CHAPTER VII
SUMMARY AND CONCLUSIONS

7.1 Introduction

The present study attempted to analyze the impact of trade liberalization and textile policies on growth, factor productivities, sources of productivity growth and technology and technical progress of Indian textile industry in the pre-liberalization, post-liberalization and post-MFA regime. The study is exploratory in nature and covers the period from 1980-81 to 2009-10. All 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 were 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 period from 1980-81 to 2009-10 have been collected. The entire period has been 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.

Although it is platitude to state the objectives of the study in this section, it should be useful to have a synoptic view of objectives as a foreground to the conclusions of the thesis. The objectives are addressed to the theoretical postulates relating to Growth, Partial Factor Productivity, Total Factor Productivity, and Technical Progress in Indian Textile Industry. The study examined inter and intra-product group growth during pre and post-reform and post-MFA Regimes and also estimate partial and total factor productivity during these three period. Estimation of the technical progress in the period is another important objective of the study. The study also formulates tentative development strategies for the textile product manufacturing industry.

The primary focus of the study is to identify the major challenges of Indian textile industry for the last thirty years with the reform process within the country and
the effect of the opening of the economy consequent the MFA regime. Among the textile product producing county, India enjoy the uniqueness in the quality and variety production, the employment prospects, priority demand in world market due to the conventional style and secrecy of uncompromising quality.

In the study emphasis has been given to examine the growth performance and growth strategies. With this idea, the period of analysis has been split up into pre-liberalization, post-liberalization and post-MFA regime. In this period, significant variation has been observed, but specific changes in terms of technical change and productivity growth were identified in the post-MFA regime. It implies that the opening up of the economy to world trade force policy makers to take due care and just strategies to make the product unique in all respects.

7.2 Policy Shift and its Impact on Growth

The study examined specially the overall growth rate of selected product groups during the pre-liberalization period, post liberalization period and post MFA regime. (Table given in the appendix provides a scanned result on the growth performance)

The Industry’s overall growth rate in the pre-liberalization was 5.51 percent. Among the various indicators, gross block has registered the highest growth rate of 10.59 percent followed by output with 8.09 percent and employment with 1.47 percent. Growth rate of 1.87 percent was recorded in the number of units registered. The least performance has been identified only in the case of growth. The major reasons in support of this slow growth has been attributed to the absence of well executed strategies to overcome the problems of appropriate technology and labour management issues. The industry’s overall growth rate during post-liberalization period is 7.69 percent. In this period also the highest growth was registered in output. The output growth during the period is 11.32 percent and it is followed by Gross block with 8.78 percent and employment with 6.61 percent and of 4.08 percent growth was achieved in the number of units. In the post-liberalization employment growth was highly positive than that in the pre-liberalization period. The observation for this positive employment outcome is mainly due to the opening up of the economy and the revolution in information and communication technology.
The Industry’s overall growth rate during post-MFA regime was 6.13 percent. Among the different indicators, output has registered the highest growth rate of 15.58 percent followed by gross block with 5.25 percent and employment with 2.04 percent. The number of units recorded a growth rate of 1.65 percent; the employment in the textile sector in the post-MFA regime is relatively poor. But the output growth has been found positive. The inference is that the replacement of labour absorbing by labour saving technology to withstand the pressure of the world standard in production has been cited as one of the principle significant factors for the poor performance in employment.

The tentative observation in the present study is the seemingly paradoxical decline in the Growth rate during post-MFA regime which is mostly due to the consequent on the lifting of quota restriction. This has upset the economic balances within the industry; the fall in the growth rate is seen in the immediate result of the disturbances of economic balances which is obviously transitory in nature. The long term declining is seen as the short term characteristic of post-MFA may work in tandem with the broader post-liberalization period of which post-MFA regime is a part.

Further it is inferred that the capital intensity of this industry has increased over the years irrespective of policy shift. However in the present study observed a decline in the growth rate during post-MFA regime which is largely due to on the lifting of quota restrictions. The fall in the growth rate is seen to be the immediate result of disturbances of economic balances which is obviously transitory in nature.
7.3 Partial Factor Productivity

The study also observed significant differences in the mean $\text{AP}_K$ in the inter and intra-product groups and between pre, post liberalization periods and also post-MFA regime. It is found that the industry’s $\text{AP}_K$ is less at 4.43 percent in the liberalized environment and 4.71 percent in the post-MFA regime as compared to 6.63 percent in the pre-liberalization era. It has been found that the protected environment has got significant influence on the capital productivity of the industry.

Average productivity of labour indicates substantial improvement during post liberalization period with 0.61 percent over pre-liberalization periods 0.18 percent. Improvement has occurred during post-MFA regime relative to pre-liberalization period indicated signs of improved labour productivity. The study shows 0.88 percentages, of growth is suggestive of fact that the post-MFA regime enjoyed sign of technological advancement and in the prosperative of textile sector.

Marginal Productivity of Capital ($\text{MP}_K$) is positive in all product groups in the periods, which implies that Capital contributes positively to output. $\text{MP}_K$ is comparatively lower during post liberalization period at 1.83 percent and 4.47 percent for the post-MFA regime vis-à-vis pre-liberalization 8.17 percent in the pre-liberalization period.

Marginal Productivity of Labour ($\text{MP}_L$) is higher in the post-MFA regime i.e., 1.42 as against pre and post-liberalization. During pre-liberalization period the Marginal Productivity of Labour ($\text{MP}_L$) is 0.73 percent which is higher than the post-liberalization period by 0.34 percent. The capital intensity ($K/L$) has also increased substantially during the economic reform period. That is 0.04 percent, 0.13 percent and 0.23 percent respectively during the pre, post liberalization and post-MFA regime.

Thus reform policies have a mixed influence over capital productivity indices but have very strong positive influence on labour productivity and capital intensity.
7.4 Total Factor Productivity

The total factor productivity given in chapter VI, provides convincing explanation to performance of textile sector and it has been observed that out of 9 product groups, 4 product groups have recorded negative growth in TFP and 5 product groups have registered positive growth during pre-liberalization period. From this it clear that factor combination are well organized and optimum output are resulted in the pre-liberalization. But in the post-liberalization period, only 2 product groups have recorded growth in TFP and 7 product groups have experienced negative growth in total factor productivity. Implying that factor combination are not optimum in the post-liberalized period.

In the post-MFA regime, all product groups have recorded better growth in Total Factor productivity. The total annual growth rate is 8.86 percent as is evident that (Appendix 3) from table 3 In the post-MFA regime policies are designed in a such a way that there is the complete absence of loopholes so that the performance of the industry remain unaffected within and outside.

The estimated growth rate of TFP during pre-liberalization period was 0.48 per cent. The overall growth rate of TFP during post-liberalization has recorded negative growth of -4.73 per cent. The reason for the negative growth rate in total factor productivity is the non-adoption of the newer production technologies and a lackluster market structure.

Therefore, the inference is that total factor productivity growth during the post-MFA regime is encouraging. Pre liberalized regime records a relatively better figure vis-à-vis post -liberalization period.

7.5 Technical Progress and MRS

The technology and technical progress in the textile industry has been examined in the study in three periods (table appendix 3 ) pre-liberalization, post-liberalization and post MFA regime.
In terms of absolute (mean) values, factor productivities except adjusted marginal productivity of labour (MP_L) labour intensity is higher in the post-liberalization period.

Industry’s mean MRS_{LK} ratio is positive and less than one in the both pre, post and post MFA periods, which implies that the marginal productivity of labour is less than that of capital.

It has also been observed that technical change is non-neutral in all the periods. The capital saving or labour using technology is found in 3 product groups in a liberalized regime when compared to 2 product group during pre-liberalization period. The labour saving technology is found in 7 product groups during pre-liberalization period and in 6 product groups in post-liberalization period and also in 6 product groups during the post-MFA regime (Table appendix 3)

7.6 Major Reflections of the Study

- The growth rate of textile products manufacturing industry witnessed a healthy trend in a protective environment rather than during liberalized regime.

- The labour productivity scenario is impressive during post-liberalization and post MFA period.

- The capital intensity has increased in some product groups, with positive contribution to output during post liberalization period, and also happened during post MFA regime.

- MP_K is comparatively lower in the post liberalization period vis-à-vis before liberalization.

- The total factor productivity scenario in the post –liberalization period is steep decline productivity in the period is an indication of the negative effects of reforms process.
It is evident that \( \text{MRS}_{LK} \) ratio is positive and less than one during pre, post and post-MFA regime, which implies that the marginal productivity of capital is greater than the marginal productivity of labour.

The technical change is non-neutral in all the periods.

The capital saving or labour using technology is found in 2 product group and the labour saving technology was found in 7 product groups during pre liberalization period.

Liberalization has led to adoption of capital saving technology in 6 product groups.

The capital saving or labour using technology is found in 3 product group and the labour saving technology was found in 6 product groups during post-MFA regime.

7.7 Outlining the Promises of Present Study

The theory of trade policy is generally silent on the effects of liberalization on the rate of growth of output or productivity. The conventional benefits of liberalization are once and for all gains, and although such gains can accumulate over time, they do not necessarily put the economy on a superior path of technological development. (Dani Rodrik 1988).

Our analysis shows that the growth performance of the industry is not so promoting in a liberalized regime.

Productivity growth is necessary not only to increase output, but also to enhance the competitiveness of an industry both in the domestic and international markets. Besides, productivity growth enhances the export competitiveness of a country. The estimation of factor productivity is very useful to evaluate the variations in the performance of an industry over a period of time. The prosperity of new developed nations has been attributed mainly to the sustained growth of their total factor productivity. (Edward Prescott 1997).
Our study reveals that the productivity growth is better in the post-liberalization and post-MFA regime supporting the above theory.

Theoretically a technical change is neutral, if the ratio of $MP_K$ to that of labour remains unchanged at a constant $K/L$ ratio.

To test the above theoretical postulate we have adjusted the $MRS_{L,K}$ for constant $K/L$ ratio. The result shows that the ratio of $MP_K$ to that of labour is not constant and hence it is concluded that the technical progress is non-neutral in all product groups.

Liberalization has been conducive to better growth performance of the industry. Liberalization has led to improvement in Factor productivity and adoption of labour saving methods.

In liberalized regime this industry has recorded higher productivity gains, relative to pre-liberalization and post-MFA regime.

Adoption of Capital saving technology is slightly high during post-liberalization and post-MFA regime.

The liberalized environment categorically led to better technical progress measured in terms of capital intensity.

The study reveals that Cotton Textile Industry can sunrise and performs in a regime of competition. But incentives emerging from state policy should facilitate better growth.

Competition slightly improved the productivity performance of the industry. Therefore the theory that competition would lead to higher factor productivity has been accepted.
7.8 Suggestions and Recommendations

Even after the implementation of various textile policies in India, Textile sector is facing increased competition from the multinational companies and survival of the fittest has been the buzz-word against the backdrop and in the light of the present study, the following strategies are recommended promotion of the textile sector in India.

1. One of important problem faced by textile sector is that of finance. In order to overcome the problem, specialized bank branches for textile industries are to be opened by the banks to facilitate operation of large number of textile loan/credit account. Specialized branches have to be set up in clusters having concentration of textiles'. In this connection Textile Ministry, Government of India has to establish the modernization program under by NTC (National Textile Council) and IDBI (Industrial Development Bank of India) assistance of soft loan schemes, but its networking is not so effective.

2. Most of the entrepreneurs are not aware of the incentives; assistance and subsidies provided to the various networking banking sector units by the Central and State governments. The NTC should give wide publicity to ensure better awareness.

3. There is also a need to encourage large-scale production, particularly in man-made and garment sectors. Disbursement of credit, supply of cheaper raw materials, supply of electricity at reasonable rates, promoting better capacity utilization, flexible labour laws, easy entry exit norms for the firms are some of the basic policy measures which would help the Indian textile and garment industry become more cost effective. Further, it would be prudent to focus on selected states having comparative advantage in a specific industry. Such measures could help convert the post MFA challenges into an opportunity rather than a threat.

4. The government should give top priority for creating basic infrastructural facilities like road, power, transport and communication to the backward areas of our country.
5. The problem of shortage of power is widespread throughout the country and the textile units are hit hard by this. The government should take care of this and assure uninterrupted power supply as provided to the large scale units.

6. Almost all units in textile sector carry on production with outdated and obsolete technology. NTC (National Textile Council) has to remove the handicaps in the fields of technology by organizing seminars and workshops on new technologies.

7. Another major problem facing the industry is the procurement of raw materials. Open market purchase by the textile units leads to high cost of production and competitive inefficiency. Allocation of raw materials to textile industries should be based on capacity utilization.

8. The study reveals that competition has improved the performance of the industry.

9. Intra product group variations in $\text{MP}_K$ are high during post liberalization and post MFA period. If these variations persist, there is every likelihood that the capital moves towards higher productivity product groups. Therefore steps have to be taken to improve the productivity through better technologies.

10. There are low productivity product groups are manufacture of Cotton Ginning, Cleaning and Baling (0140), Manufacturing of Cotton Spinning, Processing other than in Mills, Weaving and Finishing of Cotton Textiles (1711) and Manufacturing of all types of Textile Garments and Clothing Accessories (1810).

11. In a competitive environment the share of labour input is higher in most of the product groups followed by capital, Therefore the results emphasize the importance of skilled labour component for the industry.
7.9 Prospects of Future Research

The impact of policy on economic variables such as employment, wage differentials, capital structure and profitability can be the focal theme for further research.

Similar studies can also be undertaken on other non-traditional and traditional industries.

Impact of policy shifts on large industries and comparative analysis between small and large scale industries can also be a prospective avenue of research.

Determinants of Growth and Total Factor Productivity in a liberalized and protected regime are not comprehensively inquired into in the present study although it attempts to present useful indication to upcoming research in the area.

Exports ought to be a focal point of any research inquiry having the dimensions of the thesis. This has not been taken stock of in detail since such an analytical question would demand appraisal of shifting economic regimes ranging from protectionism to present liberalization. However, a fuller analysis including the impact of exports might be the concern of future research.