II. REVIEW OF LITERATURE

The literature relating to the current study on impact of quota liberalization and global economic crisis on textile and clothing trade is discussed under the following heads:

a) Impact of quota liberalization and global economic crisis
b) Revealed comparative and competitive advantage
c) Pattern of trade - intra industry and interindustry trade
d) Other related studies

a) IMPACT OF QUOTA LIBERALIZATION AND GLOBAL ECONOMIC CRISIS

Madhavi Majmudar (1996) in her empirical study had found that countries with established comparative advantages will benefit from the abolition of MFA, while countries that can export because of protection from any source will lose out after liberalization. In the short run, geographic origins and buyer preferences will remain important in sourcing decisions while in the long run, cost of factors and product differentiation will acquire greater importance.

Junyuan Christopher Tan (2005) studied the impact of Liberalization of Trade in Textile and Clothing of China on the ASEAN economies for the reference period from 1991 to 2003. The Southeast Asian countries were found to have a more competitive than complementary relationship with China in this sector. Using a constant elasticity of substitution model, it was found that a significant negative effect of quota-abolition on the Southeast Asian countries. However, a paradox was found. Though China should out-compete all the Southeast Asian Countries based on supply-side competition, this was not reflected in actual growth patterns, where some Southeast Asian Countries see robust growth in the US market, as well as the Japanese non-quota market. This could be due to ongoing expansion of the import markets, as well as other supply-side trends such as changes in comparative advantage. The outlook for the Southeast Asian Countries is thus less bleak than most predict.
John Whalley (2006) assessed the impact termination of trade restrictions under the Multi Fibre Arrangement (MFA) up to the end of 2004 for exports of clothing and textiles using data from US, EU, Chinese and other sources. The picture that emerged was only small impact on aggregate US and EU imports of clothing and textiles, and equally only small impact on aggregate Chinese exports of clothing and textiles. There were however, large changes in the countries pattern of trade, and also within more narrowly defined product categories. There were large increases in shipments from China to both the US and the EU and for the US proportionally more so in textiles than in clothing. But the US accounted for only 20 per cent of China’s exports of clothing and textiles, and exports to Japan (comparable in size to the US) hardly changed, and to Hong Kong fell sharply. There were also large price falls for shipments to the US and to certain EU countries (Germany). The shares of other Asian suppliers in US markets generally hold up well, with the largest falls occurring in preferentially treated non-Asian suppliers such as Mexico. In EU markets, with the exception of India, all non-Chinese Asian suppliers experienced fall in their market share.

Adhikari (2008) found that the post-quota world has not brought about a dramatic transformation in the T&C market as well as in sourcing patterns. Among the losers of the post-quota era, not all are on the same footing. While some have graduated into the production of higher value products, others have lost out because of their lack of competitiveness and their inability to adapt. The current status quo is the result of the re-imposition of quotas on China as a part of the temporary safeguard measures agreed by the country at the time of its accession to the WTO. Countries that did not manage to withstand competition in the first six month period after the phasing out of quotas need to be extremely cautious and make every possible effort to enhance their competitiveness before the expiry of this temporary measure in 2008. Given the history of protection in this industry and rather strong political economy factors, market access remains the largest single problem for the developing countries. However, this can be resolved mainly through international and regional cooperation. There are several supply side issues which are impeding the growth prospects of several developing countries.
These problems need to be addressed first at the domestic level. International support in the form of “aid for trade” can, however, be instrumental in supplementing the domestic reforms initiatives. Despite protectionist barriers, the T&C industry has not remained static over the past five decades or so. It keeps evolving due to changing demand of the buyers, sourcing patterns, availability of and access to technology, shifting levels of economic growth and increased consciousness as well as sensitivity towards corporate social responsibility and ethical procurement. While some of these emerging issues offer opportunities for developing countries, others pose challenges. In order to survive in the present T&C market characterized by rapidly changing consumer demand and retailer market power, organizational skills and flexibility become more important than merely achieving cost competitiveness. Some of the efforts made by the government as well as the private sector to help the T&C exporters survive the phasing out of quotas have produced encouraging results. However, some other endeavors have either not been successful or could yet prove unsustainable. Therefore, concerted efforts should be made by various stakeholders aimed at addressing the market access anomalies and supply side constraints keeping in view the emerging challenges and the future evolution of the T&C industry and trade.

John Thoburn (2009) covering the study period of 2000-07 looked at the effects of world recession on the textile and garments (T&G) industries of Asia by considering those impacts that work through the demand for Asian T&G exports in their major markets, the EU and the US. It also considers the indirect impact on other Asian countries of their sales to the Japanese market, which in turn has been affected by falling export demand to the US and the EU and by the financial repercussions of the global banking crisis. It did not look at the impacts on domestically-oriented T&G production of falling domestic demand as a result of falling export sales more generally (that is, for all exports, not only T&G). Nor does it consider the impacts on Asian T&G exporters of domestic financial problems, working for example through the availability of credit. These issues seem better left to country studies. He also exclaimed that the world recession has hit the Asian T&G sector at a time
when the sector globally is already in the throes of potentially massive readjustment.

**Gary Gereffi and Stacey (2010)** in their empirical paper examined the impact of two crises on the global apparel value chain: the World Trade Organization phase-out of the quota system for textiles and apparel in 2005, which provided access for many poor and small export-oriented economies to the markets of industrialized countries, and the current economic recession that has lowered demand for apparel exports and led to massive unemployment across the industry’s supply chain. An overarching trend has been the process of global consolidation, whereby leading apparel suppliers (countries and firms alike) have strengthened their positions in the industry. On the country side, China has been the big winner, although Bangladesh, India, and Vietnam have also continued to expand their roles in the industry. On the firm side, the quota phase-out and economic recession have accelerated the ongoing shift to more streamlined global supply chains, in which lead firms desire to work with fewer, larger, and more capable suppliers that are strategically located around the world. The paper concludes with recommendations for how developing countries as well as textile and apparel suppliers can adjust to the crisis.

**Srivastava and Deepak (2010)** studied the possible impact of Multi-Fibre Arrangement (MFA) phase-out on textile and clothing exports of India. To test this, they employed shift share analysis technique using trade data from 1996 to 2006. The result showed that MFA phase-out had not provided significant export opportunities for the Indian textile and clothing industry. Perhaps the effect of the quota regime has been so deeply rooted that trade liberalization is yet to be manifested in exports of textile products for India.

**Alqa Aziz (2011)** studied the ready-made garments (RMG) export performance of India and its competitors in respect of the major import destinations. He found in his empirical work that due to the recessionary conditions still prevailing in the US and Europe, the apparel export industry in general has been adversely affected, though the US markets are improving slowly but prices remain the same. The raw material prices are increasing.
whereas selling prices are decreasing. The performance of the industry has been adversely affected due to the high cotton prices, appreciating rupee and high wage cost. Some exporters are keen to look beyond apparel and explore opportunities in the recession-proof areas of industrial and technical wear due to hit by a dip in apparel exports in 2009. Although the apparel export market has picked up in the last quarter; exporters do not want to depend solely on apparel for business and trying to explore new avenues. He also quoted that due to low demand and economic crisis, there was a drop of 20 to 25 per cent in the business of winter apparels from India. Many buyers have filed for bankruptcy and a large number of stores in the United States got closed. It emerged from the above that Indian textile & garment industry is a mix of issues and prospects and contributes 12 percent to the total exports and is the second largest employer after the agriculture. By the end of eleventh five year plan, Ministry of Textile has targeted a growth of 16 per cent per annum for the Indian T&C industry to reach US$ 115 billion. Garments make up around 35 per cent of the country’s total export earnings with garments alone contributing over a half of it.

**Lawrence Edwards and Asha Sundaram (2012)** analyzed the impact of the removal of the Multi fiber Agreement quotas on reallocation of market share and prices charged by Indian textile firms. Difference-in differences estimation technique was employed on firm-level data for India. It was found that this reduction in trade barriers was associated with an increase in sales of quota-restricted products relative to non-quota restricted textile products. These effects were robust to controlling for unobservable firm-specific shocks affecting outcomes. Results also suggested that the MFA quota removal was associated with reallocation of market-share towards low-price products. Also, the price decrease associated with quota-removal was greater for low-price products, consistent with quality down grading by firms in the presence of quotas. Results also indicated that these effects operate through the extensive margin, through product switching by firms. The study highlighted the role of distortions induced by trade barriers in developing countries in determining the allocation of production.
Amit K. Khandelwaly et al. (2012) examined the impact of Chinese textile and clothing exports before and after the elimination of externally imposed export quotas. Both the surge in export volume and the decline in export prices following quota removal were driven by net entry. This outcome was inconsistent with a model in which quotas are allocated based on misallocation of resources. Removing this misallocation accounts for a substantial share of the overall gain in productivity associated with quota removal.

Amirah El-Haddad (2012) opined that the textile and clothing (TC) sector has not escaped the slowdown in Egypt in response to the crisis. But it has been in decline since 2001 in response to a changing global environment. Exports, which have been surviving on account of the Qualifying Industrial Zones (QIZ) and Euro-Mediterranean Partnership agreements, have been hit hard by the crisis. Domestic sales are in decline as a result of liberalization, and non-QIZ exporter—unprotected by the agreement—have been turning to the domestic market in competition with non-exporters. If domestic sales continue to decline, without being offset by growth in exports, the industry will continue to decline. To deal with the crisis, short-run mitigation policies can be considered as ensuring banks credit and paying social insurance for workers in distressed firms. But the sector is suffering from inherent structural problems resulting in high costs. In other words, the crisis has exacerbated the shrinkage of an already struggling industry, so a longer run strategy is needed beyond the crisis response, comprising moving up the clothing industry value chain, conditional export incentives, skills upgrading and undergoing comprehensive institutional reform.

Tirumala Rao and Chandrasekhar (2013) examined developments in foreign trade of the Indian textile industry, in relation to cotton and non-cotton segments for low value added and high value added product groups, in the backdrop of the trends and policies of the overall foreign trade of India in recent years from 1994. Share of cotton T & C exports in total T and C exports has increased to around 63 percent in recent years, and has been steadily increasing, while that of non-cotton T&C exports had come down to around
37 per cent. The trade has been shifting towards higher value added products, namely, readymade garments and made-ups from the earlier stage of exporting raw materials and intermediate products (fibre, yarn and fabrics). Non-cotton textile imports accounted for 75 to 83 per cent in recent years, and cotton textile imports remained around 17 to 20 per cent. Non-cotton imports were thus, dominant in T&C imports. The imports largely consist of extra long staple cotton. In case of all textile imports, China continued to be the leading source country. This was followed distantly by USA and Australia.

b) REVEALED COMPARATIVE AND COMPETITIVE ADVANTAGE

Balassa (1977) had undertaken an analysis of the pattern of comparative advantage of industrial countries for the period 1953 to 1971. Based on the standard deviation of the RCA indices for different countries an association was seen to hold between size and diversification of export. Balassa’s results showed that while the extent of export diversification tends to increase with the degree of technological development a reversal takes place at higher levels.

Richardson and Zhang (1999) have used the Balassa index of RCA for the U.S to analyze the patterns of variation across time, sectors and regions. They found the patterns to differ across different parts of the world, over time as also for different levels of aggregation of export data. Differentials were accounted for by factors like geographical proximity of trading partners and per capita income with the extent of influence of these factors varying over time and across sectors / sub sectors.

Amita Batra and Zeba Khan (2005) attempted a systematic evaluation of the similarities of the patterns of revealed comparative advantage for India and China in the global market. The study is timely effort as India has made an extensive effort to liberalize its international trade since 1991 and the consequent increase in competitive pressures and technology transfers, is expected to have led to a restructuring of the economy such that the composition of exports reflects India’s comparative advantage in the global economy. The timeliness of the study is also reinforced by the fact that
increased trade integration of China over the past few years is likely to have contributed to a shift in comparative advantage in labour intensive manufactures in the world market.

**Jeroen Hinloopen and Charles van Marrewijk (2005)** using a comprehensive data set of annual bilateral trade flows for 1,056 4-digit SITC sectors between 183 countries for the years 1970 - 1997, examined the necessary and sufficient condition for the correspondence between revealed comparative advantage, as measured by the Balassa index, and pre-trade relative prices. The findings on the empirical relevance of this Hillman condition presented stylized facts because of the exhaustive representation of the dataset. It appears that (i) violations of the Hillman condition are small as a share of the number of observations, but often represent a disproportionately large value of trade, (ii) from 1970 through 1984 violations happen relatively frequent and they represent a significant fraction of the value of total trade, while from 1985 onwards violations hardly ever occur and represent an insignificant fraction of total trade value, and (iii) violations do not occur randomly across sectors or countries; they occur foremost in sectors producing primary products or that are natural-resource intensive, and in sectors that are located in countries in Africa, the Middle East, and Latin America. Restricting empirical analyses into revealed comparative advantage to those industries that meet the Hillman condition has the additional advantage that it acts as a screening device for observations that are based on erroneously classified trade flows.

**Widgren (2005)** focused on the comparative advantage of a sample of Asian, American and European countries between 1996 and 2002. His study examined the basis of RCA for the sample countries using the Harmonised System (HS) classification at the 4-digit level. It was found the factor content of comparative advantage had some similarity in the Asian Countries. While the RCA for the US was based on highly skilled labour that of EU had moved towards use of human as well as physical capital.

**IKMMokhtarulWadud, (2007)** examined pattern of comparative advantage in textiles and clothing trade as revealed by export shares of
selected developed and developing economies. The estimated Revealed Comparative Advantage (RCA) indices provided strong evidence of comparative advantage enjoyed by the developing economies. However, a few developed high income economies have enjoyed sustainable comparative advantage, especially in textiles trade. Significant negative correlations were observed between country specific income levels and the estimated absolute and relative RCA indices. While most of the developing economies achieved significant improvement of comparative advantage over time in clothing trade, the evidence is mixed for textiles. Additional evidence from Grubel-Lloyd (G-L) index of intra industry trade (IIT) suggested that global textiles trade could be mainly explained on the basis of product differentiation and economies of scale while clothing trade is more based on comparative advantage. Results of the study also suggested that the trading nations should engage in exploitation of forms of competition such as product differentiation in textiles trade, whereas for clothing, cost minimising remains a valid strategy. This development is pertinent to India, as China and India are not just similar in size but also terms of in factor endowments. It is important therefore, to explore the extent of similarity in the patterns of comparative advantage for the two economies. The study identified the pattern of revealed comparative advantage using the Balassa (1965) index for export data. The index has been calculated at the sector and commodity level of the Harmonized System of classification. The study also analyses comparative advantage according to factor intensity. The analysis shows broad similarities in the structure of comparative advantage for India and China. Both, India and China enjoyed comparative advantage for labour and resource intensive sectors in the global market.

BurangeSheetal.J Chaddha (2008) assessed India’s Revealed Comparative Advantage (RCA) in merchandise trade. The structure of comparative advantage in India and its change from 1996 to 2005 is evaluated. Data as per the Harmonized System (HS) of classification are used to compute the index of RCA for exports as well as for imports. India appears to enjoy comparative advantage in the exports of labour-intensive items like textiles and scale-intensive items such as chemicals, iron and steel. India’s
RCA in exports and imports in different types of goods categorized on the basis of their production were evaluated. These included ‘Ricardo’, ‘Heckscher-Ohlin’, ‘Product-cycle’ goods and ‘Others’. India appears to have a comparative advantage in the exports of Ricardo and Heckscher-Ohlin goods. Product-cycle goods, in contrast, did not display any improvement in the RCA universe. On the import front, it was the Ricardo goods where India appears to enjoy comparative advantage. The production with standard technology shifting towards developing economies like India implied a relative absence of RCA in the imports of Heckscher-Ohlin goods.

**Matt Berdine et al. (2008)** examined how the US textile and apparel industry can remain competitive in the face of global competition. Specifically what are the US’s current competitive advantages and how they can be leveraged to enhance the performance of US textile and apparel companies. Also, the research sought to examine the key components that are driving the competitiveness of the top textile and apparel exporting regions in order to provide insight into how the US textile and apparel industry can adapt and compete. The research methodology used a concurrent triangulation strategy, which involves collecting quantitative and qualitative data simultaneously. Overall, field-based interviews were conducted with 20 executives from 13 companies. The interview questions were categorized based on competitive advantage variables, specifically focusing on innovation, marketing, and sourcing criteria variables. Key findings of this research include evidence that US textile companies drive the majority of the innovation in the supply chain to both suppliers and customers. Also, the three competitive strategies that differentiate the products of US firms from other regions of the world were research and development, marketing, and customer service.

**VidanSerin and AbdulkadirCivan (2008)** quantified the extent to which Turkey has a comparative advantage in the tomato, olive oil, and fruit juice industries and how this has changed over the period 1995-2005 in the EU market. To study Turkey’s competitiveness and its progress two widely used indexes were calculated: the Revealed Comparative Advantage (RCA) and the Comparative Export Performance (CEP) index. In addition, import demand functions of the EU were estimated for rival countries. Using
Regression analysis they hypothesized that if Turkey is a competitor for these countries its price will have a statistically significant effect on export demand functions. Both index and regression results indicated that Turkey has a strikingly high comparative advantage in the fruit juice and olive oil markets in the EU but this was not the case in the tomato market.

Muhammad Ilyas et al. (2009) for the reference period 1985-2005 analysed competitiveness among Asian exporters in the world rice market by applying Balassa Revealed Comparative Advantage (BRCA) and White’s Competitive Advantage (WRCA) over China in rice exports. There were no significant differences of revealed competitive advantage between Thailand and Vietnam or between India and Vietnam in agricultural product trade or Pakistan and Vietnam in total merchandise trade. Pakistan has a revealed comparative and competitive advantage in agricultural product trade (in rice) over all other countries and in total merchandise trade (in rice) over China, India and Thailand. Although Thailand and India are the two largest Asian exporters of rice with 47 per cent of the market share in 2005, on an average they did not have the greatest comparative and competitive advantage in rice exports. Pakistan has the greatest advantage in rice exports, Vietnam ranked second and Thailand ranked third in five major Asian exporters. Thus, it was concluded that both Pakistan and Vietnam could take the advantage of competitiveness and raise their share respectively in world rice market as compared with other Asian competitions.

Darvar and Bhupinder Singh (2013) analysed the impact of WTO on rice export competitiveness of major rice exporting nations by using Balassa’s Revealed Comparative Advantage (BRCA) and White’s Revealed Competitive Advantage (WRCA) indices in Merchandise trade in the changing scenario of liberalization, privatization and globalization. It was found that almost all countries have both competitive and comparative advantage for the reference period between 1980-80 and 2009-10. The increasing competitiveness of Indian and Pakistani rice import was a result of WTO implementation.
Lalit Mohan Kathuria, (2013) analyzed the comparative advantage of India and Bangladesh for the clothing sector in the world export trade with the help of Balassa's index of Revealed Comparative Advantage (BRCA). It was found that the number of products for which India enjoyed the comparative advantage increased from 23 products to 25 products between 1995 and 2003 and for Bangladesh, this number increased from 21 products to 29 products between 1995 and 2003.

c) PATTERN OF TRADE- INTRA INDUSTRY AND INTER INDUSTRY TRADE

Kishor Sharma (1999) presented pattern and determinants of Intra-Industry Trade (IIT) in Australian manufacturing since the late 1970s. The results point to a sharp rise in IIT from the mid-1980s which appears to be linked with an outward-oriented policy. Industry level analysis indicated that industries which experienced a sharp fall in protection were the industries with the higher levels of IIT. These include textile, garments, rubber products, and machinery and equipment. An increasing trend in IIT suggested that the short-term adjustment costs associated with trade liberalization were likely to be lower, and that liberalization can proceed without huge short-term adjustment costs. Using a logit model the determinants of IIT were investigated. Results indicated that intra-industry trade was positively related to product differentiation and scale economies, and negatively related to the levels of protection and foreign ownership in the pre-liberalization period. In the post-liberalization period, however, it is scale economies that explain the inter-industry variations in IIT. R&D intensity and close economic integration appear to have no impact on IIT regardless of the nature of the policy regime.

Don P. Clark and Dense L. Stanley (1999) identified country and industry-level determinants of Intra-Industry Trade (IIT) between the United States and developing countries. IIT was found to decline with greater differences in relative factor endowments. Economic size and trade orientation of the developing country influence IIT in a positive way. Distance exerts a negative effect on IIT. Results showed that IIT occurs in nonstandard, made-to-order, vertically differentiated, labor intensive products produced by large globally integrated industries. No support is provided for the role of scale
economies in determining North-South IIT. Theoretical and empirical models of North-South trade should focus on sources of IIT related to country characteristics, vertical product differentiation based on quality differences, the degree of product standardization, and labor cost differences between the North and South.

Au and Chan (2003) examined the extent and determinants of intra-industry textile and clothing trade for OECD countries. Trade overlap was used as the measurement of Intra-Industry Trade (IIT). The general trend of intra-OECD trade and the extent of IIT for textile and clothing trade in year 2000 were examined. Multiple regression analysis was employed to verify empirically the proposed country-specific determinants of bilateral IIT using bilateral trade data of the OECD countries. Hypotheses relating to 5 country-specific variables tested showed strong significance reflecting the different roles of the factors in the determination of IIT. It was also identified that bilateral IIT in textile and clothing between OECD countries were highly correlated.

Rikard Lindqvist (2006) tested different ways of measuring IIT, vertical and horizontal IIT. Different aggregation levels of data were used, as well as an alternative to the unit-value approach, which the author called the quality-defined index. Measures of IIT based on aggregated compared to measures based on disaggregated data were highly correlated. When measuring Vertical IIT with aggregated and disaggregated data the result was more dispersed, the correlation coefficients were on average lower than in the previous test. When analyzing the effect of total bilateral trade on the correlation, the result depended on whether the extremes were included or not in the regression. If they are not included, much of the total variation could be described by differences in total bilateral trade.

Inka Havrila and Pemasiri Gunawardana (2006) analysed the extent and determinants of Australia’s bilateral IIT in TAC. The Grubel-Lloyd index was used to measure the extent of IIT, and econometric models are developed and estimated using the Tobit model estimation procedure to analyse the determinants of Australia’s bilateral IIT in TAC with eleven of
Australia’s major trade partner countries. The findings from the estimated model for textiles indicated that, as expected, the extent of Australia’s bilateral IIT in textiles increases with expanding average market size, average per capita income, and openness, and greater participation in trading agreements between Australia and trading partners. However, as expected, the extent of Australia’s trade was bilateral IIT in textiles. The results from the estimated model for clothing reveal that, as expected, the extent of Australia’s bilateral IIT in clothing increases with increasing average per capita income and greater participation in trading agreements, while decreases with increasing differences in average per capita income between Australia and trading partners. However, in contrast to expectations, Australia’s bilateral IIT in clothing decreased with increasing average market size, while it increased with increasing difference in average market size, between Australia and trading partners.

Maylene Y Damoense and Andre’cJordann (2007) provided an empirical evidence of Intra-Industry Trade (IIT) and related it specifically to South Africa’s automobile industry. The automobile industry in South Africa is a key sector within the national economy and has experienced increased trade and foreign investment in recent years, and thus represents an important case study of IIT. In the view of this, the paper proposes a methodology that may be used in future to assess the pattern and determinants of IIT between South Africa and its main trading partners in the automobile industry. Thus, future research could include conducting empirical estimations of the share of IIT and the pattern of IIT in the automobile industry between South Africa and its main trading partners based on the methodology proposed in this study.

Ali Kocyitgit and Ali Sen (2007) for study period 1975—2005 studied the extent of Intra-Industry Trade (IIT) in turkey’s foreign trade, especially its main trading partner, the European Union (EU). The results showed that, parallel to Turkey’s trade with the world her trade with the EU was moving towards intra-industry type trading. Moreover, the growth of IIT between Turkey and the EU showed that Turkey’s industrial base was dramatically changing from low-technology products to high-technology industries,
especially since the Customs Union agreement with the EU was put into effect in 1996.

Julia Wiklander (2008) found that Singapore has high levels of intra-industry trade with both ASEAN countries and the rest of the world. Between 1990 and 1995 the ASEAN countries met a slight increase in the level of intra-industry trade with Singapore, while the rest of the world met a slight decrease. Between 1995 and 2006, the intra-industry trade of Singapore-ASEAN and of Singapore-World has been at a similar level. The importance of ASEAN in Singaporean trade compared to the rest of the world has seen an increase during the time period studied. This may be because of the economic growth of the ASEAN region and the increased stability since the economic crisis 1997. Singapore’s intra-industry trade has definitely been affected by its free trade agreements. Its top trading partners are all in an agreement with Singapore and one must come to the conclusion that these agreements have led to trade creation and benefited intra-industry trade. However, in ASEAN there are mainly two top trade partners, Malaysia and Indonesia. The rest of the ASEAN nations are somewhat lagging behind and not contributing as much to the intra-industry trade of the region.

Faustino (2008) studied the relation between Intra-Industry Trade (IIT) and RCA. Thus, IIT, Vertical Intra-Industry Trade (VIIT) and Horizontal Intra-Industry Trade (HIIT) formed the dependent variable in the regression, with RCA being the explanatory variable. Based on conventional theory, the author argues that VIIT should have a positive correlation with RCA, while the reverse should be true for HIIT. However, while the relation between VIIT and RCA was in line with expectations, the same could not be said for HIIT. Therefore, segregating the determinants of VIIT and HIIT was not that simple and he had his reservations about separating the components of IIT.

Johanna Eliasson (2008) studied intra-industry trade pattern of Russia with Sweden between the years of 1997 and 2003. To be able to see any changes five products, vehicles, grain, forest, optimal instruments and jewellery has been chosen. With the Grubel-Lloyd index the products were analysed and the index measured the extent of the intra-industry trade.
between Sweden and Russia. Theories predicted that countries with similar factor endowments and income tend to have a two-way trade which would indicate that Russia is starting to catch up to the industrialized countries. The theory of income effects predicted that when consumers are getting a larger budget they will start to move away from the most necessary goods and towards more luxury good consumption.

Rajeev Jain and J. B. Singh (2009) attempted to analyse the merchandise trade performance of SAARC region and also the trend in intra-SAARC trade. A brief analysis of trade baskets of SAARC countries showed that export baskets of major SAARC countries were significantly similar reflecting that they may be competing with one another in same industries in the international market. However, export baskets were relatively more diversified for India and Pakistan. Grubel-Lloyd index provides an empirical evidence of growing intra-industry trade in SAARC countries which perhaps is an off-shoot of trade and industry reforms that have taken place in recent years. An attempt was also made to examine SAARC region’s relative competitiveness by calculating revealed comparative advantage index [as suggested by Balassa (1965) and compare the structure of specialization using Relative Trade Comparative Advantage (RTA) index [as suggested by Scott and Vollrath (1992). It was found that India has relative trade comparative advantage in a larger number of industry groups than other SAARC countries and all major SAARC countries have RTA in textile sector. Certain issues pertaining to SAARC trade were also briefly discussed. The study concludes that despite significant business cycle convergence in major SAARC countries (India, Pakistan, Bangladesh and Sri Lanka), trade integration is growing only at a slow pace.

Sujinda Chemsripong (2010) for study period 2000-2010 applying Grubel and Lloyd indices observed that there was strong empirical support for the hypothesis that countries that have common borders and have eliminated or lowered barriers on trade with each other will have relatively high levels of intra-industry trade. Moreover, the extent of intra-industry trade will be positively correlated with trade intensity. The level of intra-industry trade is higher between Malaysia, Singapore and Indonesia compared to the
rest of the world. Thailand’s IIT was increasingly changing from low-technology product to high-technology industries.

Kemal Turkcan and Aysegul Ates (2010) examined composition of trade patterns, and development of Intra-Industry Trade (IIT) for 367 trading partners in auto-industry for 1989-2006 periods. This paper analyzed trade patterns and the extent of IIT in the US auto-industry by decomposing the US auto-industry trade into inter-industry trade, horizontal IIT, and vertical IIT and tested empirically various country-specific factors concerning the determinants of IIT and its components between the US and its major trading partners using the gravity model. The results showed that a substantial part of IIT in the US auto-industry was vertical IIT and vertical IIT increased over the data period. Increase in vertical IIT in auto-industry indicated that the international fragmentation of production process has become important in the US auto-industry. The econometric results mainly confirmed the fact that determinants of horizontal IIT and vertical IIT differ. In particular, the finding showed that the extent of the US horizontal IIT in auto-industry was positively correlated with difference in per capita GDP and outward FDI variable while it was negatively correlated with distance and bilateral exchange rate. On the other hand, vertical IIT was positively associated with the average market size, differences in market size, differences in per capita GDP, and outward FDI, and distance while it was negatively correlated with the bilateral exchange rate variable.

d) OTHER RELATED STUDIES

Syed Kashif Rafi (2005) for the study periods 1998, 2005 and 2007 forecasted the future trade patterns and identified the determinants of exports of textile and clothing. The study included top 24 leading exporting countries from the textile and clothing sectors. Those countries covered more than 72 per cent of global exports and 70 per cent of Imports in textile and clothing sectors. The countries cover 81 per cent of the Gross World Product (GWP) also. It was found that financial liquidity, endogenous production of cotton and the magnitude of imported raw material and intermediate goods were the root-causes of export of textile and clothing products. While, GDP and exports of textile and clothing were proved as good predictors of import
of textile and clothing products. The study gave surprising results and mentioned that China, Hong Kong and Italy will be the net looser, while the United States and Canada will be the net gainers in future.

Chan and Man-hin Eve (2009) employed the gravity trade model to analyze the development of Textile & Clothing (T&C) trade patterns among countries. In the study the conventional gravity trade model revised for analyzing T&C products separately. Also, the panel data estimation approach was utilized to determine the factors affecting global T&C trade flows. Results of regression analysis showed that the export performances of China's neighboring Asian countries were basically affected by the surge of China's T&C exports.

Faiz. M. Shaikh et al. (2011) investigated the impact of Global Financial Crisis on textile industry clusters in Pakistan. A cross sectional data were collected from 25 textile industries by using simple random technique and data were analysis by using E-Views software. Structural questionnaire was the basic tool for measures the performance of textile industry in financial recession in Pakistan. It was revealed that the industry is in urgent need of financial and technological investments, and the Global financial crisis has negative impact on the export of textile industry in Pakistan. The export of textile related products has decreased by 20 per cent due to decrease in textile demand. It was further revealed that textile industry facing problems such as electricity and high taxes.

Vicki Crinis (2012) examined the garment industry in Malaysia from 1970s to the present. It looked at the strategies employed by manufacturers to cope with both the end of the Multi-fibre Arrangement (MFA) and the effects of the global economic crisis on the industry in Malaysia. The garment industry in Malaysia is situated on the periphery and is almost totally reliant on contracts from the United States (US) and Europe for its survival. Since the global economic recession, contraction in the consumption of garments in these countries had translated into factory closures and lay-offs in Malaysia. It was argued that a regional strategy is necessary to cope with increasing levels of competition from China and other parts of the world.