation of competitive positioning variables on the dimensions of customer relationship was analysed by one-way ANOVA. This test can answer whether the competitive positioning of textile firms measured by low price/cost, quality, delivery dependability, market share and product design and development has significant mean differences between high and low customer relationship practices or not.

The researcher therefore performed a one-way ANOVA with customer relationship dimensions of supply chain management practices as independent variables with two categories –high and low and five dimensions of competitive positioning (price, quality, market share, delivery dependability, new product design and development) as five dependable variables. The customer relationship practices were measured from 1- “not at all” to 4- “to a great extent”. A score of above 3 was treated as high and a score 3 or below was treated as low for defining the two categories high and low.

Table: 4. 17: ANOVA test result for customer relationship practices

Competitive positioning variables	Sum of Squares	df	Mean Square	F	Sig.
Price	9.503	13	.731	1.842	.071
Quality of products/service	9.464	13	.728	1.215	.306
Market share growth	6.128	13	.471	.624	.817
Delivery dependability	10.321	13	.794	.999	.471
New product design and development	11.434	13	.880	1.295	.257

Correlation is significant at the 0.1 level (2-tailed).

ANOVA results indicated that the competitive positioning of textile firms based on low price ($F=1.842$, $p < 0.1$) significantly differs for high and low level of customer relationship practices. On the other hand, the ability of the firms to compete based on high quality, market share, delivery dependability and new product design did not significantly differ for high and low levels of customer relationship practices since Quality ($F= 1.215$, $p > 0.1$), market share ($F=0.624$, $p > 0.1$), delivery dependability ($F=.999$, $p > 0.1$) and new product design and development ($F=1.295$, $p > 0.1$)

4.2.7 Testing Hypothesis 7

H_{o7} : There is no relationship between information sharing and competitive positioning in Ethiopian textile firms.

H_{a7} : There is a relationship between information sharing and competitive positioning in Ethiopian textile firms.

The purpose of this hypothesis was to determine whether there was a relationship between information sharing within the supply chain partners of textile firms and their competitive positioning from competitors.

Table: 4. 18: Spearman's rank order correlation: Information sharing and competitive position

			Competitive positioning	Information sharing practice
Spearman's rho	Competitive positioning	Correlation Coefficient	1.000	-.023
		Sig. (2-tailed)	.	.870
		N	53	53
	Information sharing practice	Correlation Coefficient	-.023	1.000
		Sig. (2-tailed)	.870	.
		N	53	53

As presented in Table 4.18, calculated significance value 0.870 was greater than the critical value of a 5% significance; thus, the null hypothesis was not rejected. This implies that there was no relationship between independent variable (information sharing) and the dependent variable (competitive positioning). The correlation coefficient also showed -0.023 which is zero correlation between two variables. This finding was also tested with Kruskal-Wallis.

Table: 4. 19: Kruskal -Wallis test result: Information sharing and competitive position
Test Statistics(a,b)

	Competitive positioning
Chi-Square	.039
Df	1
Asymp. Sig.	.843

a Kruskal Wallis Test

b Grouping Variable: Degree and quality of information sharing practice

As can be seen in Table 4.19, the calculated p-value was 0.843, which was above the critical value of 0.05. This shows that information sharing does not influence on the competitive positioning of Ethiopian textile firms. The mean variation of competitive positioning variables on the dimensions of information sharing was also analysed by one-way ANOVA with computed information sharing dimensions of supply chain management practices as independent variables with two categories –high and low.

Five dimensions of competitive positioning (price, quality, market share, delivery dependability, new product design and development) were taken as dependable variables. The information sharing practices were measured from 1- not at all to 4- to a great extents. A score of above 3 was treated as high and a score 3 or below was treated as low for defining the two categories high and low.

Table: 4. 20: ANOVA test result for information sharing practices

Competitive positioning variables	Sum of Squares	df	Mean Square	F	Sig.
Price	6.292	12	0.524	1.122	0.370
Quality of products/service	8.919	12	0.743	1.243	0.289
Market share growth	8.362	12	0.697	1.040	0.436
Delivery dependability	11.010	12	0.917	1.211	0.320
New product design and development	9.980	12	0.832	1.190	0.323

The one-way ANOVA test result showed that the p-values of both dependent variables were greater than 0.1, which was price (F=1.122, $p>0.1$), Quality (F= 1.243, $p>0.1$), market share (F=1.040, $p>0.1$), delivery dependability (F=1.211, $p>0.1$) and new product design and development (F=1.190, $p>0.1$) (See Table 4.20). This shows that the position of the respondent firms to compete based on high quality, market share, delivery dependability and new product design did not significantly differ for high and low levels of information sharing practices between the focal firms and their supply chain partners.

2.4.8 Testing Hypothesis 8

H₀₈: There is no relationship between internal operations flexibility and competitive positioning in Ethiopian textile firms.

H_{a8}: There is a relationship between internal operations flexibility and competitive positioning in Ethiopian textile firms.

This hypothesis was tested also using Spearman correlation, Kruskal-Wallis and one-

way ANOVA to determine whether there is a relationship between internal operation flexibility and competitive positioning of respondents' firms.

Table: 4. 21: Spearman's rank order correlation: Internal flexibility & compet. position

		Competitive positioning	Internal operations flexibility practice
Spearman's rho	Competitive positioning	Correlation Coefficient	1.000
		Sig. (2-tailed)	.
		N	53
	Internal operations flexibility practice	Correlation Coefficient	.294(*)
		Sig. (2-tailed)	.032
		N	53

* Correlation is significant at the 0.05 level (2-tailed).

As can be learnt from Table 4.21, the calculated significance value 0.032 is less than the critical value of a 5% significance; therefore, the null hypothesis was rejected. This implies that there is a positive relationship between the independent variable (internal operation flexibility) and the dependent variable (competitive positioning). However, the correlation coefficient (0.294) indicated that the relationship between internal operation flexibility and competitive positioning variables is weak.

This finding was also tested with Kruskal-Wallis to determine whether or not the information sharing has an effect on competitive positioning.

Table: 4. 22: Kruskal -Wallis test result: Operation flexibility & competitive position

	Competitive positioning
Chi-Square	8.248
Df	2
Asymp. Sig.	.016

a Kruskal Wallis Test

b Grouping Variable: Internal operations flexibility practice

As can be referred from Table 4.22, the calculated p-value was 0.016, which was less

than the critical value of 0.05. This shows that internal operations flexibility has an impact on the competitive positioning of respondents' firms. The mean variation of competitive positioning variables on the dimensions of internal operation flexibility was also analysed by one-way ANOVA. This test can answer whether the competitive positioning of textile firms measured by low price/cost, quality, delivery dependability, market share and product design and development have significant mean differences for high and low internal operation flexibility practices.

The researcher therefore used a one-way ANOVA with computed internal operation flexibility dimensions of supply chain management practices as independent variables with two categories –high and low. Five dimensions of competitive positioning (price, quality, market share, delivery dependability, new product design and development) were taken as dependable variables. The internal operation flexibility practices were measured from 1- “not at all” to 4- “to a great extent”. A score of above 3 was treated as high and a score 3 or below was treated as low for defining the high and the low categories.

Table: 4. 23: ANOVA test result for internal operation flexibility practices

Competitive positioning variables	Sum of Squares	df	Mean Square	F	Sig.
Price	6.157	13	0.474	0.981	0.486
Quality of products/service	4.324	13	0.333	0.495	0.936
Market share growth	14.953	13	1.150	2.320	0.025
Delivery dependability	9.008	13	0.693	0.836	0.621
New product design and development	9.712	13	0.747	1.033	0.442

Correlation was significant at the 0.1 level (2-tailed).

ANOVA results indicated that the competitive positioning of textile firms based on low market share ($F=1.842, p < 0.1$) significantly differs for high and low levels of internal operation flexibility practices. On the other hand, the position of the respondent firms to

compete based on high quality, market share, delivery dependability and new product design did not significantly differ for high and low levels of internal operation flexibility practices since price ($F= 0.981, p>0.1$), quality ($F=0.495, p>0.1$), delivery dependability ($F=0.836p>0.1$) and new product design and development ($F=1.033, p>0.1$).

4.3 Summary of hypotheses testing

The results of the hypotheses testing are summarized below in table 4.24

Table: 4. 24: Summary of hypotheses testing

Null hypothesis		Result
H _{o1}	The strategic supplier partnership practice in Ethiopian textile firms is not weak	Rejected
H _{o2}	The customer relationship practice in Ethiopian textile firms is not weak	Rejected
H _{o3}	Information sharing practice in Ethiopian textile firms is not weak	Rejected
H _{o4}	Internal operation flexibility practice in Ethiopian textile firms is not weak	Rejected
H _{o5}	There is no relationship between strategic supplier partnership practices and competitive positioning of textile firms in Ethiopia	Accepted
H _{o6}	There is no relationship between customer relationship practices and competitive positioning of textile firms in Ethiopia	Accepted
H _{o7}	There is no relationship between information sharing practices and competitive positioning of textile firms in Ethiopia	Accepted
H _{o8}	There is no relationship between internal operations practices and competitive positioning of textile firms in Ethiopia	Rejected

CHAPTER 5: DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The last chapter of the research discusses the key findings and their relation to the research questions. Conclusions and recommendations drawn on how to make the Ethiopian textile firms more competitive in the local and global marketplaces are also presented in this chapter. Finally, directions for future research are indicated.

5.2 Discussions of the research findings

Research questions 1 and 2:

- To what extent do the Ethiopian textile firms understand and know about supply chain management practices?
- To what extent the Ethiopian textile firms implement supply chain management practices?

5.2.1 Strategic supplier partnership practices among the Ethiopian textile firms

As it was described in the literature review section, “strategic supplier partnership can leverage the strategic and operational capabilities of individual participating organizations to help them achieve significant ongoing benefits” (Li et al., 2006). According to Narasimhan et al (2004), the supplier involvement can be an important source of developing manufacturing flexibility and competitive advantage that leads to higher competitive positioning of firms. Wathne and Heide (2004) also argue that supplier involvement enhances manufacturer responsiveness to downstream customer changes.

However, the results from testing this hypothesis (H_{01}) indicated that the strategic suppliers’ partnership practices among the Ethiopian textile firms is weak and they are still doing business on traditional ways of transaction. The variables tested in this regard including long term contract arrangement with dependable suppliers, trends of problem

solving practices jointly with suppliers, trust between firms and suppliers, participating suppliers in planning and goal setting and in new product development stages were given little or no attention by textile firms. This implies that the Ethiopian textile firms are weak in terms of suppliers' partnership practices and did not understand the supply chain management practices that can play a great role in upgrading firms' performance.

5.2.2 Customer relationship practices

The second null hypothesis was also rejected. This showed that the customer relationship management is weak in terms of evaluation of customer satisfaction and retention, trust of customers, involvement of customers in new products design, planning and goal setting as well as long term relationship with dependable customers. However, procedure for treating customers' complaint is practiced in most textile firms.

Overall practice of customer relationship with dependable supply chain partners was weak and had no impact on competitive positioning of textile firms. As stated in the literature review, the ultimate objective of supply chain management practices is to deliver products to the satisfaction of end customers. Close customer relationships allow companies to be more responsive in meeting customers demand and improving customer satisfaction by proactively seeking customers need and requirements. The ability to build close relationship with customers will bring companies into a lasting competitive edge. However, it was found that Ethiopian textile firms are weak in this regard.

5.2.3 Degree and quality of information sharing practices

The third hypothesis revolving around the degree and quality of information sharing among supply chain of Ethiopian textile firms was also weak and rejected based on the test results. Under these information sharing practices, reliability and completeness of information shared, web-based data exchange, responsiveness of information sharing and keeping each other informed about negative events that may affect supply chain partners were incorporated. All information sharing variables mean values were below 3. This means that information sharing practices in the supply chain of textile firms were weak in both degree and quality of information.

As described in the literature review section, sharing important information between supply chain partners of textile firms timely is an essential element to compete in highly competitive business environments. Specifically, sharing information about product design and development, demand forecasting, sales and inventory level and product scheduling through web-based means such as internet is vital for textile firms supply chain competitiveness. According to De Toni et al (2000), the practices of supplier and customer involvement in new product design and development require a high degree of complete communication between buyers and suppliers. The degree and quality of information exchange is of great concern because acting on inaccurate, incomplete or inconsistent product design and specification will affect the tasks of price quotation preparation and cost estimation.

In this regard, the research finding showed that the information exchange is at low level and may be an indication of poor communication throughout the supply chain of the textile sectors. The Ethiopian textile firms did not use web-based system to exchange data between the supply chain partners. This might have resulted from poor infrastructure in hardware and software as well as lack of skilled human power to use internet as a means of data exchange tool.

5.2.4 Internal operations flexibility practices

As it was analyzed earlier, the internal operations flexibility practices of Ethiopian textile firms are weak, especially in reallocation of employees. As a result, textile firms are not capable of reallocating employees; responding rapidly to changes in product volume and mix demanded by customers. The capability of their operation processes to change both product volume and mix were also weak. This showed that they have problem regarding production process, production capacity adjustment to address customers demand for change. However, they are relatively strong in internal coordination and joint decision making practices.

5.2.5 Competitive positioning

This is the concept mainly targeted at assessing whether the Ethiopian textile firms had

higher competitive position in terms of market share, low price, high quality products/services, delivery dependability and new product design and development ability. As various researchers stated, having a competitive positioning generally suggests that firms can have one or more of the following capabilities compared to their competitors in line with the parameters of: lower prices, higher quality, higher dependability, and shorter delivery time. These capabilities will, in turn, enhance organization's overall performance. Competitive positioning can lead companies to high level of customer satisfaction and loyalty, and relationship effectiveness. Generally, as indicated previously, supply chain management practices among Ethiopian textile firms are weak. Consequently, the textile firms are weak to compete in the global marketplaces.

Research question 3: Is there any relationship between supply chain management practices and competitive positioning in Ethiopian textile firms?

Research question 3 was developed to investigate whether there is a relationship between supply chain management practices and competitive positioning in the Ethiopian textile firms. Accordingly, an examination of correlations test showed that except internal operations flexibility, other SCM practices have no relationship with the competitive position variables of textile firms. This clearly indicated that even though it is weak, internal operation flexibility and coordination have a positive relationship with textile firms competitive positioning such as low price, quality and on-time and dependable delivery of products and services. The other supply chain management practices such as strategic supplier partnership, customer relationship and information sharing practices have no impact on firms' competitive position. This finding also shows that supply chain management practice in Ethiopian textile firms is not used as a weapon in highly competitive global marketplaces.

Of course, the researcher had expected these findings of the study, because most Ethiopian textile firms were suffered by inefficiencies described in literature review. They do not involve suppliers/customers in planning, lack of trust between business partners, lack of information sharing, and low capability of internal operations flexibility to use supply chain management practices as a competitive weapon in their firms.

5.3 Conclusion and Recommendation

From the research findings, we can conclude that Ethiopian textile firms have been operating for a long time. However, modern supply chain management theories and practices are not given attention of business managers. Still the textile sub-sector is doing business in traditional way of customer-supplier relationships. Their information sharing practices and internal operation flexibility to address customer's demand change is also weak. The sector relatively gives more attention to internal coordination and collaboration rather than to collaboration with external supply chain partners. In general, supply chain management practice in Ethiopian textile firms is not used as a weapon to enhance their competitiveness in highly competitive global and local marketplace.

This study was conducted only using the quantitative research method, descriptive survey, for time and financial constraint. The researcher believes that better result could have been obtained by conducting in-depth interviews with various decision makers related to supply chain management practices. The study also depends solely on the perception of selected respondents focal firms against their competitors. The study did not use secondary data to validate respondents' response. So, generalization of the results to the population is limited .

Despite these limitations, the researcher believes that the study contributes to the knowledge of SCM in the Ethiopian textile firms. So, the main recommendations derived from this empirical study could be:

1. As stated earlier, Ethiopia has great potential to produce cotton and it is with cheap labor force. The competitiveness of the sector, therefore, can be increased if attention is given to supply chain management of the sector as a whole. An integrated supply chain comprising agriculture, fiber production, textiles, finished textile producers, clothing designers, transporters and the like can increase their competitiveness. So, Ethiopian textile firms must broaden their area of strategy analysis and decision making to encompass not only internal business units but also the whole supply chains mentioned above. In modern highly competitive markets, there has been reorientation of management practices towards collaboration

between supply chain partners. Strategic supplier partnership with dependable suppliers and strong relationship with customers are an important way of sustaining competitive positioning of textile firms since competition is no longer between individual textile firms, but between their supply chains.

2. The Global textile value chain is buyer-driven, dominated by large retailers, branded manufacturers and marketers which control global production networks and stipulate supply specifications. In buyer-driven value chains, retailers can have significant power over manufacturers in terms of price, quality, lead times and raw material inputs. In this case, information flows directly from retailers to textile manufacturers, where decisions are made on patterns, colours and material. They want to make decisions about where products are made, at what price and how quickly they need to be moved, while at the same time controlling many aspects of the production process itself, for example, design, fabric sourcing, lead times, quality and price directly from web sites of textile manufactures. The accessibility of information to all supply chain members can also help to overcome coordination problems such as manifest in high inventory costs, poor customer service, and low utilization of capacity. It also mitigates the well-known Bullwhip effect. Therefore, sharing proprietary information within and across Ethiopian textile firms' supply chain is essential in sustaining their competitiveness. Thus, the Ethiopian textile firms should use advanced information communication technologies such as the internet and electronic data interchange and make their products and services available for their customers' and get proprietary information from them.

3. Internal operation flexibility has been a major competitive weapon for manufacturing firms as it is instrumental in helping to cope with uncertain environment and turbulent market. In this case, the Ethiopian textile firms are weak. Therefore, special attention should be given to improve internal flexibility since firm's internal operations flexibility is the basis for developing a competitive position before embarking into external relationships. Developing of multi-skill workers, maintenance capability, replacing outdated machineries by modern ones are some of the measures that should be taken. They are also expected to capitalize on improving production process, layout

and scheduling since flexibility in an operation can hold significant advantages such as speeding up response rates to customers. It also saves time for adapting to situations and maintains dependability to keep the operation on schedule when unexpected events disrupt the operations.

4. Finally, the Ethiopian government has recently set out transformation and development plan to accelerate industrial development in the country. Textile sector is one of the key target industries for the growth of the national economy. In so doing, the Government of Ethiopia, policy makers, academicians and other organizations assisting Ethiopia in its effort to reduce poverty and foster development program shall assist the sector by providing/sponsoring SCM training for business leaders and investors so that the sector will have efficient supply chain management. This in turn will increase their competitiveness and foster an economic development of the country.

5.4 Direction for future research

It is important to acknowledge limitations of the present study that may provide opportunities for future research. This study was conducted only through the questionnaire survey. But the deeper insights can be obtained by conducting in-depth interviews with various decision makers who have close relations with supply chain partners. The study did not use secondary data to validate respondents' response. So, generalization of these results is limited. Therefore, the future studies can take these limitations into account.

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APPENDIXES

Appendix A: Covering letter

To: -----
Addis Ababa

Dear Sir/Madam,

I am a final year master of business leadership (MBL) student at the University of South Africa (UNISA) Graduate School of Business Leadership (www.sblunisa.ac.za). Currently, I am conducting research for my MBL. The research that I have chosen is entitled: “The impact of supply chain management practices on competitive positioning of Ethiopian Textile firms”.

It is known that nowadays markets became global, so did the challenges of competition. Organizations began to realize that it is not enough to improve internal efficiencies, but their whole supply chain has to be made competitive since competition is no longer between organizations , but among supply chains. So the understanding and practicing of SCM has become an essential prerequisite for staying competitive in the global race and for enhancing profitability. So I would appreciate if you could assist my research by completing the attached questionnaire. Estimated time to complete the questionnaire is **15 minutes**.

Your response will be treated as strictly confidential and the anonymity of the companies and respondents is assured. If you would like to get a copy of the executive summary of results, please provide the information requested on the last page of the questionnaire. Thank you in advance for your assistance. Please do not hesitate to contact me, if you require further clarification.

Yours faithfully,

Admaw Anley Endalew
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Appendix B: Research Questions and general instruction

1. General Instructions and Information

- Indicate to what extent your company experiences the following supply chain management practices and competitive positioning. Please provide more information in the comments block if you wish to clarify something that is very important to my research.
- Most of the questions can be answered by simply making a circle on **only one best answer** for each question.
- Please answer **all** questions. There is no right or wrong answer.
- The number represents the following: 1 = Not at all 2 = To a small extent 3 = To a moderate extent 4 = To a great extent 5 = Not applicable

2. Questionnaires

1. Strategic Supplier Partnership					
Strategic Supplier Partnership is 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.					
We entered into long term contract arrangement with dependable suppliers.	1	2	3	4	5
We regularly solve problems jointly with our suppliers	1	2	3	4	5
The level of trust between our firm and suppliers	1	2	3	4	5
We include our key suppliers in planning and goal- setting activities	1	2	3	4	5
We actively involve our key suppliers in new product design and development processes	1	2	3	4	5
Comments: ----- ----- ----- ----- -----					

2. Customer Relationship

Customer Relationship is the entire array of practices that are employed for the purpose of managing customer complaints, building long-term relationship with customers to improve customer satisfaction.

We employed follow-up procedures for customer inquires and complaints	1	2	3	4	5
We frequently measure and evaluate customer satisfaction and retention	1	2	3	4	5
The level of trust between our firm and customers	1	2	3	4	5
We entered into long term contract arrangement with dependable customers	1	2	3	4	5
We include our key customers in our planning and goal- setting activities	1	2	3	4	5

Comments:

3. Degree And Quality Of Information Sharing

Information sharing is the extent to which critical and proprietary information is communicated to one’s supply chain partner.

We inform sc partners in advance of forecast of demands	1	2	3	4	5
The information flow between our firm and supply chain partners is reliable and complete	1	2	3	4	5
We used web-based data exchange with our sc partners	1	2	3	4	5
Information exchange between our sc partners and us is timely.	1	2	3	4	5
We and our sc partners keep each other informed about events or changes that may affect the other partners.	1	2	3	4	5

Comments:

4. Internal Operations Flexibility

Internal operations flexibility – is defined as the capability of promptness and the degree to which the supply chain can address changes in customer demand, through operations system flexibility, and supplier network flexibility.

Our operations system responds rapidly to changes in product volume demanded by customers	1	2	3	4	5
Our operations system responds rapidly to changes in product mix demanded by customers	1	2	3	4	5
Our operations system rapidly reallocates people to address demand changes	1	2	3	4	5
Our department works in close coordination with other departments	1	2	3	4	5
We consult other departments when making our work decisions	1	2	3	4	5

Comments:

5. Competitive positioning

Competitive positioning is defined as the capability of an organization to create an image or identity in the minds of their target market for its product/service, brand, or organization compared to its competitors.

The capability to compete on prices as low or lower than our competitors- cost leadership	1	2	3	4	5
The capability to offer consistent and high quality products and service to our customers than our competitors	1	2	3	4	5
The extent of market share growth compared with competitors	1	2	3	4	5
The capability to provide dependable and on-time delivery of customer orders	1	2	3	4	5
We are first in the market in introducing new products or the ability to design new products	1	2	3	4	5

Comments:

--

Demographic Information

1) Type of products your company produce: -----

2) Number of employees in your company:

1 -50 ___ 51-100 ___ 101- 300 ___ 301-500 ___ 501 - 700 ___ Over 700 ___

3) When was your company established: -----

4) Average annual sales of your company in millions (Birr).

Under 10 ___ 11 to 25 ___ 26 to 50 ___ 51 to 100 ___ >100 ___

5) Average annual net profit of your company in millions (Birr).

Loss ___ Under 5 ___ 6 to 10 ___ 11 to 20 ___ 21 to 30 ___ 31 to 50 ___ >50 ___

6) The years you have worked for this company:

Under 2 years ___ 3 to 5 years ___ 6 to 10 years ___ over 10 years ___

7) Your present job function (mark all that apply):

___ Investor/Owner

___ General manager

___ Commercial manager

___ Manufacturing / Production manager

___ Marketing manager

___ Other (please indicate _____)

8). Your educational level

___ Below diploma

___ Diploma

___ First Degree

___ second degree

___ PHD

THANK YOU VERY MUCH FOR YOUR VALUABLE TIME

APPENDIX C: Frequency tables for independent and dependent variables

Strategic Suppliers Partnership Practices

		Statistics				
		Long term relationship with dependable suppliers	Regularly solve problems jointly with suppliers	Trust with suppliers	Planning and goal setting with suppliers	Involve supplier in new product design and development
N	Valid	53	53	53	53	53
	Missing	37	37	37	37	37
Mean		1.91	2.15	1.98	1.91	1.81
Std. Deviation		.904	.770	.747	.838	.709
Minimum		1	1	1	1	1
Maximum		4	4	4	4	3

Frequency Table

Q1. Long term relationship with dependable suppliers

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all	21	23.3	39.6	39.6
	To a small extent	19	21.1	35.8	75.5
	To a moderate extent	10	11.1	18.9	94.3
	To a great extent	3	3.3	5.7	100.0
	Total	53	58.9	100.0	
Missing	System	37	41.1		
Total		90	100.0		

Q2. Regularly solve problems jointly with suppliers

		Frequen cy	Percent	Valid Percent	Cumulative Percent
Valid	Not at all	11	12.2	20.8	20.8
	To a small extent	24	26.7	45.3	66.0
	To a moderate extent	17	18.9	32.1	98.1
	To a great extent	1	1.1	1.9	100.0
	Total	53	58.9	100.0	
Missing	System	37	41.1		
Total		90	100.0		

Q3. Trust with suppliers

		Frequen cy	Percent	Valid Percent	Cumulative Percent
Valid	Not at all	14	15.6	26.4	26.4
	To a small extent	27	30.0	50.9	77.4
	To a moderate extent	11	12.2	20.8	98.1
	To a great extent	1	1.1	1.9	100.0
	Total	53	58.9	100.0	
Missing	System	37	41.1		
Total		90	100.0		

Q4. Planning and goal setting with suppliers

		Frequen cy	Percent	Valid Percent	Cumulative Percent
Valid	Not at all	18	20.0	34.0	34.0
	To a small extent	25	27.8	47.2	81.1
	To a moderate extent	7	7.8	13.2	94.3
	To a great extent	3	3.3	5.7	100.0
	Total	53	58.9	100.0	
Missing	System	37	41.1		
Total		90	100.0		

Q5. Involve supplier in new product design and development

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all	19	21.1	35.8	35.8
	To a small extent	25	27.8	47.2	83.0
	To a moderate extent	9	10.0	17.0	100.0
	Total	53	58.9	100.0	
Missing	System	37	41.1		
Total		90	100.0		

Frequency tables for customer relationship practices

Statistics

		Follow-up procedures for customers' inquiries and complaints	Frequency of customer satisfaction and retention measurement	Level of trust with customers	Long term contract with dependable customers	Involvement of customers with planning and goal setting
N	Valid	53	52	51	51	53
	Missing	37	38	39	39	37
Mean		3.30	2.75	2.61	2.33	1.83
Std. Deviation		.723	.926	1.021	.931	.893
Minimum		2	1	1	1	1
Maximum		4	4	4	4	4

Q6. Follow-up procedures for customer's inquiries and complaints

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	To a small extent	8	8.9	15.1	15.1
	To a moderate extent	21	23.3	39.6	54.7
	To a great extent	24	26.7	45.3	100.0
	Total	53	58.9	100.0	
Missing	System	37	41.1		
Total		90	100.0		

Q7. Frequency of customer satisfaction and retention measurement

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all	4	4.4	7.7	7.7
	To a small extent	18	20.0	34.6	42.3
	To a moderate extent	17	18.9	32.7	75.0
	To a great extent	13	14.4	25.0	100.0
	Total	52	57.8	100.0	
Missing	Not applicable	1	1.1		
	System	37	41.1		
	Total	38	42.2		
Total		90	100.0		

Q8. Level of trust with customers

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all	8	8.9	15.7	15.7
	To a small extent	16	17.8	31.4	47.1
	To a moderate extent	15	16.7	29.4	76.5
	To a great extent	12	13.3	23.5	100.0
	Total	51	56.7	100.0	
Missing	Missing	1	1.1		
	Not applicable	1	1.1		
	System	37	41.1		
	Total	39	43.3		
Total		90	100.0		

Q9. Long term contract with dependable customers

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all	10	11.1	19.6	19.6
	To a small extent	20	22.2	39.2	58.8
	To a moderate extent	15	16.7	29.4	88.2
	To a great extent	6	6.7	11.8	100.0
	Total	51	56.7	100.0	
Missing	Not applicable	2	2.2		
	System	37	41.1		
	Total	39	43.3		
Total		90	100.0		

Q10. Involvement of customers with planning and goal setting

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all	23	25.6	43.4	43.4
	To a small extent	19	21.1	35.8	79.2
	To a moderate extent	8	8.9	15.1	94.3
	To a great extent	3	3.3	5.7	100.0
	Total	53	58.9	100.0	
Missing	System	37	41.1		
Total		90	100.0		

Frequency tables for information sharing practices

Statistics

		We inform SC partners in advance of forecast of demands	information sharing with our supply chain is reliable and complete	Web-based data exchange practice with SC partners	Information sharing with our SC partners is timely	We informed each other about negative events that may affect others business
N	Valid	53	53	52	53	53
	Missing	37	37	38	37	37
Mean		2.06	1.87	1.90	1.79	2.28
Std. Deviation		.770	.708	.934	.600	.863
Minimum		1	1	1	1	1
Maximum		4	3	4	3	4

Q11. We inform SC partners in advance of forecast of demands

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all	12	13.3	22.6	22.6
	To a small extent	28	31.1	52.8	75.5
	To a moderate extent	11	12.2	20.8	96.2
	To a great extent	2	2.2	3.8	100.0
	Total	53	58.9	100.0	
Missing	System	37	41.1		
Total		90	100.0		

Q12. The information sharing with our supply chain is reliable and complete

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all	17	18.9	32.1	32.1
	To a small extent	26	28.9	49.1	81.1
	To a moderate extent	10	11.1	18.9	100.0
	Total	53	58.9	100.0	
Missing	System	37	41.1		
Total		90	100.0		

Q13. Web- based data exchange practice with SC partners

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all	21	23.3	40.4	40.4
	To a small extent	19	21.1	36.5	76.9
	To a moderate extent	8	8.9	15.4	92.3
	To a great extent	4	4.4	7.7	100.0
	Total	52	57.8	100.0	
Missing	Not applicable	1	1.1		
	System	37	41.1		
	Total	38	42.2		
Total		90	100.0		

Q14. Information sharing with our SC partners is timely

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all	16	17.8	30.2	30.2
	To a small extent	32	35.6	60.4	90.6
	To a moderate extent	5	5.6	9.4	100.0
	Total	53	58.9	100.0	
Missing	System	37	41.1		
Total		90	100.0		

Q15. We informed each other about negative events that may affect others business

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all	10	11.1	18.9	18.9
	To a small extent	22	24.4	41.5	60.4
	To a moderate extent	17	18.9	32.1	92.5
	To a great extent	4	4.4	7.5	100.0
	Total	53	58.9	100.0	
Missing	System	37	41.1		
Total		90	100.0		

Frequency tables for internal operations flexibility

Statistics

		Level of changes in product volume demanded by customers	Level of changes in product mix demanded by customers	Rapidly reallocate people to address demand change	Coordination between internal departments	Consult of other departments when making decisions
N	Valid	52	50	53	51	52
	Missing	38	40	37	39	38
Mean		2.87	2.74	2.09	3.33	3.44
Std. Deviation		.908	.853	.838	.766	.669
Minimum		1	1	1	2	2
Maximum		4	4	4	4	4

Q16. Level of changes in product volume demanded by customers

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all	3	3.3	5.8	5.8
	To a small extent	16	17.8	30.8	36.5
	To a moderate extent	18	20.0	34.6	71.2
	To a great extent	15	16.7	28.8	100.0
	Total	52	57.8	100.0	
Missing	Missing	1	1.1		
	System	37	41.1		
	Total	38	42.2		

Total	90	100.0
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Q17. Level of changes in product mix demanded by customers

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all	3	3.3	6.0	6.0
	To a small extent	17	18.9	34.0	40.0
	To a moderate extent	20	22.2	40.0	80.0
	To a great extent	10	11.1	20.0	100.0
	Total	50	55.6	100.0	
Missing	Missing	2	2.2		
	Not applicable	1	1.1		
	System	37	41.1		
	Total	40	44.4		
Total		90	100.0		

Q18. Rapidly reallocates people to address demand change

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all	14	15.6	26.4	26.4
	To a small extent	22	24.4	41.5	67.9
	To a moderate extent	15	16.7	28.3	96.2
	To a great extent	2	2.2	3.8	100.0
	Total	53	58.9	100.0	
Missing	System	37	41.1		
Total		90	100.0		

Q19. Coordination between internal departments

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	To a small extent	9	10.0	17.6	17.6
	To a moderate extent	16	17.8	31.4	49.0
	To a great extent	26	28.9	51.0	100.0
	Total	51	56.7	100.0	
Missing	Missing	1	1.1		
	Not applicable	1	1.1		
	System	37	41.1		
	Total	39	43.3		
Total		90	100.0		

Q20. Consult of other departments when making decisions

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	To a small extent	5	5.6	9.6	9.6
	To a moderate extent	19	21.1	36.5	46.2
	To a great extent	28	31.1	53.8	100.0
	Total	52	57.8	100.0	
Missing	Not applicable	1	1.1		
	System	37	41.1		
	Total	38	42.2		
Total		90	100.0		

Frequency tables for competitive positioning

Statistics

		Low price/cost	High quality of products/service	Market share growth	Delivery dependability	New product design and development
N	Valid	53	53	48	53	53
	Missing	37	37	42	37	37
Mean		2.98	3.06	2.56	2.11	1.96
Std. Deviation		.693	.795	.823	.891	.854
Minimum		1	1	1	1	1
Maximum		4	4	4	4	4

Q21. Low price/cost

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all	1	1.1	1.9	1.9
	To a small extent	10	11.1	18.9	20.8
	To a moderate extent	31	34.4	58.5	79.2
	To a great extent	11	12.2	20.8	100.0
	Total	53	58.9	100.0	
Missing	System	37	41.1		
Total		90	100.0		

Q22. High quality of products/service

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all	1	1.1	1.9	1.9
	To a small extent	12	13.3	22.6	24.5
	To a moderate extent	23	25.6	43.4	67.9
	To a great extent	17	18.9	32.1	100.0
	Total	53	58.9	100.0	
Missing	System	37	41.1		
Total		90	100.0		

Q23. Market share growth

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all	4	4.4	8.3	8.3
	To a small extent	19	21.1	39.6	47.9
	To a moderate extent	19	21.1	39.6	87.5
	To a great extent	6	6.7	12.5	100.0
	Total	48	53.3	100.0	
Missing	Missing	5	5.6		
	System	37	41.1		
	Total	42	46.7		
Total		90	100.0		

Q24. Delivery dependability

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all	14	15.6	26.4	26.4
	To a small extent	23	25.6	43.4	69.8
	To a moderate extent	12	13.3	22.6	92.5
	To a great extent	4	4.4	7.5	100.0
	Total	53	58.9	100.0	
Missing	System	37	41.1		
Total		90	100.0		

Q25. New product design and development

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all	17	18.9	32.1	32.1
	To a small extent	24	26.7	45.3	77.4
	To a moderate extent	9	10.0	17.0	94.3
	To a great extent	3	3.3	5.7	100.0
	Total	53	58.9	100.0	
Missing	System	37	41.1		
Total		90	100.0		

LIST OF TEXTILE AND GARMENT FIRMS IN ETHIOPIA

s/n	Name of Textile and Garment Factories	Telephone	E-mail
1	Africa Cotton PLC	011-4404864 0911489561	africancotton@ethionet.et
2	Akaki Textile Share Company	0114340407	aktsc@telecomnet.et
3	Almeda Textile Factory	0115515938 0911356872	almeda-6@ethionet.et , dgm@almeda.et
4	Al-Mahdi Industries PLC	0911405170	
5	Arbaminch TextileS.Co.	0911-218748	
6	Awassa Textile S.Co.	046-2200202 155249/206343	
7	Bahir Dar Textile S.Co.	0582200455 0911824988	
8	Best Garment	0911-682386	gomassoud@yahoo.com
9	Crown Textile Weaving PLC	011-4370834 011-4370833	
10	Dire Dawa Textile S.Co.	0911320054 0113488/89	ddtfmark@ethionet.et
11	ELIAS TEXTILE	0911227515 0115504777	
12	Ethio-Japanese Synthetic Textiles Share Company	0911206844 0115513476	

13	Kombolcha Textile S.Co.	0335511676 0911882383	kte@ethionet.et
14	Korea zemach Knitting cooperation co.	0115512140 0911204944	
15	Adama spinning PLC	0116655477/52 0911207028	
16	Adei Abeba yarn S.Co.	0911406259 011-4423455	adeiabeb@ethionet.et
17	Ayka Addis	0911-200070 0912-017042	neysan@aykatextile.com
18	Edget yarn and Sewing Thread Factory	0911202041 0113711988	edgetysthsco@ethionet.et
19	Addis Garment S.Co.	0113712200 011-3711791	addisgsc@ethionet.et
20	Akaki Garment Share Company	0911220457 011-4340154	akakig.sc@ethionet.et
21	Almeda Knitting and Garment Factory	0115515938 0911208621	almedtx@telecom.net.et
22	Ambassador Garment	0911402144 011-6461448	amb.garment@telecom.net.et
23	Concept International Ethiopia (Victor and lily Bag Makers)	0911661960 0113213817	gbace@ethionet.et
24	Creative Textile Garmnent P.L.C.	011-4422366 011-4422358	dong@ethionet.et
25	D.H. Geda Blanket Factory	011-4344181 011-1236300	dhgedabf@ethionet.et
26	Debre Berhan Blanket Factory	011-6812417 011-5517044	dbbfcc@yahoo.com dbbfcc@ethionet.et
27	Delila Industrial	911502997	
28	Dolina Industrial P.L.C.	0911-181799	kokicat 2006@yahoo.com
29	Edget Garment factory	011-1236300 011-1236320	edgetgar@telecom.net.et
30	Elnal P.L.C.	011-4431303 011-4405291	ELNL@hotmail.com
31	Elthabet Garment	0911703301 0112779422	
32	Ethab Inter Garment	011-5523691 0911203544	etab.int.med@telecom.net.et
33	Ethiopia Fiber Products		

34	Feleke Garment	0911-203033 011-4196168	felekegarment@ethionet.et
35	GG Super Garment	0911211135 0116292329	ggroyalhotel@telecom.net.et
36	GIG Ethio importe export	0114167559 0911207854	gigieth@ethionet.et
37	GMM grment plc	0911207981 0116522872	gmmgar@ethionet.et
38	Gullele Garment S.Co.	0112702101 0112702266	garment@ethionet.et
39	Haile G/Egthbeher Garment	0911-206243 011-6532992	haile@hailegarment.com
40	Kebire Enterprise P.L.C.(Ma'a garment)	011-5520575 034-4420502	kebire@ethionet.et kebire2@ethionet.et
41	KK PLC	0115159015 011-4342678	kk.plc@ethionet.et
42	Knit to finish PLC	0911-202271 0911-201608	garment.exp@telecom.net.et
43	Lusi Garment	0115525285	
44	Meher Fiber Products Factory	0114-340312 0911-207836	meher@ethionet.et
45	Meloyem General Clothing PLC	0115506578 0911220794	gybstarcomm@tele.net.et gybplc@yahoo.com
46	Mulat Garment	0911406833 0114403615/16	mulata@telecom.net.et
47	Munbes Design PLC	0116638190 0911214287	miz_hasab@telecom.net.et
48	Nazareth Garment Share Company	0221113361 0911201608	sbaco@ethionet.et dametto@ethionet.et
49	Novastar Garment PLC	0116638280 0116638282	info@novastargarment.com
50	N and N Garment	0116638280 0911218675	info@novastargarment.com
51	Oasis Abisinia PLC	0911-204884 011-4422074	yilkal.bisene@telecom.net.et oasisabyss@ethionet.et
52	Progress Garment PLC	011-6460917 011-6613904	pgf@telecom.net.et
53	Rase Dashen Textile PLC	0911-200653 0911-207573	rasdashen@telecom.net.et rasdatfplc@ethionet.et
54	Sara Garment/Handloom/	011-6611687 011-6630801	sara@telecom.net.et sara@ethionet.et muyaethiopia@ethionet.et

55	Setotaw General Trading P.L.C.		
56	Soney Garment PLC	0911-204884 0911-235402 0114404898	soneygg@yahoo.com
57	Spectrum Business Group	0115557328	spectrum@telecom.net.et
58	SS Canvas Factory	0911-204528	
59	Tays Garment P.L.C.	011-5517733 011-5531994	taysplc@ethionet.et
60	Trio Kraft	0911-641949 011-4440075	kassaelsh@hotmail.com
61	Yonis Grament	0911402367 0114403450	yonis@ethionet.et
62	Wasi Garmnet	0911-405016 0911-809529	wossi_gd@ethionet.et
63	Waw Int. Garment	011-1157756 011-6520218	fuad@telecom.net.et
64	Woinu Curtain PLC	0113729124/23 0911206844	wtc@telecom.net.et wtc@ethionet.et