ABSTRACT OF THE THESIS

TEXTILE AND CLOTHING EXPORTS FROM INDIA
– AN ANALYSIS OF SELECT ISSUES

The textile and clothing industry forms a significant manufacturing base of many developing countries. India has a strong legacy and significant capacities in this sector. The sector is a major employer and contributes significantly to exports. The textiles industry provides input to the clothing (or apparel) industry, providing strong vertical linkages. The clothing industry is labour-intensive and it provides employment to those with simple skills, including women. The mass production segment focus on low-cost, standard products and at the lower-end it may also outsource to household production. The high fashion segment of this industry is more technology-intensive and provides opportunity for innovation and value addition. This segment is also better-paid. The high fashion segment focuses on dynamics of consumer tastes and preferences. The clothing industry requires relatively low investment and hence has been favoured by poor countries. This thesis is placed in the context of issues concerning exports from this sector in general and clothing industry in particular.

Indian clothing was of high quality and was much in demand globally since ages back. However, there was a period of de-industrialization during the time of British colonial rule during which this industry suffered from a major setback. After a period of major economic reforms in independent India, exports from this sector have grown substantially. India is still highly competitive globally in this sector. Though China is the dominant leader in this sector, China does not have the entire value chain within the country as India has. Other competitors such as Bangladesh are competitive in low wages but they do not have cotton production in their country. India does have an export promotion policy which provides a favourable climate towards exports. But this policy is highly generalized. Does India need a more specific export promotion? Should policy consider productivity in the design of the incentive scheme? Does India need to target specific firms and products and not just broad markets? Is there is need to
segment these export firms in order to identify them more specifically? Should this policy target cluster issues in order to improve competitiveness? Such and many other questions motivated us for the detailed research.

Our broad objective has been to draw insights into the exports of Indian textile and apparel sector and provide a lead to future policy-making. Our specific objectives have been to study the broad issues and perceptions related to apparel export barriers, to analyze how the apparel exporting firms are grouped and to develop a probable sectoral model for knitwear exports taking a bilateral context.

In the first essay the supply-side issues concerning the sector were examined and productivity was brought in focus. The overall issues were introduced through an exploratory study which sought expert opinion as well as firm-level perceptions towards export problems and barriers. The perceptions and issues were categorized and examined. Some evidences of clustering (grouping) of firms were found in our study related to productivity as well as in our study related to perceptions towards export barriers. This led us to the issue of segmenting exporting firms in greater detail in next study. A novel but more insightful way of segmentation was used in the third study. Then, to build the macro picture, the determinants of knitwear exports were explored at the sectoral level in the fourth study. The first through third essays were cross-sectional studies while the fourth essay was a longitudinal study. So, four studies were presented from different perspectives, but all on the central theme of textile and clothing exports from India.

The methodology of the first study focusing on productivity was data envelopment analysis. Secondary data of firms was taken and we examined the inputs (such as raw material, employee emoluments etc.) and outputs (domestic sales and export sales) on basis of multi-factor productivity. An attempt was made to identify the relative productivity of the firms and to find whether lower productivity could be attributed to the inefficient use of the inputs.

The methodology of the second study was primary sample survey of firms based in Surat and Ahmedabad. The structured questionnaire focused on perceptions towards export barriers. The other side of the story was the ground reality (beyond perceptions) of exporting problems and
challenges. For this part of the story, expert opinion was obtained from industry experts and from Government experts to explore the problem challenges.

The methodology of the third study was based on data obtained from a combination of primary and secondary sources. Variables (and choices) were related to product categories (men’s wear, women’s wear, kid’s wear, high fashion, made-ups, mixed and accessories), years of operation, type (manufacturer, merchant), turnover (two categories) and location (government classification of city / town). A latent class analysis was done to segment the exporting firms.

The methodology of the fourth study was a Vector Auto Regression (VAR) / Vector Error Correction Model (VECM) analysis of secondary data of bilateral trade, taking India-US trade in knitwear as a case. We took the post-MFA period (after the phase-out of the Multi-Fibre Agreement) and used monthly-frequency data. Our important determinants related to income, price, exchange rate and competition.

From our first study on the supply-side issues, the main observations related to capital deployed were that textile and clothing has significant production capacities. But the sector in India is lagging behind in technology. The large handloom base is not suitable for mass production for exports. Neither is the sector in India able to make marketing strategy with high value addition in products (such as hand woven exclusive products or high fashion apparel). On the availability of raw material, India has major global competitiveness in terms of cost. India is fortunate to have the entire value chain within the country. However, India has limitations in specialty fabrics and accessories. On price competitiveness of the major inputs, a global comparison was undertaken and it was found that India is number one in yarn and fabric but loses her first position (second position) in weaving. The reason for the competitiveness of India is mainly the low cost of labour and the low cost of raw material. However, high cost of power and non-availability of accessories are a major limitation in India. In the case of weaving, cost of auxiliary materials is an added limitation. So, higher we go up the value chain, the lower is India’s competitiveness. This is an indication that value chain development is poor in India. Next garment clusters in India were observed. These clusters provide external economies of scale to the firms. A comparative analysis was made with a major cluster in China (Guangdong). We found that there
is foreign investment (through Hong Kong) in Guangdong, whereas Indian firms are largely funded from internal sources (friends and family). There is more state participation and support in running the affairs of the cluster in China than in India. The major source of competitiveness in Guangdong are strong port infrastructure, establishment of many Export Processing Zones and Free Trade Zones, strong network of firms manufacturing accessories and proximity to markets in Hong Kong. Next the cost structure at firm-level was examined and an attempt was made to benchmark sample apparel export firms. The technical efficiency frontier was identified using multi-factor productivity technique. It was found that the relative efficiency score is not correlated with the inputs (raw material, employee emoluments, net fixed assets employed). It was also found that export-orientation is not necessarily coming from productivity. Studying the input-out ratios taking single factor productivity relations, it was revealed that there is increasing returns to scale for big firms of mass production clothing. Adding employees provides increasing returns to scale more to average and big firms than to small firms. For export-only firms, employee expenditure does not provide better returns to scale than for firms which are doing both domestic and exports. We also found that capital investment provides increasing returns to scale to most of the (average) firms. There was enough indication that to enhance export productivity, India needs to focus on issues other than those related to manufacturing productivity such as management perspective including administrative issues, logistics, compliance for regulation, marketing, communication and networking, etc. In terms of productive efficiency, there is not much of difference among firms focusing on either domestic or external markets but while looking at only export efficiency these issues do matter. Though macro factors such as power, lack of accessories, cheap credit have an effect on overall price competitiveness but micro issues are also important to observe. Indian firms are weak especially to harness their ability to move up the value chain.

From the second study, for firms in Ahmedabad cluster, perception of Exogenous (Competition, Losing money, Forex variation) was the most important. Knowledge, particularly of Markets was the next most important. Resources and Procedure were also perceived to be very important. However, for firms in Surat cluster, Knowledge related to Availability of Staff for Export Planning was found to be significant variable. Time to Recover Money and Foreign Exchange were found to be the next most important variables. A difference in perception was found
between Ahmedabad and Surat clusters. From empirical evidence of perceptions towards trade barriers, it was found that firms in the Ahmedabad industrial hub are in different stage of evolution than in the Surat industrial hub, in terms of internationalization. Firms in Surat are largely trying to supply to other larger firms which are in turn catering to export and domestic markets. Their business strategy is largely price competition. These firms in Surat are away from the markets. However, firms in Ahmedabad are closer to the markets. Some firms in Ahmedabad are in domestic retail and high fashion (value-add) business. Firms at the lower stage of evolution mostly focus on reaching the market and for them macro issues related to business environment and direct incentives are more important. Firms which are at the higher stage of evolution focus on some value-add, gain some knowledge of export markets and seek to initiate export. Micro issues such as strategies, networking, design and innovation, etc. are more important for such firms. Some trade barriers are direct such as Non-Tariff Barriers and compliance issue. But some barriers are hidden and non-observable such as difficulty in networking, convincing buyers about the product quality and so on. Firms experience these barriers at rising levels of their evolution.

From the third study, five latent classes were found. It was seen that most MFA-period firms were merchants. Pre-MFA firms were large manufacturers located in tier 1 cities and dealing in almost all products (men’s, women’s, kid’s wear) but not high fashion and accessories. It was found that new firms were mostly moving towards tier 2 and tier 3 cities. The clustering showed that exporting firms of different layers are largely concentrating in different types of cities. Only firms in Tier 1 cities are focusing on high value products such as kids wear or high fashion. As infrastructure, logistics, lack of information, etc are major problems in lower grade cities they look for overall improvement in the business environment whereas firms at tier 1 cities may look for more target and direct incentives such as market access in particular product category, incentives to improve regulatory compliance issues, etc. Also, the entry of new firms who are generally active, tech-savvy and focus only high value products was noticed. The policy stance for them vis-à-vis other small or large old firms need to be different.

Our fourth study has been towards our objective of developing a probable sectoral model for knitwear exports taking a bilateral context. From this study, the variables which were found
insignificant were the index of domestic production price of apparel in the USA, the price of hosiery goods (knitwear) in the USA, the consumer price index in the USA and the consumer price index in India. The wholesale price index (cotton textiles) in India was found to be correlated to the US disposable personal income and hence had to be dropped as this was spurious and the US DPI was already considered as an endogenous variable. The results indicated that, taking log on both sides, exports was dependent on its own lag, lagged disposable personal income, lagged exchange rate, lagged competitor share, lagged price and the dummy for the recession months. A variable for the knitwear exports of China (the largest competitor) was introduced in place of the variable for competitor share. It was found to be co-integrated at CI(1) with disposable personal income and nominal exchange rate. This alternate model also had significant explanatory power. China has greatly increased her market share in the US and Chinese competition has been found to be an important factor determining Indian knitwear exports to the USA in our model estimation.

The contribution to literature from the first study is that an empirical analysis for benchmarking productivity of Indian apparel export firms at a point of time in the post-MFA period is presented. This makes an attempt to find whether we can draw conclusions of firm-productivity based on single-factor and multi-factor models for this sector. The second study covers a comprehensive and broader range of issues and challenges concerning the sector. From the second study, the two industrial hubs were found to have different perceptions and hence the hubs were empirically found to be in different stages of internationalization. Future study involving all the industrial hubs may identify each industrial hub in this sector with particular stage of internationalization. This suggests a location-wise segmentation. For a comprehensive and broader measure of segmentation, we take a rigorous approach to segmentation in the third study. The third study has shown how latent class analysis has taken into consideration the nature of firms with a strong contextual relevance e.g. pre-MFA and post-MFA firms. The dynamic nature of the groupings was captured as old firms were seen to be located in tier 1 cities with no high fashion products (but with a large range of traditional products) whereas new firms were seen to be dealing in some high fashion and moving towards tier 2 and tier 3 cities. The fourth study broadens the perspective from firm and cluster level to the macro level. Our sectoral study at the bilateral level considers disposable personal income as the demand-side factor (instead of
GDP) and considers competitor share (dominant) as endogenous variable, bringing in the major impact of China in this sector. This provides a parsimonious approach for bilateral sectoral models with explanatory power.

Therefore, the thesis explores at the firm-level in the first, second and third studies and broadens to the macro (sectoral) level in the fourth study. The first and second essays seek to bring out the issues affecting firms. The first essay focuses on relative productivity and makes an attempt for some benchmarking. The second essay focuses on perceptions of export barriers. The third essay is empirical in nature but focuses on the methodological rigor to find an insightful way of segmentation of exporting firms. The fourth essay makes an attempt to develop the sectoral model in a bilateral context, so as to complete the story from both cross-sectional and longitudinal perspectives.

The sixth chapter rounds up all the essays and makes an attempt to suggest improvements in policy from a holistic perspective. Macro-micro linkages are explained. Value chain development is elaborated upon. Specific policy interventions are discussed. Short-term, mid-term and long-term policy measures are also suggested. The important policy implication is that policy intervention has to be more specific and swift so as to respond to the dynamic nature of competition. Therefore, macro policies also require awareness of competitiveness at cluster-level and firm-level.

The common limitation for the firm-level studies is that bigger sample size would be useful for a better quantitative study. For the study on supply-side characteristics and productivity, detailed cost data for most proprietorship and partnership firms are not available. A limitation of the study on sectoral model is the non-availability of monthly-frequency data of input costs in India, preferably in concordance with the trade product line. Further research and availability of data can help overcome the limitations.