3.1 World trade in textiles and apparel

An important outcome of research in international trade has been the position that the traditional Ricardian theory of comparative advantage, even though described as the cornerstone of trade theory and the rationale for and of trade, remains poorly described, with poor empirical evidence or instances of being measured. Beaudreau (2011) talks of a revolutionary finding of the present nature of trade, highlighting its vertical nature and the increasingly global nature of value chains. It becomes necessary to reconsider the horizontal comparative advantage (sector, good) that was formerly the frame of reference in trade theories.

Increased globalization, disintegration of activities and dispersed sourcing of mass produced and used commodities has given rise to a new concept of vertical comparative advantage which is constituted from a region, a link or individual strand of a chain, or a set of strands of links, that may originate from a region or country. Beaudreau (2011) describes these regions or areas to have vertical comparative advantage that enable firms or localized industries to assume
specific capabilities, like a specific technology, organizational work allocation, or a set of transformative practices or activities. This is found to be a more complete theory of comparative advantage that is testable, amenable to policy analysis and in which existing cases of trade are better explained.

Kilduff and Chi (2006) investigated long term patterns of trade specialization among leading textiles and clothing exporting nations, assessing patterns of comparative advantage across the textile machinery, manmade fiber, textiles and apparel sectors, to examine to what extent they conformed to trade specialization and industry evolution theories. They used a revealed comparative advantage index for thirty nations over a forty two year period. It was seen that long term patterns of specialization reflect expectations of factor proportions theory and industry evolution models. Product groups and income of countries was found to be correlated, with higher income nations dominant in capital intensive sectors.

Goto, Natsuda and Thoburn (2011) highlight what is perhaps better described as a preoccupation with China, especially after its accession to the WTO. A key aspect of its dominance has been its ability to upgrade into high value added, sophisticated product groups, besides having a dominant presence in global markets for basic, labour intensive products. A key category is the area of textiles and garments of which it is the largest exporting country. A finding of this study has been that despite sheer size and scale of exports, smaller countries like Vietnam have been effective competitors in markets where China is dominant. A key aspect of this has been the ability of exporters and garment suppliers of Vietnam to deal with reorganized international production networks, focus on their own technological upgrading, and the promotive influence of the US Bilateral Trade Agreement in 2001, which opened the US market for them. The effect of labour shortages and large deviations among suppliers in aspects of upgrading and competitiveness is also examined.
Villoria (2009) examined the effect of Chinese export expansion on global manufacturing prices. The lowering of prices means increased global competition and allow an import of cheaper and wider set of inputs and consumer goods. In lesser developed countries like Kenya, Mauritius and Sub Saharan Africa, which are involved in export of manufactured goods, this is seen to significantly decrease in world prices of key sectors like textiles, wearing apparel and footwear leading to substantial reductions in their import prices. This also means that this reduces their export prices and their terms of trade are negatively impacted from Chinas manufactured export expansion. He used the economic geography model of Redding and Venables to decompose the import growth of a large number of countries into supply and demand capacities.

Wysokinska (2009) carried out an economic analysis of the modern textile and clothing market within the period of the final completion of the ACT/WTO Agreement. He observes that the dynamic development of construction, needs for functional comfortable and decorative designs, decorative cloth and textile wallpaper, carpets and textile floor coverings have impacted the global and European textile and clothing trade and the competitive position of different products especially for the far east Asian countries. There is a significant increase in these highly specialized technical textiles, which have implications for these producers.

Lemoine and Unal-Kesenci (2008) examine the rise of China and India in international trade. They observe that the demographic and economic superiority of these countries have enabled an international division of labour. They have maintained specialization in textiles and developed outward oriented sectors linked to new technologies, taking advantage of off shoring and outsourcing. Their impact on world supply and demand of manufactured goods, primary goods and services, is possible because of their technological investments, and quality upgrading. The authors state that despite this superiority, they cannot trigger a global growth phenomenon by themselves.
Heron (2008) examines the position of small states in the global politics of trade and development. It states that the policy regimes of these countries shape the timing, form and economic consequences of trade reform. The factors within the country, like small population size, poor factor endowments and weak infrastructural capacities, may impact the outcomes of trade but it is the aspects outside of the state, such as dependences on preferential trade and the lack of export diversification may be negatively affecting the ability of these countries to benefit from the liberalization of the textiles and clothing sector.

Zafar (2007) examines the significant trade between Ghana and Africa that has significantly affected the industrialization of Sub Saharan Africa. Trade between the regions totaled more than $50 billion in 2006, with oil from Angola and Sudan, timber from Central Africa and copper from Zambia. The upside of this has been an upward swing in prices and has boosted real GDP in sub-Saharan Africa. But this has increased the cost of import for other oil importing sub Saharan countries, and reduced its export of low cost textiles. The author states that China poses a challenge to good governance and macroeconomic management in Africa because of the potential Dutch disease implications of commodity booms.

Adhikari and Weeratunge (2007) describe the effect of the phasing out of the ATC (Agreement of Textiles and Clothing) on the South Asian countries depending on their level of competitiveness factor endowments and marketing caliber. It is seen that the temporary safeguards that buyer countries imposed on China provided some breathing space for less competitive countries in the region. The potential of the south Asian region to develop as a global T&C hub is suggested subject to three levels of reform. A common position at the international negotiations level to overcome protectionist market access barriers is one. This is possible through the use of a regional cooperation platform to trade investment and technology transfer. Second is to actively invest to overcome supply side
constraints to enhance competitiveness of the region and third to adopt strategies within and outside the region to ward off competitiveness.

Bezuidenhout, Khunou, Mosoetsa, Sutherland and Thoburn (2007) studied the impact of globalization and poverty on households of employment and the restructuring of the textile industry of South Africa. Workers in textile sector who in the globalization game of industrial restructuring and trade liberalization are retrenched or let off, are examined for this effect on household livelihoods poverty. It is seen that job insecurity was increased and unemployment was higher, thrusting families into deep poverty which may be transmitted intergenerationally.

Whalley (2006) examines the role of China in the world trading system given that it acceded to the WTO only in 2002. What are the merits to China as a result of WTO accession are examined with regard to key trade issues like anti dumping and textiles and apparel trade. Its participation in regional trade agreements and commitments in key service areas are examined.

Tewari (2006) challenges the frequently held position that price, volumes and cost competitiveness will be enough for export success among apparel producers in a post MFA scenario. She states that though cost competitiveness is important, non price and institutional factors are seen to affect the ability of producers to cater to variety, quality and timely delivery in addition to price. A constant emphasis on low wages and large volumes can lock producers at the lowest end of the value chain. An alternate path particularly by ending of quotas and a global division of labour should be considered an opportunity for producers to chart an alternate growth path based on deeper skills, innovation, design and quality upgradation in addition to lower unit costs.

Eichengreen and Tong (2006) analyze the impact of China’s integration into the global economies, particularly other Asian countries in three areas of capital goods, consumer goods and intermediates. It examines the role of vertical and
horizontal FDI and how they affect supply chain industries, the fragmentation of production and the emerging international division of labour. Countries specializing in the production and export of components and raw materials felt positive effects from China’s growth, while countries producing consumer goods felt negative effects.

Su, Gargeya and Richter (2005) examined the global sourcing shifts in the US textile and apparel industry. The last decade saw the trade agreements like NAFTA, CBI has aided the increased global sourcing to sustain competitiveness. The textile and apparel manufacturers and retailers have been forced to look at suppliers who could meet the criteria of low cost, high quality, reliable delivery, quick response time and flexibility. The patterns of sourcing have shifted to Mexico and CBI countries compared to imports from mainland China and Hong Kong in 1993.

Shelton and Wachter (2005) examined the effects of global sourcing on textiles and apparel in the context of quota elimination. Trade of the USA has been significantly impacted by the forming of trade agreements with ‘near shore’ countries of Canada and Mexico through the NAFTA and the CBI. These trade agreements have influenced the production, manufacturing and sourcing of textile and apparel products. It has affected the small and large scale restructuring of the industries in response to the changes in trade of textiles and apparel.

### 3.2 The Commodity Chain and Value chain literature

Immanuel Wallenstein’s (1976) World systems approach was the basis of the global commodity chains approach. He called a world–system a social system that has ‘boundaries, structures, member groups, rules of legitimating and coherence’. He goes on to say that a world system is one in which there is extensive division of labour. It is not only a functional or occupational division of labour but also geographical. There is also the phenomenon of a ‘social organization of work, which
magnifies and legitimizes the ability of some groups within the system to exploit the labour of others, and to receive a larger share of the surplus.

A second aspect of Wallenstein’s world systems approach is that the world economies are just divided into the core states and the peripheral areas. The peripheral states are indigenously weak. The complexity of economic activities, strength of the state machinery and cultural machinery are also weaker. Two or more regions are integrated through the market than through a political center, and are independent with respect to necessities like food, fuel and protection.

Frederick and Gereffi (2011) uses the global value chain approach to analyze the upgrading trajectories of leading apparel exporter at the end of textile and apparel quotas and the economic recession. This has also been affected by the consolidation and reconfiguration of global supply chains. The findings were that Asian countries competitive success was due to end market diversification. They have benefited from deeper linkages into textile production, apparel design and branding, which has been key drivers of the industry. Though regional trade agreements like NAFTA and DR-CAFTA have provided proximal countries access to the US market and ties to branded manufacturers, they have created reliance on US exports and hindered suppliers from improving their individual strengths.

Yrkko, Rouvinen, Seppala and Anttila (2011) studied the capture of value in global supply chain of the NOKIA N 95 Smartphone. Interesting, grass roots work on the geography of the value added for a NOKIA N 95 smart phone was studied. Final assembly commanded only 2% of the value added, and though it was mostly offshore, in China, Finland or India, developed countries to which the phones were sent, like Europe and the US commanded up to 51 or 68% of the total value of the product even when they played little role in supplying the physical components. They conclude that the capture of value added is largely detached from the flow of physical goods. Instead services and other intangible aspects of the supply chain
dominate. International trade statistics provide little or no indication of the change in the value of the end product

Oro and Pritchard (2011) studied the value chain restructuring of the Australia – Japan beef trade. Value chain restructuring is studied with respect to the beef trade between these countries. Earlier Japanese investors had constructed captive governance arrangements to coordinate the production of high value beef for the Japanese market. Now this is affected by changes in the institutional environment and a path dependent co-evolution of firms. It has been caused by declining beef consumption in Japan, Japanese retail consolidation affecting competitive advantage, process upgrading of US and Australian beef firms to undertake process upgrading and the exogenous shock of a BSE outbreak in 2003.

Nathan and Posthuma (2009) studied the implications of global production for Indian firms and labour. They state that world trade has been growing faster than world income, but the volume of international trade has fallen much more than world income, which is surprising. He attributes this as due to components entering into trade as components and then again as full products when exported. Global production networks (GPNs), global value chains (GVCs) and global commodity chains (GCCs) are explanations used to explain this process.

Ruben and Zuniga (2011) described the impact of coffee certification schemes in Northern Nicaragua to demonstrate how standards were set against each other. Small holder farmers are increasingly subject to different kinds of standards that offer specific conditions for market incorporation that impacts farmers welfare because of their rigorous procedures and the degree of upgrading to be taken up to be part of the value chain. A comparison made across income, production and investment of small holdings revealed that they differed in terms of risk behavior, loyalty, gender attitudes and loyalty. The standards compared were Fair Trade, Rainforest Alliance and Café Practices labels. It was seen that Fair trade practices support initial market incorporation, but it is private labels that offer incentives for quality upgrading.
Pickles and Smith (2011) studies the concept of delocalization and persistence in the European clothing industry. The European clothing industry followed changing geographies. It examines how sourcing strategies shift towards the globalization of production networks alongside an intensification of the regionalization of clothing production in low cost producing regions of East central Europe and North Africa that are proximate to major markets.

Scott and Gibbons (2011) study the emerging threats to MNC subsidiaries and the cycles of design. He observed a number of activities that are being phase out in the dealing between the MNC and the subsidiary. Subsidiaries found themselves in hanging positions due to growing complexity in corporate governance, eroding barriers to trade, the use of ICT and lowering of control. Disaggregation of value chains are seen to occur which lead to lowering of bargaining power and resource mobilization capabilities.

Abonyi and Van Slyke (2011) studied about the role of the governments in the event of globalization of production. What are the implications for governments and how can they improve their interactions with business in strategic and beneficial ways. They revealed the importance of governments to understand global value chains, value chain related trade facilitation, investment in logistics and the importance of strengthening enterprise clusters, effective education, skill development and training.

Waldron, Brown and Longworth (2010) examined China’s agricultural mechanisation programme to build high value supply chains and large modern agro industrial enterprises to study its effect on rural development, food safety and trade. It is seen that as a part of the high value beef supply chain, Chinese agricultural modernisation to fast track chains have perverse outcomes.

Verhart and Pyburn (2010) examine the contribution of women in global value chains, which are traditionally undervalued in the literature. Harsh labour conditions and insufficient valuation is a common phenomenon in the horticulture
and garment chains. In the agricultural chains, they illustrate that particular intervention in a global coffee chain enabled the revaluation of women’s contribution and improved their position.

Thomson and Nadvi (2010) examine the CSR (corporate social responsibility literature in relation to local country supplies. They argue that local collective action through industrial associations can potentially reduce costs and promote local embeddedness of CSR initiatives. The national regulatory frameworks and international networks are different for value chains governed by lead firms and those where CSR pressures come from a variety of sources.

Ras and Vermeulen (2009) observe that sustainable development in business practices has resulted in businesses on the demand side formulating sets of requirements for sets of suppliers to develop their CSR standards. Sustainable development needs to be promoted through market interactions and this needs to be taken up by developing countries in global value chains. They develop a model explaining business performance with entrepreneurship and apply it on South African table grapes producers.

Ponte (2009) examines conventions of quality and supply chain relations in the South African wine industry. He argues that agri-food lead firms do not govern chains solely on the basis of buyer power, market share and economies of scale or scope. He states that wine quality conventions are transmitted into specific functional division of labour and supply relations. Lead firms are able to drive a value chain only when industrial and market conventions are dominant because they are easier to convey and transmit.

Kundu and Chopra (2009) examined the value chain for Indian coffee to see whether digital tracing technologies in value chains were useful to provide consumers and users enhanced information about specific products. Here Chilean wine and Indian coffee was examined. The ‘fair tracing’ was a research project funded by the Engineering and Physical Sciences Research council of the UK. The
ideas was that the use of tracking technologies will help increase the value chain ‘rents’ that accrue to farmers in developing countries by allowing them to charge more for differentiated products increasingly demanded by informed consumers.

Kaplinsky and Morris (2008) describe the benefits of value chain analysis as a tool to enhance export supply policies. Mainstream economics may examine the policy agenda for exports as a series of behind, beyond and between the border trade related issues. The discussion of rent and rent appropriation, the growing role of standards and turnkey production are done. They examine contemporary value chains having a reduced likelihood of supply chain programmes in low income economies outside of Asia.

Gibbon (2008) carries out a reinterpretation of some GVC Concepts from the experience of African clothing exports. He examines the influence of culturally specific conventions of industrial organization and quality on GVC governance, entry barriers and suppliers upgrading possibilities. There exist differences in the shape of clothing production and trade into these markets that neither MFA phase out nor financialisation of specific conventions of industrial organization and quality can overcome.

Gereffi (2007) examines the effect of global economy changes on China, India and Mexico, which have divergent development models. He argues that the apparel industry also illustrates the consolidation trend because of a shift in international regulation after 2005. The industrial upgrading trajectories in China and Mexico are compared using international trade data to look at export profiles in key industries and products.

Knorringa and Pegler (2006) examine the effects of upgrading on labour impacts. The upgrading by developing country value chains are expected to lead to improvements in developing countries, through the activities undertaken in the chain. But they observe that the broader and forceful process of immiserising growth makes it unlikely that workers in such relatively low skilled production
activities will enjoy improvement in labour conditions. Ethical standards in sourcing agreements may lead to improvement of labour conditions but this may not be always followed.

Sturgeon (2008) expanded on the theory of global value chain governance (GVC) developed by Gereffi, Humphrey and Sturgeon (2005). He suggested that the buyer- and producer-driven GCC typology was based on a static, empirically situated view of technology and barriers to entry, but both are dynamic because of technological change and firm- and industry-level learning (Henderson et al, 2002; Ponte and Gibbon, 2005 cited in Sturgeon 2008) This led him to adopt a more dynamic view of chain governance because there was a clear shift away from the vertically integrated, producer-driven variant in a range of industries, and the buyer-driven type could not characterize all of the network types being observed in the field. Sturgeon suggested firm level governance depended on what were the activities bundled in each node of the chain, and how each node passed knowledge, information and material to the next. He put forward five generic ways that firms coordinate or ‘govern’ linkages between value chain activities. They ranged from simple market linkages, to modular linkages, relational linkages captive linkages and hierarchies. The type of these linkages varied depended upon three distinct variables, the complexity of information exchanged between value chain tasks; the codifiability of that information and the capabilities resident in the supply base.

Pratt (2008) stated that the global commodity chain concept was not possible to be applied without changes for cultural industries and focus on the full cycle of production was required, rather than linkages alone.

Bair (2005) described global value chains are ‘Sets of inter-firm networks which connect manufacturers, suppliers and sub-contractors in global industries to each other”. Werth (2008) has described that they have “socially dependent and shifting boundaries, different degrees of monopolization, and variations in geographical extensions, different property arrangements and different modes of labour control” (Fold & Larsen, 2008 cited in Werth (2008)).
Review of the Literature

As a tool for development studies GVC analysis deals with examining “the diversity of insertion of developing countries in international trade and seeks to identify the opportunities they offer” (Daviron & Ponte, 2005).

Amin (2004) in a World Bank sponsored study on the Cambodian Garment Value Chain found that it worked well as an analytical tool. It was useful to examine the non state barriers in specific chains and enabled a holistic view of processes and institutions. In the environment of global manufacturing and services environment, there was a shift towards increased information, virtual integration, network seeking FDI, integrating logistics and collaborating with network partners in an environment of the WTO, this called for the use of value chain analysis to study the Cambodian Garment supply chains. The unit of analysis here was the network of suppliers and buyers that produced a product. The aim was to identify policy induced costs, but also non state transaction costs (e.g. logistics, manufacturing support).

Barnes and Morris (2008) in their study of south African firms linking into global automotive value chains found that though substantial upgrading occurred within the south African automotive industry as a result of linking into chains, they were increasingly being subject to tighter market conditions, the travails of excess global production capacity and the emergence of low cost production locations principally in Asia was a serious limiting factor to these firms. Though in the short term they benefited from insertion into the global value chains, the long term sustainability and development of the industry is questionable because of the need to develop the national industrial policy and to adopt the world class manufacturing standards.

Hassler (2005) examined the Indonesian garment chains centered in Bali to study how locally developed Batik specialize based cloth and embroidery products was organized and governed within the local and global economy. It also examined how it was organized and the benefits of the same. Production was
carried out within extensive networks of rural home industries and the localized nature of this enabled upgrading in aspects like product development.

Tuvhag (2008) has examined the value chain of fair-trade coffee, focusing on income and the vertical integration. The emphasis is on the fair trade impact that links the producer and the consumer, and recognizes that it is becoming increasingly differentiated with value being added in the consumption markets in the North, where rents are large. The study revealed that though the concept of fair trade increased producer incomes and their market power, the increase in the final retail price as a result of fair trade branding did not necessarily accrue to the producers, because other inefficiencies further down the chain, ate into these margins.

Grunsen and Smakman (2001) draw on the East Asian apparel industry observes how LDCs industrialize and advance their position in the world economy. They suggest that the first type of strategy such firms used are the retention and wage depressing strategies which focus on shifting the burden of labour cost or shortages elsewhere to be able to compete on the basis of low wages. This has been done through the use of foreign labour and the relocation of production and /or international subcontracting. This results in the multi-layered/multi-tiered network of production and distribution in many different countries resulting in ‘triangle manufacturing’. The second type is the more proactive strategy aimed at upgrading and changing firm competitive advantage. He distinguishes between upgrading within competition and upgrading beyond production (into ODM, OBM, marketing, retailing and distribution). A third strategy they suggested was the surrender strategy implying a partial or complete exit from the industry.

Palpaceur, Gibbon and Thomsen (2005) analyzed the clothing import patterns and sourcing practices of major clothing retailers in the UK, France and Scandinavia and relates them to corporate financing in the United Kingdom. A central conclusion of this paper is that GVCs are now reaching a level of maturity
that imposes new limits on the opportunities they provide for developing countries. The sourcing networks of global buyers have spread over a large range of countries and regions, clothing consumption in developed countries is almost entirely fed by imports from developing countries but high-capability—and in some cases globalized—suppliers have reaped the benefits of service-based and volume-based upgrading to build high entry barriers into their competitive positions. In these maturing chains, growing pressures from financial markets are also skewing the distribution of value in favor of shareholders to the detriment of established suppliers, casting serious doubts on the contemporary relevance of classical “industrial upgrading” paradigms.

Gwynne (1999) examined the export oriented agriculture in Chile and how it interacted with the global agri-food system. The Chilean fruit industry has recorded a rapid growth in exports over two decades. The relationships between global processes and local response are explored in relation to a particular region in Northern Chile and the impact of this of the local land and labour markets as well as on the rural institutions of the region.

Leslie and Reimer (2003) examine the home furnishings commodity chain and how it has been influenced by cultural industries like fashion. Furniture manufacturers have been forced to introduce more products frequently and compress their product development cycles. Due to the dominance of retailers, new power relations are set and they influence style changes. Furniture is affected or has to follow trends in clothing, or in related sectors like home ware. They bring out the multi-stranded and multidirectional nature of commodity networks where individual commodities like furnish in metamorphose with other types of goods in industries like fashion, furniture cosmetics and jewellery.

Schmitz (2006) examined the power of the global value chain approach in explaining the growth of production capabilities and the distribution of gains in the garment and footwear industries. It looks at how the changes in production capabilities have affected upgrading opportunities of local enterprises. The extent
of the product and process upgrading is examined and whether functional upgrading is significant. He found that though evidence was there about the distribution of gains, it remained weak.

Bair and Dussel Peters (2006) examined the endogenous growth in exports and sustainable development of Mexico and Honduras, which has been linked with the United States through global commodity chains since the mid 1990s. They observe that the apparel industry in the region is not benefiting from linkages with the Americas because of the regulatory regimes with rules of origin designed to benefit US fabric manufactures. They were also affected by competitive pressures from China and restrictions in the institutional and macroeconomic environment of the region.

Raikes, Friis Jensen and Ponte (2000) compared the two important methodological positions used for analyzing the political economy of global production and trade- the global commodity chain analysis and the filiere tradition. It looks at the similarities and differences as well as some criticisms of them.

Hughes and Reimer (2004) describe the geographical aspect of commodity chains relating to how places have become connected to one another and in what places. Here the commodity chain is used as a strategy to understand the wider dynamics of global social and economic change. The exotic food industry, the African horticultural exports, agricultural liberalization and tropical commodity supply chains are described from the point of view of their geographical spread and globalized connections.

Scott (2006) examined the low technology labour intensive industries of footwear, clothing and furniture to examine the geography and distribution. The similarities and contrasts in the geography of production between more developed and less developed countries and the commonality of agglomeration despite level of development is a common feature. Spatial agglomeration and international
commodity flows function as mutually reinforcing phenomena and is a common feature of production sharing agreements and subcontracting arrangements between high-wage and low-wage countries.

Bair (2008) analysed embedded networks and global chains approaches. As frameworks to study global economic organization, they are compared in terms of their connectedness of actors and activities. The study contrasts the micro sociological foundations of the embedded network concept, and contrasts it with the commodity chain approach which understands network governance in terms of power relations or ‘drivenness’. She highlights that the recent theory of global value chain governance developed by Gereffi, Humphrey & Sturgeon (2005) departs from a macro sociological tradition of earlier networks to a micro oriented understanding of governance that draws more from transaction cost theory.

Krueger (2007) brings out the ethical issues surrounding global supply chains of multinational companies in developing countries, with special reference to China. He analyses the ethical norms and compliance components of such industry wide regimes in the toy, textile and consumer electronics industries and how these are applied in the multinational supply chains in China. He observes that heightened public moral pressure and expectations and the need to manage long term reputation, and financial costs through standardization of policies, procedures and compliance monitoring has caused the Chinese supply chain partners to be committed to these standards.

Morrison, Petrobelli and Rabelloti (2008) examined the global value chain analysis in the light of the ‘technological capabilities’ to innovation among LDCs. Though the firms in LDCs benefit from participation in value chains, it is seen that the chain approach does not examine the issues of learning and technological effort at the firm level. The endogenous process of technological capability development at the specific firm level effort must be highlighted and this calls for a shift in the empirical and theoretical approach incorporating technological as well as knowledge flows within and between different global chains. A harmful
neglect of the analysis of the detailed mechanisms linking value chains with local firm learning and innovation may be taken care of by incorporating a TC (technological capability) approach.

Humphrey (2006) in his study on the policy implications of trends in agribusiness value chains of nontraditional agricultural products finds that it offers potential for economic growth and poverty reduction but increased vertical coordination of the chains by lead firms puts pressure on small farmers ability to upgrade. They are challenged by unrealistic demands posed by public and private food safety standards.

Kanji, MacGregor and Tacoli (2005) describe how the two methodological approaches, livelihood analysis and value chain analysis can be combined. Livelihood research tends to focus on people and prioritize the local context whereas value chain analysis focuses on relationships and other linkages between firms prioritizing vertical linkages. Given the increasing interaction between local and the global aspects, a combined approach is advocated.

Keane (2008) suggests a new approach to global value chain analysis. She classifies the common approaches as ‘value distribution approach’; where final retail price is used as proxy to the division of value added or economic surplus. The input output approach assumes that a change in $x$ will result in a value added of $y$, but as firms do not operate in isolation they may be affected by other factors, she suggests that a combined approach of the value distribution and input output approach, in tandem with the interaction between internal and external GVC governance structures is called for.

Bair and Gereffi (2003) examine the developmental consequences of globalization at multiple scales using a commodity chain framework, of the North American apparel industry. Though the industry is driven by lead firms that coordinate production and sourcing, their decisions have implications for workers in many communities. Though external linkages have benefited firms in many
developing countries, the institutional environments are a crucial factor in shaping international networks and mediating their consequences in the particular communities where chains touchdown. The WTO, NAFTA, CBI, national and local level regulatory regimes (industry associations and labor markets) were found to be key influencing factors deciding firm outcomes.

3.2.1 Governance in Global Value Chains

Palpaceur (2000) built on Humphrey and Schmitz's (2000) background paper to develop a number of propositions regarding the characterization of governance in value chain analysis. Gereffi (1994, p. 97) defines chain governance as "authority and power relationships that determine how financial, material, and human resources are allocated and flow within the chain". Humphrey and Schmitz (2000, p. 2-3) stress that governance involves the co-ordination of economic activities through inter-firm and intra-firm relationships, and draw on transaction-cost theory to identify various modes of governance or co-coordinating mechanisms. He brings in the role of power relations and coordination mechanisms in the definition of chain governance. The importance of coordination mechanisms between and within firms is studied as well, to examine the determinants of governance modes or the foundations of power relations and coordination mechanisms within chains. This led to the development of a matrix of governance modes where power –asymmetrical and symmetrical power and coordinating mechanisms that were based on the market, trust or rules were examined.

Humphrey and Schmitz (2002) have stated that the concept of governance is central to the global value chain approach. It refers to the inter firm relationships and institutional mechanisms through which non market coordination of activities in the chain takes place. This is enabled by the setting and enforcement of product and process parameters to be met by actors in the chain. They state that the facilitatory role of governance is possible when buyers set and enforce parameters because of the risk of producer failure. Product and process standards are also set
by government agencies and international organizations dealing with quality standards or labour and environmental standards.

Messner (2004) used the concept of a ‘world economic triangle ‘ to describe the question about the scopes of action open to regions (a local firm, public organizations and policymakers) in the new world economy. He attempts to find out the global governance structures that are relevant for local actors and how they affect local development. He examines whether local actors have the autonomy and resources they need to deal actively with new demands placed by the global economy, to build specific competitive advantages and to influence and shape their region’s prosperity.

Messner (2004) highlights the two central discourses in the world economy of governance. He suggested the two approaches as the neoliberal perspective and the intergovernmentalist perspective.

Neoliberals describe a worldwide economic policy which sets the stage for firms, or states to engage in a locational competition that has a minimal regulatory framework. It suggests the lowest possible level of political intervention in global financial, goods and labour markets. It advocates open and unregulated global markets based on a weak multilateral regulatory framework, developed by international organizations or coordination between states. The objective of global governance, international cooperation and coordination of economic policies are needed as a means of ensuring rule systems that guarantee property rights, safeguard free trade, ensure free movement of capital and minimize state intervention. This approach is highlighted in the “the Washington Consensus”. (Williamson 1997, cited in Messner (2003).

The Intergovernmentalist perspective calls for a global regulative policy, to temper global market forces. According to Messner (2004) this is an approach highlighted by Fred Bergsten (1996), Dani Rodrik (2000, 2001), Joseph Stiglitz (2000) and Vincent Cable (1999). This is called for because economic processes
are increasingly international and national organizations may no longer be able to control or shape these movements. Dense multilateral cooperation and coordination among states or in inter- or supra national organizations (e.g. IMF, World Bank) are needed. The objective is to create a worldwide market economy geared to responsible social, economic and ecological aims, where the actors can involve in fair and efficient free markets, which has equal trade capital, technologies, intellectual property rights and national currencies.

Gereffi, Humphrey and Sturgeon (2005) built on the initial concept of ‘buyer driven’ and ‘producer driven’ governance developed by Gereffi (to better explain governance in global value chains. The study draws on three streams of literature- the transaction costs economics, production networks and technological capabilities and firm level learning to develop three variables that largely determine how global value chains are governed and how they change. The three variables they highlight are:

a) The complexity of transactions,
b) The ability to codify transactions and
c) The capabilities in the supply base.

Based on this the study identified five types of global value chain governance. These were hierarchical, captive, relational, modular and market based- ranging from high to low level of explicit coordination and power asymmetry. It highlighted the dynamic and overlapping governance variations through industry case studies in bicycles, apparel, horticulture and electronics.

Gibbon, Bair & Ponte (2008) in their introductory paper on governing global value chains, stated that it was the concept of governance that had received the most theoretical and empirical attention in global value chain studies. According to the literature, governance has three kinds of interpretations- as a driving mechanism, a coordinating mechanism and as a normalization mechanism. The driving interpretations relate to Gereffi’s (1994) producer driven and buyer
Driven governance structures. This was based on the premise that producer driven chains were driven by manufacturers while buyer driven chains by retailers and/or marketers. This was based on the Fordist model of vertically integrated mass production in industries such as motor vehicles. The buyer driven concept was highlighted in the relationship between overseas buyers and clothing manufacturers in Asia. Governance as coordination was highlighted by Sturgeon (2001, 2002) in his study on electronics industry. The ability of competent ‘turn key’ suppliers to provide their clients with a full range of services without much dependence on lead firms was possible through ‘modularity’. The ability to coordinate was determined by:

1. The complexity of the information and knowledge required to sustain particular transactions:
2. The ease with which information is codified and transmitted efficiently between parties and
3. The existing capabilities in the supply base with regard to the particular transaction.

In the third analysis of governance as ‘normalization’ means to realign or change a given practice so that it mirrors or materializes a standard or norm. These involve prescriptions about what actions buyers should take when governing a value chain, and what specific qualities suppliers should aim for and how they should secure them. This approach was mainly highlighted by Gibbon and Ponte (Ponte, 2002; Daviron & Gibbon, 2002; Daviron and Ponte, 2005; Ponte & Gibbon, 2005) to establish that the immediate normative environment within which value chains operative decides what actions buyers should take when governing a value chain and what specific qualities suppliers should aim for and how they should secure them.

Gibbon & Ponte (2008) examine the governmentality literature and sees economic governance primarily in terms of the difference in distribution of
attributes between firms along with gains. It looks at invoked modes or practices and interprets it through economic agents’ descriptions of their own governing or governed practices. It looks at the role of expert practices and expert knowledge in GVC governance. A drawback they identify is that the governmentality literature glosses over or fails to highlight problems associated with the actual implementation and effectiveness of ‘expert practices’.

Ponte and Gibbon (2005) examined the role of quality standards and conventions in governing global value chains. They observe that global value chains are becoming increasingly buyer driven, though the coordination of chains is becoming increasingly remote controlled. This is possible because lead firms have been able to embed complex quality information into widely accepted standards and codification and certification procedures. The writers draw on convention theory to state that it is the legitimacy of the content of quality and the tools for managing quality that will be taken up by firms by the help of a set of shared values and on legitimized procedures for measuring quality performances.

Ritter (2007) that instead of considering the hierarchies, markets and networks as three different types of governance means, he suggests a framework incorporating all three. The relationship governance mode is suggested by markets, hierarchies and networks, where markets and hierarchies were two sides of the continuum.

Haan & Oldenziel (2003) in their report by SOMO which is an independent research agency was called upon by the Dutch trade union FNV to carry out the assessment on whether IKEA was implementing its firm standards called ‘the IKEA Way on Purchasing Home Furnishing Products’ brought into focus the increasing importance of third party assessments of governance in factories. This is seen in the case of large retail chains. The independent assessment agency SOMO conducted studies at three factories in three countries which are important supplier countries to examine whether factories ascribed to the IKEA code of conduct. It was revealed that issues like child labour was not common and health
and safety rules were generally followed (in the first tier suppliers). Protective measures needed to be better used. The use of bonded labour was seen in two cases and most frequent violations was reported in the areas of freedom of association and the right to collective bargaining, wages and hours of work.

3.3 Emerging trends in trade globalization

Thoburn, J., Nguyen Thi Thanh Ha., & Nguyen Thi Hoa (2002) describe globalization as the process of integration of countries into the world economy through trade liberalization. It takes place in a context where firms increasingly plan their production on a worldwide basis aided by developments in transport and communication. The trade liberalization process of countries aim to reduce the anti export bias, associated with the ‘protection of infant industries’ argument against imports, and to realize economies of scale though exports, greater exposure to technological developments and increased competitive pressure on the import side.

Despite increasing non tariff protectionism, trade has increased. International trade of sixteen industrial countries has grown significantly faster than their output. Exports grew at an annual rate of 4% compared to a GDP growth rate of 2.7% (Maddison 1991: 74 cited in Sander, 1996).

Another aspect is that between 1965 and 1985 there was a relative increase in the developing countries’ share in world manufacturing production from 14% to 18% and their world export share in manufactured goods increased from 9% to 18% (Singh 1994: 177) reports that over the 1980s third of the world’s manufactured exports grew with an annual rate of 12%- two or three times faster than the corresponding number for industrial countries.

An important outcome of the process of globalization is a felt perception of increasing uncertainty and vulnerability, because of the struggle for competitive advantage between firms and within and between countries (Oman, 1994:33 cited in Sander 1996). This calls for an increasing extent of corporate restructuring and
downsizing as well as structural changes, temporary unemployment and emphasis on change and learning new practices.

A fourth aspect is that the internationalization of production has been considerably increased by technological and organizational innovation. Improved communication technology, contributes to a changing international division of labour. The use of organizational alliances and international cooperation through strategic alliances has led to the possibility of flexible production systems, just-in-time production, closed supplier and customer relations, steady and incremental product developments and tailored sourcing.

The flexible production system has the potential of contributing to globalization and regionalization simultaneously. Globalization because the multinational firms aim to be present in all major regions of the world economy and a regionalized production is achieved because flexible production systems is one which relies heavily on highly integrated regional production networks (UNCTAD 1994 in Sander 1996). Some of the aspects that characterize international trade are:

3.3.1 Global sourcing

The growing stickiness of market access means that as firms search for ways to strengthen their textile and clothing base, firms have clear differences in the methods and nature of export. It is increasingly organized by powerful buyers, mainly large retailers and branded merchandisers such as Walmart, Gap and Nike, who coordinate chains (Gereffi, 1994, Bair and Gereffi, 2001, Dicken, 1998, Humphrey and Schmitz, 2000). Trade in this phase is called ‘sticky’ because market access is dependent upon suppliers’ entry into increasingly concentrated clothing chains and production networks. After the MFA it is believed access to major markets is more constrained as global buyers structure their sourcing patterns towards highly competent full package suppliers.
These suppliers would have the capability to provide made to order assembly operations but also accommodate variability in design, local and proximate sourcing of high quality fabrics and accessories and handle both small as well as large volume production effectively (Gereffi, 2000, Gibbon 2004, Palpaceur et al 2005, Smith et al 2004).

In this scenario firms cannot hope to compete internationally on the basis of low cost or freer trade alone but on the ability of local suppliers to meet increasingly stringent demands for quality, customization and short lead times, in addition to keeping costs low. Other considerations are the ability to replenish in time, sensitive, quick selling items, making location in supplier choice a key consideration (Abernathy et al 1999, Abernathy, Volpe & Weil, 2004, Nordas 2004, Palpaceur et al 2005).

3.3.2 Outsourcing

This is emerging in the area of product design and development services. The simplest form of this sourcing has been the purchase of intellectual patents or knowledge blocks as components from a services company. The role of R&D is increasing. Firms speak of developing partnerships with third party R&D services for their product development. This is to achieve reduced time to market or to drive down costs of development in a sustained manner. Another approach is to develop a variable cost model for product development. The idea is that the product company will focus on creating a core platform for their products and use the partner to develop custom variants for end customer segments. If the market grows and they need more variants the partners would take care of this and the company need not invest for people for those variants in advance (Imani, 2004).

3.3.3 Trends in retailing

An important trend in the retail practices of the present is the increased use of information technology and systems in the last two decades. Retailers can now
exchange point of sales information- a relatively accurate measure of consumer
demand- with their suppliers and accordingly require manufacturers to replenish
orders at a faster rate than the past. Manufacturers no longer have the luxury of
months or weeks. They are forced to reshape their production planning methods,
cost models, inventory practices, production operations and workforce utilization
as well as sourcing strategies. These new practices are called lean retailing
(Abernathy et al, 2000). The key premise behind lean retailing practices are:
provide a variety of desirable products, procure them at low enough cost to make a
profit, use information and related technologies to adjust continuously the supply
of products offered and try to reduce their own direct product costs and indirect
cost of demand uncertainty….the cost of stock outs, mark downs and inventory
carrying costs.

3.3.4 Moving responsibility to suppliers

Technology is becoming important to companies that wish to sell into retail
channels. Some firms may hardly be able to develop such a system on their own;
instead they must find ways to team up with big suppliers as garments are sewn in
different parts of the world. Large trading houses based in Hong Kong and
Singapore look for progressive manufacturers which can be integrated into the
evolving value chain. When buyers and suppliers use IT, it means suppliers must
take on new responsibilities. Lean retailing, moving responsibility to suppliers is a
strategy. Retailers are under pressure to cut the quantity of goods stocked so that
there are fewer items to be sold at reduced prices. This means outsourcing
traditional activities like warehousing and stock replenishment. TAL apparel, a
shirt maker in Hong Kong (China) has an arrangement with retail giant JC Penney
in the United State that shows how manufacturers can provide new services to
buyers that go beyond the traditional supplier role.

TAL provides JC Penny with related services such as sales forecasting and
inventory management. JC Penny stores hold now no extra stock of specific
items. This is possible through point of sale data collected directly from their
American stores by TAL, using computer modeling to decide how many shirts to make in what styles, colours and sizes. Tal downloads sales figures from specific stores of JC Penny, determines the ideal inventory level for that brand, style, colour and size, and this is made by a China based factory which ships it to the shop. In fact the retailer is informed how many shirts they have just bought. Benefit to JC Penny is that some functions are done better and cheaply by TAL. For new styles, sales data is analyzed for a month and TAL decides how much to make and in what colors. They manage the entire process from design to ordering yarn, and can thus bring a new style from the testing stage to full retail role out in four months, much faster than JC Penny could do on its own (Hirsch, 2006).

In the early days of the industrial revolution, the mechanization of the textile production was one of the methods by which highly industrialized countries of today established themselves. The newly industrializing countries of south East Asia, namely Hong Kong, the Republic of Korea, Taiwan and Singapore used the rapid expansion of their textile manufacturing industries to fast forward their growth (Misra, 1992).

Although textiles and apparel are frequently treated as a single industry, there are important economic differences among its component parts. Depending on the end use, the products of the industry are divided into apparel, home furnishings and industrial products. In between these categories, apparel is most labour intensive and large scale production is less important because of the fashion orientation (a bias towards shorter runs).

Based on the end product, the textile complex is divided into the production of fiber, fabric and final products. Fiber may be either synthetic or natural. Natural fabric is cotton or wool. Synthetic may be polyester, nylon, and acrylic, poly propylene which have a chemical base and are produced by large corporations (Grennes, 1989).
The pattern of world trade supports the proposition that low wages are a bigger advantage to apparel producers because of the labour intensive nature of clothing. In 1986 three of the four largest apparel exporters (Hong Kong, South Korea and Taiwan) were developing countries, and China and Turkey also appear among the top 10 (GATT 1987, p.66 cited in Grennes, 1989).

3.4 The Multi fiber Agreement

Sluggish domestic demand in industrial countries which led to stagnant or even declining output and employment accompanied with penetration of the Japanese cotton textile exports increased the pressure of these countries to impose restrictions. The Short term agreement in cotton textiles was reached in 1961 this was followed by the Long term Agreement in 1962. This put a 5% growth limit on import of cotton products into developed countries (Thongpakde & Pupphavesa, 2000).

The upside of these developments was that developing countries like Taiwan and Korea were able to expand their exports to industrial markets rather than their going down. This was because of technology improvements and emergence of manmade fibers. This led to the US starting further negotiations on the MFA in 1973 and it came into effect on Jan 1, 1974. Under the MFA all exports were subject to quota when total exports from an exporting country reach a certain share to total imports in the country of destination (Yang, 1999). In 1985 the International Trade and Clothing Bureaus was formed to seek to end the MFA and return textiles and clothing to normal GATT rules.

It was decided to cede the textile & clothing complex to GATT rules over a ten year period starting from 1995 under the Agreement of Textiles and Clothing (ATC). Under this agreement at the start of each phase, importing countries must integrate a specified volume portion of their imports based on total trade volume in 1990.

A transition safeguard mechanism was also brought up, which can be applied to products not yet integrated into GATT at any stage. This can be brought
up against individual exporting countries if it were demonstrated by importing
country that a sharp and substantial increase of imports from individual exporting
countries caused serious damage or loss of revenue.

The ATC Agreement called for a gradual phase out of the MFA quotas
and an acceleration of the rate of quota growth for quota restricted to the
relevant domestic industry (Thongpakde & Pupphavesa, 2000). For products
not yet integrated, the quotas for remaining products were phased out in four
stages. The first three covered the periods 1995-97; 1998-2001 and 2002-2004
in which the countries needed to integrate sixteen, seventeen and eighteen
percent of their trade volumes during 1990 respectively. Forty nine percent of
their volumes was left for the last phase of integration beginning January 2005
(Elbehri, 2004).

Parallel to implementation of the ATC agreement, the United States
concluded several preferential trading agreements (NAFTA, CBI, Andean,
AGOA) which significantly altered trade patterns away from MFA sources into
greater bilateral trade with preferential partners in the Americas. This meant that
during the quota restriction period, preferential exporters have been able to
expand their market shares at the expense of MFA restricted suppliers. The rules
of origin has enabled such shifts in trade patterns, favouring a two way trade
favouring textile exports by the United States and increasing textile imports
(Elbehri, 2004)

Verma (2002) described certain trends that were rife in the years just before
the abolition of the MFA and which had an impact on the industry fortunes in the
post MFA era. Some of these observations were

a) Developed countries if not through quotas then through other non
tariff based means will exhibit protectionist tendencies. Anti
dumping and countervailing actions will be more common after the
MFA.
b) Newer methods of protecting domestic industry were constantly evolving. These may be in the form of labour standards, environmental friendliness or product safety standards. Documentation formalities and rules of origin are some of the ways these are manifested.

c) Bilateral agreements will be used as eco labeling as a protectionist measure calling on countries which are affected by shifting of production, to promote production based on technologies that reduce water pollution in key production processes.

d) Many private organizations are entering the market for controlling trends, measurement of ethical measures etc. For such private initiatives, the aim is towards cleansing the global manufacturing and trade of textile and Clothing sectors. Examples are WRAP (Worldwide Responsible Apparel Production and AIP (Apparel Industry Initiative). Factories are rushing to get themselves ethically certified as demanded by retailers.

e) Intra-Regional trade flows are intensifying while trade between regions fall. NAFTA for example is becoming increasingly inward looking in terms of trade. Trade preferences that the NAFTA gives to Mexican producers will substitute products from Asian region. Non member countries like India stand to lose, more so because India is not a member of any active trade agreements.

f) Global markets are characterized by stronger retailers, and supplier hubs like India will have to look to follow new rules and tools.

3.5 The Indian Textile and Clothing Complex

The textile industry is very significant to the Indian economy by virtue of its rich history in India, in addition to its dimensions in culture and heritage. It is fair to say that any study of Indian history should include a detailed treatment of textiles in India (Badri Narayan, 2008).
According to the FICCI report (2004) on ‘Ending Of Multifiber Agreement And Indian Textile Industry’ the industry is said to have a great legacy because it evolved and developed at a very early stage and its manufacturing technology was among the best. This was reinforced by the ancient traders’ interest in the Indian fabrics. According to Chou ta Kuan, the Chinese observer, ‘preference was given to Indian weaving for its skill and delicacy’.

3.5.1 Historical Background

Textiles have historically formed an important component of India’s exports. Marco Polo’s records show that Indian textiles used to be exported to China and South East Asia. It was also a significant portion of the Portuguese trade with India (FICCI, 2004).

The textile and apparel sector is the second largest employer after agriculture with more than 35 million persons engaged in it. It contributes 5% to the GDP, 30% to total exports and 20% to industrial production. It remains one of the earliest established industries as well as a major sector responsible for rapid growth of NICs. The backward linkages with agriculture and related activities are well established, through the manufacture of natural fibers, like jute, silk and cotton (Badrinarayan, 2008).

According to FICCI (2008) it has a significant position in the global textile map as it is the third largest producer of cotton and cellulose fiber/yarn, second largest producer of cotton yarn, largest producer of jute, second largest producer of silk and fifth largest producer of synthetic fiber yarn.

Other benefits mentioned are abundant availability of domestic raw materials, well developed network of R&D, design and testing institutes and a growing pool of skilled workers. It has the largest spindleage in the world and nearly one third of the world loomage (excluding handlooms).
Compared to a number of countries which have established their fortunes with the establishment of a flourishing textile industry, the performance of the Indian textile industry, is a study in contrasts. Despite the fact that textiles were one of the first major industries to be established in India it has been among the slowest growing industries. According to Misra (1992) during the period 1956-57 to 1981-82 net value added in textiles grew at 3% per annum against the average of 5.5% per annum for all industry. High incidence of sickness, increasing obsolescence and low levels of modernization were distinct characteristics. From a peak share of 58% of all developing country exports of textiles (including garments and other textile products) in 1953, India’s share fell precipitously to a meager 8% by 1969. (Wolf 1982, p.33 cited in Misra (1992).

3.5.2 Structure of the Indian Textile Industry

There is no doubt that one of the factors that has made the fortunes of the Indian textile industry so different from other developing countries is because of the policy framework. A key feature is ‘export pessimism’, a development paradigm overwhelmingly biased by the small scale, labour intensive manufacture of mass consumption goods, and a state based regulation and controls that was akin to strongly socialistic governments (Misra,1992). It had a complex and widespread web of regulations, which largely originated in the pre independence period, and where interventions in the form of policy statements or textile policy adjustments have played a mitigating role.

Misra (1992) describes five features of the Indian textile sector, mostly consequences of state intervention, which characterize the industry:

a) A combination of a very broad spectrum of production techniques, from the hand operated to the sophisticated, automated technology, within the same geographical region. This is both complex and unique, with the modern sophisticated mill sector on one hand and the handloom, power loom and hosiery sector on the other. This dualistic manufacturing structure is dominated by the decentralized or
unorganized sector comprising of the handloom, power loom and hosiery sector (FICCI, 2008).

b) India’s position is unique in that it has a presence across the entire value chain, starting from the fiber production, spinning, weaving, knitting processing and garment manufacturing.

c) The distinct trend towards decentralized small scale manufacture in the unorganized or informal sector, which represented about four fifths of the total cloth output. This has been accompanied by a corresponding decline in the cloth output of the organized mill sector in relative as well as absolute terms.

d) The sustained predominance of cotton as the primary raw material of the textile industry, accounting for 89% of total fiber consumption as opposed to the world average of 50%.

e) The existence of a large public sector, comprising nationalized mills and sick private mills taken over by the government which contributes one fifth of total textile production.

f) A high domestic orientation of the industry with exports playing only a marginal role. This is in contrast with a number of countries in south East Asia which are heavily export oriented.

3.5.3 The Evolution of Handloom Industry

The handloom industry is the second largest provider of employment after agriculture. India has about thirty lakhs of looms. Close to ten crore of people are using handlooms as a source of employment. In 1970-71, the cloth production was 228 crores.

The history of the Indian artisan in the nineteenth and twentieth centuries must begin with textile production (Roy, 1999). It is right to say the history of textiles has a unique significance because of its cosmopolitan nature. It was a mass
consumed good, that no one could do without, and its history is woven into the history of inland trade and patterns of consumption. The percentage of persons employed in the textile industry is still the largest compared to other industries. The Indian textiles have been transformed by exposure to foreign trade and commercialization. Textiles have historiographic significance and it represents a sector that still remains, thriving in some areas, and less successful in others.

Roy (1999) describes cotton textile production in India as an example of a craft threatened by steam powered technology or of pre modern industry threatened by the Industrial revolution or even of Indian livelihood threatened by industrializing Britain. Despite an unequal contest, handloom weaving in India was not wiped out.

It is said that the spinning and weaving of cotton cloth was a part of everyday life in ancient India. From a very early period cotton textiles constituted an important item of trade with Rome and Greece. The Portuguese crowns’ interest in boosting the textile trade from India was not borne out of a mere goodwill to regenerate the Indian trade but to serve the interests of the metropolis and her colonies of greater economic importance. These textiles carried from India were used in Portugal, consumed within the country itself, re-export to the ports of Brazil and the African coast, and re-export to other European countries (Stephen, 2008).

Diverse weaves, methods and techniques

The heterogeneous nature of raw materials and additives, and the vast differences in the activity of weaving have led to the diversity in the handloom industry. Commercial hand spinning of cotton was wiped out due to competition from British and Indian machine spun yarn. Many inputs varying from mineral dyes, jari and raw silk were produced in bulk. Between 1900 and 1939 production of cotton cloth expanded by about 30%. Moving from a family oriented business,
new investments were made, urbanization was taken up, and wage labour was utilized in place of family labour (Roy, 1999)

The Fact-Finding Committee report on textiles (1942) described parts of the industry that were doing well and parts that were in depression. Depending upon the final product the weaver could obtain higher or stable incomes as in the case of the jari combined silk sari, or diversify or migrate into a dynamic segment. In other cases there were limits to such a strategy and the weavers had to work harder for less income, or had to leave the trade.

Another aspect was that there were distinct segments not just in terms of the cloth that was produced but in terms of the product, region, cast and community, which was at no point static but dynamic. According to Roy, there were constant changes between segments, overlap of segments, and movements of capital and labour between segments. This segmentation among producers has been explored in detail. It is seen that average standards of living were much higher among silk and fine cotton than in course cotton weaving. The nature of weaving and social status was associated, and it is stated that “parallel to the hierarchy in earnings, there was a hierarchy of earners. There were four major social orders, the services castes, the Muslim weavers of north India, the Hindu cotton weavers and the Hindu silk weavers (Roy, 1999).

The Padmasaliyas was a predominantly Telugu speaking weaver caste. It was the cotton weaving branch of the broader category of Saliyas, and were based in Andhra Pradesh and migrated to the Deccan towns like Sholapur to work in mills and supply capital and labour in the handloom factories in the early twentieth century (Roy, 1999). It was from this caste that weavers were brought into the Kannur region to provide woven fabric for the royalty of the region.

Cotton textile of very high quality were being produced and exported from centers like Kanchipuram, Madurai and Tanjavur. Ramaswamy (2006) describes Sangam classics (first century to sixth century AD) like *Silappadikaram* and
Manimekalai. Cotton and silk cloth was exported from the ports of Pumpuhar, also called Kaveripumpattinam, and the separate streets for weavers which were called the karugar vidi or aruvai vidi.

3.5.4 The Reforms Era in the Indian Textiles & Clothing Sector

It was the textile policy of 1985 that heralded a new beginning for the Indian textile sector that was marred by structural weaknesses and by poor productivity that was neither cyclical nor temporary (FICCI, 2008). At that time the main task before the industry was to increase production of cloth of acceptable quality at reasonable prices. This was believed to be achievable through cost efficiencies and a freer play of market forces rather than through controls and restriction.

The textile policy of 1985 addressed the issue of raw material supply at reasonable prices, progressive reduction of duties on synthetic materials, removal of entry and exit barriers along with emphasis on technology modernization and increasing competitiveness of textiles in the international market. Advantages commonly mentioned as accruing to the Indian textile sector are strong and diverse raw material base, cheap labour, growing domestic market and better technologies than other developing countries (FICCI, 2008).

3.5.5 Constraints of the sector

According to Verma (2002) policy constraints facing firms in the pre MFA era included

a) Product specific costs – according to Khanna (1991) cited in Verma (2002) materials contributes to 55% of the cost of a garment while fabrication overheads and finishing constitute 22%, 15% and 9% of the cost of the garment. One barrier to higher productivity of textiles lie in the structure of the Indian textile sector. With only 5% of fabric being produced in the organized mills and about 57% being produced in the decentralized power looms (over and above the 17% knit
fabric), the quality of fabric supply for garments is poor. This is compounded by the fact that garment manufacturing is reserved for the SSI. This means they have an advantage to provide small orders, seasonal demand schedules and niche market needs. This leaves out large organized mills from the purview of garment production. Production flexibility, and fashion orientation is required to enable switching from one style or colour to another at short notice. Power looms carry out this function better compared to organized mills.

b) Factor costs. The high labour intensivity means manufacture is taken up increasingly taken by developing countries. However, low wages does not mean greater competitiveness. In fact higher wage levels are taken to represent greater levels of skill productivity and automation. Verma (2002) has indicated a study by Lall(1999) that revealed export firms paying more to their labour than domestic market firms, the reason being attributed to the unique and indispensable skills of designers, pattern makers and craftsmen, as well as the specialized cutting and tailoring skills employed by exporting firms.

c) The extremely fragmented value chain in India is because of the government’s SSI reservation policy. It was strongly biased towards preventing modernization, quality investments, scale adoption and change in product mix. A negative bias to the development of synthetic fibre and MMF fibre based clothing means leaving out large tracts of global markets like Latin America and Asia, which demand synthetic and blended garments. The excise duties on synthetic and blended products is higher than cotton. High customs duties for raw materials in the synthetic sector is in place. This has provided protection against the synthetic sector and prevented product up gradation in cotton based items.
d) Cost of raw material (fiber) Indian cotton prices have been lower than international cotton prices of comparable varieties due to a ban on imports and control on exports of cotton. This gave advantages to Indian textile and garment exporters. The synthetic fibres were allowed to have a higher price because of the ‘luxury fiber’ tag. It is seen in the customs duty rates. Import tariffs on cotton were 5.5% but at the same time it was 48.5% for manmade fibers. (ICAC, Textile Outlook International, cited in CII- Roland Berger, 1999).

e) Issues of supply chain management. The need for functional integration is high when the product lifecycles are short, and where the competitive intensity is high. A synchronized management of the flow of physical goods and associated information from sources to points of consumption enabling delivery of enhanced customer and economic value is supply chain management. The Indian textile and clothing industry has one of the longest and most complex supply chains in the world with close to fifteen intermediaries between farmer and final consumer. This leads to lengthening of lead time as well as adding cost. Verma (2002) states that cotton worth Rs. 100 from farmer to spinning unit, cost inflates to Rs. 148. By the time it reaches the final consumer, it costs Rs. 365. The supply chain in India is extremely fragmented due to government policies and lack of coordination between industries and relevant trade bodies. Competitiveness is directly related to the degree of consolidation.

3.5.6 Policy Based Constraints

Kathuria and Bhardwaj (1998) describe the policy restrictions on growth in the garment industry. It needs to be highlighted that it is based on a system of decentralized production which is related to the problems in labour legislation and exit policy as well as the reservation of the garment and hosiery production for the
small scale sector. The upside is the possibility of subcontracting of labour, the low cost of labour and flexibility of production.

The decentralized system may have contributed to firms not taking up garment production on a large scale. The sewing and cutting operations constitute 21.5% of overall cost, materials contribute 54.5% while finishing and overheads contributed 9 and 15 percent (Khanna, 1991 cited in Kathuria and Bhardwaj 1998). This decentralized structure, with a variable number of fabricators, in subcontracted work has enabled reduction of cost, flexibility of meeting even small orders and creativity of Indian designers in fabric printing. They describe the Indian garment industry as being niche based, focusing on low volume and high variety of output, enabled by flexibility in the system of production. This has however limited the country’s ability to enter the mass market, demanding consistent quality across huge volumes of a single item of clothing. Some of the findings of the study centered on the crucial areas to consider in a post MFA setting were:

a) Abolishing the reservation for small scale industry and allow FDI in the sector.

b) Including a labour policy to manage labour needs and reductions.

c) remove the policy bias against synthetic fibers

d) Policy bias in favour of cotton based products and against MMF needs to be redressed.

e) Reservation of 22 textile articles for the exclusive production of the handloom sector has been neither enforceable nor beneficial to handloom firms other than becoming an area where corruption is rife. This should be done away with.

Khanna (2002) observed that in a period from 1973-94 the regulatory mechanisms of the country heavily tilted towards the decentralized subsectors (handlooms and power looms) at the cost of the mill sector. This was seen in the
assistance provided to power loom sector in the form of state protection. The textile policy aimed at regulating distribution of yarn, its production and product prices. It was the yarn distribution scheme of 1972 that specified mills should supply 50% of their yarn production to the decentralized sector at reduced rates. This effectively reduced the ability of mills to improve their performance. It was during the 1985 Textile policy that a change in this regard was brought about. The modernization of the textile sector became a late goal. The Textile modernization fund was started in 1986 by IDBI and the National Renewable fund in 1991.

According to Badri Narayanan (2008) key features of the industry in India include a broad spectrum of production technologies, a distinct trend towards decentralized manufacturing in the informal sector, sustained predominance of cotton, a very huge sick public sector, recent trend of manufacturers adopting modern techniques . A bias towards natural fibres and conventional production is also seen.

At the time preceding the end of the MFA the textile industry contributed about 3% to the GDP, accounted for over 14% of total industrial production and contributed 24% of total exports. It also was the second largest employment provider employing over 38 million people directly and another 50 million indirectly (FICCI, 2008).

3.5.7 Adjustments in India’s T & C Industry: Emerging Issues and Trends

In January 2005 all remaining quotas were abolished and the textile and clothing sector became fully integrated into the regulatory framework of the GATT. It is believed that this has led to a substantial consolidation of global supply networks, creating winners and losers. A widely cited study by the WTO uses models based on relative price competitiveness and degree of pre abolition quota restrictiveness face by individual countries to project that China’s post MFA share could triple from 16% to as much as 50% after 2005 and India’s could quadruple from 4-15% (Nordas, 2004).
It was believed that poor countries like Bangladesh and Sri Lanka would be hard hit, while India and China would benefit. Even as import quotas would be lifted other protectionist barriers would remain and yet others were expected to be erected. Developed countries charge two to three times more excessive tariffs on garments and textiles than on other manufacturing sector exports (The Hindu, May 6, 2004).

Oxfam GB urged developed countries to cut import duties to 4%. It ranged from 12% to 40% for some categories. Rich countries are still charging excessive tariff rates. They are also able to use non tariff barriers like anti dumping and anti subsidy provisions of the WTO to block competitive imports from developing countries. Many developed countries also abuse the ‘rules of origin rules which ensure that imported goods are sourced from the country actually exporting them. This affects countries like Bangladesh which buys most of its fabric and yarns from abroad while manufacturing garments for export.

It was expected that textile exports of India of about $11 billion would rise to $20 billion by 2010. This was because it was the only country with an integrated supply chain in the sector. In other words it grows raw cotton and silk as well as produces manmade fibre within the country. Yarn and fabric conversion is also carried out as well as garment production by Indian factories (The Hindu, May 6, 2004).

The author describes that Indian manufacturers must be able to cope with the increased manufacturing of outsourcing of clothing by firms in EU and the US. Assured supply of output, price competitiveness is important. Upgrading of technology is another concern. He suggests that the budget proposal must exempt all new and old capital goods imports from duties must be immediately seized by manufacturers. For small scale manufacturers they need to use the technology up gradation funds of the MOC (the Hindu, September 10, 2004).

If reservation for small scale industry in textiles and clothing continues buyers will only source from established big players who are considered more
reliable and smaller players will be eliminated unless they develop supply linkages with big producers. The issue is will India be in a position to reap the gains. It may be frittered away due to a lack of preparedness (The Hindu, September 10th, 2004).

The Union minister of textiles Shlankarsinh Vaghela at that time, said Rs. 60000 crore of investment was needed to meet the increased demand for products. A branding strategy was needed which needed to be facilitated by the government. He expected exports would double after the MFA, and lead to creation of at least two lakh new jobs (The Hindu, October 6, 2004).

In expectation of the MFA ending in Jan 2005 the annual budget planned for the next year was aimed to increase competitiveness. Some of the moves were to free natural fibers from excise duties, strive for greater investments, set higher standards for quality and react faster to global developments. The then union finance minister spoke of a need of scaling up in the garments sector and emphasise on garment production in manmade fibers. In the vision document of that time was a targeted investment of rupees 140000 crores by 2010. Added to this the industry was to try and ensure an export of fifty billion dollars by 2010 instead of forty billion dollars envisaged by the document (The Hindu, Aug 6, 2004).

Union minister P Chidambaram in February 2005 announced a package to make textiles more competitive in the world market. This included substantial enhancement in the allocation for the textile ministry’s Technological Upgradation Fund Scheme (TUFS), introduction of a capital subsidy scheme for the processing sector in addition to the normal benefits available under TUFS. The allocation of TUFS was been increased to Rs. 435 crores from Rs.340 crores of last year. Processing units were able to avail themselves of a 10% capital subsidy. A special package announced in the 2005-06 budget proposed to reduce customs duties for manmade fibers, textile fibers yarns and intermediates, fabrics and garments from 29% and that on a large number of textile machineries from 20% to 10%.
According to Commerce and Industry minister Kamal Nath, India in the beginning of 2005 was poised to double its share of foreign trade to reach 1.5% of world trade by 2009. Towards this goal, the national trade policy of 2004-09 took an integrated approach. India was committed to focus on reducing tariff peaks, high tariffs and tariff escalation of products of export interest to developing countries. India was in negotiations for economic cooperation agreements with various countries and trading blocs for service industries (The Hindu, Feb 4, 2005).

Among the SAARC (South Asian Association for Regional Cooperation) countries, intra SAARC trade remains poor. The reason is because some SAARC countries are intense competitors in global trade because of their similar export baskets. They all look to the West for opportunities and in south Asia intra regional trade is just about six billion, out of the region’s global export of 200 billion dollars.

One way for India to overcome this is by bilateral FTAS. They work better than regional agreements because just two parties are involved. The benefits of cost effectiveness when sourcing from neighboring countries rather than the US or Europe, the process of value addition within the region by sourcing raw materials or products from neighbouring countries can also be considered. It must learn from south East Asia and ASEAN (The Hindu, November, 2004).

3.5.8 Trends in the Industry post 2005

In the post 2005 era India’s share in the world market has been receding. This is with respect to other industries in the country and with textile industries in other countries. This is evident in the steep fall in share of Indian textiles in the international market and in the total Indian exports (Badri Narayan, 2008).

In examining the trend of export of various textile product groups over the years, during the era of phasing out of textile quotas, it is seen that the shares have been falling in the different textile product groups from 1996-97 to 2005-06.
Phasing out of the MFA quotas has not affected the relative size of textile exports (Badri Narayan, 2008).

There was a great deal of expectation about the export performance of India in the post MFA era, but in value terms textile exports have not increased greatly relative to the value of total exports. Beena (2006) noted that the growth of the textiles and apparel exports by South East Asian countries has been low post 1995, and attributes it to industrial structure related constraints.

Textile exports dipped in the second half of the 2006-07 financial year. It was understood that the appreciation of the rupee was a contributing factor. The government proposed to set up a technology mission on technical textiles to direct the growth of the emerging area in a time bound manner. It would continue with the Integrated Textiles Park Scheme and the Technology Upgradation Fund Scheme for the textile industry.

Policy circles recognized the need for investment, adjust to need for scale and scope, generate efficiencies and engage in ruthless cost cutting. The change must be from a low cost, low value supplier to high volume high value supplier, and to enter into own branding and labels and global footprint. The government was looking to develop proposals for investment, training persons in specific textile related trades and a programme to revitalize handloom cooperatives on the pattern of agricultural cooperatives.

Crucial was the need to set up investment regions in a public-private partnership (PPP) mode with high quality infrastructure and covering the entire value chain. This would help obviate the burdens imposed by multiple levies, high power costs, bottlenecks in shipments and delays in legal clearance (The Hindu, September 7, 2007).

The export community has also suffered the effects of appreciation of the Indian rupee, despite the relief package announced by the Government. Not only was there a steady decline in textile exports but the industry was hurt by the
corresponding depreciation of the US dollar. Most international trade is carried out against the greenback and prices are fixed well in advance for the exports. As a result, the exporting units have also taken a beating on the price front, affecting their profits. The industry attributes the rupee appreciation problem is attributed to the policy of the foreign institutional investors (FIIs). The industry sources called for the need to control rupee appreciation through measures like a minimum lock in period, additional taxation called the Robert Tobin tax on funds bought in by the FIIs (the Hindu, February, 2008).

3.6 The Small Scale Sector in relation to T&C

Das (2005) states that the increased awareness about the organization of productive activities particularly concerning the small and medium enterprises (SMEs) has been a global phenomenon, intensive particularly in the last three decades. Their contribution to economic development has been remarkable. One reason was stated as because of the discernible shift in the nature of demand, that underscored the need for highly customized and hence small batch of production.

The literature on the benefits and dynamics of small firm production was hinged on flexibility and their effects on employment generation, endogenous entrepreneurial growth, regeneration of local economies and local innovative potential, besides earning valuable foreign exchange.

The interest in the role of collectivity or spatial togetherness of firms grew from Alfred Marshall’s work. The concept of the ‘industrial district was expanded by him. Coase (1937) cited in Das (2005) expanded on the ability to organize production and reduce transaction costs. Beccatini (1992: 38) reinterpreted the Marshallian definition bringing in the ‘socio-territorial ‘ aspect- the role of the community of people and a population of the firm in one naturally ad historically bounded area (Das 2005). This was broadened by the concept of the ‘industrial district’ popularized by Piore and Sabel (1984). The
focus of their studies was the adaptability that was manifested in the
technological and organizational domain. This led to the flexible production,
flexible manufacturing and automation etc.

New interest has developed in the phenomenon of clustering – why firms
group together, for economies of scale, scope, local innovation or upgrading. It
was Humphrey and Schmitz (1996) who highlighted the importance of trust,
reciprocity and mutualism as the life blood of industrial clusters. They talk about
the ‘collective efficiency’ the competitive advantage derived from local external
economies and joint action that acted as a catalyst of industrial growth (Schmitz
1995; 530). Porter (2000) described the role of clusters in the global economy and
how they were able to contribute to export markets.

3.6.1 High Road and Low Road Growth

A key aspect that differentiates clusters – depending upon their origin,
product type market or nature of production is whether they are ‘high road’ or low
road’. Low road refers to cases where ‘business dynamism is promoted through
investment in ‘efficiency enhancement and innovation’. Pyke and Sengenberger
(1992) found this was a characteristic of developed countries. The low road growth
is characterized by negative firm strategies like cost cutting through reducing labour
income, poor input use, inadequate or no networking, technological stagnation or
absence of learning mechanisms. Research by Nadvi and Schmitz (1994) and by
Schmitz and Nadvi(1999) show that in developing nations most clusters carry ‘ low
road’ characteristics and some a combination of the two.

The small firm and the small firm sector in India have been extensively
discussed in the literature, and what is common in these discussion is the
variations in the definition of what is ‘small’. It is seen to vary from industry to
industry. In many cases it is relatively looked at. Definitions look at the
differences in the number of employees, capital investment and the output, the
levels of organization, technology, source of power and type and quality of
products. Small firm terminology includes terms like small-scale, informal, small firms, micro enterprises, small sector and so on. (Gang, 1995). They can be considered as belonging to three subsectors

a) the traditional village industries including handicrafts

b) Small unregistered household and non household nits not covered by the factories act of 1948.

c) Registered factories.

3.7 Cluster Development

Targeting of small scale industries through cluster based programmes started with the State Bank of India initiatives in 1989 followed by the Small Industries Bank of India (SIDBI) in 1991. UNIDO started the cluster development programs in four Indian clusters in 1997 (Gupta, 2006).

According to Gupta (2006) the UNIDO initiative introduced a holistic and demand led approach for identification of the problems in a cluster, and introducing interventions that would be implemented through local intermediaries like associations/ networks of SSIs and technical agencies and service providers. Yumi Fujino, UNIDO India representative mentions that in India, despite the fact that various policies and economic incentive schemes exist, SMEs are in general not able to reach the schemes due to their limited capacity for understanding and absorbing such benefits. Policy coherence is absent for SME development at the central and regional levels.

Clusters are considered to be the drivers of the textile sector as about 80% of production in the country is carried out in seventy or so textiles and clothing clusters in the country. There are considered to be thirty nine powerloom clusters and thirteen readymade garment clusters spread across the country. There are pockets of concentration according to the availability of raw materials. They are exported to more than a hundred countries, though the US and the EU account for more than two thirds of India’s textile exports. The recession in key markets
pulled down exports over 5% in 2008-09 in key markets, though after the MFA, exports went up to upto 22.13 billion from 13.5 billion dollars in 2003-04 (Chandi, 2010).

3.7.1 Clustering As a Rival Theory

It may be said that the cluster approach can be considered as a rival theory to be considered in the study. Can the benefits that accrue to firms occur because of having a cluster linkage? To examine this, the use of the term clusters is first examined.

The academic literature uses the term ‘cluster’ in different ways. The definition of Porter (1990) was as a group of firms engaged in similar or related activities in a national economy. The second definition based on Schmitz (1992) emphasizes geographic proximity, defining a cluster as a geographic and sectoral agglomeration of enterprises. The sectoral agglomeration of firms attracts customers, traders, workers with related skills, suppliers of inputs and services and additional producing enterprises trying to benefit from the markets being created. The interactions of many firms may be beneficial and cause existing institutions in the cluster to enhance their participation or promote the creation of new ones (McCormick, 1999). Being in a cluster may encourage firms to share information and engage in learning with other firms. The belief is that over time it may change existing institutions and promote the creation of new ones. A shift from production to trade related aspects, to services or to external markets is also part of this change.

3.7.2 Collective Efficiency

One of the benefits that are said to accrue to firms in clusters itself and not to dispersed firms are related to the advantages of grouping together, called collective efficiency (Schmitz, 1995). This may result because of external economies. This is the unintended or incidental by product of economic action.
It is said to be the passive side of collective efficiency. Four types of external economies are common in enterprise clusters. They are market access, labour market pooling, intermediate input effects and technological spillovers (Marshall 1890, Krugman, 1991, Nadvi and Schmitz 1994, McCormick 1999).

Market access is one of the common aspects of external economies. Similar enterprises in a single location attract buyers from both the immediate vicinity and more distant places. Labour market pooling is the concentration of specialized skills that develop within manufacturing clusters. This skill upgrading happens as a result of both skills getting upgraded within the cluster and new persons who already have relevant skills migrating into the cluster. Technological spillovers refer to the diffusion of technological knowhow and ideas. As firms are in close proximity, they are encouraged to learn from each other and to share ideas. It may lead to the clusters’ upgrading and eventual development.

Intermediate input effects are externalities associated with the emergence of specialized suppliers of inputs and services. Suppliers of inputs often arise in the cluster and may be also by specialization taken up by existing firms (McCormick, 1999).

The concept of joint action is the active dimension to collective efficiency (Nadvi 1996). This occurs when firms consciously choose to cooperate and collaborate. This is an outcome of their locating close to each other. Bilateral or multilateral cooperation may exist. Bilateral as in equipment sharing or contract manufacturing, utilizing unused capacity or multilateral as in the emergence of associations or buying groups in order to gain group advantages. Joint action can also be vertical when it is said to be between different members of the production chain. When they are at the same level, like two similar producers or traders it is horizontal.

A discussion paper initiated by the SME Branch of the UNIDO by Humphrey & Schmitz (1995) brought out the importance of clustering in
developing countries and sectors and showed that clustering and networking was beneficial to small and medium sized enterprises to raise their competitiveness. Research in clusters was encouraged when the Industrial districts of Italy in the north east and center and in other regions of Europe were studied for their success despite being small. The works of Piore and Sabel (1984), the ILO (Pyke, Becattini and Sengenberger 1990; Pyke and Sengenberger 1992) presented the success of these regions which had a particular model of development. It was based on the emergence of linkages and cooperation between the SMEs which were enabled to have flexibility and responsiveness because of the economies of scale and scope. The lessons were called the Triple C by Humphrey and Schmitz (1995). This means customer oriented, collective and cumulative. The successful policy actions for SMEs is ensured if these policies are

a) Driven by the needs of the customer. A customer orientation help them to tackle the key problems of competitiveness and successful interventions should help SMEs learn about the customer needs and obtain technical assistance to help firms meet these needs.

b) It is directed to groups of firms. This helps to lower the transaction costs than assistance to individual enterprises and it helps generate relationships between enterprises which improve the efficiency through cooperation and mutual learning.

c) Able to enable the cumulative capacity of the cluster to upgrade and become less dependent on support. Ultimately groups of enterprises should be able to develop processes of improvement deriving from inter firm linkages and contact with the market. This makes policy support redundant over time.

3.7.3 Clusters in Global Value Chains

Oliver, Garrigos and Porta (2008) examine the complex interlinkages between clusters and other external agents, besides the ties which link clusters to
developing country markets, or linkages between clusters in similar activities. The role of multinational enterprise (MNE) affiliates is examined which play a fundamental role of knowledge diffusers and absorbers. The study reveals that though the basic knowledge to successfully complete is locally originated, it is complemented with global knowledge learnt or generated in other territories. It is seen that MNE affiliates bridge structural holes and reduce knowledge asymmetries within global value chains.

Humphrey & Schmitz (2002) describe the link between the upgrading possibilities of firms in industrial clusters, when these clusters are inserted into global value chains. They examine the benefits or outcomes of insertion in terms of the upgrading strategies available to firms. Though the literature on industrial clusters focuses on the role of inter-firm cooperation and local institutions in upgrading, the value chain literature looks at the role of global buyers and chain governance in defining upgrading opportunities. They describe the types of upgrading as process upgrading, product upgrading and functional upgrading. Process upgrading refers to the transformation of inputs into outputs more efficiently, by reorganizing production process or by introducing superior technology. The product upgrading is the entry of firms into new or sophisticated product lines which have greater unit values. Functional upgrading refers to the process by which firms acquire new functions or abandon existing functions to increase the overall skill content of activities. Intersectoral upgrading is also described when firms of clusters move into new productive activities which use similar knowledge or practices. They state that governance as coordination, is based on the specification of the following aspects:

a) What is to be produced: - specifying the design of products, both in broad conception and detailed specifications?

b) How it is to be produced: - here firms must define the production process, the technology, the quality standards and the labour or environmental standards specified by firms.
c) Physical product flow: how much is to be produced, when, and how the flow of product along the chain is to be handled.

Based on the combination of the above two aspects, the types of upgrading and degree of coordination mechanisms incorporated by firms, four types of relationships are distinguished in value chains. These are:

1. The arms length market relations: buyer and supplier don't develop close relationships, because it is a standard product that can be easily customized by non-transaction specific standards. These are usually verifiable by independent certification. Though the supplier has the capability to produce the product the buyer wants, the buyers' requirements (including quality, reliability, etc) could be met by a range of firms.

2. Networks: here firms cooperative in information intensive relationships and divide the value chain competencies between them—a reciprocal dependence. Product performance or process standards though specified would be achievable by the supplier.

3. Quasi hierarchies: one firm exercises a high degree of control and specifies characteristics of the product, the processes to be followed and the control mechanisms to be enforced. The lead firm in the chain exercises control not only over its direct suppliers but also down the chain, and this because of the buyers' perceived risk of losses from the supplier's performance failures. This happens in a situation when there is some doubt over the competence of the supply chain.

4. Hierarchy: the firm takes direct ownership over some operations in the chain.

5. One of the conclusions of the study was that insertion in quasi hierarchical chain offers favorable conditions for fast product and process upgrading but hinders functional upgrading. It was observed
that in chains characterized by market based relationships, process and product upgrading was slower, but the upside was that functional upgrading could be better undertaken since the barriers were fewer. The third finding was that firms in networks were most likely to upgrade but were least likely to occur in developing countries because of the high level of complementary competencies required and the corresponding investment it entailed.

Nadvi & Halder (2005) explored the dynamic linkages between clusters through value chains between the economically and socially different countries of Pakistan and Germany. Though the literature recognizes that external linkage for clusters through global value chain ties offers benefits not only in the distribution of physical goods, but also for knowledge flows and innovation, there is less evidence about the local clusters which enter global value chains on the basis of ties between developed and developing country clusters. It looks at the global surgical instrument industry that is linked through ties in Germany and Pakistan-leading production clusters that are able to meet the challenges put forward by global standards, low cost competition and advances in medical technologies. It highlights specific knowledge and production links to illustrate differentiation in each cluster, diverging trajectories and continuing ties.

Laven (2005) examined a related approach of the cluster and value chain theory to upgrading of primary commodities taking the case of the cocoa chain in Ghana. She states that the approaches to upgrading differ in both approaches, with the cluster approach depending on the local level governance by networks of public and private sector institutions facilitating upgrading. They focus on the incremental upgrading and the spread of innovations through clustering of firms and collective action. (Helmsing 2002; Humphrey and Schmitz 2000). The value chain approach considers the global chain governance. She attempts to bridge the research gap about whether local cluster governance and global chain governance reinforce or block each other and which will predominate.