Chapter I

INTRODUCTION

1.1 Introduction

Textile industry holds a significant status in the Indian Economy. It provides one of the most fundamental necessities of man namely clothing. It is an independent industry, from the basic requirement of raw materials to the final products, with huge value-addition at every stage of processing. Today textile sector accounts for nearly 14 percent of the total industrial output, and it contributes about 30 percent of the total exports.

There is a sense of optimism and confidence prevailing in the industry and is projected to grow at the rate of 16 percent in value terms in the next five years. Investment has increased significantly in the textile sector and it is expected to touch Rs. 1, 50,600 crore by 2012. This enhanced investment will generate 17.37 million jobs (comprising 12.02 million direct and 5.35 million indirect jobs) by 2012. Today, the industry is increasingly embracing modern technology and work process, becoming more globally competitive, building strong brand equity for its products, and consistently achieving higher growth rates than ever in its long history. It has been noticed that the Government is committed to address the domestic and international challenges confronting this sunrise sector, keeping in view the possibilities of quantitative transformation.

The strong and diverse raw material base, cheap labour, ever-growing domestic market and better technologies relative to other developing countries are the basic strengths of the Indian textile sector which have given a place of prominence to the industry, in the industrial map of the country. Development of modern textiles in India had gained momentum owing to the availability of indigenous cotton and British machinery and a well-developed mercantile tradition in colonial India.

Indian textile sector was predominantly unorganized, but the scenario started changing after the economic liberalization. The Indian Textile Policy of 1985 completely protected this sector whereas the process of liberalization culminated in the textile policy of 2000. The Multi-Fiber Agreement (MFA) of 1974 exempted the
textile and garments trade from General Agreements on Tariff and Trade (GATT) disciplines, allowing industrial countries to place bilateral quota on imports of various textile and garment product categories. This was meant to protect producers to restructure to compete with cheaper imports. During the Uruguay Round of trade negotiations, it was agreed to phase out of MFA gradually through the implementation of the Agreement on Textile and Clothing (ATC) on January 1, 2005. The MFA was fully phased out and hence the trade in textiles and garments will no longer be subject to quotas (Hashim, 2005).

The global textile trade regime is going to change drastically from the year 2005 with phase-out of MFA. Its implications for competition will be significant. Countries that have already put competition policies in place and firms that have been improving their capabilities are the ones that are going to benefit the most. One important study highlights this issue and discussed the nature of competition that Indian textile firms are going to face domestically and abroad. Some of the characteristics of competitive firm that will emerge in the ensuring period are also indicated (Chandra, 1999).

India’s competitive performance in the US and EU markets for MFA product categories that are important in Indian export basket and found that in the post-MFA regime, the garment sector is on a strong footing, unlike textiles. While the quota regime constrained the export of apparel to these two markets, it protected the export of yarn and fabric (Verma 2002).

The productivity growth of Indian manufacturing including textile industry was carried out by Maheswaran (2007) using stochastic production function frontier and technical efficiency model. The decomposition of results showed that the textile industry productivity growth was negative during 1980-98, because of declining technical efficiency changes.

1.2 Structure of India’s Textile Industry

The industry today is divided into three segments:

1. Cotton Textiles
2. Synthetic Textiles
3. Other product like Wool, Jute, Silk etc.
All segments have their own place but even today cotton textiles continue to dominate with 73 percent share. The structure of the textile industry is extremely complex with the modern, sophisticated and highly mechanized mill sector on the one hand and hand spinning and hand weaving (handloom sector) on the other. In intermediate range, falls the decentralized small scale power loom sector.

Unlike other major textile-producing countries, Indian textile industry is comprised mostly of small-scale, nonintegrated spinning, weaving, finishing, and apparel-making enterprises. This unique industry structure is primarily a legacy of government policies that have promoted labor-intensive, small-scale operations and discriminated against larger scale firms. Relatively large-scale mills that integrate spinning, weaving and sometime fabric finishing are common in other major textile-producing countries. In India, however, these types of mills account only 3 percent of output in the textile sector. About 276 composite mills presently operating in India are owned by the public sector located mostly in Gujarat and Maharashtra.

**Spinning**

Spinning sector is technology intensive and productivity is affected by the quality of cotton and the cleaning process used during ginning. Spinning is the process of converting cotton or manmade fiber into yarn to be used for weaving and knitting. These mills are chiefly located in North India. It is the most consolidated and technically efficient sector in India’s textile industry. In 2002-03, India’s spinning sector consisted of about 1,146 small-scale independent firms and 1,599 larger scale independent units.

**Weaving and Knitting**

The weaving and knits sector lies at the heart of the industry. In 2004-05, of the total production 46 percent was cotton cloth, 41 percent was non-cotton including khadi, wool and silk and 13 percent was blended cloth. Three distinctive technologies used in the sector are handlooms, power looms and knitting machines. Weaving and knitting converts cotton, manmade, or blended yarns into woven or knitted fabrics. India’s weaving and knitting sector remains highly fragmented, small-scale, and
labour-intensive. This sector consists of about 3.9 million handlooms, 1.7 millions powers loom and just 137,000 looms in the various composite mills.

Fabric finishing is another major industry activity, which includes dyeing, printing, and other cloth preparation prior to the manufacture of clothing, is also dominated by a large number of independent, small-scale enterprises. A total of 2300 units comprising 2100 independent units and 200 integrated units of spinning, weaving and knitting is currently operating in the country.

Apparel is produced by about 77,000 small-scale units classified as domestic manufacturers, manufacturer exporters, and fabricators (subcontractors). The industry is expected reach the level of US $ 115 billion by 2012. The clothing and apparel sub-sector is expected to grow at a rate of 16 percent in volume terms and 21 percent in value terms, and textiles exports are expected to grow at a rate of 22 percent in value terms, by 2012 of ()

1.3 History of Textile Industry in India

India has been well known for her textile goods since very ancient times. The traditional textile industry of India experienced signals of total decadence during the colonial regime. The colonial regime by virtue of its easy access to capital flows facilitated the genesis of modern textile industry in India when the first textile mill in the country was established at Fort Gloster near Calcutta in 1818. The cotton textile industry, however, made its real beginning in Bombay, in 1850s. The first cotton textile mill of Bombay was established in 1854 by a Parsi cotton merchant then engaged in overseas and internal trade. Indeed, the vast majority of the early mills were the handiwork of Parsi Merchants engaged in yarn and cloth trade at home and Chinese and African markets.

The first cotton mill in Ahmadabad, which was eventually to emerge as a rival centre to Bombay, was established in 1861. The spread of the textile industry to Ahmadabad was largely due to the Gujarat trading class.

The cotton textile industry made rapid progress in the second half of the nineteenth century and by the end of the century there were 178 cotton textile mills;
but in the year 1900 the cotton textile industry was in bad state due to the great famine and a number of mills in Bombay and Ahmedabad were closed down for long periods.

The two World Wars and the Swadeshi movement provided great stimulus to the Indian cotton textile industry. However, during the period from 1922 to 1937 the industry was in doldrums and during this period a number of Bombay mills changed hands. During the Second World War, textile import from Japan completely stopped and the consequent pressure on demand. Brought about an unprecedented growth of the industry. The number of mills increased from 178 with 4.05 lakh looms in 1901 to 249 mills with 13.35 lakh looms in 1921 and further to 396 mills with over 20 lakh looms in 1941. By 1945 there were 417 mills employing 5.10 lakh workers.

The cotton textile industry is rightly described as a Swadeshi industry because it was developed with indigenous entrepreneurship and capital and it has been observed that in the pre-independence era the Swadeshi movements stimulated demand for Indian textile in the country. At the time of independence, the Indian union got 409 out of 423 textile mills of undivided India. Only 14 mills and 22 per cent of the land under cotton cultivation went to Pakistan. Some mills were closed down for some time. For a number of years since independence, Indian mills had to import cotton from Pakistan and other countries.

After independence, the cotton textile industry made rapid strides under the Plans. Between 1951 and 1982 the total number of spindles doubled from 11 million to 22 million. It increased further to well over 26 million by 1989-90.

During the decade 1990-2000, textile industry grew at 4%, after having grown at a rapid 15% annually during the period1985-90. The growth rate turned negative in 1998 and in 1999 following the East Asian crisis, but resumed to a robust growth of 7% in 2000. Clothing trade grew at a faster rate compared to textile, and clocked 6% annual average rate during the ten years from 1990-2000. It is noticeable, that, on an average, trade grew at least as rapidly as textile trade in all years since 1980. It is therefore not surprising that the share of clothing trade in total textile and clothing trade has been rising and now stands at 56%, higher than 50% in 1990.
The trends in this segment of the industry during the year 2000-01 have been positive. Production of man-made fiber increased from 835 million kgs in 1999-2000 to 904 million kgs in the 2000-01 registering a growth of 8.26 percent. The production of spun yarn increased to 3160 million kgs in the 2000-01 from 3046 million kgs during 1999-2000 registering a growth of 3.7 percent. The production of man-made filament yarn registered a growth of 2.91 percent during the year 1999-2000 increasing from 894 million kgs to 920 million kgs. The exports of textile and garment increased from Rs. 455048 million to Rs. 552424 million, registering a growth of 21 percent. Production in the textile industry in the year 2003-2004 was Rs. 1609 billion. And during 2004-05 production of fabrics touched a peak of 45,378 million square meters. In 2005-06 up to November, production of fabrics registered a further growth of 9 percent over the corresponding period of the previous year. And in terms of employment around 35 million people were directly employed in the textile manufacturing activities. Indirect were employment including the manpower engaged in agricultural based raw material production like cotton and related trade and handling can be stated to be around another 60 million in 2004-2005.

1.4 Major problems

The cotton textile industry is reeling under manifold problems. The major problems are sickness which is widespread in the cotton textile industry. After the Engineering industry, the Cotton textile industry has the highest incidence of sickness. As many as 125 sick units have been taken over by the Central Government in recent past. The sickness is attributed mainly to the obsolete plant and machinery, Government regulation (restriction to filament yarn) low yield and fluctuating output level, competition for man-made fibers from within and abroad, labour problem, stock planning and finally ancillary factors such as power cuts, lack of finance, exorbitant rise in raw material prices and production cost etc.

Textile exports play a crucial role in the overall exports from India. Textile exports increased substantially from US$ 5.07 billion in 1991-92 to US$ 12.10 billion during 2000-01. The world textile trade has risen to 3.1 percent in 1999-2000 as against 1.80 percent in early nineties. Indian textile exports have grown at an average of 11 percent per annum over the last few years, while world textile trade has grown
only about 5.4 per cent per annum in the same period. During the year 2000-01 India’s textile export was US$ 12014.4 million. It has increased to US$ 13038.64 million in 2004-05. The share of textile exports (including handicrafts, jute, and coir) was 24.6 per cent of total exports in 2001-2002, however this percentage decreased to 16.24 per cent during 2004-2005. The textile exports recorded a growth of 15.3 per cent in 2002-2003 and 8.7 per cent in 2003-2004. In 2004-05 textile exports were US$ 13,039.00 million, recording a decline of 3.4 per cent as compared to the corresponding period of previous year. Against a target of US$ 15,160 million during 2004-05, the textile exports were only of US$13039 million, registering a shortfall of 14 percent against the target. The overall export target for 2005-06 has been fixed at US$ 15,565 million. In 2005 textile and garments accounted for about 16 percent of export earnings. India’s textile exports to the US have shown a good rise of 29.5 percent between January and June 2005.

1.5 Need for the Study

Existing literature on Textile Industry is proliferous. However, at the disaggregate level; there are important analytical gaps that need to be filled. They address to Inter-product group and Intra-product group studies, studies focusing on post-MFA scenario, studies on partial factor productivity, studies of technology and technical progress and studies on sources of productivity growth.

Many studies published contradicting results on the impact of trade liberalization brought about by the phasing out of quotas on the growth, partial factor productivity and sources of productivity growth in textile industry in India was not categorical. Hence, there is a need to re-examine credibility of the data base and precision of results. The present study examined exhaustively on Growth, Productivity and Technical progress.

1.6 Statement of the Problem

It has been strongly argued that opening up of the economy will lead to better growth, improvement in productivity, absorption of modern technology and fuller utilization of capacity. The New Economic Policy was initially introduced in 1985, but gained momentum only from 1991 onwards. The argument of the new economic
policy is that accelerate economic development higher growth in productivity, employment and technological change.

Indian economy has been witnessing major changes in her policy framework since 1991. The old industrial and trade policy regime characterized by extensive public sector participation, control of private sector, restrictions on foreign investment and high tariff and non-tariff barriers were replaced by more liberal economic policies in 1991.

Indian Textile Sector is traditional and has undergone tremendous changes in terms of policy measures in recent years to achieve desirable impacts on the level of output and employment. The New Textile Policy of 1985 concerned deeply on the production of acceptable quality at reasonable price to meet the requirements of increasing population with employment. But the policy measures did not help the industry to increase production and productivity. The studies of Goldar (2000); Balakrishnan and Sureshbabu (2003); Driffield and Kambhampati (2003) and Kannan and Raveendran (2009) found a decline in growth, total factor productivity and technical efficiency during post-reform period.

The National Textile Policy of 2000, by the Ministry of Textiles, Government of India, envisaged a strong and vibrant textile industry that would produce cloth of good quality at competitive prices, contribute to sustainable employment, economic growth of the nation, improvements in efficiency, technology and productivity and also to compete with confidence for an increasing share in the global market. But the studies of Goldar and Kumari (2003); Nagaraj (2003); Das (2004); Pattnayak and Thangavelu (2005); Bhaumik et al., (2007) and Sasidaran and Shanmugam (2008) found a declining growth, technical efficiency and total factor productivity during post-reform period.

Further, the MFA which came into being was phased out in December 31, 2004. The elimination of the MFA was expected to result in an increase in the growth of output, efficiency, productivity and competitiveness of the textile sector.

The National Common Minimum Program (NCMP) of the Government also recognize the importance of jute to farmers and workers, and to the economy of jute
growing states, and its special ecological importance world-wide, resolved that “the jute industry will receive a fresh impetus in all respects”. It enable millions of jute farmers to produce better quality jute fiber for value added diversified jute products and enable them to enhance per hectare yield of raw jute substantially. Facilitate the Jute Sector to attain and sustain a pre- eminent global standing in the manufacture and export of jute products; Enable the jute industry to build world class state-of-the-art manufacturing capabilities in conformity with environmental standards, and for this purpose, to encourage Foreign Direct Investment (FDI) as well as research and development in the sector. Sustain and strengthen the traditional knowledge, skills, and capabilities of our weavers and crafts people engaged in the manufacture of traditional as well as innovative jute products. It is evident that the available empirical studies were not categorical regarding the impact of trade liberalization and textile policies on Growth, Factor Productivity, Technical Progress and Efficiency and Sources of Productivity Growth in the Textile Industry.

Hence, a comprehensive analysis of the existing scenario in terms of Growth, Partial Factor Productivity, Technology and Technical progress and Sources of productivity growth in Indian Textile Industries during pre and post-liberalization and post-MFA regime has been embarked upon to answer the major questions cited.

1. What are the present theoretical postulates relating to Growth, Partial Factor Productivity and Technical progress?

2. What is the extent of Growth, Factor productivities, Technical progress, Technological change, and Source of productivity growth in a protected environment?

3. Is there any major change in these parameters in a liberalized regime?

4. What is the impact of policy changes in Partial and Total factor productivity?

5. In which regime are the Indian textile industries able to record better productivity gains?

6. In the context of widespread technical collaborations after economic reforms, is there any significant improvement in technical progress and technical change in the industry?
7. Is there any significant impact in productivity gains in the phased out of Multi-Fiber Agreement (MFA)?

In this context, this study looks into the changing dimensions of textile industry, its major challenges and prospects.

1.7 Objectives

The central objective of the study is to look into the tangential effects of policy changes on Growth, Productivity and Technical progress in the pre-liberalization, post-liberalization and post-MFA regime.

The specific objectives of the study are:

1. To trace the theoretical postulates relating to Growth, Partial factor productivity, Total Factor Productivity, Technical change and Technical progress in Indian textile industry.

2. To study inter and intra-product group growth in the pre and post-reform and post-MFA regime.

3. To estimate Partial and Total factor productivity in the pre-liberalization and post-liberalization and post-MFA regimes.

4. To estimate the Technology and Technical progress in the pre-liberalization, post-liberalization and post-MFA regime.

5. To suggest development strategies for the textile product manufacturing industry in India.

1.8 Data and Methodology

The study is based on secondary data, collected from the various issues of Annual Survey of Industries (ASI) published by Central Statistical Organization (CSO) Government of India.
The study covers the period from 1980-81 to 2009-10. All the textile manufacturing units covered by Annual Survey of Industries (ASI) have been included for the purpose of analysis. For the purpose of inter product group analysis, the product groups are classified as per 3 and 4 digits level of NIC (National Industrial Classification) code 1987, 1998 and data pertaining to all these units for the financial year from 1980-81 to 2009-10 have been collected. The entire period is divided into three phases as pre-liberalization period (1980-81 to 1991-92) post-liberalization period (1992-93 to 2005-06) and post MFA regime (2005-06 to 2009-10). The ASI data were available only up to 2004-05, so extrapolated data have been generated from 2005-06 to 2009-10. There are 9 product groups as per three and four digits classification of NIC (see the appendix: 1)

For the purpose of analysis, the collected data have been classified product group wise (3 and 4 digits classification of NIC code 1987 and 1998), over different years. The data in monetary terms are adjusted through suitable price indices to neutralize the price variations if any.

To analyze and interpret the data conventional research methods adopted by the World Bank using Least Squares’ Method, Solow’s’ Index, Cobb-Douglas production function, and appropriate statistical tools such as Mean, Standard Deviation, Co-efficient of Variations and Regression analysis have been used.

1.9 Chapter Scheme

The study is organized in seven chapters.

The first chapter deals with introduction covering need of the study, statement of the problem, objectives, methodology, scope, data source, data analysis, limitations of the study and the chapter scheme while chapter II presents the review of earlier studies. Chapter III examines the approach to study of growth, factor productivities and technical progress and technical changes and chapter IV analyses the Growth in Indian textiles industry in the pre- liberalization and post-liberalization and post-MFA Regimes, chapter V examines the various dimensions of Factor Productivities through partial and total factor productivity in the pre – liberalization, post-liberalization and Post-MFA Regime, chapter VI examines the Technology and
Technical Progress and in the pre-liberization and post-liberalization period and post-MFA regime and chapter VII summarizes findings, inferences, suggestions and recommendations for policy formulations and future development strategies.

1.10 Limitations of the Study

1. All the data relating to various economic indicators are in monetary terms and different indices are used to adjust them for a common base. For want of exact index, in some cases the nearest commodity group price index is used for deflating and in such cases the adjustments may be approximate and not accurate.

2. The study mainly focuses its attention on Indian textile industry and its various product groups at 3 and 4 digits level and not on individual enterprises.

3. The present study takes into consideration only the units covered by the ASI, CSO, and Government of India under sections 2m (i) and 2m (ii) of the Factories Act 1948. A sizeable number of units are not covered by the ASI especially small and tiny units which are not coming under purview of Factories Act of 1948. The economic characteristics of these units may be at variance from what is highlighted in this study.

4. As regards employment, all workers, viz., skilled, unskilled, educated, uneducated etc., are lumped together for the purpose of analysis. In other words, assumption of homogeneity of labour is one of the limitations of the study.