

**Economic Impact and Determinants of Export:
The Case of Ethiopian Textile and Apparel
Industry**

By

Yared Mesfin Tefera

**A Project Submitted to The School of Graduate Studies of Addis
Ababa University In Partial Fulfillment of The Requirements
for The Degree of Masters of Art in Economics (Competition
Policy and Regulatory Economics)**

**June, 2010
Addis Ababa**

Addis Ababa University
School of Graduate Studies

**Economic Impact and Determinants of Export:
The Case of Ethiopian Textile and Apparel
Industry**

By

Yared Mesfin Tefera

Approved by

Teshome Mulat (Prof.)

Advisor

Signature

Acknowledgment

In the first place, I would like to praise *my almighty God* in the name of his begotten son *JESUS CHRIST* for his continuous support, protection and blessing since the inception of my study up to this second.

Next, I would like to express my deepest gratitude and respect to my advisor, Professor Teshome Mulat, for his intellectual gaudiness since the begging of my paper and invaluable comments and corrections. I am also indebted to W/t Mihirael Assefa for her help to edit my work, encouragement and concern.

I would like to forward my profound thanks, deep love and respect to all my family mainly to my mom (Abayenash), dad (Mesfin), sisters (Marta and Alembanchi) and brothers (Eyob and Brook) for their continuous support, heartfelt love and encouragement in all aspect of my life. My Sweet (Tigeye)... I don't have enough words to pass my filling to you but I am happy because you know it.

I owe thanks and love to all my friends. I have got all your support and encouragement throughout my study. My all office mates, words limit my thanks for your support and encouragement by covering my duty and responsibility while I am on the study, I wish God to bless you and fulfill your dream. I also have special thanks to my friend, Fikerta Fenta, for her assistance on availing important data for my study.

Finally, my deepest gratitude goes to my office, Textile and Leather Industry Development Center, for sponsoring and providing enough time to complete my study successfully. I also like to pass my sincere thanks to Ato Sileshi Lemma for his valuable support on my study. Last but not least, I would like to thank W/o Tsegerda for her help on formatting and giving the right structure for my paper. God bless you all and our country.

TABLE OF CONTENT

Acknowledgment	i
List of Tables and Graphs	ii
Acronyms	iii
Abstract	1
CHAPTER I	2
1. INTRODUCTION	2
1.1 Background of the Study	2
1.2 Statement of the problem	5
1.3 Objective of the study	6
1.4 Research Hypothesis	7
1.5 Methodology and Data source	7
1.6 Significance of the study.....	9
1.7 Scope and Limitation	10
1.8 Organization of the paper	10
CHAPTER II	11
2. Literature Review and overview of the sector	11
2.1 Preferential and Differential Market Access	12
2.1.1 Generalized System of Preferences (GSP)	12
2.1.2 Special Preferential Market Access of the United States	13
2.1.3 Special Preferential Market Access of the European Union	18
2.1.4 Regional Market Access	20
2.2 Internal Export Determinants.....	22
2.3 An overview of Textile and Apparel industry	26
2.3.1 Global	26
2.3.2 Ethiopia	28
2.3.2.1 Development of the textile and apparel industry.....	28
2.3.2.2 Industrial Structure/Chain	29
2.3.2.3 Policy, Legal and Regulatory framework.....	30
2.3.2.4 The Emerging Opportunities and Threats for Textile and Apparel Industry.....	32

CHARTER III	34
3. Data Analysis	34
3.1 Economic Impact of Textile and Apparel Industry	34
3.1.1 Gross Value Product (GVP) and Gross Value Addition (GVA)	34
3.1.2 Employment.....	36
3.1.3 Export.....	37
3.1.4 Investment	38
3.2 Utilization of Preferential and Deferential Market Access.....	39
3.2.1 Africa Growth Opportunity Act (AGOA).....	39
3.2.2 Everything But Arms (EBA's)	40
3.2.3 Common Market for East and South Africa (COMESA)	41
3.3 Determinants of the Textile and Apparel Industry Exports.....	41
3.3.1 Unit Root Tests.....	42
3.3.2 Test for cointegration	43
3.3.3 The Long-Run Equation.....	44
3.3.4 Error Correction Model (Short-Run Equation).....	45
CHAPTER IV	47
4 Problems and Constraints	47
4.1 Problems on the Role of Support Institutes	47
4.2 Government Short Term Interest	50
4.3 The Textile and Apparel Industry Readiness for Export Market	51
CHAPTER V	52
5 Conclusion and recommendation	52
5.1 Conclusion.....	52
5.2 Recommendation	53
REFERENCE	57
ANNEXES	57

List of Tables and Graphs

Table 3.1 The Total Country, Manufacturing Industries and Textile and Apparel Industry GVP and GVA.....	35
Table 3.2 Number of Employment in Total Manufacturing Industries and Textile and Apparel Industry.....	36
Table 3.3 The Total Country, Manufacturing Industries and Textile and Apparel Industry Export Performance	37
Table 3.4 The Textile and Apparel Industry Export.....	38
Table 3.5 Domestic and Foreign Investment of The Textile and Apparel Industry	39
Table 3.6 Ethiopian and Sub Sahara African Countries Textile and Apparel Industry Export through AGOA.....	40
Table 3.7 The Textile and Apparel Industry Export through EBA.....	41
Table 3.8 The Textile and Apparel Industry Export through COMESA	41
Table 3.9 The ADF Test Statistics for The Variables	42
Table 3.10 Johansen Cointegration Test Result.....	43
Table 3.11 The Long- Run OLS Estimation Result of LTAE	44
Table 3.12 Short-run OLS Estimation Result of D (LTAE).....	46
Graph 1: VAR stability Test	63
Graph 2: Co integration relation	63
Graph 3: Long-run equation variables residual graph	64

Acronyms

AGOA	African Growth and Opportunity Act
ADLI	Agricultural Development Led Industrialization
CRA	Custom and Revenue Authority
CSA	Central Statistics Authority
COMESA	Common Market for East and Southern Africa
DBE	Development Bank of Ethiopia
EBA	Everything But Arms
EIA	Ethiopian Investment Agency
EPRDF	Ethiopian People’s Revolutionary Democratic Front
EU	European Union
ECM	Error Correction model
FDI	Foreign Direct Investment
GATT	General Agreement for Trade and Tariff
GSP	Generalised System of Preferences
GVP	Gross Value Product
GVA	Gross Value Added
IDSE	Industrial Development Strategy of Ethiopia
LDC	Least Developing Countries
LMSMEI	Large and Medium Scale Manufacturing and Electricity Industry

MFA	Multi Fiber Agreement
MoI	Ministry of Information
MoTI	Ministry of Trade and Industry
MoFED	Ministry of Finance and Economic Development
NBE	National Bank of Ethiopia
PDMA	Preferential and Differential Market Access
SSA	Sub Saharan Africa
TAIDI	Textile and Apparel Industry Development Institute
TVET	Technique and Vocational Educational Training
UNCTAD	United Nation Conference on Trade and Development
US	United States
USAID	United States Aid and International Development
USD	United State Dollar
WTO	World Trade Organization

Abstract

Ethiopian industrial development policy has put the textile and apparel industry on the forefront position to accelerate the country's industrialization process. The availability of huge labour force, the utilization of abundant raw material, the growing demand of this industry's product (as the basic human need) and the international goodwill to provide preferential and differential market access to this industry help the sector to play a significant role on the development of the country's economy and on mitigation of poverty. This paper examines the economic impact of textile and apparel industry, the utilization of preferential and differential market access and the determinants of the export performance.

The descriptive analysis covers the period 1999 to 2009. The result of the descriptive analysis reveals that the economic impact and the preferential market utilization of the textile and apparel industry are very limited. The time series econometric analysis covering the period 1971/72 to 2008/09 employed Eviews 5 (a computer program as a tool for econometric analysis). The econometric analysis result shows that labour cost and trade openness (liberalization) have positive impact on the export performance of the sector, whereas cotton export and exchange rate have negative impact.

As this study tries to indicate, the government supports only those who engage themselves on export market. However, this is not satisfactory and successful for the sector's development. So one of the major conclusions of this study is that unless the government revises its policy direction towards developing and supporting the sector (boost the sector investments), the current "artificial" export growth of the industry will be short-lived and ultimately results in unsustainable export growth.

CHAPTER I

1. INTRODUCTION

1.1 Background of the Study

Textile and apparel production and trade have been important elements of economic activity since the industrial revolution. This is because textiles and apparel products serve as basic human needs. Moreover, textile and apparel industry, particularly apparel is labor-intensive and offers huge employment opportunity for a mass of people. This industry requires relatively little capital for entrepreneurs to establish production facilities. Above all modest capital requirement makes textile and apparel industry preferable at the start of the industrial revolution.¹

The global textile and apparel industry trade has faced major structural changes and complexities due to regulations set by the importing countries. The world trade in textile and apparel was governed by short term agreement (STA) during 1961, which was replaced by long term agreement (LTA) in 1962. To protect domestic industry, the developed countries (United State of America, Canada and Europe) came up with a more comprehensive trade restriction proposal known as Multi Fiber Agreement (MFA) in 1973 which became effective in 1974. Under the MFA regime, the trade in textile and apparel set quotas with bilateral negotiation for the amount that other countries could export to these countries and the developing countries were allowed to protect the domestic industry against the competitive imports.²

MFA was a major departure from the core principles of GATT rules particularly the principle of non- discrimination and transparency. The agreement (MFA) provided a certain level of stability since countries could be reasonably sure of certain quota system. However, as mandated by the Uruguay Round of trade negotiations in 1990, the World Trade Organizations (WTO) replaced the MFA with Agreement of Textile and Clothing (ATC) since January 1st 1995. Following this agreement, countries started working for

¹ Gelb, Bernard (2007). *Textile and Apparel Trade Issues*. Washington DC: Unpublished CRS Report for Congress.

² Liu, Huan and Laixiang, Sun (2004). "Beyond The Phase Out Of Quotas In The Textile and Clothing Trade: WTO-Plus Rules and The Case of US Safeguards Against Chinese Export". *Journal of Asia-Pacific Development*, Vol. 11, No.1, June 2004.

the progressive elimination of MFA restrictions. Within 10 years, they were able to subject this sector to the rules of WTO in 2005.³

Due to the replacement of MFA by ATC and the eventual liberalization of global textile and apparel, many less developed and developing countries built textile and apparel industry base. The global textile and apparel industry was shaped into cluster or regions with separate consumption and production centers. Currently the key textile and apparel production regions are East and South Asia, ASEAN, Sub-Sahara Africa, Mercosur and Andean countries. Whereas the global textile and apparel products consumptions centers are U.S, Canada and EU.⁴

Lower wage rates in developing countries and labor-intensiveness of textile and apparel manufacturing tend to give developing countries a comparative advantage for textile and apparel production. Thus, this industry is tending to shift to developing countries, with textiles and apparel constituting large portions of the country's export.⁵ In the post quota regime, Asia and Africa countries such as: China, India, Pakistan and Tunisia emerged as the largest beneficiaries due to the globalization of textile and apparel trade, the increment of sourcing from developing countries, the accessibility of low labour costs and the availability of local raw material.⁶

In the global textile and apparel market, supply exceeds the demand so that textile and apparel industry becomes buyer market, and the international price for textile and apparel shows a downward tendency. Countries with developed textile and apparel subsector are gradually moving their manufacturing base to the lower-costing countries. They are now only engaged in works that are technology-intensive and higher value-added. This lowers the textile and apparel cost.⁷

During the transformation of people from an agrarian to an industrial society, the textile and apparel industry was considered as the stepping stone. Virtually all countries passed through an initial period of development in this sector. There is generally no reason to

³ Ruigh, Gorge (2005). *The Impact of the Recent Changes in the International Trade Environment: The End of the Multi Fiber Agreement (MFA)*. Addis Ababa: unpublished.

⁴ IL&FS Cluster Development Initiative Limited (2010). *Integrated Textile Cluster, Ethiopia*. India.

⁵ Gelb, Bernard (2007). *Textile and Apparel Trade Issues*. Washington DC: Unpublished CRS Report for Congress.

⁶ WTO(2009). *International Trade statistics Annual Reporter 2009*. Geneva: WTO Publication.

⁷ China Textile planning Institute of construction (2004). *Study Report on the Development Strategy of Ethiopian Cotton/ Textile/Garment Sub-Sector*

believe that textile and apparel industry today could not play the same developmental role as what it did in history in UK, US, Germany and Japan. Textile and apparel industries have played a key role in several waves of industrializing economies of East Asia such as: Hong Kong, Singapore, Taiwan, South Korea, Malaysia and, more recently, China, Indonesia, Thailand and Vietnam. Similar efforts to develop textile and apparel industries were undertaken in South Asia, including India, Pakistan, Sri Lanka and Bangladesh.⁸

The developed countries offer tangible incentives for a group of Sub-Sahara African countries, mainly for least developing countries (LDCs) that will help them to continue their efforts and grow their economy so that they can build free market. Free Trade Agreements (FTA) has temporarily extended different preferential market access for textile and apparel products. However, This FTA also serves as a means of restricting market opportunities of third party countries since those countries don't have similar FTA status. FTAs are bilateral agreements. Under these arrangements; several industrial countries including Australia, Canada, European Union, Japan and United States provide preferential treatment to products originating from LDCs. This has special importance to African textile and apparel industry. It allows the existence of a preferential market access in the United States under the African Growth Opportunity Act (AGOA) and in the European Union under the Cotonou Agreement or the Everything But Arms (EBA) initiative. Those arrangements are examples of nonreciprocal preferential trade agreements (PTA).⁹

Ethiopia can be placed in a comparative advantageous position in textile and apparel production. This is because of different reasons. First, Ethiopia has suitable agro-climatic conditions for the production of cotton, which serves as the main raw material of the sector. Second, there is abundance and relatively lower cost of labour power. Third, the global textile and apparel production and consumption has shifted to LDCs. Fourth, the availability of the international good will to avail market privilege through Free Trade Agreements (FTA), mainly African Growth Opportunity Act (AGOA) to US market and Everything But Arms (EBA) initiative to EU market and Common Market for Eastern

⁸ Jauch , Herbert and Rudolf Traub-Merz (2006). *The Future of the Textile and Clothing Industry in Sub-Saharan Africa*. Germany: Friedrich-Ebert-Stiftung.

⁹ Portugal-Perez, Alberto (2008). *The cost of Rules of Origin in Apparel: Africa Preferential Exports to the United States and The European Union*. New York and Geneva: UN Publication.

and Southern Africa (COMESA) to regional market. Thus it is necessary to be quite sanguine about the role of textile and apparel industry as a catalyst for Ethiopian industrialization and as a major source of foreign currency if it gets unadulterated government policy backup, pragmatic support and incentive.

1.2 Statement of the problem

Ethiopia has an ancient heritage in weaving, which went back at least 3,500 years. Industrialized textile and apparel, on the other hand was started in 1939 (Dire Daw Textile Factory) during the brief Italian occupation from 1935 to 1940. Expansion on these earlier efforts came about in 1960's when the Imperial government of Ethiopia signed an agreement with the Indian government. Following the formal agreements between two governments Akaki Textile Factory was established.¹⁰

In the EPDRF regime, consistent with the above global textile and apparel industry development trend, this industry has been identified as a prior on its industrial policy. The policy promotes Ethiopian industrialization and export of the country so as to alleviate acute poverty of the nation.¹¹ And in line with this, the government has designed and implemented different supportive programs and incentive schemes for the development of the sector.

With a view to achieve the above objectives, the government had set a first five years (2004/05-2008/09) textile and apparel industry development strategy. As indicated by the plan of the government, foreign currency generated by this industry's exports was expected to reach USD 500 million by the year 2008/09.

To achieve the envisaged export target in addition to improving the productivity and product quality of the existing textile and apparel industry through renovation and expansion, there was a plan to attract foreign and domestic economic size new 169 textiles and apparel investment. Through this first five years, government had planned to privatize all state owned textiles and apparel factory and to create additional 34,833 employment opportunities from this sub sector.¹²

¹⁰ IL&FS Cluster Development Initiative Limited (2010). *Integrated Textile Cluster, Ethiopia*. India

¹¹ MoI (2002). *Federal Democratic Republic of Ethiopia Industrial Development Strategy*. Addis Ababa: MoI

¹² MoTI (2004). *Integrated program for Developing Textile and industry*. Addis Ababa: unpublished.

However, as different information sources have revealed, the government of Ethiopia remained far off track to meet its plan. The development of Ethiopian textile and apparel industry is stagnant. The share of foreign currency generated by exporting textile and apparel industry products, when compared with the country's total exports remains insignificant.

Compared to others Sub-Sahara LDCs countries, Ethiopia has been placed at a lower rank on the utilization of developed countries' as well as regional market opportunities for textile and apparel industry (AGOA, EBA and COMESA). This is because of Non-Tariff Barriers (NTB) and Technical Barriers to Trade (TBT), low preparation to exploit these privilege and some other challenges by the rules of origin.

Ethiopian Government policy prioritizes its support and incentive for producers who are engaged only in export market. Due to this policy limitation most cotton producers in order to secure government incentives, they prefer to export their product rather than catering domestic textile and apparel producers. This raw cotton export creates problem on availability, quality and price of cotton for domestic textile and apparel industry. Such condition has serious implication on the international market competitiveness of the sector.

Relatively labour cost is lower in Ethiopia when compared with the rest of the world. However the lower productivity of labour and the increment of the labour cost affect the textile and apparel industry's competitiveness in international market. The availability and the rate of exchange rate affect the import of some raw materials, machinery, chemical and dye staff, spare parts and accessories. Similarly the availability and quality of infrastructure and government trade policy has impact on the competitiveness of the sector.

On this study, utmost effort was applied to examine the above major demand and supply side determinants of the sector's export performance. Besides, the study examines the overall economic impact of the sector.

1.3 Objective of the study

This study paper aims at examining the economic impact and the determinant of Ethiopian textile and apparel industry export performance in light of the following specific objective:

- Evaluate the economic impact of textile and apparel industry.
- Examine the utilization of preferential and differential market privileges for textile and apparel industry (AGOA, EBA and COMESA)
- Examine problems and constraints that affect the proper utilization of preferential and differential market privileges for textile and apparel industry (AGOA, EBA and COMESA)
- Estimate major supply side factors that affect the Ethiopian textile and apparel industry export performance
- Come up with policy recommendation based on the findings

1.4 Research Hypothesis

The following hypotheses will be tested under this study:

1. There is a loss of foreign exchange earnings from textile and apparel industry due to the export of cotton
2. The textile and apparel industry export depends mainly on labour cost, trade liberalization, and nominal exchange rate

1.5 Methodology and Data source

On this study both descriptive and econometric data analysis are used. The descriptive one uses time series performance evaluation for textile and apparel industry on Gross Value Production (GVP) and on Gross Value Added (GVA) contribution. It also uses foreign currency generation (export), employment creation and investment expansion. Besides, it makes a comparison analysis of relative utilization of Ethiopian textile and apparel industry for a given preferential market opportunities.

To estimate major supply side factors that affect the export performance of Ethiopian textile and apparel industry, time series econometric analysis model is applied. The first step in applying econometric method is selecting appropriate econometric model and formulating the model with relevant variables. Thus, for choosing appropriate model in attaining the specified objective of this study paramount care was made.

Time series analysis is favored, because it is convenient to examine the dynamic long term relation between the variables. In time series economic data, stationary is a crucial property for standard estimation and testing procedures. When mean, variance and covariance of the series are independent of time, rather than the entire distribution, this

series is referred to as weak stationary or covariance stationary. In order to test for stationary in time series data this study employed the Augmented Dickey Fuller (ADF) tests.

The Engle Granger (EG) and the Johansen Cointegration test approaches are the two most acceptable methods to prove the existence of valid long run (equilibrium) relationships between the variables when non-stationary variables in the model are cointegrated. However, the Engle Granger (EG) approach has some shortcomings, mainly when we have more than two variables in an equation. Thus the EG approach might lead us for miss specification of the model. For the case of multivariate systems Johansen approach is more popular and superior and in this study the Johansen Cointegration tests approach is preferred for cointegration test. To estimate the short run relationships between the variables, Error Correction Method (ECM) is employed.¹³

There are many supply side factors expected to affect the performance of textile and apparel industry export. However in this study, the focus is only on the main determinants, such as: the main raw material (the supply, price and quality of cotton), average annual Salary and wage of the textile and apparel industry employees, average annual nominal exchange rate, and government policy on trade liberalization (trade openness index).

The dependent or the left hand side variable is the TAE_t (Textile and Apparel industry export at time t) and the explanatory or the right hand side variables are CE_t , LC_t , ER_t , and TL_t , which are abbreviations for cotton export, labour cost, nominal exchange rate and trade openness (liberalization policy) respectively. The above explanatory variables are expected to have positive or negative influence on the performance of the textile and apparel industry's export.

The export determinant function or the regression equation used in this paper for empirical testing is,

$$TAE = \dots\dots\dots (1)$$

$$LTAE = \beta_0 + \beta_1 LCE_t + \beta_2 LLC_t + \beta_3 LER_t + \beta_4 LTL_t + \varepsilon_t, \quad \varepsilon_t \sim \text{IID} (0, \sigma_\varepsilon^2) \dots\dots (2)$$

¹³ Alemayehu, Ndung'u & Daniel (2006). *Applied Time Series Econometrics: A Practical Guide for Macroeconomic Researchers: A Focus on Africa*. Addis Ababa: Addis Ababa University and AERC

Where, it is assumed that all explanatory variables are independent of all ε_t

β_0 is constant/ intercept, $\beta_1 - \beta_4$ are parameters of the model and ε_t is error (unobserved) terms

Description of variables,

LTAE_t: Log of textile and apparel industry export at time t

LCE_t: Log of cotton export at time t

LLC_t: Log of labour cost (average annual Salary and wage of textile and apparel industry employee) at time t

LER_t: Log of average nominal exchange rate (Birr/US\$) at time t

LTL_t: Log of trade liberalization index (openness index) at time t and for LTL_t a proxy measure is used the ratio of the sum of export and import (trade) to GDP or TL= (export + import)/ GDP and LTL= log (TL)

The study completely depends on the secondary data. The sources of data are:

- Quantitative data that were collected from various sources, including Ministry of Trade and Industry (MoTI), CSA Ethiopia, National Bank of Ethiopia (NBE), Revenue and Customs Authority (CRA), Ethiopian Investment Agency (EIA), Ministry of Finance and Economic Development (MoFED), Africa Growth opportunity Act (AGOA) website, etc.
- Authentic and relevant literatures on the topic including books, proceedings, Journals, working papers, reports, directives and guidelines, regulations and other published and unpublished materials.

1.6 Significance of the study

History of industrial revolution of many countries shows that, textile and apparel industry has been the beginning for export- led industrialization. In Ethiopia, the textile and apparel industry has been identified as key engine for economic growth since it has a potential to provide employment and can contribute to gross domestic production as well as poverty reduction scheme of the country.¹⁴ This study proposes some interventions

¹⁴ MoI (2002). *Federal Democratic Republic of Ethiopia Industrial Development Strategy*. Addis Ababa: MoI

areas and addresses the deep-rooted problems that hinder the development and export performance of the sector. The result of this study could be taken as a necessary advice for the stakeholders in the sector to accelerate the development and export performance of the industry.

1.7 Scope and Limitation

There is great potential on textile and apparel industries that produce for the domestic market in improving the overall textile and apparel industry performance and in developing the country's economy. However, this study does not focus on those industries. The study mainly devotes itself on the textile and apparel industries engaged in export market. In addition, due to lack of separate and detail data, this study treats textile and apparel industries on aggregate level despite the fact that they have some structural difference. Moreover, an attempt was made to estimate the impact of government infrastructure expenditure on these industries' export performance. However, due to doubt on the quality, consistency and reliability of the existing data, the researcher was forced to drop this variable.

1.8 Organization of the paper

This paper is organized with five chapters. Following this introductory chapter, the second chapter comes, which provides a theoretical and empirical review on the preferential and differential market access, export supply determinants and global and domestic overview of the industry. The third chapter describes the findings of both descriptive and econometric analyses. Chapter VI focuses on problems and constraints of textile and apparel industry's development. The last Chapter provides the conclusion and policy recommendations so as to solve observed problems and to accelerate the development of the textile and apparel industry. All the time period mentioned in this document is in Gregorian calendar.

CHAPTER II

2. Literature Review and overview of the sector

Export performance determinants can generally be divided into external and internal factors. External factors are related to market access conditions, a country's location vis-à-vis international markets and other factors affecting import condition of foreign countries. Internal factors refer supply-side limitations. Supply conditions are fundamental in defining the export potential of an economy. Countries with better supply conditions are expected to export more. Supply capacity is affected by access to raw materials and factor related to costs such as: labour, capital and other resources. Besides resource endowment, economic policy and the institutional environment also affect the supply capacity of the country.¹⁵

The general policy implication is that market access and supply capacity have to be considered equally important along with the development process of the export sector. Simultaneous efforts to improve both supply capacity and foreign market access enhance the performance and the structural deepening of the export sector. Foreign demand is influenced by various elements. Firstly, it is strongly linked to geography; countries at the centre of a fast growing region are more likely to be benefited, *ceteris paribus*, than countries situated outside that region. Second, it is likely to be related to competition and trade policy which could have, in principle, a similar impact on trade than geography. Finally, both the quantity and quality of physical infrastructures are expected to play important roles. Important elements of supply capacity at the early stage of development of the export sector are infrastructure, FDI and macroeconomic stability. These elements are significantly determining the performance of export at all levels.

Literature review of this study focuses on three major issues. These are external determinant of export, mainly preferential market access for textile and apparel industry in U.S., EU and Regional markets. Second it focuses on internal determinants, which are called the supply capacity limitation. Finally the review addresses the history of Global and the Ethiopian textile and apparel industry development and the current existing situation.

¹⁵ UNCTAD (2004). *EXPORT PERFORMANCE AND ITS DETERMINANTS: SUPPLY AND DEMAND CONSTRAINTS*. New York and Geneva: UN Publication

2.1 Preferential and Differential Market Access

2.1.1 Generalized System of Preferences (GSP)

There has been an important evolution in the regimes of preferential and differential market access for developing countries during the past four decades. The initial framework was one of a Generalized System of Preferences (GSP) granting duty-free entry for import from the developing countries. A GSP is a system whereby developed countries grant preferential treatment to eligible products imported from developing countries, so that their exports would be competitive in the markets of developed countries. A GSP was first proposed in 1964 by Raul Prebisch, then by the secretary general of the UN Conference on Trade and Development (UNCTAD). By 1968, the 2nd UNCTAD adopted the principle of a “generalized, non-reciprocal, non-discriminatory system of preference in favor of developing countries”. In 1971 the General Agreement on Tariffs and Trade (GATT) granted a 10-year waiver. The objectives of the GSP program are to increase the export earnings of preference-receiving countries, to accelerate their industrialization, to promote sustainable development and good governance.¹⁶

The GSP preferential treatment is in the form of reduced import duty, and it allows the avoidance of reciprocal obligations on the part of the developing countries. The preference giving industrialized countries under the GSP scheme are U.S., EU, Australia, Japan, New Zealand, Norway, Switzerland, Belarus, Bulgaria, the Czech Republic, Hungary, Poland, Russia and the Slovak Republic.¹⁷ The lower tariffs or duty free entry make it attractive for importers to import from the beneficiary countries.

To make an agreement with World Trade Organization (WTO) rules and to provide a formal legal basis for preferential market access, the Tokyo Round negotiation adopted an “Enabling Clause” in 1979.¹⁸ However, due to restrictions from industrialized countries on selected sensitive import products, the competitive pressure from some middle-income countries (most recently from china and India) and the multilateral liberalization (reduced the Most Favored Nation (MFN) tariffs and trade barriers) tend to

¹⁶ Yager, Loren. United State Government Accountability Office(2008). *International Trade Report*, Washington D.C

¹⁷ Cline, William (2004). *Trade Policy and Global Poverty*. Washington D.C: Institute of International Economics,

¹⁸ Page, S. (1994). *How Developing Countries Trade: the institutional constraint*. London: Routledge printing.

level the playing field and weaken the comparative advantage of least developing countries generated from GSP. As the result, the recent special preferential regime initiatives, rather than the GSP from U.S. and EU, are increasingly giving focus (attention) to the poorest and weakest countries.

2.1.2 Special Preferential Market Access of the United States

The African Growth and Opportunity Act (AGOA) is a United States Trade Act that significantly enhances U.S. market access for (currently) 39 Sub-Saharan African (SSA) countries. The Act was signed by President Clinton into law in the U.S. on May 18, 2000 and originally covered the 8-years period from October 2000 to September 2008 as Title of The Trade and Development Act of 2000. However, The Act amendments signed into law by U.S. President George Bush in July 2004 further extends AGOA to 2015. At the same time, a special exemption related to apparel (third countries fabric provision for least developed countries (LDCs)) was extended successively in December 2006 and June 2007 for three and two years respectively. As a result the special privilege for apparel was extended to 2012.¹⁹

The African Growth and Opportunity Act (AGOA) was built on existing U.S. trade programs by expanding the duty-free benefits previously available only under the Generalised System of Preferences (GSP) program to offer tangible incentives for African countries. This will initiate those countries to continue their efforts so that they can open their economies and build free markets. AGOA supports U.S. businesses by encouraging reform of Africa's economic and commercial regimes, which will build stronger markets and more effective partners for U.S. firms. AGOA extends duty and quota-free benefits to imports of a number of apparel and textile products that are produced in eligible Sub-Saharan African (SSA) countries.²⁰

The U.S. government has set different criterions for AGOA beneficiary countries and for determination of product eligibility.²¹ The eligibility criterion requires these counties to have progress or make efforts on the following areas:-

- ✓ The set up of market-based economies,

¹⁹ www.agoa.info

²⁰ Brenton, P and Takako Ikezuki (2004). *The Initial and Potential Impact of Preferential Access to the U.S. market under the African Growth and Opportunity Act* . Washington D.C: The World Bank.

²¹ MoTI (2004). *AGOA: Principles, Nature and the Ethiopian Experience*. Addis Ababa: Unpublished.

- ✓ Development of political pluralism and rule of law,
- ✓ Elimination of barriers on US trade and investment,
- ✓ Protection of intellectual property,
- ✓ Efforts to combat corruption,
- ✓ Policies to reduce poverty,
- ✓ Increment on availability of health care and educational opportunities,
- ✓ Protection of human rights and worker rights,
- ✓ Elimination of certain practices of child labor, and
- ✓ The eligibility of GSP in these countries in order to receive AGOA benefits.

The U.S. Customs Services determines the classification of products whether they meet the specified requirement in the Act or not. Essentially all products are/will be eligible as long as they meet the requirements of AGOA's rule of origin and they are imported directly from a beneficiary sub-Saharan Africa country. Exception has set by the U.S. government for products being considered as import sensitive.

A country that exports its products to the U.S. using AGOA privilege should take the following general rule of origins in to consideration.

- ✓ The item/product must be growth, product, or manufacture of a beneficiary developing country and the sum of the cost or value of materials must not be less than 35% of the appraised value of the product when it enters the US market. Out of the 35 %, around 15 % may be derived from U.S. part or from sub-Saharan Africa countries that are designated for AGOA beneficiaries.
- ✓ The article/product(s) must be shipped directly from the beneficiary countries to the U.S. without passing through the territory of any other countries. Or if it shipped through the territory of any other countries, the product must not enter the commerce of those countries while in route to the U.S. In all cases, the invoices, bill of lading and other documents connected with the shipment show that the US is the final destination of the imported article.

Duty-free access to the U.S. market under the combined AGOA/GSP program for Sub-Saharan African (SSA) countries stands at approximately 7,000 product tariff lines, including the roughly estimated 1,800 product tariff lines that were added to the GSP by the AGOA legislation. Notably, these include items such as apparel and footwear, wine and certain motor vehicle components. The amended act provided additional congressional guidance to the administration on how to administer the textile provisions

of the bill. Since its implementation, AGOA has encouraged substantial new investments, trade, and job creation in Africa. It has also helped the SSA's to promote its integration into the multilateral trading system and to have more active role in global trade negotiations. It has also contributed to economic and commercial reforms, which make African countries more attractive commercial partners for U.S. companies.²²

Ethiopia since August 2001 became one of the 39 SSA countries privileged by the AGOA in which it is benefited by exporting qualified products to the US market duty and quota free. This Act has given an opportunity to Ethiopia to accelerate the development of the textile and apparel industry base. The tariff free access for U.S market of Sub-Sahara region countries provides 7.5% competitive advantage when compared with the Most Favored Nations (MFN) status for Asian countries.²³

The study presented to the African economic conference by Ms Rahel Abebe on the topic, AGOA: The Case of Ethiopia textile sub-sector,²⁴ has shown that Ethiopian textile and apparel industry exploitation of AGOA market opportunity was very limited. This study has also extensively addressed the problems faced by the Ethiopian textile and apparel industries in utilizing this privilege. These are,

- Lack of diversified raw materials (fabrics, accessories and others) both in quality and quantity so that it is impossible to satisfy domestic textile and apparel industry needs,
- The Custom bureaucracy for importing the above required raw material,
- Inferior quality product and low production capacity because of obsolete technology use,
- Scarcity of skilled man power in textile and apparel technology,
- Infrastructure, utilities and logistic (availability of track, container and port) problems,

²² www.agoa.info

²³ China Textile planning Institute of construction (2004). *Study Report on the Development Strategy of Ethiopian Cotton/Textile/Garment Sub-Sector*. Beijing.

²⁴ Rahel Abebe (2007): *Opportunities and Challenges of Development for Africa in the Global Arena, AGOA: The Case of Ethiopian Textile Sub-Sector*, paper Presented to The African Economic Conference: Unpublished.

- Lack of coordination and trust on the textile and apparel producers to work together,
- Extremely fragmented and weak textile and apparel industry supply chain, mainly due to the government policies and lack of coordination between industries and relevant trade bodies, and
- The Ethiopian textile and apparel industry still remains at infant stage.

Even though most economists agree that the market preferences are one of the elements of complex economic development process, there is still difficulty in isolating their direct impact. However, there is fairly border concusses among economist, that expanding trade will promote economic growth and development. The impact of the special preferential program on LDC depends on their ability to take this advantage. The presence of preferential privilege is used little in countries that do not have the ability to produce goods desirable by importers, at competitive prices. This is called trade capacity.²⁵

A country's trade capacity is generally related to having appropriate economic conditions and institutions that help to attract investment and enhance efficiency. Most SSA countries including Ethiopia have lack of efficient trade capacity for taking full advantage of the AGOA opportunity to export their goods. This inefficient trade capacity is caused by inadequate economic and legal policy, poor networks of roads and ports, inadequate supply of energy and other utilities, rigid financial institutions, inefficient and corrupt customs office and lack of well educated citizens.

Ethiopian exports based on the impact of AGOA, though still remains small when compared with some other AGOA eligible countries, it is expected to increase significantly. AGOA has been the dominant driving force behind the growth of the apparel subsectors in a number of SSA countries such as Lesotho, Swaziland and Botswana.²⁶ The 2002 AGOA report to U.S. congress also indicted that, there are some quite dramatic initial success due to AGOA on SSA courtiers.²⁷ These includes,

²⁵ Yager, Loren. (2008). *International Trade Repor*. Washington D.C: United State Government Accountability Office.

²⁶ Sabm A., et al. (2004). *Botswana Textile and Apparel subsector study*. Gaborone: BIDPA and The World Bank.

²⁷Scheller, H., et al. 2002). *African Growth and Opportunity Act: Export Opportunities for Nigerian Manufacturers In Textile Based Sewn Products* Nigeria: RAISE IQC.

- Increased investment valued at \$12.8 million in Kenya, including the establishment or reopening of at least nine factories, where new employment has generated at least 20,000 jobs.
- The opening of eleven new factories and the expansion of eight additional ones in Lesotho, which results in the creation of 15,000 new jobs and allows manufacturing employment in Lesotho to exceed government employment for the first time.
- The creation of at least 4,350 jobs in Malawi.
- Investments of over \$78 million in Mauritius.
- New and planned investment in Namibia in the apparel and textile sector alone has topped \$250 million, creating an estimated 8,000 jobs over the next five years, and 18,000 jobs over ten years.
- The opening of at least eight new factories in Swaziland, creating 11,000 jobs.
- A planned \$20 million foreign investment in a Ugandan mill that allows employment of 500 people and benefits local agricultural producers

As the success story of some SSA courtiers shows, there is a need to open door for foreign investors and professional experts to upgrade the country's textile and apparel industry production capacity. There is also a need for organized functional export processing zones with adequate infrastructure and uninterrupted utilities. Finally the establishment of a one stop support mechanism for a new and operational textile and apparel industry is also vital.

Similar to Ethiopia, Lesotho is land-locked country. However, the success of Lesotho on AGOA privilege utilization is derived by the attraction of Asian investors, mainly from Taiwan and Singapore. Thus Ethiopia has to take important lesson from Lesotho's experience so as to improve the role of its textile and apparel industry in AGOA. In spite of the consistent request and hope for the extension of AGOA privilege mainly fabric provision from 3rd countries, Ethiopian government didn't make vigorous movement towards the attraction of FDI to the sector in order to build the capacity of the textile and apparel industry. There was not also formulation of incentives policies and supports that are directly linked to the production of domestic fabric and accessory. Moreover, the

privatization of state owned textile mills to improve their management and competitiveness is too slow.

In theory, market access preference provides LDC exporters a comparative advantageous position. However, Experience has shown that LDCs are unable to realize this advantage and they perform at a low degree of utilization. This was caused not only by their limited supply capacity but also by the given preferential treatments in which they are short term in nature (temporary). As a result the attractions of investors are limited due to uncertainty. The complexity and some overlapping requirement of the rule of origin (RoO) also make it difficult for users.²⁸

AGOA has a unique characteristic when compared with other preferences. It combines Trade Capacity Building (TCB) program for beneficiary countries. Responsible U.S. agencies for this program are Department of Agriculture and USAID. Preparing private sector enterprises to navigate import regulations of U.S., coaching small business on the access of financial services for trade and investment, facilitating investment in trade related infrastructures and organizing annual AGOA forum are some of the activities undertaken by this program.²⁹

The study conducted by Institute of Social Studies (2003) has generally revealed that most eligible enterprises in Ethiopia cannot take full advantage of AGOA because they have: lack of information about market opportunities in U.S., low industrial capacity and base, relatively a low skilled and trained labor force, lack of proper production management skills; and a lot of bureaucratic challenges in order to be benefited from the various government incentives, such as the different lines of credit.³⁰

2.1.3 Special Preferential Market Access of the European Union

Similar to U.S. the European Union has also shifted to a special preferential regime for certain developing countries trading partners that go beyond the GSP. At the same time, there has been a shift from the GSP concepts of temporary non-reciprocity to preference

²⁸ Mold ,A. (2005). “*Trade Preferences and Africa: The State of Play and the Issues at Stake*”. Addis Ababa: Africa Trade Policy Center, work in progress N.O 12, ECA, Addis Ababa.

²⁹ Yager, Loren (2008). *International Trade Report*. Washington, D.C.: United State Government Accountability Office

³⁰ Loop, Theo van der (2003). *Clothing and Footwear in the African Industrialisation. The case of Ethiopia*. Addis Ababa: unpublished, Institute of Social Studies.

towards free trade arrangement incorporating reciprocity. Over the last 35 years the European Union has made a series of preferential agreement with poorest countries to enhance their export earnings, to promote their industrialization and to encourage the diversification of their economies.

The EU and LDCs in Africa, Caribbean and the Pacific (the 'ACP' states) launched the preferential agreement called the Lomé convention in 1975 with 46 countries. This convention was successively renewed and expanded every five years which results in the embedment of 70 countries by 1995. However, due to incompatibility with GATT rules, of being non-reciprocal, in 2000 the European Union replaced the above agreement with the ACP-EU partnerships agreements known as the Cotonou partnership Agreement (CPA). This agreement has shifted the focuses into economic integration agreement that progressively removes the barrier and enhances cooperation in all areas related to trade. The change in name simply showed a new strategy rather than any immediate change in the preferential arrangement.³¹

In February 2001, the European Union Council adopted a new initiative within the GSP, that was called Everything But Arms (EBA). EBA granted duty free access to imports of all products for 49 LDCs, except arms and ammunitions. It doesn't impose quantitative restrictions (with the exception of bananas, sugar and rice for a limited period). This initiative underlines that the special arrangement for LDCs should be maintained for unlimited period of time and not to be subjected to the periodic renewal.³²

The special preferential market of EU Rules of Origin (RoO) required the double transformation process in the beneficiary countries, with the yarn being woven in to fabric, which is then cut and made up into clothing. However, for few types of non-knitted apparel, there is an alternative Value Content (VC) rule, which allowed the use of non-originating provided fabric that its value did not exceed 40% of the final product price.³³ EBA allows EU to take the safeguard measure by withdrawing the preferences from LDCs when imports raise much above "usual levels". In addition, EBA keeps the regulation on sanitary, which could constrain trade increment.

³¹ Cline, William (2004). *Trade Policy and Global Poverty*. Washington D.C.: Institute of International Economics.

³² <http://ec.europa.eu>

³³ Portugal-Perez, Alberto (2008). *The Cost of Rules of Origin in Apparel: Africa Preferential Exports to the United States and the European Union*. New York and Geneva: UN Publication.

Study conducted by Alberto Portugal-Perez (UNCTAD, 2008) indicated that the RoO of EBAs initiatives and the Cotonous Agreement (the requirement of two steps conversion process to all apparel on qualified countries) have limited the beneficiary countries' export. In contrary, the relaxation of the RoO of AGOA by allowing the use of fabric of any origin, increased the exports of apparel by 300 percent for the top seven beneficiaries of AGOA's special regime, and widen the range of apparel exported by these countries.

Besides the discouraging RoO of EBAs initiatives and the Cotonous partnership Agreement for privileged LDCs, the above mentioned problems of Ethiopia on limited utilization of AGOA in U.S. market are equality destructing the efficient exploitation of EBAs initiatives and the Cotonous partnership Agreement in EU market.

According to UNCTAD (2003), preliminary impact assessment has revealed four important sets of factors that influence the ability of LDCs to make use of market access preferences, these are:³⁴ The specification of the preferential schemes or the rules of origin associated with the eligibility of preferences, the difficulties of stemming non-tariff barriers, the impact of other policies, such as agricultural policies of developed countries that directly affect production and export interest to LDCs, and the supply capacities of the beneficiary countries.

The same report shows that, LDCs utilization of preferential market access has been relatively very low. William Cline director of the Institute of International Economics in Washington, D.C., argued that there are different measures that should be taken in making market access preference more effective. These include the applicability period should be extended, the rules of origin should be simplified, the initiatives should be extended to all goods, and tax exemptions should be offered to foreign investors with a view of overcoming supply constraints in the host countries.³⁵

2.1.4 Regional Market Access

The Africa (Regional) market is one of the greatest potential but not yet appropriately utilized by Ethiopian textile and apparel industries. Like U.S. and EU market, the regional market has special preferential market privilege due to Free Trade Agreement (FTA) among the regional member countries. Common Market for Eastern and Southern

³⁴ UNCTAD (2003). *Trade Preferences for LDCs: An Early Assessment of Benefits and Possible Improvements*. Geneva and New York: UN Publication.

³⁵ UNCTAD (2003). *Press release*, PR/2003/102. <http://unctad.org>.

Africa (COMESA) was established in December 1994 to replace the Preferential Trade Area for Eastern and Southern Africa (PTA), which was established in Lusaka, Zambia in 1981. COMESA currently has 21 member states.

Ethiopia is not only a signatory but also a founding member of COMESA. The main objective of this regional organization is promoting regional integration through trade liberalization and investment. This in turn creates fully integrated internationally competitive regional economic communities, within which there would be free movement of goods, services, capital and labor across member countries.³⁶

COMESA forms a major market place for both internal and external trading. Member countries of this group enjoy preferential tariff treatment for their imports and exports. Tariff structure within COMESA can broadly be divided into two: General tariff for COMESA and Free Trade Area (FTA). General tariffs adhere to the general terms of trade by COMESA, while the FTA has abolished tariffs for goods originated from their member countries. The FTA has not only gotten rid of customs tariffs but has also applied the relaxation and eventual elimination of quantitative restrictions and other non-tariff barriers. COMESA has launched FTA on October, 2000 and in the next step it is expected to upgrade COMESA in to Custom Union (CU). Ethiopia is not yet become the member of COMESA FTA.³⁷

Although Ethiopia is one of the founding member countries, the performance in the intra- COMESA remains insignificant. The reasons behind the poor performance of Ethiopia are: lack of political commitment, overlapping membership, uncertain payment and delays, poor private sector participation, etc.³⁸ In addition, Due to weak infrastructure basis, weak productivity and trade facilitation, the overall intra-COMESA trade remained at a very small level in the period 1981-2007. Besides the low level of Ethiopian participation in intra-COMESA trade, it is dominated mainly by few member countries, Such as Kenya, Zambia and Mauritius and Tanzania.³⁹

³⁶ COMESA (2003). *COMESA Treaty Establishing the Common Market for Eastern and Southern Africa*. Lusaka: COMESA.

³⁷ COMESA (2006). *COMESA Annual Report 2006*. Lusaka: COMESA.

³⁸ Alemayehu Geda and Haile Kibret (2008). "Regional Integration in Africa: A Review of Problems and Prospects with a Case Study of COMESA". *Journal of African Economies*, 17(3): 357–394.

³⁹ Alemayehu Geda, Edris Hussein and Zewdu Belete (2010). *Regional Integration Policies Among COMESA, EAC AND IGAD*. Addis Ababa: Unpublished Report to Trade Capacity Building Unit (MoTI).

2.2 Internal Export Determinants

Both demand side (market access) and supply side (domestic institution and policy environment) factors have an earnest impact on export performance and on the growth of LDCs.⁴⁰ In the first part of the literature review an attempt has been made to address briefly the market access and the main deterrence for efficacy of these preference for Ethiopian textile and apparel industry. On this part of review, the focus will be on the main supply side constraint of the textile and apparel industry export. The supply side constraints are essential in determining export potential of the country, which mainly incorporate: market based reforms/macroeconomic environment which are mainly exchange rate, export and Foreign Direct Investment (FDI) promotion, infrastructure (mainly transport) and institutional quality.

The neo-classical economic theory pays special attention to the exchange rate (ER) which is used as a measure of price competitiveness. In addition, the appreciation/depreciation of the exchange rate of the particular country determines the loss/gain of competitiveness on international market.⁴¹ Traditional view generally assumed that the exchange rate depreciation would stimulate exports and restrain imports, while appreciation of exchange rate would discourage exports and encourage imports. However, according to an investigation paper, T. Abeysinghe and T. L. Yeok (1998) such conclusion often neglects the existence of large amount of import contents in exported product's, as well as the dynamic effects of productivity improvements on export. The same study reveals that the exchange rate appreciation does not adversely affect exports of Singapore because exports possess high import content.⁴²

Similarly, many analyses show that depreciation may coincide with greater exchange rates of volatility and uncertainty. Such uncertainty may have adverse effects on export so that the textbook theory based impact of depreciation on export earning is not conclusive in results. According to W. Fang and S. M. Miller (2004), depreciation exchange rate does not improve Singapore's exports, but time-varying exchange rate risk

⁴⁰ UNCTAD (2008). *Export Competitiveness and Development in LDCs: Policies, Issues and priorities for least Developed Countries for Action during and beyond UNCTAD XII*. New York and Geneva: UN publication.

⁴¹ Petreski, Goce (2009). *Modeling the Determinants of Exports and Imports: Assessment of the Macedonia Competitive Performance*. Macedonia: University St. Kliment Ohridski.

⁴² Abeysinghe, T. and Tan Lin Yeok (1998). *Exchange rate appreciation and export competitiveness. The case of Singapore*. Singapore: National University of Singapore.

exhibits a significant negative effect on substantial amount and its effects dominate the depreciation effect, leading to a negative net effect of exchange rate change on export revenue.⁴³

Despite the controversies surrounding the benefits and cost, FDI likely affects export performance positively in developing countries. The experience in a number of countries suggests that FDI strongly contributes to the transformation of the composition of exports. For example, the FDI inflows into Singapore, China, Lesotho, Madagascar and Mauritius, have contributed on the increment of technological content of their exports by supporting the development of knowledge-based industries. This positive and significant relationship between export performance and FDI has contributed to capital formation. FDI does contribute to the technological upgrading, and then is expected to be directed towards innovative activities within an already existing sector, and in that sense it stimulates essentially intra-sectoral rather than inter-sectoral diversification.⁴⁴

Around 95% of the Madagascar's textile and apparel industry is owned by FDI. This helped Madagascar to realize early benefits from AGOA and to make remarkable success in apparel export in the U.S. market within AGOA. As a result, it has become one of the four top exporters in terms of volume and value in 2003, which clearly displays the Madagascar's strength when compared with that of many other African countries.⁴⁵

Currently many developing countries actively plead for FDI and offer income tax holidays, import duty exemptions and subsidies to foreign firms. They also take measures on the expansion of infrastructures and market preferences. The government of Ethiopia has also taken some measures to attract FDI in various sectors, so as to encourage the transfer of technical and managerial know-how and foster the utilization of market access. In order to attract FDI, more sectors that were reserved for nationals have been opened for foreign participation and no performance /goal/ criteria were set. Foreign investors have been exempted from custom duties and import tariffs (for all capital equipment and spare parts up to 15% of the value of capital equipment). They have also been exempted from export taxes and are provided with tax holidays up to 5 years.

⁴³ Fang, W. and Miller (2004). *Exchange rate depreciation and exports: The case of Singapore revisited*. Feng Chia University and the Overseas Chinese Institute of Technology and University of Nevada.

⁴⁴ UNCTAD (2005). *Determinants of Export performance: Developing countries in International Trade*. New York and Geneva: UN Publication, Trade and Development Index.2:49-79.

⁴⁵ The RATES Center (2005). *Cotton –Textile - Apparel, value chain Report for Madagascar*. Nairobi.

Despite such measure, Ethiopia has only attracted an insignificant amount of FDI; 0.74% of the Sub-Saharan Africa. Only 59 (worth 3.8 billion birr) out of a total of 311 approved FDI project that was worth about 15.4 billion birr and have become operational during the period 1992/93-2001/02. Even then only few of the 59 project focused on the export market. Similarly the impact of FDI in Ethiopian textile and apparel industry export is still insignificant.⁴⁶ The most recent experience in Ethiopian textile and apparel industry has shown that there is an increasing trend of engagement by Turk, Indian, Pakistan and Chinas investors.⁴⁷

At the early stage of export sector development, one of the major factors that influenced the supply capacity of the country is related to domestic infrastructure.⁴⁸ Most African countries including Ethiopia are characterized by poor infrastructure. This poor infrastructure is a main deterrence on Ethiopian textile and apparel industry's competitiveness and on the attraction of FDI. The improvement in infrastructure and transport services can lead to improvement in export performance.⁴⁹

Textile and Apparel industry on export market do not simply compete on price. Buyers evaluate a supply Offer on five dimensions: Price, Quality, Response, Product, and Ethics.⁵⁰ Price is the cost paid by the buyer to have the goods delivered to his/her door. Quality does not mean compliance with standards, as it is usually assumed, but it is rather a difficulty of characterizing perception that one product is more desirable than another. The price and quality of the export product are seriously affected by the availability, price and quality of raw materials used to produce that product. In the case of textile and apparel product, the availability, price and quality of raw cotton have a significant influence on the competitiveness of the final product in international market.

The study on Madagascar Cotton-Textile-Apparel value chain has shown that the export of local raw cotton, which is well-known for its good quality, poses a threat to the domestic textile and apparel industry export and to the national economy. In addition,

⁴⁶ The RATES Center (2003). *Cotton –Textile - Apparel, value chain Report for Ethiopian*. Nairobi

⁴⁷ TAIDI (2010). *Five years (2010-15) Textile and Apparel Industry Development Plan*. Addis Ababa: Unpublished Report.

⁴⁸ UNCTAD (2005). *Determinants of Export performance: Developing counties in International Trade*. New York and Geneva: UN Publication, Trade and Development Index.2:49-79

⁴⁹ Fugazza, Marco(2004). “*Export Performance and its Determinants: Supply and Demand Constraints*”. Policy Issues In International Trade and Commodities Study Seriousness No.26.

⁵⁰ Sabm ,A., et al. (2004). *Botswana Textile and Apparel subsector stud.*, Gaborone: BIDPA and The World Bank

this study also shows alternative ways to import raw cotton from abroad where the supply fees represent an additional cost of approximately 20% when compared with local supply.⁵¹

Response refers to the total delay between placing an order and receiving goods. The seasonality of textile and apparel product consumption in developed countries makes response more sensitive. The two aspects of response are the delay length and the delay length's reliability. In many cases, delivery reliability is more important than delay length. This reliability is considered a factor that is able to meet the promised delivery date. Besides the firm level constraints for response, the country's infrastructure quantity and quality, mainly transport has a paramount influence on the response.

Despite technological advancement, the textile and apparel industry, mainly apparel remains labour intensive globally. Hence its manufacturing is continuing to shift from developed to developing countries due to low labour cost. The labour cost of the textile and apparel industry is the most geographically distinct variable and it becomes one of the competitive factors. The spread is enormous, from over \$10 per hour in the U.S. to 22 cents per hour in Vietnam.⁵² In the textile and apparel sector, labour cost assumes greater significance in the production cost. Ethiopia is considered very favorably across the developing countries in terms of labour cost. A recent study on Indian garment industry shows that, higher wage rate is one of the determinant factors on export performance.⁵³ Ethiopia is a densely populated country with more than 74 million people. The Ethiopian population has a high percentage of young people. Since the labor force is young; they can easily be trainable and quickly adopt new technologies. This condition would secure the comparative advantage of the textile and apparel industry to be competitive on international market.

Opening economic policies to trade and investment with the rest of the world is needed for export and economic growth. This is because in recent decades there is no country achieving economic success in terms of substantial increases in living standards for its people without liberalizing itself to the rest of the world. Trade liberalization has generally taken place in LDCs as part of the structural adjustment program. Ethiopia has

⁵¹ The RATES Center (2005). *Cotton –Textile - Apparel, value chain Report for Madagascar*. Nairobi.

⁵² Dicken, Peter (2003). *GLOBAL SHIFT, Reshaping the Global Economic Map in the 21st Century*. London: SAGE Publishing Ltd.

⁵³ Verma, Samar (2002). *Export Competitiveness of Indian Textile and Garment Industry*. New Delhi: India Indian Council for Research on International Economic relations. Working Paper NO.94.

taken many measures to liberalize its economy since the fall of Derg. Trade liberalization implies considerable reduction in tariff and non-tariff barriers, so as to establish a noticeable open market as compared with the pre- liberalization era.⁵⁴

With liberalization of the economy, the sectors in home countries have a comparative advantage in which they can export their products to the rest of the world, while the import competing sectors face foreign competition. The empirical researches focusing on the impact of trade liberalization (openness) on export earnings have exhibited more mixed results. Some of them show that countries which get on liberalization programs have improved their export earnings (Ahmed, 2000; Thomas et al., 1991; and Santos-Paulino, 2002b as cited in Yi Wu and Li Zeng, 2008) while others have found no significant evidence of the above relationship (Greenaway and Sapsford, 1994; Jenkins 1996 as cited in Yi Wu and Li Zeng, 2008).⁵⁵

Besides the broad internal and external factors for determining the export performance of the textile and apparel industry, firm level competitiveness is a major bottleneck for export performance. Study conducted by Tinsae Berhanu (2006) on competitiveness of Ethiopian garment industry, depicts the very low status of competitiveness of the Ethiopian garment industry. The finding of the study shows that, at the firm level, all the determinants of competitiveness are found to be insignificant.⁵⁶

2.3 An overview of Textile and Apparel industry

2.3.1 Global

The textile and apparel industry was the first manufacturing industry to have a global dimension. This sector is the most geographically dispersed of all industries across both developed and developing countries. In the first industrial revolution of the 18th and 19th centuries in Britain, U.S., Germany, France, and the Netherlands, the textile and apparel industry was a base. Textile and apparel could be manufactured using relatively simple technology and low-skill labour. The traditional craft skills of hand spinning, weaving and sewing were served as basis for larger- scale textile and apparel industrial

⁵⁴ UNCTAD (2004). *Linking International Trade with Poverty Reduction*. New York and Geneva: UN Publication.

⁵⁵ Wu, Yi and Li Zeng (2008). *The Impact of Trade Liberalization on the Trade Balance in Developing Countries*, IMF working paper, WP/08/14.

⁵⁶ Tinsae Berhanu (2006). *Competitiveness of Ethiopian Garment Industry: Response to Export Market*. Addis Ababa: Unpublished MSc Thesis, Addis Ababa University.

application. The geographical trends in the production of textile and apparel industry shows a clear pattern of continues decline in the developed countries producers and a geographical shift of production to developing countries. Currently China by far distant leads the global textile and apparel production, employment, investment and trade. Besides factors endowment, mainly cheap labour and cotton costs, the existence of Multi Fiber Agreements (complex system of National quotas), rapid technological innovations in production and distribution process significantly contribute to continual geographical shift of this sector.⁵⁷

More than 30 years, export of textile and apparel product between developed and developing countries has been tightly regulated by quotas. In the history of textile and apparel industry development, no country has ever tried to develop its textile and apparel sector without applying some protection for its infant industries before opening up to competition. No industry was able to survive in open competition for domestic or foreign markets before it had a chance to mature within a protected environment. Customs duties and other protective measures were always intended to equalize productivity differences among competitors. Quota has also permitted many smaller, less competitive countries to participate in international trade providing them with economic and social benefits such as FDI, construction of infrastructure, employment and foreign exchange earnings. U.S. International Trade Commission estimated that one direct job in textile and apparel industry can lead in to two supporting (or indirect) jobs in service and supplier industry.⁵⁸

The world trade in the textile and apparel product has shown an increasing trend, currently estimated at US\$ 612.1 billion (US\$ 250.2 billion for textile and US\$ 361.9 billion for apparel). Similarly different estimates indicate that the global textile and apparel trade will reach US\$ 900 billion by 2013. The increment in apparel is expected to grow from US\$ 361.9 billion to about US\$ 555 billion; whereas textile trade is projected to grow from US\$ 250.2 billion to about US\$ 345 billion during this period. The future global textile and apparel trade would depend on the current investment on this sector. There has been a clear shift in the investment patterns in the global textile and

⁵⁷ Dicken, Peter (2003). *GLOBAL SHIFT, Reshaping the Global Economic Map in the 21st Century*, London: SAGE Publishing Ltd.

⁵⁸ Nathan Associates INC (2002). *Change in Global Trade Rules for Textile and Apparel: Implications for developing countries*, Washington D.C.

apparel industry towards Asian countries over the last 10 years. The largest investments in textile machinery have been made in China, India, Pakistan and Bangladesh.⁵⁹

2.3.2 Ethiopia

2.3.2.1 Development of the textile and apparel industry

Ethiopian traditional apparel (cottage industry) produced by hand loom has a long history in providing the needs of the people. These traditional apparels are made of woven cotton thread. Some of these products are ‘kuta’, ‘Netela’, ‘Gabi’, ‘Ejetebabe’, ‘Tibeb’, etc. The activities were traditionally held by small artisans called ‘shemane’ (weavers). This traditional cottage industry is inherited and continued up to now, making an important contribution to satisfy people’s requirement. The modern textile and apparel industry was initiated in 1939 with the establishment of Dire Dawa Textile mill by foreign capital. Then before 1975, 5 large-scale integrated textile mills and 2 apparel enterprises were established mainly by private capital. In 1975 all private textile and apparel industries were nationalized. From 1975 to 1992, in order to satisfy the increasing domestic demand, additional 4 large-scale integrated textile mills and 2 apparel industries were established with foreign aid and played pivotal roles in substituting imported products.

Since 1992, the government of Ethiopia has launched free market economy principle by encouraging the entry of domestic and foreign private capital and transforming ownership of the state owned enterprises. Information found from the Central statistics Authority (CSA) of Ethiopia indicates that, in fiscal year 2006/07 the total number of large and medium scale textile and apparel industries has reached 73, of which 41 are the textile mills and the remaining 32 are apparel industries.

Similar source indicates that, the textile and apparel industry capacity utilization has fluctuated from year to year. Since 2002/03 up to 2006/07 the average annual capacity utilization has reached 31% for textile and 37% for apparel industry. The regional distribution of the textile and apparel industry is more concentrated around Addis (more than 50%) due to better infrastructures and government support. This industry’s distribution indicates that there are 4 industries in Oromiya, 4 in Tigray, 3 in Afar, 5 in Amhara, 4 in SNNP, 1 in Gambella, 2 in Dire Dawa and 50 industries in Addis Ababa.

⁵⁹ IL&FS Cluster Development Initiative Limited (2010). *Integrated Textile Cluster, Ethiopia*. India: unpublished report

Currently except some textile mills, all state owned apparel industries are transferred to the private ownership with various privatization schemes.

2.3.2.2 Industrial Structure/Chain

Textile and apparel industry consists of three parts (chains): up stream (fiber production), mid stream (fabric production and dyeing) and downstream (garment/apparel production). Each chain has its own specific technological and organizational characteristics. The textile industry consists of two major operations; the preparation of yarn and the manufacturing of fabric. The textile is relatively capital intensive and its large size capacity makes it competent. The apparel industry is far more fragmented organizationally than textile industry and it uses less sophisticated technology. However this industry is more labour intensive and produces an enormous variety of often rapidly changing products.⁶⁰

Ethiopian textile and apparel industry is producing a large variety of products. Spinning firms produce yarn and sewing thread. Whereas integrated mills produce a wide variety of products including yarn, fabrics (knitted and woven), canvas, school and traveling bags, blankets, sweaters, shawls, uniforms, towels, baby nappies and knitted garments. Apparel manufacturers on the other hand, produce various types of garments for both the local and export market.

The Ethiopian textile and apparel sector is characterized by labour intensive (apparel, weaving and knitting) and capital intensive (spinning dyeing and finishing) industries. Although the fabric production is more capital intensive than the apparel sector, it is still fairly labour intensive in Ethiopia. However, the fiber production is essentially capital intensive. Ethiopian textile and apparel industry is exposed to a comparative disadvantageous position in both upstream and mid stream chains. The development of these parts of the industry demands a huge investment capital, knowledge and strategic thinking. But Ethiopia lacks these factors. Even in the regional market (Africa) there is no strong supply of fabric and/or fiber. As a result, Ethiopia would have no access to focus on its comparative advantageous labour intensive apparel industry unless it secures the supply of fabric.

⁶⁰ Dicken, Peter (2003). *Global Shift, Reshaping the Global Economic Map in the 21st Century*. London: SAGE Publishing Ltd.

The level of technology in Ethiopian textile and apparel industry can be viewed from two angles: the newly established industry brings relatively latest technologies, which are prominent in textile and apparel production such as China, India, Turk, etc. The second one is, the industries, which were established in the Imperial and Derge era, have experienced huge problems in terms of their production due to obsolete technology. This results in frequent breakage and lack of spare parts. The unique characteristic of Ethiopian textile and apparel industry is that most of the textile mills are vertically integrated (spinning-weaving/knitting-apparel) and there is no observable specialization. In addition they are not in the position of supporting the emerged apparel industry because most of the fabric produced is consumed by them. This condition demands policy intervention to bring specialization, promote intra-sectoral linkage and attract more investment.

2.3.2.3 Policy, Legal and Regulatory framework

As the main component of Ethiopian manufacturing industry, the history of modern textile and apparel industry is more or less related to the post Ethio-Italian war. The Imperial era formulated strategies that were relevant to the development of the industrialization in Ethiopia since 1950 to 1974. An encouragement of the foreign capital investment with the underlying import substitution goal was the main direction of the industrial strategy. Such policy gave many incentives to foreign investors and showed less concern for indigenous investment. Because of this during the imperial era, most of the manufacturing industry including textile and apparel were owned and operated by foreigners.

During the socialist Derg regime (1975-1991), the country's industry was operated under state-led strategy and the government nationalized almost all private industries. The Derg regime industrial policy had similarity with the Imperial era in the basic theme, since both industrial policies focused on import substitution. In the Derge regime the textile and apparel industries were established with the objectives that geared towards public welfare such as creating employment opportunities, besides their import substitutive aspects. These kinds of directions protected the industry from external competition and in turn introduced inefficient resource allocation.⁶¹

⁶¹ Admit Zerihun (2009). "Industrialization Policy and Industrial Development Strategy of Ethiopian", In Taye Assefa (ed.), Digest of Ethiopia's National Policies, Strategies and Programs. Addis Ababa: Forum for Social Studies.

Following the fall of the Derg regime in 1991, The EPRDF has taken a wide range of liberalization measure. EPRDF is following an Agricultural Development Led Industrialization (ADLI) policy.⁶² The objectives of ADLI are

- Promoting economic efficiency and growth,
- Developing domestic technological capacities and capabilities for the promotion and development of intermediate and capital goods industry,
- Promoting the inter and intra-sectoral linkages,
- Creating sound domestic base for the transfer, adaptation, and development of technology,
- promoting the advanced use of labour intensive technologies and local resources,
- Achieving industrial competitiveness in an area of clear comparative advantages in industrial exports, and
- Promoting balanced regional industrial development.

In formulating appropriate industrial development strategy, prioritizing the sub sectors and focusing on activities which accrue the benefits would be economical. Accordingly, the industrial development strategy of Ethiopia has ranked the textile and apparel sector as the first and core sub sector because of the following reasons: first the worldwide market for textile and apparel is always available next to food commodities. Second the sub sector uses more labour which is abundantly available at low cost in the country. Third the textile sector utilizes cotton as its main input so that it can create conducive opportunity for agricultural development. Fourth the sector easily creates high backward linkages, mainly with the agriculture which in turn creates more income for farmers/investors. Finally in the long run it is assumed that the textile sector will initiate the establishment of chemical and other inputs (supplementary industry) which are now being imported.

The objective of industrialization development by the past regimes has an effect on the current status of the industries. Since the cumulative effects of these problems became very difficult to tackle when the country's economy went through the liberalization process it made the industries to lose their competitiveness in both local as well as the international markets. In 2004 the government of Ethiopia with the cooperation of China

⁶² MoI (2002). Federal Democratic Republic of Ethiopia Industrial Development Strategy

had conducted a depth study to identify the existing deep routed bottleneck of the sector and to formulate the solution so that it can accelerate the development of the textile and apparel industry. Based on the findings, the government had developed sectoral development master plan. The strategic road map of this master plan accelerates the development of apparel industry and pulls the development of the textile industry (Top-Down- Pull approach). For the implementation of this master plan, the government had set five years medium term plan. The first five years medium term plan was extended from 2005/06-2009/10. Information found from the Ministry of Trade and Industry has indicated that, the first five years performance is far apart from the plan.

For the last few years, the Ministry of Trade and Industry has engaged on the formulation program to come up with workable platform for effective implementation of government industry policy. As a result, under the Ministry of Trade and Industry, the Textile and Apparel Industry Development Institute (TAIDI) was established. The main objective of the Institute would be leading, coordinating and controlling the development of the sector, and providing one stop support for the industry to speed up the development and competitiveness of textile and apparel industry in international market.

2.3.2.4 The Emerging Opportunities and Threats for Textile and Apparel Industry

Opportunities are natural in the business world but exploiting them needs strategic thinking, long term planning and dynamic policy formulation. Opportunities for the textile industries are;

- ✓ Textile market is global and has increasing trend, because it provides a basic commodity for human need.
- ✓ The industry has continuously relocated itself to low cost locations. The key attributes of new locations are raw material, manpower, energy and water
- ✓ The sector is a top prior industry in the country industrial policy, and the government provides various supports and incentives. These includes; different investment attraction incentives, export credit guarantee, investment fund, industrial premise, income tax exemption for expatriate, duty free importation of raw material, special tariff (on land, sea and air transportation and related services for export product) and human resource development.

- ✓ Preferential and differential market access to U.S., EU, Regional (Africa) market through AGOA, EBA and COMESA.
- ✓ Bilateral agreements made by Ethiopian government which provided legal framework made the country to enjoy favored nation treatment and remove tariffs.

Threats are also facts that affect the country's competitiveness in the competitive world. However, threats are created to be tackled and problems came to be solved. The textile and apparel industry is also confronted with the following threats:-

- Many countries follow export oriented industrial development strategy and competition in the world market is fierce.
- Erosion of preferential and differential market access before Ethiopia builds the textile and apparel industry base.
- Tough competition from Asian countries, mainly from China and India after the expiry of the multi fiber agreements (MFA).
- The Spreading terrorist activities around the world might be limiting the investment flow from the developed to developing countries.
- Increasing global warming might be affecting the cotton production.
- Poor state of infrastructure facilities and Land locked country
- This sector's technology is rapidly developing, which creates continuous technology gap for Ethiopian industry to compete in the international market.

CHARTER III

3. Data Analysis

The data analysis part constitutes both descriptive and econometric method. The descriptive method is used to assess the economic impact and the utilizations of preferential and differential market access of the textile and apparel industry, whereas the time series econometric technique is used to estimate the supply side determinants of the textile and apparel export. In this study only secondary data are used; these data are collected from different sources, mainly from annual publication of CSA abstract, annual publication of Large and Medium Scale Manufacturing Industries CSA survey, Revenue and Customs Authority, MoTI, NBE and MoFED.

3.1 Economic Impact of Textile and Apparel Industry

To evaluate properly the overall macro economic impacts of the textile and apparel industry and to have the right picture, different macroeconomic indicators (parameters) are employed in this study. These parameters include the Gross Value Product (GVP), Gross Value Addition (GVA), Employments creation, Export Performance and Investment growth of the textile and apparel industry.

3.1.1 Gross Value Product (GVP) and Gross Value Addition (GVA)

The table 3.1 below indicates that, the Gross Value Product (GVP) of the textile and apparel industry fluctuated for the last ten years. However, it has shown an increasing trend on average 7 percent of annual rate. The maximum and minimum GVP have been registered in the years 2006/07 and 1999/2000 respectively. The average GVP share of the textile and apparel industry for the last ten years in both, the country and manufacturing industries has shown a decreasing trend by 7.44 and 5.34 percent of annual rate respectively. Similarly, according to table 3.1, the Gross Value Added (GVA) of the textile and apparel industry has shown an increasing trend on average 3.62 percent of annual rate for the last ten years. However the average GVA share of this industry for the same period in both country and manufacturing industries has shown a declining trend by 11.79 and 6.73 percent of annual rate respectively. The maximum and minimum GVA of the textile and apparel industry have been recorded in the years 2006/07 and 2002/03 respectively. To sum up these findings, for the last ten years even though the average GVP and GVA of the sector have shown an increasing trend, the

average contribution (share) of this industry for the country and manufacturing industries has shown a deteriorating trend.

Table 3.1 The Total Country, Manufacturing Industries and Textile and Apparel Industry GVP and GVA

Year	Value in '000 Birr										
	1998/1999	1999/2000	2000/2001	2001/2002	2002/2003	2003/2004	2004/2005	2005/2006	2006/2007	2007/2008	Average
Gross value product (GVP) of textile and apparel Industry at current basic price	689,798	655,991	755,636	733,012	1,124,034	1,042,955	959,862	998,951	1,370,793	1,081,903	941,294
Annual growth of the textile and apparel Industry GVP		-5	15	-3	53	-7	-8	4	37	-21	7
Share of textile and apparel industry GVP in the total country	1.25	1.07	1.2	1.19	1.65	1.32	0.98	0.82	0.86	0.47	1.08
Annual growth of the share of the textile and apparel industry GVP in the total country		-14.40	12.15	-0.83	38.66	-20.00	-25.76	-16.33	4.88	-45.35	-7.44
Share of textile and apparel industry GVP in the total manufacturing industries	9.49	8.19	8.97	9.06	12.06	9.59	7.79	6.4	7.38	4.71	8.36
Annual growth of the share of the textile and apparel industry GVP in the total manufacturing sector		-13.70	9.52	1.00	33.11	-20.48	-18.77	-17.84	15.31	-36.18	-5.34
Gross value Added (GVA) of textile and apparel industry at current basic price	214,225	228,073	240,488	124,509	132,187	142,489	192,345	146,006	267,394	162,817	185,053
Annual growth of the textile and apparel industry GVA		6.46	5.44	-48.23	6.17	7.79	34.99	-24.09	83.14	-39.11	3.62
Share of textile and apparel industry GVA in total country	0.39	0.37	0.38	0.20	0.19	0.18	0.20	0.12	0.17	0.07	0.23
Annual growth of the share of the textile and apparel industry GVA in the total country		-5.13	2.70	-47.37	-5.00	-5.26	11.11	-40.00	41.67	-58.82	-11.79
Share of textile and apparel industry GVA in the total manufacturing sector	7.47	6.95	7.05	5.66	5.12	5	6.35	3.97	5.42	2.74	5.57
Annual growth of the share of the textile and apparel industry GVA in the total manufacturing sector		-6.96	1.44	-19.72	-9.54	-2.34	27.00	-37.48	36.52	-49.45	-6.73

3.1.2 Employment

One of the industrial policy centers of the textile and apparel industry for many developed and developing countries is the creation of more job opportunities for their people due to the very nature of this industry. In Ethiopian case, textile and apparel industry is one of the top three manufacturing industries in creating employment opportunities. Table 3.2 below indicates that the creation of employment opportunity of this industry has declined on average 3.41 percent for the last ten years. The maximum and minimum labour that was hired by this industry is in the years 2006/07 and 2007/08 respectively. The average share of the textile and apparel industry employment from manufacturing industries has shown a decreasing trend at the annual rate of 6.98 percent, whereas the maximum share had been registered 31.49 percent in the year 1998/1999 and the minimum share was 14.95 percent in the year 2007/08. The overall message of the table below shows that the role of the textile and apparel industry on employment creation has shown a decreasing trend.

Table 3.2 Number of Employment in Total Manufacturing Industries and Textile and Apparel Industry

Year	1998/1999	1999/2000	2000/2001	2001/2002	2002/2003	2003/2004	2004/2005	2005/2006	2006/2007	2007/2008	Average
Number of employment in manufacturing industries	93,680	95,015	93,515	98,136	101,259	105,381	109,150	118,468	124,569	131,803	107,098
Number of employment in textile and apparel industry	29,504	27,499	28,004	26,054	26,216	26,706	23,307	26,199	29,306	19,701	26,250
Annual growth of the employment in textile and apparel Industry		-6.80	1.84	-6.96	0.62	1.87	-12.73	12.41	11.86	-32.77	-3.41
The share of the textile and apparel industry employment in the total manufacturing industries	31.49	28.94	29.95	26.55	25.89	25.34	21.35	22.11	23.53	14.95	25.01
Annual growth of the share of the textile and apparel industry employment in the total manufacturing industries		-8.11	3.47	-11.34	-2.48	-2.12	-15.74	3.57	6.38	-36.46	-6.98

3.1.3 Export

Export performance indicator is frequently used to explain the success of the textile and apparel industry by policy makers. As table 3.3 below, the textile and apparel industry export has shown an increasing trend of an average 27.13 percent of annual rate for the last 10 years. The maximum export earning of this sector had been recorded in the year 2007/08 and the value of the export was 14.5 million USD. And the minimum export earning of this industry for the last 10 years had been registered in the year 1999/2000 at the value of 2.5 million USD. The textile and apparel industry export share from the total country and manufacturing industries, have shown on average an increasing trend of 12.3 and 21.76 percent of annual rate respectively for the past 10 years. However, the share of the textile and apparel industry export from the country's total export on average remains low at 1 percent and the average share in manufacturing industries take the value of 9.01 percent. The overall export performance indicator has shown that there is an improvement on the export earning of this sector even if the share from the total country and total manufacturing export earning remains insignificant.

Table 3.3 The Total Country, Manufacturing Industries and Textile and Apparel Industry Export Performance.

Year	Export value in 000' USD										
	1999/2000	2000/2001	2001/2002	2002/2003	2003/2004	2004/2005	2005/2006	2006/2007	2007/2008	2008/2009	Average
Total country export	464,632	447,976	436,210	482,700	596,521	819,026	1,008,568	1,185,083	1,481,241	1,405,161	832,712
Manufacturing industries export	44,611	89,328	71,437	76,539	68,472	104,153	112,994	117,999	131,582	105,716	92,283
Textile and apparel industry export	2,567	3,461	4,013	4,039	9,354	7,034	11,098	12,622	14,526	14,434	8,315
Annual growth of the textile and apparel industry export		34.83	15.95	0.65	131.59	-24.80	57.78	13.73	15.08	-0.63	27.13
Share of textile and apparel industry export in total country	0.55	0.77	0.92	0.84	1.57	0.86	1.10	1.07	0.98	1.03	1.00
Annual growth of the share of textile and apparel industry export in total country		39.84	16.02	-9.05	87.40	-45.23	28.13	-3.21	-7.93	4.75	12.30
Share of textile and apparel industry export in total manufacturing industries	5.75	3.87	5.62	5.28	13.66	6.75	9.82	10.70	11.04	13.65	9.01
Annual growth of the share of textile and apparel industry export in total manufacturing industries		-32.67	44.99	-6.06	158.88	-50.56	45.43	8.91	3.20	23.68	21.76

According to the government's textile and apparel industry development strategy, which is called Top Pull Down (TPD) approach, this sector is expected to generate more export income from the value added part of the industry (Apparel-sub sector). The table 3.4 below indicates, for the past five years on the average more than 60 percent of the industry's export was generated from apparel products export and around 39 percent of the export income was generated from the textile products.

Table 3.4 The Textile and Apparel Industry Export

Export Value in million USD												
Year	2004/05		2005/06		2006/07		2007/08		2008/09		Average	
Product Types	Export Value	Share	Export Value	Share	Export Value	Share	Export Value	Share	Export Value	Share	Export Value	Share
Textile	2.9	41.43	4.1	36.94	4.4	34.92	4.6	31.51	7.4	51.39	4.68	39.20
Apparel	4.1	58.57	7	63.06	8.2	65.08	10	68.49	7	48.61	7.26	60.80
Total	7		11.1		12.6		14.6		14.4		11.94	

3.1.4 Investment

According to table 3.5 below, new investment engagement in to this sector has shown an increasing trend on average annually 28.87 and 76.12 percent in number and capital respectively. The maximum investment of the textile and apparel industry had been registered 192 in number with the total capital of 2,759 billion birr in the year 2008. Around 60 percent of the total investment exists in the pre-implementation stages. The involvement of the share of the foreign direct investment in the textile and apparel industry has shown an increasing trend on average 55.15% of annual rate in number and 54.33% of annual rate in capital investment. The maximum share of foreign direct investment in the year 2009 was 76.09 and 72.45 percent in number and capital respectively.

Table 3.5 Domestic and Foreign Investment of The Textile and Apparel Industry

Capital in 000' Birr

Types of Investment	Investment Status	Year									
		2005		2006		2007		2008		2009	
		Number	Capital	Number	Capital	Number	Capital	Number	Capital	Number	Capital
Domestic Investor	Pre-Implementation	43	233,605	86	877,387	51	1,015,115	138	1,491,927	11	1,051,140
	Implementation	5	62,390	1	20,000	0	0	0	0	0	0
	Operational	4	30,671	2	11,700	0	0	1	50,000	0	0
Foreign Direct Investor	Pre-Implementation	5	14,184	17	72,168	19	94,116	46	725,117	33	2,761,705
	Implementation	2	15,572	1	1,000	1	11,835	1	471,000	0	0
	Operational	6	224,454	11	202,136	8	42,900	6	20,900	2	2,500
Total investment		65	580,876	118	1,184,391	79	1,163,966	192	2,758,944	46	3,815,345
Annual Growth of total investment				81.54	103.90	-33.05	-1.72	143.04	137.03	-76.04	38.29
Share of foreign direct investment		20.00	43.76	24.58	23.24	35.44	12.79	27.60	44.11	76.09	72.45
Annual growth of the share of foreign Direct Investment				22.88	-46.89	44.22	-44.98	-22.12	244.94	175.64	64.24

3.2 Utilization of Preferential and Differential Market Access

Like most less developed countries (LDC's), Ethiopia has been exploiting preferential and differential market access to make its exportable products competitive in developed countries' market. Based on this fact, the textile and apparel industry has an opportunity of duty and quota free privilege to U.S.A market through African Growth Opportunity Act (AGOA) and to E.U member countries through Everything But Arms (EBA). The Ethiopian textile and apparel industry has also a great market opportunity on regional market, which has quota and duty advantage through Common Market for East and South Africa (COMESA). In this part of descriptive analysis an attempt is made to assess utilization of these opportunities by Ethiopian textile and apparel industry.

3.2.1 Africa Growth Opportunity Act (AGOA)

According to table 3.6 below, the Ethiopian textile and apparel industry export through AGOA has shown an increasing trend on average at 35.21 percent annual rate. The maximum export was registered in 2008 at the amount of 9.4 million USD, whereas the minimum export was registered in the year 2003 at the amount of 1.7 million USD. The textile and apparel industries engaged on export through AGOA to U.S.A market has increased in number and become 19 in the year 2008. However, the share of the Ethiopian textile and apparel industry export through AGOA remains at the lowest point

below 1 percent. The past seven years' maximum, minimum and average share of the Ethiopian textile and apparel industry export through AGOA was 0.82, 0.14 and 0.41 respectively. Lesotho, Madagascar, Kenya, Mauritius and Swaziland were the top five textile and apparel exporters through AGOA. They cover on average around 87 percent of the market share. Ethiopia is too far from these countries and the rank of Ethiopia in utilizing this market privilege is at 11th on average scale.

Table 3.6 Ethiopian and Sub Sahara African Countries Textile and Apparel Industry Export through AGOA

Export value in 000' USD								
Year	2003	2004	2005	2006	2007	2008	2009	Average
Sub Sahara African countries textile and apparel export through AGOA	1,197,081	1,613,554	1,418,388	1,255,641	1,266,203	1,136,952	913,762	1,257,369
Ethiopia textile and apparel export through AGOA	1,685	3,329	3,509	4,861	4,554	9,350	6,618	4,844
Number of Ethiopia textile and apparel industries exporting through AGOA	2	7	9	14	17	19	17	12
Annual growth of Ethiopia textile and apparel export through AGOA		97.57	5.41	38.53	-6.32	105.31	-29.22	35.21
Rank of Ethiopia textile and apparel export through AGOA	13	12	12	11	11	9	9	11
Share of Ethiopia textile and apparel export through AGOA from the Sub Sahara African countries AGOA export	0.14	0.21	0.25	0.39	0.36	0.82	0.72	0.41
Share of the first five top textile and apparel exporter through AGOA from the Sub Sahara African countries AGOA export								
Lesotho	27.37	27.67	27.38	30.62	29.97	29.79	30.30	29.01
Madagascar	15.56	19.47	19.24	18.28	22.23	24.37	22.98	20.30
Kenya	14.72	16.83	18.80	20.51	19.33	21.53	21.30	19.00
Mauritius	11.27	9.16	10.11	8.78	8.58	8.41	10.79	9.59
Swaziland	10.60	10.89	11.22	10.71	9.83	8.28	1.29	8.97

3.2.2 Everything But Arms (EBA)

Table 3.7 shows, the Ethiopian textile and apparel industry export to EU market through EBA has shown an improvement. In the annual average growth rate, our export was 50 percent. The average export of textile and apparel industry products was 2.3 million USD. The maximum and minimum export of the Ethiopian textile and apparel industry

export through EBA had been registered in the years 2007 and 2002 at the value of 4.7 and 0.3 million USD respectively.

Table 3.7 The Textile and Apparel Industry Export through EBA

		Export value in 000' USD							
Year	2002	2003	2004	2005	2006	2007	2008	2009	Average
Ethiopia textile and apparel export through EBA	313	892	1,466	1,990	2,814	4,746	3,264	2,809	2,287
Annual growth of Ethiopia textile and apparel export through EBA		184.98	64.35	35.74	41.41	68.66	-31.23	-13.94	50.00

3.2.3 Common Market for East and South Africa (COMESA)

Compared to AGOA and EBA's market privileges, the utilization of COMESA for the regional market by Ethiopian textile and apparel industry was at the lowest level. According to table 3.8, even though the export of the textile and apparel industry into the regional market has shown an increasing trend, it remains below 1 million USD per year for the last 8 years. The maximum export to the regional market through COMESA privilege had been registered 0.9 million USD in the year 2007. The growth rate of the textile and apparel industry export into the regional market through COMESA has shown higher variation for the past eight years.

Table 3.8 The Textile and Apparel Industry Export through COMESA

		Export value in 000' USD							
Year	2002	2003	2004	2005	2006	2007	2008	2009	Average
Ethiopia textile and apparel export through COMESA	27	164	94	335	46	907	539	81	274
Annual growth of Ethiopia textile and apparel export through COMESA		507	-43	256	-86	1,872	-41	-85	340

3.3 Determinants of the Textile and Apparel Industry Exports

In this part of the analysis, the time series econometric method was employed to estimate the supply side factors that affect the export performance of the textile and apparel industry. Eviews 5 econometric software was also used for all econometric method of analysis. The summary statistics of the sample data will be attached in the annex-1.

3.3.1 Unit Root Tests

In order to examine the presence of unit roots in the sample data this study employed the Augmented Dickey Fuller (ADF) test on both at level and at first difference of all variables. For this test, intercept and trend variables are included in the regression model to capture technological, infrastructural and other excluded factors that play a role in determining export performance. The null hypothesis is that variable is not stationary (has a unit root). On this test even if we add intercept and trend parameters at the right hand side of the equation the null hypothesis remains the same. The null hypothesis of a unit root will be rejected if the calculated t-statistics associated with the estimated coefficient exceeds the tabulated critical value of the test at pre-determined significance level.

Table 3.9 The ADF Test Statistics for The Variables

Variable	With Intercept		With Trend and Intercept	
	At level	At 1 st difference	At level	At 1 st difference
LTAE	-0.477	-3.951**	-1.964	-3.984*
LCE	-2.725	-6.988**	-3.008	-6.885**
LLC	0.087	-4.561**	-2.860	-4.469**
LER	-0.459	-3.810**	-2.344	-3.861*
LTL	-1.766	-5.003**	2.770	-4.927**
Critical Value				
At 1%	-3.626	-3.632	-4.234	-4.243
At 5%	-2.945	-2.948	-3.540	-3.544

*Unit root is rejected at 5% critical level and

** Unit root is rejected at 1% critical level

The table 3.9 above indicates, the ADF test statistics (with intercept and with trend and intercept) results of each variable fail to reject the null hypothesis at 1% and 5% level of significance. This result indicates the existence of unit roots in all variables at level. When the variables are difference, as the above table shows, all variables reject the null hypothesis (the presence of a unit root). Therefore all variables are stationary on the first difference (integrated order one). Integrated order (I (1)) one means all variables are needed to be differenced once before they become stationary.

3.3.2 Test for cointegration

Cointegration test determines the validity of long run linear equilibrium relationship of the variables when all variables are found to be non-stationary at level (that is, have a unit roots). If there is cointegration, it means that even if the variables are non-stationary at level there is a long run relationship between variables. In order to make this happen, the residual of a linear combination of non-stationary variables need to be stationary. In this study the Johansen system based approach was selected for cointegration test. Therefore, if we have n-numbers of variables there could be n-1 cointegrating vectors. The numbers of cointegrating vectors are determined with the help of two statistics: the trace statistics and the maximum eigen value.

Table 3.10 Johansen Cointegration Test Result

Trend assumption: Linear deterministic trend
Series: LTAE LLC LER LCE LTL
Lags interval (in first differences): 1 to 3
Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.785608	99.05972	69.81889	0.0001
At most 1	0.493320	46.70149	47.85613	0.0639
At most 2	0.378965	23.58570	29.79707	0.2185
At most 3	0.161364	7.389206	15.49471	0.5328
At most 4	0.040508	1.405947	3.841466	0.2357

Trace test indicates 1 cointegrating eqn(s) at the 0.05 level

* denotes rejection of the hypothesis at the 0.05 level

**MacKinnon-Haug-Michelis (1999) p-values

Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None *	0.785608	52.35824	33.87687	0.0001
At most 1	0.493320	23.11578	27.58434	0.1686
At most 2	0.378965	16.19650	21.13162	0.2136
At most 3	0.161364	5.983258	14.26460	0.6154
At most 4	0.040508	1.405947	3.841466	0.2357

Max-eigenvalue test indicates 1 cointegrating eqn(s) at the 0.05 level

* denotes rejection of the hypothesis at the 0.05 level

**MacKinnon-Haug-Michelis (1999) p-values

From the above result in table 3.10, the Trace statistics and the Max-Eigen statistics are greater than the critical value at 5% significance level, when the null hypothesis $r=0$ ((None), r is rank) against the alternative hypothesis $r=1$. This helps us to reject the null hypothesis and which in turn implies that there is at least one cointegration vector and the remaining rank tests continue in the same procedure. Therefore, the above result indicates that the variables are cointegrated and there is single cointegrating equation at the 5% level of significance.

3.3.3 The Long-Run Equation

The result of Johansen approach cointegration test confirmed the existence of single long run equilibrium equation. For our interest, Johansen cointegration test provided us with the estimation of the determinant of textile and apparel industry export long run equilibrium equation.

Table 3.11 The Long- Run OLS Estimation Result of LTAE

Variable	Coefficient	Std. Error	t-statistics
C	4.2022		
LCE	-0.7958	0.2079	3.8276
LLC	4.6787	1.0906	-4.2899
LER	-3.9713	1.2428	3.1954
LTL	11.7959	2.5875	-4.5588

Since all variables are used in the logarithmic form, the estimated coefficients can directly be interpreted as long term elasticity. Coefficients of all variables are statically significant at 1% level of significance. The long run elasticity of textile and apparel industry exports (TAET) with respect to cotton export is -0.79 indicating that textile and apparel industry exports performance is sensitive for raw cotton export. That is a 1% increase of raw cotton will reduce textile and apparel industry exports by 0.79 percent per year. The reason for this response may be, as a result of raw cotton export the textile and apparel industry suffers from the shortage of best quality cotton from domestic sources. In addition, the price of raw cotton becomes expensive on the local market.

Labour cost affects the export of textile and apparel industry positively, which means a 1% increase in labour cost will increase textile and apparel industry exports by 4.68 percent per year. This result looks strange. However, when compared to the rest of the world, Ethiopian labour cost is too low and the increasing labour cost from currently existing level could not create a discouraging effect on the country's export competitiveness. In addition, higher wage is incentive for workers so as to improve productivity and raise export product competitiveness.

The other variables are nominal exchange rate and trade liberalization in which the first one affects the export of textile and apparel industry negatively and the later affects it positively. A 1% increment in the nominal exchange rate reduces the industry's exports by 3.97 percent per year. The unusual discouraging effect of exchange rate on the industry's export might be because of the following reasons: the reliance of Ethiopian textile and apparel industry on imported raw material, the low productivity of the sector and high volatility of the exchange rate. This result is consistent with Singapore's exchange rate depreciation in which its discouraging impact on the export was mentioned on the literature part. Finally 1% trade liberalization (openness) affects the textile and apparel industry export positively by 11.79 percent per year. This result is consistent with the theoretical expectations of trade liberalization for exports.

Autocorrelation LM and Residual Heteroskedasticity Tests were conducted to check the white noise property of the residual of the long run equation. The results of the tests will be attached in Annex – 2 and 3. As indicated by the tests results, the residual of the long term equation has no serial correlation and white Heteroskedasticity problem. Therefore the error term of the long run equation is fulfilling white noise property. Graphical test of vector (VAR) stability and residual graphs of long run equation variables are presented in the graph-1 and 3 respectively.

3.3.4 Error Correction Model (Short-Run Equation)

The short run equation relates the difference of LTAE with the difference of the variables such as: LCE, LLC, LER, LTL and the error term in the lagged periods. Here the lagged difference terms for D(LCE), D(LLC), D(LER) and D(LTL) capture the short run change in the corresponding level, while the error correction term (ECM) capture the long run impact.

Table 3.12 Short-run OLS Estimation Result of D (LTAE)

Dependent Variable: D(LTAE)

Method: Least Squares

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LLC)	2.316771	1.972381	1.174607	0.2491
D(LER)	-0.790787	1.413067	-0.559625	0.5798
D(LCE)	-0.049918	0.049783	-1.002731	0.3238
D(LTL)	-1.469721	0.755805	-1.944576	0.0609
LAGRESID01	-0.395696	0.140003	-2.826338	0.0082
C	0.047584	0.081095	0.586765	0.5616
R-squared	0.292239	Mean dependent var		0.076324
Adjusted R-squared	0.178083	S.D. dependent var		0.444303
S.E. of regression	0.402803	Akaike info criterion		1.166658
Sum squared resid	5.029770	Schwarz criterion		1.427888
Log likelihood	-15.58317	F-statistic		2.560014
Durbin-Watson stat	2.473904	Prob(F-statistic)		0.047384

The above table 3.12 indicates that, in the short run equation, except trade liberalization (openness) all variables have the same sign (direction) with the long run equation variables. The individual coefficients are insignificant at 5% critical value. However, as the F-statistics indicated that, the short run equation model is jointly significant at 5% critical value.

The speed of adjustment coefficient is significant at 1% critical value with the correct (negative) sign. This means with the adjustment speed, the rate of variation of the textile and apparel industry export performance (the dependent variable) in the ECM system is adjusted towards the dynamic equilibrium long run cointegrating relationship. According to this estimate, short run textile and apparel industry export performance disequilibrium is corrected at speed of 39.57 percent per year.

CHAPTER IV

4 Problems and Constraints

In data analysis chapter, the last ten years economic impact and preferential market utilization of the textile and apparel industry were reviewed. And the result indicated that there are some improvements with respect to some parameters. However, the overall performance of this industry remains far from the expected level even though it is a prioritized industry by the government industrial development policy.

On this part of the study, attempts have been made to answer some of the questions that impede the development of this sector. The questions include: “what are the major problems that limit the textile and apparel industry development?”, “what are the difficulties that were created by the action and policy of the government for the poor performance of this industry?” and “what are the problems of the textile and apparel industry that hinder the sector to perform competitively in the international market?” Thus, this chapter being devoted on discussions of some of the problems, it tries to answer the above mentioned questions.

4.1 Problems on the Role of Support Institutes

From the very nature of the textile and apparel industry, the supply chain of this industry is very long. Similarly, Ethiopian industry has experienced extended and fragile supply chain. This reality has invited many governmental and non-governmental stakeholders to be part of the development of this sector. The Ministry of Trade and Industry has a leading role for the support of the development of the sector. In 2006 under the Ministry of Trade and Industry, the Textile and Apparel Industry Development Institute was established to lead and coordinate the support efforts of the governmental and non-governmental organizations so that they could accelerate the development of this sector. This Institute still focuses on organizing its human power and encouraging its capacity building activities. It might be too early to evaluate the impact of this organization on the development of the sector but it is possible to forward advice in order to speed up its preparation and to engage fully on the developmental activities of the sector.

Experience has shown that, other stakeholders prepared and integrated their support inadequately to the development of this sector. These organizations practically have no equal level of urgency, commitment, readiness, capacity and policy direction to bring into ground the ambition of the government on this sector. The overall performance of

the stakeholders in supporting the development and strengthening the supply chain of the industry is poor in any measurement. Problems have practically been experienced by the textile and apparel industry because of the following governmental support institutions.

➤ **Revenue and Customs Authority**

- Very bureaucratic and corrupted customs services for importation of re-exportable raw materials and different inputs.
- Lack of sense of urgency on importation of machineries, spare parts and accessories.
- Excessive delays (about a year) for renewal of voucher and for getting the duty draw back for exported products.
- Lack of dynamic and experienced personnel who can provide average quality services.

➤ **Financial Institutions**

- The Development Bank of Ethiopia (DBE) has dedicated itself for financial support of this sector. However, the DBE have lack of knowledge, experience, timely delivery service and efficient monitoring and evaluation of the textile and apparel industry loan request starting from the initial stage (submission of application) up to the feasible operation of the industry. Currently, most of the textile and apparel industries financed by DBE are at the verge of bankruptcy even though they are struggling against it. Due to this problem, DBE has started to show some hesitation to finance new projects especially the apparel industry.
- The textile and apparel industry suffered from the rigid and undiversified payment system for the import and export activities of all public and private banks.

➤ **Investment Agencies**

- Both federal and regional investment agencies besides their little effort to attract domestic and foreign investors in to this sector, they do not provide proper after care services for new projects. Most of the investments in this sector exist on pre-implementation stage. In addition, the transition rate from investment stage into operational stage is very low. These agencies are not in the position of extending their support when the industry faces so many challenges in the implementation phase. Due to lack of supports, most of the investments are forced to experience extended (very long) project implementation period and

additional cost. This condition by itself causes many problems on the industry's competitiveness on international market.

➤ **Privatization of Public Enterprises**

The main objectives of privatization, transforming the ownership of textile and apparel industry from state to private, is to improve the managerial capacity of the industry. However, the privatizations of these industries have performed poorly, mainly in the textile industry. There is limitation on utilization of new privatization modalities. After privatization, the monitoring and evaluation process has shown poor performance. As a result, some of the privatized textile industries after severely damaged by private owners are being returned back to the administration of the government. Currently except few privatized textile and apparel industries most of them have shown poor performance.

➤ **Educational Institutes**

Even though the government has made a lot of efforts to expand vocational schools (TVET) and universities to build human capital of the textile and apparel industry, the educational institutes up to now don't have a capacity of creating the required trained human power. Most of the graduates of these institutes lack practical knowledge and experience. The institutes' curriculums are not updated according to the labour market demand of the sector. The industry has forced to engage itself on retraining of the graduate students to bring them up to the level of the required skill. This condition has incurred additional cost for the industry's competitiveness.

➤ **Power, Transportation and information**

- The operation of textile and apparel industry was hampered by power problems. Besides the schedule on complete shading of power, this industry has also experienced random power cut and fluctuation. This caused damage on some of the electronics equipments which in return results in the delay of delivery order and poor productivity.
- Ethiopian textile and apparel industry has faced a relatively higher cost of transportation. Sometimes the availability of transportation is also questionable unless the industry pre informed the situation to service providers.
- The textile and apparel industry has problem in having access to updated and reliable information on market, price, future trend of the industry, sources of raw

material and on other issues that help the industry to make timely and proper decision on their operation.

4.2 Government Short Term Interest

Even though government policy widely focuses on the development of this sector, the support instrument is geared up by export performance only. This means, unless the textile and apparel industry become exporter or potential exporter, the government support will be very limited.

For the past ten years only very few textile and apparel industries participated on generating export income out of this sector. Government didn't work to the expected level (capacity) to boost the population of the industry. When the industry's population grows, some of the bottlenecks for the development of the sector, like unavailability of raw material for apparel industry, lack of accessories and spare parts, will be solved by the market force.

Policy makers frequently measured the development of this sector by export performance only. However, this indicator by itself conveys very limited message and the government has to diversify the performance measurement parameters to get comprehensive (the right) picture of the sector's development and limitations. The first five years textile and apparel industry development plan and performance is too far apart from its accomplishment (at the end of the five years, the plan was to generate 500 million USD export earnings out of this sector but the performance was below 15 million USD). This means it was possible to achieve only 3% percent of the plan. This fact has to initiate the government to take tangible measure to review its policy towards this industry and to change the complete picture of this industry.

The best practice of the government on this sector was conducting frequent consultations with the industry through public private partnership (PPP) program, which is clearly mentioned by the government industry development policy as instrument to lead the industry's development. This condition was creating good opportunities for the industries to present their sensitive problems and demand solution. However, now a days this best practice happens very rarely.

4.3 The Textile and Apparel Industry Readiness for Export Market

The productivity and capacity utilization of most textile and apparel industry is very low. Their product quality is also inferior when compared with the international market demand. However, the domestic market is ready to take this inferior quality product with better price than the international market. Information found from the Textile and Apparel Industry Development Institute has indicated that, Ethiopia's import and domestic demand of textile and apparel products has shown an increasing trend, whereas Ethiopian export is negligible when compared with the domestic demand and import.

Because of this fact, whatever support provided by the government to increase the export of this sector, the impact is still weak (limited). Not only the export performance but also the industry's demand of the government support will be reduced through time due to attractive and hot cake in the domestic market.

Most of the industries on this sector are engaged on service selling due to unavailability of raw material on domestic market and lack of capacity to import fabric from abroad. This reality, besides their poor productivity, narrows the profit margin of the industries. The Ethiopian textile and apparel industry is not in a position of developing its own brand and fashionable products that will enable the industry to create a niche market for better income out of this business.

CHAPTER V

5 Conclusion and recommendation

5.1 Conclusion

This paper has analyzed descriptively the textile and apparel industry's economic impact and its utilization of the preferential and differential markets from 1999 to 2009. Time series econometric method was employed to estimate the supply side determinants of the export performance of the textile and apparel industry from 1971/72 to 2008/09. The supply side factors include: the cotton export, average labour cost of the textile and apparel industry, average nominal exchange rate and the level of trade openness (liberalization).

The result of the descriptive analysis on economic impact and utilization of the preferential and differential markets access is summarized as follows:

- Although the performance of the textile and apparel industry regarding GVP and GVA has shown some improvement, the GVP and GVA share of this industry in the total country and total manufacturing industries decline through time.
- It is known that the nature of the textile and apparel industry is labour intensive. However, in Ethiopian case the employment share of textile and apparel industry in total manufacturing industries had a declining trend. One of the reasons that contributed for low employment creation of this sector is the overgrowth of public enterprises and their unrealistic employment policy under the Derg regime.
- The export performance of the textile and apparel industry has shown some improvement. In addition, the export share of this industry in the total country and total manufacturing industries increase through time.
- Even though there is some increment in most recent years in terms of foreign direct investment in the textile and apparel industry, it is too early to make definitive conclusion on the impact of this investment on the level and sustainability of output and export.
- Although there is some improvement in export performance on the AGOA, EBA and COMESA arrangements, the overall Ethiopian export performance has remained poor and far below the performance of other Sub Sahara African countries in all free access market agreements.

The other part of the analysis of the study was estimating the supply side determinants of the textile and apparel industry export performance. The econometric analysis produced an interesting and some strange results that have important bearing on the future development of the sector.

- The raw cotton export has a significant negative impact on the export of the textile and apparel industry. When raw cotton is exported, the domestic textile mills lose the best quality (grade-A) of the raw material. This condition has forced the textile mills to use inferior quality (might be grade B and C) raw cotton with highest cost. Due to this reason and the obsolete technology, the textile mills produce inferior quality of fabric for both domestic apparel industries and for export market. This fact implies that the export of raw cotton has a negative consequence on the overall export performance of this industry.
- Even if the labour cost of this industry increases from time to time, still our labour cost is relatively low when compared with the international standards. This low labour cost of the textile and apparel industry positively contributed to the improvement of export performance of this sector.
- The average nominal exchange rate of Ethiopia has continually been depreciating since the liberalization of the exchange rate. The impact of the nominal exchange rate depreciation looks strange. However, the Ethiopian textile and apparel industry is heavily dependent on imported raw material and the productivity is poor. The depreciation of the nominal exchange rate has created the adverse effect on the sector's export performance.
- Ethiopia's trade openness (liberalization) is getting improved through time. This condition positively and significantly affected the performance of the textile and apparel industry export performance.

5.2 Recommendation

Ethiopian textile and apparel industry has huge potential. However, up to now a very small portion of this potential has been exploited. This is because of cumulated and deep-rooted problems, lack of dynamic and workable government policy and unavailability of systematic approach to tackle these problems and constraints. This study identified the most important elements that required proper attention. Based on the findings of the paper, the following recommendations are made.

- It would be better for all stakeholders to work with equal commitment and sense of urgency to strengthen the supply chain of the industry and to improve the competitiveness of the industry on the international market. For effective leading and coordinating of these efforts the newly established Textile and Apparel Industry Development Institute has to finalize its groundwork as soon as possible. In addition, government also needs to empower this institute to exercise practical power so that it would bring all governmental and non-governmental stakeholders' efforts to the required level. It is also recommended for some of the most critical support organization like Customs, Bank and Investment Agency to prepare accountable and effective special window (access) to this sector for their services. The government also needs to compile and implement the best practice (experience) of successful countries for the support of this industry. In addition, it is also important for government to create public awareness on the sensitivity of export product.
- To strengthen the tenuous integration between the textile industry and cotton production (Agriculture sector) and to mitigate the negative impact of cotton export, discouraging cotton export will not be a feasible solution, rather it is advisable for the government to work hard to attract new investment into cotton production and provide tangible support for existing cotton producers so as to expand their capacity. In addition, the government also needs to design special incentives schemes for cotton producers that supply the domestic industry.
- Government has to change completely its support instrument driving force from export performance in to the overall sector capacity buildings. This is done through attracting genuine foreign and domestic investors into the sector by providing them tangible incentives and supports. It would also be better if the government designs a mechanism to take the domestic market as springboard for the development of the industry's competitiveness.
- Because domestic raw material supply capacity is not being built and the labour productivity of the industry is low, excessive depreciation of the exchange rate has created an adverse effect on the industry's export performance. Therefore, government has to create mechanism to secure raw material supply on domestic sources and work closely with these industries so as to solve their problems and upgrade their productivity.

- From the industries side, they should use different mechanisms in order to reduce their manufacturing cost. These are: improving labour productivity by developing workers' skill, improving material efficiency by investing on automated technology, shifting from low value added to higher value added products (actually it is unlikely for Ethiopian textile and apparel industry until government develops mechanisms that are used to reduce over reliance on imported raw material and unskilled worker) and diversifying market destination mainly into the regional market (Africa) because this market accepts average quality products.
- Government has to continue its best practice on conducting consultation with the industries. Because of these consultations, not only the industries but also the policy makers are beneficiaries in which they can get equal opportunity to lead the industries' development. The textile and apparel industry association has to push the government to make such types of consultations effective and sustainable.
- Some of the preferential market access, such as AGOA has a time limit to expire and it reverses some of the special advantages like: third countries fabric provision. Therefore government should actively attract targeted investors that can provide the backward linkages in terms of fabric production. For short term solution, government should identify fabric sources from AGOA privileged countries. In addition, it is also advisable for the government to create proper awareness on advantages of these preferential market opportunities, the ways of utilizing them and on the rules of origins. Regarding the regional market, the government should design workable mechanisms (like market promotion and supporting the industries with opening market outlets) to show the huge opportunity of market destination for this industry.
- Government should discourage the current preferred vertically integrated textile and apparel industry trend because it requires huge investment and limits the participants on investing into this industry. And also it further weakens the intra-industry (textile – apparel) integration (linkage). Therefore policy makers should encourage and support specialization to increase the involvement of more investment in any size and capacity. In addition, it is important to design a special incentive mechanism to strengthen intra- industry linkage.

- Government in order to improve the efficiency of the industries has to speed up the transformation of the ownership of the public textile industries by applying different (new alternatives) privatization modality. After privatization, government has to use comprehensive and supportive follow up, monitoring and evaluation process effectively. Based on the follow up result, timely correction measures must be taken.
- Government to make the textile and apparel industry competitive must strengthen and continue its effort on the implementation of international best practices through benchmarking on the operational and new emerging industry.
- Government through its export strategy for the textile and apparel industry should take not only the U.S. and EU markets into consideration, but also the advantage of alternative export outlets of Middle East and African markets. These markets offer a comparative cost advantage in view of country's geographical location.

REFERENCE

- Abeyasinghe, T. and Tan, Lin Yeok (1998). *Exchange Rate Appreciation and Export Competitiveness. The case of Singapore*. Singapore: National University of Singapore.
- Admit Zerihun (2009). “*Industrialization Policy and Industrial Development Strategy of Ethiopia*”, In: Taye Assefa (ed.), Digest of Ethiopia’s National Policies, Strategies and Programs. Addis Ababa: Forum for Social Studies, PP. 239-281.
- Alemayehu Geda and Haile Kibret (2008). “*Regional Integration In Africa: A Review of Problems and Prospects With a Case Study of COMESA*”. Journal of African Economies, 17(3): 357–394.
- Alemayehu Geda, Edris Hussein and Zewdu Belete (2010). *Regional Integration Polices Among COMESA, EAC and IGAD*. Addis Ababa: Unpublished Report to Trade Capacity Building Unit (MoTI).
- Alemayehu Geda, Njuguna N’dung’u & Daniel Zerfu (2006). *Applied Time Series Econometrics: A Practical Guide for Macroeconomic Researchers With A Focus on Africa*. Addis Ababa University and AERC: Unpublished.
- Brenton, P. and Takako, Ikezuki (2004). *The Initial and Potential Impact of Preferential Access to The U.S. Market Under The AGOA*. Washington DC: The World Bank.
- _____ (2002). *Change In Global Trade Rules For Textile and Apparel: Implications For Developing Countries*. Washington DC: Nathan Associates INC.
- Cline, William (2004). *Trade Policy and Global Poverty*. Washington DC: Institute of International Economics.
- COMESA (2003). *COMESA Treaty Establishing The Common Market For Eastern and Southern Africa*. Lusaka: COMESA.
- COMESA (2006). *COMESA Annual Report 2006*. Lusaka: COMESA.
- _____ (2003). *Cotton-Textile-Apparel, Value Chain Report For Ethiopian*. Nairobi: The RATES Center.
- _____ (2005). *Cotton-Textile-Apparel, Value Chain Report For Madagascar*. Nairobi: The RATES Center.

- Dicken, Peter (2003). *Global Shift, Reshaping The Global Economic Map In The 21st Century*. London: SAGE Publishing Ltd.
- Fang, W. and Miller (2004). *Exchange Rate Depreciation and Exports: The Case of Singapore Revisited*. Feng Chia University and The Overseas Chinese Institute of Technology and University of Nevada.
- Fugazza, Marco (2004). “*Export Performance and Its Determinants: Supply and Demand Constraints*”, Policy Issues In International Trade and Commodities Study Series No.26.
- Gelb, Bernard (2007). *Textile and Apparel Trade Issues*. Washington DC: Unpublished CRS Report for Congress.
- _____ (2010). *Integrated Textile Cluster, Ethiopia*. India: Unpublished Report Submitted by IL & FS Cluster Development Initiative Limited.
- Jauch, Herbert and Rudolf, Traub-Merz (2006). *The Future of The Textile and Clothing Industry In Sub-Saharan Africa*. Germany: Friedrich-Ebert-Stiftung.
- Liu, Huan and Laixiang, Sun (2004). “*Beyond The Phase Out Of Quotas In The Textile and Clothing Trade: WTO-Plus Rules and The Case of US Safeguards Against Chinese Export*”. Journal of Asia-Pacific Development, Vol. 11, No.1, June 2004.
- Loop, Theo van der (2003). *Clothing and Footwear In The African Industrialisation: The case of Ethiopia*. Addis Ababa: Unpublished, Institute of Social Studies.
- Mold, A. (2005). “*Trade Preferences and Africa: The State of Play and The Issues at Stake*”. Addis Ababa: Africa Trade Policy Center, work in progress N.O 12, ECA.
- MoI (2002). *Federal Democratic Republic of Ethiopia Industrial Development Strategy (Amharic)*. Addis Ababa: MoI.
- MoTI (2004). *Integrated Program For Developing Textile and Apparel Industry*. Addis Ababa, Unpublished.
- MoTI (2004). *AGOA: Principles, Nature and The Ethiopian Experience*. Addis Ababa, Unpublished.
- Page, S. (1994). *How Developing Countries Trade: The Institutional Constraint*. London: Routledge printing.

- Petreski, Goce (2009). *Modeling The Determinants of Exports and Imports: Assessment of the Macedonia Competitive Performance*. Macedonia: University St. Kliment Ohridski.
- Portugal-Perez, Alberto (2008). *The Cost of Rules of Origin In Apparel: Africa Preferential Exports to The U.S and The EU*. New York and Geneva: UN Publication.
- Rahel Abebe (2007). *Opportunities and Challenges of Development For Africa In The Global Arena, AGOA: The Case of Ethiopian Textile Sub-Sector*. Paper presented to The African Economic Conference. Amsterdam: Unpublished.
- Ruigh, Gorge (2005). *The Impact of The Recent Changes In The International Trade Environment: The End of The Multi Fiber Agreement*. Addis Ababa: Unpublished.
- Sabm, A., et al. (2004). *Botswana Textile and Apparel Sub Sector Study*. Gaborone: BIDPA and The World Bank.
- Scheller, H., et al. (2002). *African Growth and Opportunity Act: Export Opportunities For Nigerian Manufacturers In Textile Based Sewn Products*. Nigeria: RAISE IQC.
- _____ (2004). *Study Report On The Development Strategy of Ethiopian Cotton/Textile/Garment Sub-Sector*. Beijing: China Textile Planning Institute of Construction.
- TAIDI (2010). *Five years (2010-2015) Textile and Apparel Industry Development Plan*. Addis Ababa: Unpublished Report.
- Tinsae Berhanu (2006). *Competitiveness of Ethiopian Garment Industry: Response to Export Market*. Addis Ababa: Unpublished MSc Thesis, Addis Ababa University.
- UNCTAD (2003). *Trade Preferences For LDCs: An Early Assessment of Benefits and Possible Improvements*. Geneva and New York: UN publication.
- UNCTAD (2003). Press release, PR/2003/102. <http://unctad.org>.
- UNCTAD (2004). *Export Performance and Its Determinants: Supply and Demand Constraints*, New York and Geneva: UN publication.
- UNCTAD (2004). *Linking International Trade with Poverty Reduction*. New York and Geneva: UN publication.

- UNCTAD (2005). *Determinants of Export Performance: Developing Countries In International Trade*. New York and Geneva: UN publication, Trade and Development Index.2:49-79
- UNCTAD (2008). *Export Competitiveness and Development In LDCs: Policies, Issues and Priorities For Least Developed Countries For Action During and Beyond UNCTAD XII*. New York and Geneva: UN publication.
- Verma, Samar (2002). *Export Competitiveness of Indian Textile and Garment Industry*. New Delhi: Indian Council for Research On International Economic Relations. Working Paper NO.94.
- WTO (2009). *International Trade Statistics Annual Report 2009*. Geneva: WTO Publication.
- Wu, Yi and Li, Zeng (2008). *The Impact of Trade Liberalization On The Trade Balance In Developing Countries*. IMF working paper, WP/08/14.
- Yager, Loren (2008). *International Trade Report*. Washington DC: Unpublished United State Government Accountability Office Report.
- www.agoa.info
- <http://ec.europa.eu>

ANNEXES

Annex 1: Summary Statistics of the log textile and apparel industry export, cotton export, average labour cost, average nominal exchange rate and trade openness (liberalization) index for the period 1971/72 to 2008/09.

	LTE	LLC	LER	LCE	LTL
Mean	6.518471	3.434350	0.551788	6.590794	-0.546827
Median	6.604445	3.422998	0.330181	6.832370	-0.575038
Maximum	8.127818	3.936966	0.965672	8.249877	-0.297897
Minimum	4.380211	3.006466	0.315970	3.444669	-0.901843
Std. Dev.	0.998227	0.248325	0.279366	1.105628	0.141930
Skewness	-0.285273	0.010057	0.444229	-0.949707	-0.245964
Kurtosis	2.288588	2.136833	1.316102	3.761473	2.597462
Jarque-Bera	1.316748	1.180313	5.739375	6.630388	0.639716
Probability	0.517692	0.554240	0.056717	0.036327	0.726252
Sum	247.7019	130.5053	20.96793	250.4502	-20.77944
Sum Sq. Dev.	36.86892	2.281619	2.887681	45.22929	0.745330
Observations	38	38	38	38	38

Annex 2: Long-run equation residual Autocorrelation LM test

VEC Residual Serial Correlation LM Tests

H0: no serial correlation at lag order h

Sample: 1971/72 2008/09

Included observations: 34

Lags	LM-Stat	Prob
1	15.86878	0.9187
2	28.47524	0.2864
3	23.88360	0.5261
4	19.53962	0.7705
5	20.87440	0.6996
6	35.84801	0.0739
7	14.36905	0.9549
8	21.37295	0.6716
9	30.74066	0.1978
10	33.89751	0.1101
11	17.88695	0.8472
12	30.29059	0.2136

Probs from chi-square with 25 df.

Annex 3: Long-run equation residual Heteroskedasticity test

VEC Residual Heteroskedasticity Tests: No Cross Terms (only levels and squares)

Date: 06/02/10 Time: 12:10

Sample: 1971/72 2008/09

Sample: 1963 2000

Included observations: 34

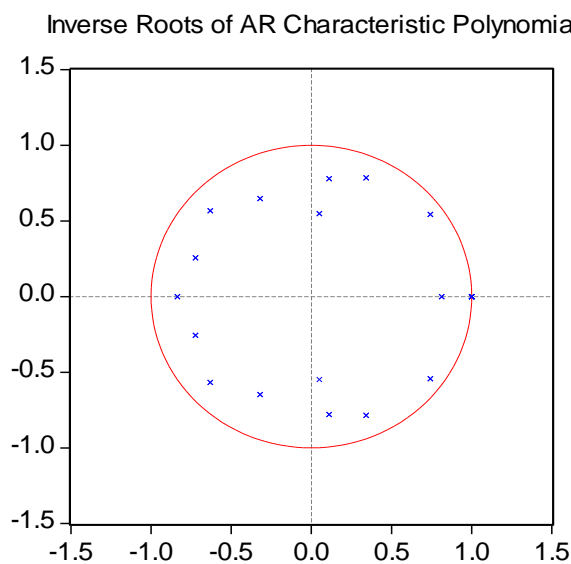
Joint test:

Chi-sq	df	Prob.
499.7666	480	0.2576

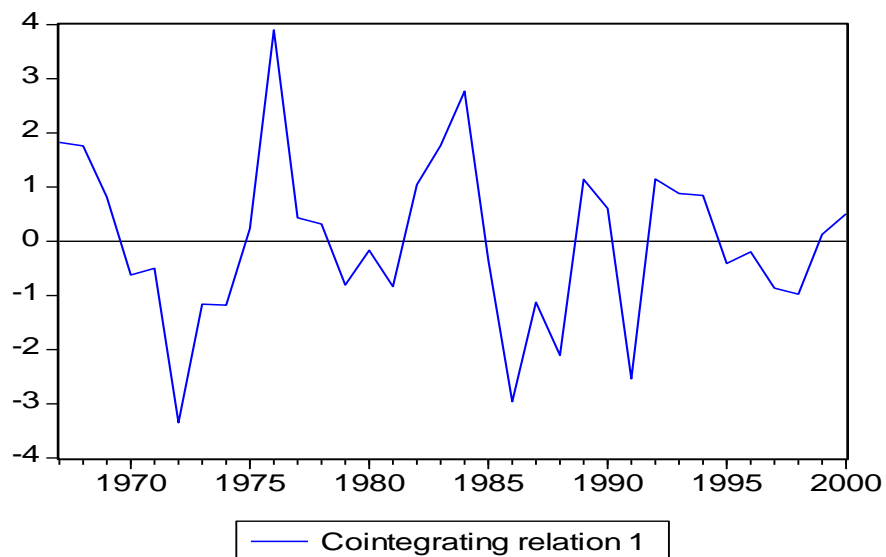
Individual components:

Dependent	R-squared	F(32,1)	Prob.	Chi-sq(32)	Prob.
res1*res1	0.999222	40.15299	0.1244	33.97356	0.3727
res2*res2	0.876875	0.222558	0.9581	29.81376	0.5776
res3*res3	0.988130	2.601410	0.4604	33.59642	0.3900
res4*res4	0.999648	88.72374	0.0839	33.98803	0.3720
res5*res5	0.998318	18.55264	0.1821	33.94283	0.3740
res2*res1	0.981157	1.627204	0.5612	33.35934	0.4010
res3*res1	0.991393	3.599417	0.3982	33.70735	0.3848
res3*res2	0.998164	16.98974	0.1901	33.93758	0.3743
res4*res1	0.998943	29.52742	0.1448	33.96405	0.3731
res4*res2	0.998424	19.80136	0.1764	33.94643	0.3739
res4*res3	0.999736	118.1557	0.0727	33.99101	0.3719
res5*res1	0.932643	0.432694	0.8617	31.70985	0.4812
res5*res2	0.943474	0.521591	0.8243	32.07811	0.4629
res5*res3	0.988903	2.784779	0.4468	33.62270	0.3887
res5*res4	0.950537	0.600532	0.7938	32.31825	0.4510

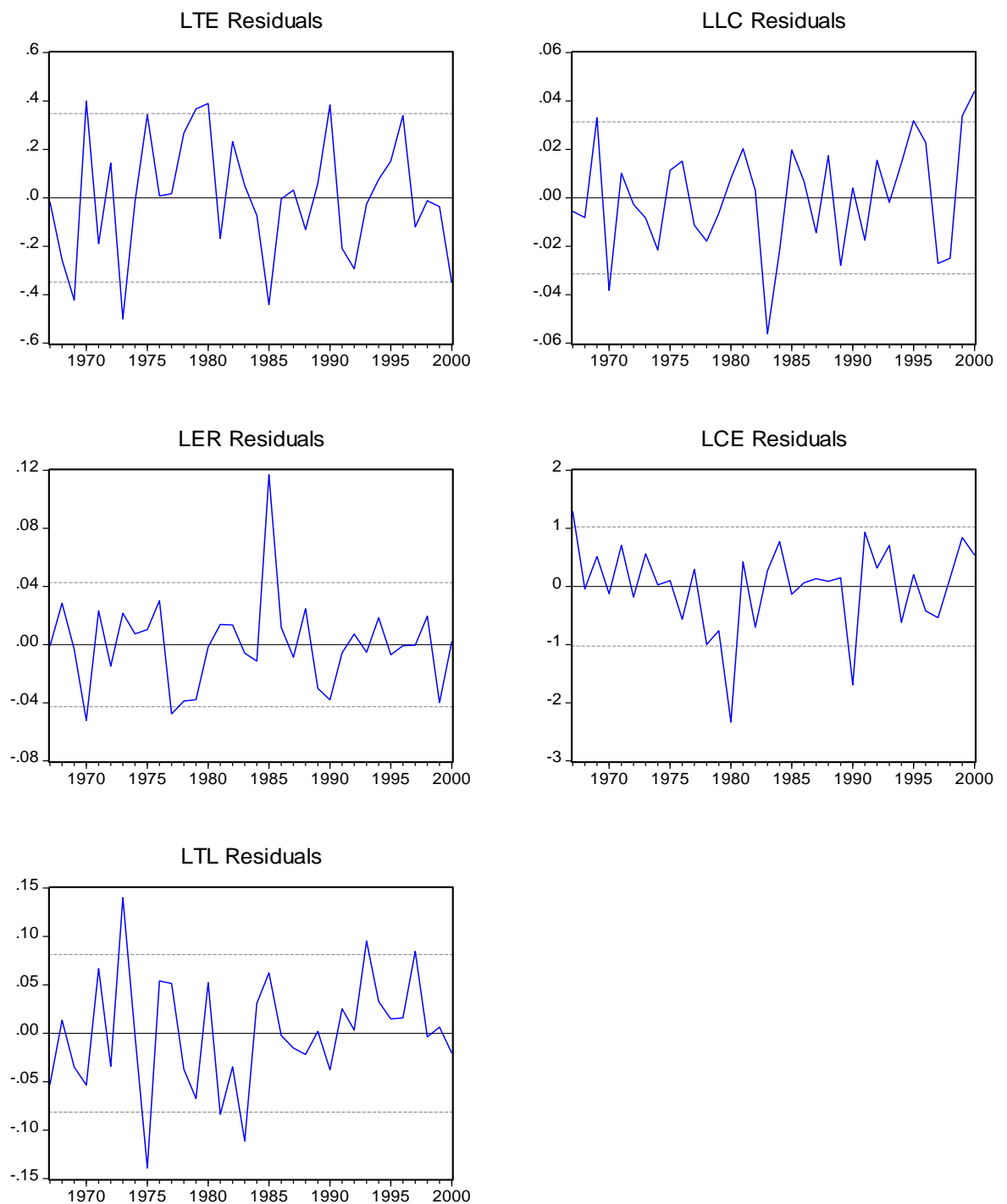
Graph 1: VAR stability Test graph



Graph 2: Co integration relation



Graph 3: Long-run equation variables residual graph



Declaration

I, the undersigned, declare that this paper entitled as “Economic Impact and Determinants of Export: The Case of Ethiopian Textile and Apparel Industry” is my original work and has not been presented for a degree in any other university, and that all source of materials used for the paper have been duly acknowledged.

Declared by:

Name: Yared Mesfin Tefera

Signature: _____

Date: _____

Confirmed by Advisor:

Name: Teshome Mulat (Prof.)

Signature: _____

Date: _____

Place and Date of submission: Addis Ababa University, June, 2010