2 A framework for analysis

The previous chapter showed that the garment industry has become globalised through large international sourcing networks, centred on a small number of powerful lead firms. Through incorporation into these networks, a large and increasing number of LMICs and LMIC producers are participating in garment exports. On the other hand, localisation tendencies in garment production are pronounced and garment producers commonly agglomerate in clusters throughout the world. As such, the garment industry provides an illustration of globalisation processes characterised by global integration and regional concentration of economic activity. What appears to emerge in garment production – as in other industries, and in fact in capitalism in general – is a pattern of intensified regionalisation rooted in a global division of labour (Scott, 1996). This pattern raises a number of questions, the most important of which regards the interaction between globalised production and regional or local industries, especially those in LMICs. Of further interest are the opportunities embedded in this pattern for the economic development of participating LMIC producers and the regions housing them. Finally, the way in which development opportunities are best exploited deserves attention. Because in later chapters these questions will be applied to the case of the Laguna region in Mexico, this chapter presents the relevant theoretical approaches.

Many modern studies of industrial development are based on a network-centred view of the economy. This chapter presents two network-based approaches that can be used for the analysis of the interaction between global industrial dynamics and local LMIC garment producers. Before discussing these two specific approaches, the first section presents a brief introduction of the rise of network-based approaches and of their main elements.

The second section presents one of the network-based approaches currently receiving much attention in industrial development studies: the global value chain (GVC) perspective (Gereffi & Korzeniewicz, 1994; Gereffi et al., 2001). This perspective concerns globalised industrial activity and emphasises the importance of vertical chain-based linkages and governance exercised through such linkages. Section 2.3 deals with localised industrial activity that commonly also relies on (local) network linkages. This section outlines the theoretical debate on the regionalisation of economic activity, in particular on industrial clusters in LMICs. The structure of such clusters, as well as the potential benefits of geographical agglomeration and localisation of horizontal inter-firm relations – especially in an LMIC environment – are discussed. One of the main benefits of the geographical proximity of production units within clusters may be the rapid diffusion of innovations and local best practices. Nowadays, the ability to learn and improve or upgrade is central to the discussion of industrial development, and these issues figure prominently in both GVC and cluster studies.

2.1 A new approach: focusing on firms and networks

Traditionally, the garment industry has been most directly associated with the new international division of labour (NIDL) theory formulated by Fröbel, Heinrichs and Kreye (1980). NIDL and the broad pattern it describes received much attention during the 1980s. It
was also increasingly criticised as mechanistic and simplistic, as explained in Box 2.1. Most importantly, the fact that it leans heavily on a world systems-type use of country groupings renders it incapable of dealing with the complexities of globalisation. This being so, NIDL is still closely associated with the garment industry and its internationalisation. It has influenced some more modern network-based perspectives on industrial globalisation, most notably the GVC perspective that will be discussed later in this chapter.

Box 2.1: The new international division of labour theory

NIDL is one of the most well-known theories dealing with the international relocation of garment production (Fröbel et al., 1980; see also Elson, 1988; Ernst, 1980; Massey, 1984). Based on developments in the German garment industry in the early 1980s, it proposes a progressive redistribution of labour-intensive manufacturing between DCs and LDCs. According to Fröbel et al. (1980), three preconditions apply for the NIDL to materialise. Firstly, developments in communications and transportation are needed for the rapid and reliable exchange of information and goods over large distances. Secondly, technical fragmentation of the production process should allow the shift of labour-intensive production activities to low labour cost locations. Finally, suitable locations with a cheap, abundant and disposable labour reserve need to be identified. When these conditions are satisfied, the result of NIDL is a relocation of labour-intensive production processes from industrialised countries to LDCs.

Fröbel, Heinrichs and Kreye regarded their NIDL as an inevitable outcome of the capitalist system – independent of the national development strategies of countries or the business strategies of transnational corporations (TNCs) – in which relocation was the best way to increase a firm’s profitability. At a practical level, during the 1960s an increased variety of clothes, although based on a more differentiated demand, was hardly or not rewarded with higher prices. Automation applied to increase productivity and maintain domestic production in industrialised countries had largely reached its limits. When on top of that the labour cost gap between industrialised countries and LMICs widened, relocation became inevitable and irreversible (Scheffer, 1992, 1995).

Based on its straightforward logic and powerful implications, NIDL theory has left its imprint on writing on international trade and production, especially with regard to the garment industry. At the same time, there was much criticism of the NIDL theory, mostly for its mechanistic character and for presenting a simplified view of both the world and the garment industry (Scheffer, 1992; Elson, 1988). One of the reasons NIDL cannot deal with the complexities of the worldwide trade patterns is its presentation of DCs and LDCs as a dichotomy. NIDL fails to differentiate between, for example, the ‘Asian Tigers’ and a country such a Cambodia that is just getting involved in the production and export of garments. Furthermore, NIDL pays no more than passing attention to the role of the state. As discussed in the previous chapter, this is an important weakness because regulations have contorted trade flows and forced garment buyers to depart from locating production in what otherwise might be ‘ideal’ sites (see also Glasmeier et al., 1992). In addition, NIDL is based on a highly simplified view of the garment firm (see Scheffer, 1992) and the entire garment industry: it does not take into account either product differentiation – for example, between standardised and fashion items – or market segmentation. As discussed in Chapter 1, both these aspects play a determining role in strategic localisation in the garment industry.
Since the 1990s, globalisation has characterised the world economy. A heated debate surrounds globalisation, its distinctive features and the way the globalisation process may affect and change business, cultural and political relations at various scale levels in the world economy. The garment industry is highly globalised and illustrates the main dilemmas of the globalisation process in general, as is discussed in Box 2.2. The great influence of the state on garment production and trade patterns through regulation at the supra-national and the sub-national levels has been discussed in the previous chapter. In the context of this chapter,
attention is focused on the analytical challenges that stem from the dynamic relationship between global and sub-national levels of scale.

In the last decades of the twentieth century, there were significant shifts in industrial economics and in regional development perspectives, most recently in response to the globalisation of the world economy (Preston, 1996; Hoogvelt, 2001). Traditionally, geographers concerned with regional development issues focused on local factors in explaining economic conditions. Later, under the influence of the 'dependencia school' the emphasis shifted away from such horizontal factors towards vertical forces in a hierarchical world system as explanatory factors for underdevelopment. The emergence of globalisation as a discourse in world affairs and development studies in the 1990s, borrows from both earlier approaches. The globalisation approach:

‘... challenges the separation of the various spheres of life (as between the economic and the cultural), is preoccupied with interaction patterns between actors [perceiving networks and clusters everywhere], and it raises the issue of scale levels. This last factor means that instead of implicitly adopting a horizontal [as the traditional regionalists did] or a vertical approach [as the structuralists did], the globalisation approach focuses on the questions what different scale levels mean in the development process and how vertical and horizontal forces interact with one another.’ (van Westen, 2001, p. 227; emphasis added)

For this study, the rise of the network concept as the new model of organisation of production in the globalisation era is particularly relevant. The network perspective, which emphasises the importance of regarding firms in relation to their environment, is far removed from the neo-classical economic models of the firm as an atomistic, abstract entity or ‘black box’. Capello (1996, p. 490) describes the consecutive shifts in economic thinking on firm behaviour:

‘The traditional models of the large, vertically integrated firm of the 1960s, and the small, autonomous single-phase firm of the 1970s and part of the 1980s, are replaced by a new type of large networked firm, with strongly decentralised strategic functions extending in several directions, and by new types of small enterprise, integrated into a multi-company network.’

Thus, since the 1990s, discussions on the driving forces behind globalisation have been based on a network-centred view of the world economy (Yeung, 1994, 1998, 2000; Dicken et al., 2001; Castells, 1996). Foreign direct investment by TNCs as representatives of large-scale Fordist production organisations and drivers of the internationalisation of production and trade is no longer the centre of attention in this view. Instead, the focus has shifted to trans-national networks as transmitters and reflections of their strategic behaviour.

In the 1990s, networking became akin to a new best business practice in the day-to-day reality of industries and business participation in business or production (Storper, 1997). This is in stark contrast to the network approach as an analytical tool, developed for the research of networks. Networks have become popular research subjects in economic geography and other disciplines. However, the multitude of interpretations has caused networks as academic, analytical concepts to be characterised as ‘a chaotic conception instead of a rational abstraction’ (Yeung, 1994). In a valuable attempt to re-focus the network approach Dicken et al. (2001, p. 94) argue the merits of a broad definition of networks:
Networks are structural, in that the composition and interrelation of various networks constitute structural power relations, and they are relational because they are constituted by the interactions of variously powerful social actors. These relationships can exist in the forms of rules, conventions, values, regulations and so on. (see also Yeung, 1994, 1998).

In this view, networks comprise various types of agents or institutions that act across various distances and through diverse intermediaries, rather than on a particular level of scale. Following this interpretation, this study focuses on participants in networks as well as on their relations and the structural outcome of these relations.

In network approaches many types of actors or agents – such as firms, states and labour unions – can be included in the analysis (Dicken et al., 2001; see also Yeung, 1994, 1998). Generally, however, firms and inter-firm relations are taken as a point of entry for the study of production networks (Gereffi, 1994a; Sturgeon, 2001; Christensen et al., 1990). Though the importance of including inter- and extra-firm linkages has been stressed, they have generally remained somewhat underexposed in network studies (Yeung, 1998).

Network relations are usually not narrowly understood as ‘pure business’ but are seen as embedded or ‘socialised’, and political, cultural or social relations feature prominently in many network studies. Network studies that stress interdependency between more or less equal partners tend to be optimistic in tone, stressing trust and cooperation over power, antagonism and enforcement mechanisms (Yeung, 1994; Schmitz, 1995, 1999; Piore & Sabel, 1984; Humphrey & Schmitz, 2000). Especially the issue of trust as part of economic network relations is receiving much attention (Fukuyama, 1995; Schmitz, 1999; van Dijk & Rabellotti, 1997). On the other hand, recently there has also been increased interest in the issue of power in the context of production networks (Yeung, 1994; Gereffi, 1994a; Gibbon, 2000; Dicken et al., 2001). Power can be exercised to control resources, influence events, exclude or marginalise, or create, join or escape networks.

In the context of international garment production networks, the roles of positive, trust-based coordination and of power deserve attention. Two network approaches that are compared and contrasted in this chapter stem from different theoretical backgrounds and emphasise different aspects and mechanisms. The global value chain (GVC) approach is based on a world systems view of the world economy, and places emphasis on vertical intra-chain linkages and governance or on power relations in explaining global divisions of labour. Cluster studies and other perspectives that deal with regional economic agglomerations tend to focus on horizontal, intra-regional linkages of an embedded nature, in which trust, cooperation and shared values play an important role. First, the global value chain perspective will be discussed, after which attention will shift to the analysis of networks from a cluster perspective.

### 2.2 A network view of global divisions of labour: the value chain

General trends towards enhanced flexibility based on, amongst other things, specialisation and vertical disintegration, coupled with the need for effective supply chain management, explain the rise of chain-based network concepts. In search for theoretical concepts that fit the workings of a globalising networked world economy, a number of authors have opted to ‘modernise’ existing production process-based concepts such as the filière and the production column. The 1990s saw the birth of a number of concepts that use production processes as a basis for the analysis of economic processes at different levels of scale (see Porter, 1990; Dicken
Not coincidentally, the GCC concept is based primarily on findings related to the most globalised of industries: the garment industry. However, its influence extends beyond the garment industry and it is used to conceptualise the production process and global industry dynamics in various industries. The GCC can be defined as 'a network of labour and production processes whose end result is a finished product' (Gereffi & Korzeniewicz, 1994). As such, commodity chains consist of nodes of operations that together constitute the whole of the production process (supply of raw materials, R&D, design, manufacturing, export and marketing), across the entire spectrum of activities in the world economy (Gereffi, 1992, 1994a). Since the 1990s an avalanche of case studies using the GCC perspective has hit academic journals dedicated to economic and/or industrial development issues. Indeed, a wide variety of products and industrial sectors have been subjected to GCC analyses in just the last few years (see e.g. on horticultural products, Dolan & Humphrey, 2000; on primary commodities, Gibbon, 2001; on timber, Edgington & Hayter, 1997; and on tobacco, Vargas, 2001). The application of the GCC perspective to different industries has led to new insights into the structure and functioning of specific chains.

Though akin to the production column – which assigns a central role to the material aspect of production – the GCC perspective is distinguished by its explicit focus on a number of non-material dimensions of the chain. As part of an ambitious research agenda, Gereffi (1994a) distinguished three basic dimensions of GCCs: an input-output structure, a territoriality and a governance structure. The most basic dimension of GCCs is the input-output structure, from the design and procurement of raw materials, to the distribution and marketing of the finished product. The second dimension – 'territoriality' or geography – identifies the geographical dispersion or concentration of raw materials, production, export and marketing activities. The third dimension – governance structure – is seen as an integral and highly important part of the chain. In fact, based on differences in governance structures, Gereffi (1994a) identified two distinct types of GCCs: 'producer-driven chains' and 'buyer-driven chains'. The former are those dominated by large, vertically integrated TNCs that control the production system. Such governance is characteristic of capital- and technology-intensive industries, such as the automotive and electronics industries. By contrast, buyer-driven chains are typical of labour-intensive, consumer goods industries (such as toys, shoes and garments), in which retailers, brand-name merchandisers and trading companies play the pivotal role. Governance in GCCs entails allocative power and authority based on the ability to coordinate the chain's input-output structure and control the core nodes of the chain. The governance structure determines how financial, material and human resources as well as economic surplus are allocated and flow within the chain (Appelbaum & Gereffi, 1994, p. 43; see also Schmitz & Knorringa, 2000). Attention is focused on vertical linkages mostly between unequal partners. Kaplinsky (1998) has pointed out how a strong position in core nodes of the chain, viz. those with high barriers to entry, allows lead firms to extract different types of rents. In the case of buyer-driven chains, relational rents (which are related primarily to the effective management or governance of inter-firm relationships), trade policy rents and brand-name rents underpin the strong position of buyers. Finally, a few early publications on the GCC concept mention the importance of an institutional framework 'that identifies how local, national and international
conditions and policies shape the globalisation process at each stage of the chain’ (Gereffi, 1994b, p. 97). However, so far most GCC studies have not dealt with the institutional dimension beyond the mere recognition that commodity chains are influenced by state policies in both producing and consuming countries.

Even though the GCC perspective has been applied to a number of industries the theoretical engagement with the GCC concept itself has been limited, which seems to have hampered its progression. Recently, a number of researchers have re-asserted the value of chain-based research and of a clear research agenda. They introduced the currently preferred term, which is also used in this study, ‘Global Value Chain’ (GVC)6 (see Gereffi et al., 2001; Humphrey & Schmitz, 2000; Kaplinsky, 2000).

By systematically incorporating production column elements into the study of international division of labour patterns, GVC represents in essence a valuable refinement of NIDL. Like NIDL (see Box 2.1), the GVC concept has its roots in world systems theory (see Terlouw, 1992). There are many similarities between NIDL and the GVC approach: both focus on vertical divisions of labour in the world economy as an integral part of the capitalist system, and both interpret such divisions in core-periphery terms. The focus on the chain of production activities and the attachment of core-periphery status to nodes in this chain – rather than centralising the nation state as unit of analysis as in the case of NIDL – allows GVC studies greater leverage in the examination of industrial coordination and control mechanisms. It also allows LMICs and LMIC producers considerable room for improving their position through extending their command over the chain, including over more core-like nodes. In the following subsections, coordination and control or ‘governance’ mechanisms will be examined, and then attention will shift to the value chain approach to LMIC upgrading.

2.2.1 Governance in GVCs
Governance7 in economic relations generally refers to the inter-firm relationships and institutional mechanisms through which non-market coordination of interdependent activities is achieved (Humphrey & Schmitz, 2001; Jessop, 1998; Yeung, 1998). In other words, governance concerns any situation where the anarchy of the market can be avoided and production parameters are set jointly either through inter-firm cooperation or the exercise of power, without necessarily falling back on an ownership relation. Many different modes of governance or coordination can be distinguished, ranging from very fairly formal, ‘market-like’ modes such as cooperative agreements, to closer mechanisms such as those observed in conglomerates and especially in family businesses. A general term which applies to all

![Figure 2.1: Network spectrum of governance modes in production chains](source: Yeung, 1994)

[67]
intermediate modes of governance that couple autonomy with interdependence (in the centre of Figure 2.1) is ‘heterarchy’ (Jessop, 1998). Figure 2.1 gives an overview of the various economic governance mechanisms.

In its treatment of governance, the GVC perspective is primarily focused on inter-firm relations within the chain and much less on governance exercised by institutions. Also, GVC studies interpret governance as vertical linkages, where some firms work according to the parameters set by others. Depending on the chain, the lead firms setting the parameters may be buyers or producers. As mentioned, the type of customer – buyer or producer – is seen as the determining factor, explaining the existence of various types of value chains. This indicates that the governance exercised by these customers is believed to be tight enough to impact or even determine the structure of the entire chain. The production parameters that are most commonly subject to chain governance are the type of product to be made, the production method to be applied, the time of production and the production volume. Finally, some customers – especially large customers that compete on price – may be able to set the price for the products to be produced (Humphrey & Schmitz, 2001).

One of the implications of governance in chain relations is that it is costly, as it requires investing in the inter-firm relationship. Since these investments cannot be recovered upon termination of the relationship, they need to be seen as a ‘sunk cost’. Such unrecoverable sunk costs may serve as an incentive to maintain more stable, long-term relationships with a smaller number of suppliers (see also section 1.1.6). Sunk cost and the interpersonal aspect of these relationships may be a reason to deviate from strict market behaviour.

2.2.2 Governance in global garment value chains

The work on economic governance is highly relevant to the garment industry, where comparatively close, ‘quasi-hierarchical’ (Humphrey & Schmitz, 2000) governance forms, most notably subcontracting, dominate. Moreover, compared to subcontracting in other industries, the international subcontracting relations in garment production networks involve tight governance. Amongst other things, such tight governance is based on a few of the industry’s characteristics discussed in the previous chapter.

In international subcontracting arrangements, LMIC suppliers are dislocated – in terms of geographical distance, as well as with regard to knowledge and capabilities – from the market they supply (Hobday, 1995). In such a situation, where buyers have a better understanding of the market than their suppliers, buyers generally engage in tight governance in the area of product development. Rapidly changing consumer demand, progressive segmentation and fashionisation are making it particularly difficult for suppliers to understand and predict the clothing market.

With regard to production processes, the main reason for governance or specification to occur is risk minimisation on the part of the buyer. The most important risk is that of suppliers not providing products on time or providing bad-quality products. In general, buyers that do not compete on price are vulnerable to delivery and quality risks (Humphrey & Schmitz, 2000). As already discussed, in the garment industry non-price elements such as branding and style are an integral part of new retailing strategies, thereby heightening the vulnerability of garment buyers. Garment brands need to maintain a good reputation in order to secure consumer
loyalty. They risk losing that reputation if shortcomings are found at suppliers. Shortcomings are especially likely to occur when latecomer LMIC suppliers are involved because often there is a large gap between the requirements of their domestic market and those of their export market (Keesing & Lall, 1992; Humphrey & Schmitz, 2000). In the garment industry gaps exist in particular with regard to labour conditions and environmental standards. Increased consumer awareness in Western markets with respect to labour and environmental misconduct has led to a tightening of governance in international subcontracting relations in the garment industry (see Annex 2).

Besides prescribing what needs to be produced in which way and at what time, garment buyers determine the volume to be produced. Also, within the national institutional boundaries as reflected in national wage rates and productivity, garment buyers tend to set prices. In sum, garment buyers increasingly need to act as true lead firms, steering or exercising tight command and control over their large sourcing networks. This implies a qualitative change in garment subcontracting relations towards closer coordination between buyer and suppliers, especially in the case of new and inexperienced LMIC suppliers. International production networks and subcontracting arrangements in the garment industry are increasingly characterised by tight governance.

Buyers’ ability to coordinate and control the value chain is based on their power over other actors in the chain. In GVC studies, power is not defined but instead it is directly related to the structure of the value chain. The various phases of the production process, which constitute the nodes of the value chain, are highly diverse in terms of capital-labour ratio, skill levels of the workers and other characteristics. The nodes at the extremes of the chain – viz. design, marketing and, to a lesser extent, distribution – are the most knowledge-intensive. They require skilled and highly educated specialists as well as proximity to and affinity with (certainly in the case of design) the final market. In general, very large sums of money are involved in the marketing of clothes, especially in the case of branded or designer label, high-end wearing apparel. Using Gereffi’s world systems terminology, these are the ‘core nodes’ of

### Table 2.1: US and EU chain governance structures

<table>
<thead>
<tr>
<th></th>
<th>US buyers</th>
<th>EU buyers</th>
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<tr>
<td>Level of externalisation of functions to suppliers</td>
<td>Lower</td>
<td>Higher</td>
</tr>
<tr>
<td>Basis of supplier certification</td>
<td>Process + product</td>
<td>Functional + product</td>
</tr>
<tr>
<td>Nature of product specification</td>
<td>Detailed, specified unilaterally</td>
<td>Less detailed, negotiated</td>
</tr>
<tr>
<td>Quality auditing system</td>
<td>Quality control by buyers, out-stationed employees</td>
<td>Quality control in-house and/or contracted out to third parties</td>
</tr>
<tr>
<td>Nature of critical path reporting</td>
<td>Frequent and detailed</td>
<td>Less frequent, less detailed</td>
</tr>
<tr>
<td>Procedure of resolving contractual differences</td>
<td>Legalistic</td>
<td>Informal</td>
</tr>
<tr>
<td>Level of suppliers’ capacity typically required by individual buyers</td>
<td>30-100%</td>
<td>10-15%</td>
</tr>
</tbody>
</table>

Source: Gibbon, 2000, 2002
the chain. In them, most of the value added or profits accrue while the knowledge- and capital-intensive nature of these activities give rise to relatively high barriers to entry. The position of retailers, brand-named marketers and branded manufacturers that govern buyer-driven garment chains is based principally on their control over the design and marketing nodes and on the rents they extract from this position (Scheffer, 1992; Gibbon, 2000). In the garment industry, relational rents, earned through effective governance of inter-firm production networks, play an important role. In most GVC studies, limited attention is paid to the content of governance (Gibbon, 2000). Table 2.1 illustrates how in the garment industry content of governance in GVCs may differ between GVCs feeding into the US and the EU market, governed by US and EU buyers, respectively.

Based on Gibbon’s (2000, 2002) study of the Mauritian garment industry, the table shows that there are considerable differences between the garment chain of US and that of European buyers. On the whole and compared to EU buyers, US buyers appear to assign less responsibilities to their suppliers and to exercise tighter, more formalistic governance over their suppliers, to whom the relationship on the whole is fairly distant and ‘strictly business’. The implications of the noted differences may vary, but this is a topic that remains under-examined. With the exception of Gibbon’s study (2002), little attention has been paid to the interplay between culture and the structure and functioning within value chains. This applies to buyers, but even more so to suppliers. Even less attention is paid to the role, background and cultural or social embeddedness of LMIC suppliers in the GVC perspective of upgrading, which is the subject of the following section, and will be visited again in later chapters.

2.2.3 The GVC and upgrading in LMICs

Gereffi’s publications on GVCs are optimistic in their discussion of the possibilities for LMICs and LMIC firms to upgrade. Gereffi (1996) asserts the central role of GVCs for upgrading by stating ‘participation in global commodity chains is a necessary step for industrial upgrading because it puts firms and economies on potentially dynamic learning curves’. Once incorporated into GVCs, the challenge to (suppliers in) LMICs is to upgrade and improve their position within those chains (ILO, 1998; Gereffi, 1999). Humphrey and Schmitz distinguish three general types of upgrading: product, process and functional upgrading. In short, these refer to a greater sophistication of products, of processes and to an extension of command over new nodes in the value chain, respectively. One of the most salient results of recent studies of upgrading dynamics is an apparently dynamic relationship between governance and upgrading (Fleury & Fleury, 2001; Dolan & Tewari, 2001; Humphrey & Schmitz, 2000). Especially in process and product upgrading, governance by buyers is believed to be highly important. The communication and enforcement of export standards with regard to quality, consistency and response time by buyers to their suppliers is especially important to new suppliers in LMICs (Egan & Mody, 1992; Tewari, 1999; Piore & Ruiz Durán, 1998). For more experienced suppliers that are already incorporated into GVCs, a switch from one buyer to a more demanding, higher end buyer (‘organisational succession’) is presented as ‘one of the critical mechanisms by which firms can improve or consolidate their positions within the value chain’ (Gereffi, 1999). For LMIC suppliers it entails switching to a new, more demanding/sophisticated chain. The upgrading that results from organisational succession is mostly product or process upgrading. However, Humphrey and Schmitz (2000) point out how unrecoverable sunk costs may cause buyers to prevent their suppliers from switching to another buyer.
The role of buyers with regard to the functional upgrading of their garment producers is also ambiguous. Gereffi (1999) proposes an evolutionary process through which producers are able to change from ‘mere’ assemblers into full-package suppliers – or even, as explained in Chapter 1, into a ODM or OBM role. Thereafter, suppliers may develop design capabilities so that they can design products sold under the brand name of their buyer (‘original design manufacturing’, ODM). Finally, suppliers may be able to market their own branded merchandise. Contrary to Gereffi’s optimistic scenario, Schmitz and Knorringa (2000) argue that buyers in the shoe industry discourage or even bar their suppliers from developing the design and marketing capabilities necessary for attaining an ODM or OBM role. Buyers may feel threatened if suppliers encroach on their core competencies and may try to prevent them from doing so.

With such emphasis on the need to engage in upgrading mechanisms and processes, it is surprising to find that in many GVC studies the aim of upgrading remains somewhat obscured. What then is the aim of upgrading processes? According to Gereffi (1999), upgrading ‘involves organisational learning to improve the position of firms or nations in international trade networks’. As such, industrial upgrading is seen not only as a process, but also as an aim or a result (Fleury & Fleury, 2001). The latter aspect remains rather implicit because not much attention is paid to the relative nature of upgrading vis-à-vis peers. Fleury and Fleury (ibid.) do stress, however, the fact that the resulting enhanced competitive position of the firm implies that it has to learn or improve faster than other competing firms. If there is no improvement of the relative position of a firm vis-à-vis its peers, the firm is in fact ‘running to stand still’. Furthermore, the firm’s competences have to improve as a result of a self-reliant and purposeful attitude with regards to its upgrading process (ibid.), which is a significant departure from the vertical, top-down perspective employed in most GVC studies. Purposeful strategies need to promote competence building, while on the other hand increased competence should support the company’s competitive strategy. In this dynamic, bidirectional process, learning is seen as the essential link. Fleury and Fleury’s perspective bears some resemblance to Porter’s (1990) treatment of operational effectiveness and strategy. According to Porter (ibid.) operational effectiveness entails performing similar activities better than peers do. All firms need to achieve operational effectiveness to stay in the market. In striving for operational effectiveness, management tools and techniques such as benchmarking, total quality control and partnering, are applied widely, and the measures applied by one firm are quickly adopted by others. Consequently, companies look more alike, as do their activities. Whereas many authors (cf. Lundvall, 1988, 1993; Camagni, 1991; Gereffi, 1999) see in this learning and adopting by interacting an important route to competitiveness, Porter envisages a rat race without winners: ‘competition becomes a series of races down identical paths that no-one can win’ (Porter, as quoted by Meyer-Stamer, 2002). This competitive trap can be avoided by performing activities that rivals do not perform or by performing the same activities differently; Porter calls this ‘strategy’. His focus on strategy thus turns the upgrading discussion away from the ‘upward trajectory’ or ‘linear improvement process’ thinking that has become part and parcel of the upgrading debate.

Once the overwhelming dominance of intra-chain upgrading stimuli emanating for foreign buyers is put into perspective, this becomes just one (though a highly important one) of the many relevant factors. As mentioned, the significance of the active and independent upgrading strategies of suppliers has received little attention or has been downplayed and deserves
academic attention (see Smakman, forthcoming). Moreover, in a wider approach to upgrading of LMIC suppliers, extra-chain aspects need to be taken into consideration. Relevant here is Dolan and Tewari’s (2001, p. 100) observation:

‘Upgrading of firms ultimately is a historical process influenced by several extra value chain issues in ongoing ways. Local practices, political arrangements, physical and human resources, infrastructure, extra chain investment decisions and the larger business environment all affect the capacity and desire of firms involved in value chains to upgrade.’

Not only do they draw attention to the fact that upgrading, and the will to engage in it, cannot be taken for granted – as is often done in academic development studies. Once more the importance of combining value chain with extra-value chain aspects is confirmed (cf. Whitley, 1994). One of the ways to achieve this, certainly for the garment industry where localisation tendencies are strong, is to combine GVC with insights from cluster studies, especially since it has become clear over the past decade that collective learning and innovation are most effectively undertaken at the regional level, most notably in specialist clusters with dedicated local institutions (Helmsing, 2000; Malecki, 1994).

2.3 Clusters

In the globalising world, almost all industries are in one way or another organised through globalised value chains. However, they are also typically anchored within agglomerated production complexes, or clusters, in developed countries and in LMICs (Porter, 1990; Scott, 1996). These tendencies are receiving much attention in academic literature on the interplay between economic activity at the global and at the local level (Amin & Thrift, 1992; Storper & Scott, 1992; Humphrey & Schmitz, 2001). Where vertical linkages are a basic element in GVC studies, horizontal network linkages generally play an important role in literature on the clustering of firms (Lambooy, 2002).

The agglomeration of economic activity is not a new phenomenon; it has a long history which from different perspectives sparked an academic interest several decades ago. Since the early days, the economic benefits of clustering for individual firms has been the principal focus. So much so that by now ‘the idea that there are gains in clustering is old hat in economics’ (Schmitz, as quoted in Visser, 1999, p. 1553). Marshall (1961) is commonly credited for the ‘discovery’ of clusters and the benefits of clustering for individual firms. He proposed that firms benefit from geographical agglomeration through ‘economic externalities’ (i.e. unintended spill-over effects). Positive external economies – viz. increasing returns or productivity-boosting relationships that are internal to the economy as a whole but external to the individual production unit – derive from various processes or circumstances. They still play an important role in modern cluster studies.

Based on slightly different emphases with regards to the origins of economic externalities, two different strands of literature on regional economic development can be distinguished in modern cluster literature. The one represented in new economic geography and endogenous growth theory places great emphasis on static economic externalities and increasing returns to scale that result from spatial clustering and specialisation (Vasquez Barquero, 2002; Krugman, 1995; Porter, 1990). It largely follows the accounts of successful industrial districts in the ‘Third Italy’, where flexible specialisation allowed clustered small firms to compete successfully in
international markets (Piore & Sabel; 1984; Becattini, 1990). Within a static framework, reduced transaction costs and the benefits of scale and scope economies receive much attention. Also, two types of agglomeration economies are distinguished: localisation economies and urbanisation economies. The former are benefits such as the spatial clustering of economic externalities based on skilled labour, technological know-how and specific (supply) infrastructure, which result from the concentration of enterprises belonging to the same industry (van Dijk & Rabellotti, 1997). Urbanisation economies are more general benefits associated with an urban location, such as generic infrastructure, labour market and information.

The other perspective on regional economic development combines insights from economic geography, institutional and evolutionary economics and relates regional economic success to the prevailing social, institutional and cultural conditions in the region. Well known in this dynamic, socialised view of the regional context are Storper’s (1997) ‘untraded interdependencies’, which include different types of non-market interaction, based on trust, shared values or experiences. Such interaction is thought to contribute to the formation of a distinctive industrial, entrepreneurial culture that may further enhance local efficiency and competitiveness. A central notion in this context is ‘tacit’ knowledge, viz. knowledge that cannot be bought on the market, but is embodied in skills and practices. This type of knowledge is virtually inseparable from its social, sectoral and territorial context (Storper, 1997; Vargas, 2001). Dynamic benefits of tacit knowledge and the free flow of information within clusters foster the diffusion of local knowledge and standards, and may support growth and innovation. As will be discussed in a later section, tacit knowledge is the crux to understanding dynamic cluster effects that sustain the competitive position of clusters.

While the benefits of clustering are widely known and accepted, a variety of cluster definitions have been used in cluster research. So, what constitutes a cluster? The literature includes studies of regions as diverse as Silicon Valley, the City of London, Modena (Italy), Agra (India) and Lima (Peru). The common denominator shared by these regions is the fact that they all house a geographical and sectoral concentration of firms – i.e. the definition of a cluster used in this study. Even though inter-firm linkages clearly need not be a presupposed ingredient of clusters”, in general, different types of interaction and networking, including inter-firm linkages, are common ingredients of clusters. In fact, a comparison of case studies led to the discovery of almost unbounded variety in the internal structures of clusters in developed and developing countries. In response to this variety, several authors have constructed cluster typologies (Storper & Harrison, 1991; Park, 1996; Markusen, 1996). The most well-known cluster types besides the Marshallian district, which is made up of interlinked, specialist small firms, are the hub-and-spoke cluster and the satellite platform (see Figure 2.2 a-c).

As illustrated in Figure 2.2 b, in hub-and-spoke clusters a large local firm is the central node in the local network as well as its gateway to the outside world. Satellite platforms are made up of branch plants of TNCs that do not or only sporadically maintain productive linkages to each other and the local business environment.

In recent years, two new turns have been given to the subject of clustering. First, there is now a body of literature concerned specifically with LMIC clusters. The observed advantages of flexible specialisation within European clusters spurred a whole new research and policy agenda for LMICs (Schmitz & Musyck, 1994). In LMICs there had been considerable concern
with the weak competitive position of SMEs, and the experiences of SME industrial districts in Europe gave industrial development research in LMICs a new impetus (Schmitz, 1989). Several case studies carried out during the 1990s confirmed both the existence of clustering in LMICs and its significance for enhancing the competitive position of SMEs (Schmitz, 1995; Rabellotti, 1997; Visser, 1996, 1999; Knorringa, 1999). Second, in the LMIC context new benefits of clustering, namely those resulting from collective action, are receiving increasing attention in cluster analysis. Firms in LMIC clusters benefit from what is called collective efficiency, which, as is the case with the Western clusters, is derived from Marshall’s unintentional, or passive, external economies, but they are complemented by purposeful joint action (Schmitz & Nadvi, 1999). Later work on clusters, especially on LMIC clusters, showed the significance of deliberate cooperation of clustered firms. Several forms of joint action within LMIC clusters have been observed:

- ‘bilateral horizontal cooperation’: cooperation between competing firms in the cluster;
- ‘multilateral horizontal cooperation’: horizontal cooperation between various cluster members, for example in the form of business associations or joint venture activities; and
- ‘vertical cooperation’: cooperation between local clustered firms and buyers, suppliers or subcontractors.

Within LMIC environments, the cluster types illustrated above have been interpreted not as static models, but as phases in trajectories (Schmitz & Nadvi, 1999; Knorringa, 2001). One of the main contentions of the cluster trajectory research is that as the cluster develops – from incipient to a mature cluster – over time, its internal structure as well as its dynamics change. Emerging or incipient clusters are believed to consist primarily of small firms that are seen to benefit from intra-cluster specialisation as it allows them to spread risks and to invest in ‘riskable steps’ (Schmitz, 1997). However, not all participant firms benefit equally. As a consequence, mature clusters may display greater internal differentiation: medium-sized and large firms emerge, grow and come to play a dominant role as clusters mature (Scott, 1992; Schmitz, 1995; Nadvi, 1999; Knorringa, 2001). Thus, over the course of their development trajectory, LMIC clusters evolve from what Markusen has called Marshallian clusters to structures that resemble that of hub-and-spoke clusters.
Several cluster studies note that in the face of new competitive pressures and crises, often closely associated with the ongoing economic globalisation process, the need for cooperation in mature clusters is heightened (Meyer-Stamer, 1998; Schmitz & Nadvi, 1999). In their revision of several case studies, Schmitz and Nadvi (1999) point to the diverging evidence on the type and effectiveness of various types of cooperation. Multilateral horizontal cooperation in institutions such as business associations or other private or public organisations is important in a few clusters. In contrast, vertical cooperation was either high or increasing in all clusters. Visser (1996, p. 55) refers to vertical producer-supplier linkages when he states that ‘vertical cooperation thus gives specialists more grip on a complex and changing environment, which is probably the most important ‘economy’ one can obtain in modern economies’. It is not hard to see that the same applies, possibly even more so, to vertical cooperation with buyers, including those outside the cluster. In fact, the work of Knorringa (1999), Rabellotti (1999, 2001) and Schmitz and Knorringa (2000), amongst others, shows that especially in the more demanding marketing channels close cooperation between buyers and suppliers is important. The most demanding marketing channels are often but not always the export channels that are managed by global buyers. It is this latter insight that led Schmitz and Knorringa (2000) to investigate ‘learning from global buyers’ issues, and that sparked a general greater emphasis on external linkages of clusters (Varaldo & Ferrucci, 1996; Schmitz & Nadvi, 1999). A better understanding of the nature of these linkages is necessary if one is to address the upgrading potential and stimuli for LMIC garment firms that service global markets. Park (1996) and Weijland (1999) emphasised the fact that strong external linkages have to go hand in hand with collective efficiency based on trust and a positive local institutional environment that pushes the cluster forward.

Thus, cluster studies tend to view regional agglomerations of industrial activity from a network perspective. In this perspective, local firms and their interrelations are taken as the point of departure. With regards to intra-cluster relations, the literature stresses the importance of a combination of competition and cooperation. With respect to network participants, the attention is focused mostly on firms. However, an institutional environment of effective meso-level institutions as well as other non-market aspects, most notably tacit knowledge, are highly important for sustaining the long-term competitive position of clusters. In the following sections, localised non-market coordination mechanisms are discussed, as is their potential developmental impact on clusters.

2.3.1 The fuzzy notion of embeddedness

There is a large and growing body of literature on embeddedness as there is little doubt about the economic relevance of the embeddedness of economic actors in their sociocultural environment. Many different interpretations have been given to the meaning of embeddedness with regard to economic relations. One of the most narrow interpretations is commonly used by economic geographers and planners who interpret local embeddedness as the integration of business into the local economy in terms of backward and forward linkages (van Westen, 2001; Boschma et al., 2001). Traditionally, this discussion has focused on the position of FDI facilities in local economies. Recent studies of the embeddedness of TNCs and their networks stress the point that embedding at the local level should not be interpreted as a one-way street, where FDI by TNCs takes root in passive localities. Based on the social process involved in network formation, Dicken and Hassler (2000) envision: ‘the precise nature and articulation of such
firm-centred networks are deeply influenced by the concrete socio-political, institutional, and cultural contexts within which they are embedded, produced and reproduced."

Another approach sees the time-space context of businesses as a determining influence on a firm’s underlying logic or ‘mode of rationality’ (Scheffer 1992; Yeung, 1998; Whitley, 1994, 1996; Ruigrok & van Tulder, 1995; Dicken et al., 2001). Sociocultural aspects have an impact on the way business and the economy are organised. From a development perspective the main preoccupation is not with this link itself, but with the possibility to link the sociocultural environment to economic performance, viz. success or failure. In this context Fukuyama (1995) asserts the importance of trust (see also Schmitz, 1999; Maskell & Malmberg, 1999). Schmitz (1999, p. 141) defines trust as ‘the willingness to expose oneself to the possibility of opportunistic behaviour by others’. Fukuyama (1995) distinguishes between low-trust and high-trust societies. In the former, kinship rather than voluntary association is the backbone of economic organisation. High-trust societies on the other hand build on ‘the ability of people to work together for common purposes in groups and organisations’ outside kinship, an ability which Fukuyama has termed ‘social capital’. Social capital is seen to function as the ‘glue’ for collective action (see section 2.3), and embeddedness in a social capital-rich environment may stimulate success and economic development. The social capital concept is also useful because it bridges the gap between the macro-level sociocultural environment and the social embedding of micro-level relationships (Boschma et al., 2001). With regard to the micro-level economic relations, Granovetter’s (1985) interpretation of embeddedness serves to point out the impact and relevance of the social, interpersonal aspect of business relations (see also Uzzi, 1997).

2.3.2 Clusters, path dependence and lock-in

There is little doubt that LMIC clusters generally are both spatially and socially embedded. Varaldo and Ferrucci (1996) point to the ‘local rootedness’ of clusters, which means that the relationship of the district (firm) with the territory is based on the entrepreneur’s social network and not only on localised economic advantages. Others also assert that clusters do not just ‘sit’ on an isotropic plain, but that their existence, dynamic and, indeed, failure or success are inseparable from the local or regional institutional setting. Following Ménard (1995), Visser (1996, p. 53) defines the institutional environment as: ‘a long-standing historically determined set of stable, abstract and impersonal rules, crystallised in traditions, customs or laws, so as to implement and enforce patterns of behaviour governing the relationships between separate social constituencies.’ Defined in this way, institutional environments are time- and space-specific and give a cluster its ‘local flavour’. They are the result of local, long-term collective learning and development. ‘Milieu’, a term coined by the GREMI group in Florence, covers a similar concept, as does Vellinga’s (2000, p. 284) ‘regional identity’:

‘Regions are historical constructs, projects arising from interaction and negotiation between the various local actors. In the case of industrial regions, industrialisation will contribute the material base for the interests that struggle and negotiate while establishing the region’s sphere of influence and in the course of these processes forge a regional identity. These identities are strong and persistent and may condition firm decision making beyond the logic of a flow-substitution economy. The various factor complexes involved in the formation of regional production systems – the economic, the social, the political and the cultural – tend to reinforce each other and cast this system in a particular mould that may be hard to change.’
While incremental learning may set a cluster on a highly successful path to competitiveness, path dependence may prevent the path from being changed or adapted to fit new competitive needs. Vellinga’s observation also points to the danger of lock-in that has been seen to hamper the dynamic development of some clusters (Meyer-Stamer, 1998; Visser, 1996, 1999; McCormick, 1998; see also Maskell & Malmberg, 1999). To combat inertia or conservatism once a cluster’s spontaneous growth phase is over, support from local and regional institutions appears to be required to stimulate innovation and expansion (Brusco, 1990; Schmitz, 1992; Helmsing, 2000). However, evidence concerning the effectiveness of policy networks with regard to upgrading remains scarce (Humphrey & Schmitz, 2000) and even negative (Grabher, 1993; Atzema & Boschma, 2002).

Bell and Albu (1999) distinguish between disruptive innovation and incremental knowledge diffusion. Clustering facilitates the local diffusion of knowledge. However, in order to understand a cluster’s competitive dynamic they propose that a more specific focus on its knowledge-generating capabilities is needed as well as on its openness to external information and knowledge. Bell and Albu (ibid.) believe that much of the impetus for upgrading is transmitted to the cluster via its external linkages. On the other hand (as will be discussed in the next section), there is a body of recent literature asserting the potential of regions to function as innovation incubators and to stimulate local learning, growth and innovation.

### 2.3.3 Clusters, learning and upgrading

Much of the literature on GVCs, production networks and clusters is concerned with the development and upgrading of business firms, especially those in LMICs. These dynamic improvement processes are presented as competitive alternatives to price- and cost-based competition, also called the ‘low-road’ competitive strategy (Pyke & Sengenberger, 1990)\(^6\). The ‘high-road’ alternatives are closely associated with dynamic improvements in products and processes. They are believed to be induced by competitive and changing markets. For example, in the garment industry, which is notorious for cost-based competition, new retailing strategies and faster-paced fashion changes may shift competitive strategies from the low to the high road. In fact, Maskell and Malmberg (1999, p. 167) envision this shift to apply to industrial competitiveness in general.

The recognition of learning and innovation processes as the bases for competitiveness and development is not novel but dates back to Marx and Schumpeter. However, currently the tone of the debate surrounding these issues is becoming more urgent: knowledge, learning, upgrading, and innovation processes are all seen as essential elements contributing to the further development of firms, regions and nations. The globalised economy has been characterised as a learning economy, in which knowledge is a principal asset and learning the most important driving process (Lundvall, 1988). The generation of knowledge and learning is seen as the route to corporate and regional economic success, and sources of knowledge, learning, upgrading and innovation are at centre stage of the academic debate (see Storper, 1997; Camagni, 1991; Lundvall, 1988, 1993; Gereffi, 1999; Bosch et al., 2002). Rather than Schumpeterian innovative breakthroughs, incremental change and knowledge-building processes are the main concern of the current learning debate.

Several authors on learning and innovation systems have stressed the localised nature of learning. Based on industrial and institutional specialisation, geographical and cultural nearness – which facilitates the exchange of both codifiable and especially tacit knowledge – firms in clusters are able to learn better than isolated firms are (Porter, 1990; Atzema &
Boschma, 2002; Maskell & Malmberg, 1999; Helmsing, 2000). Furthermore, globalisation appears to heighten the importance of localised, tacit knowledge. Maskell and Malmberg (1999, p. 172) point out that:

‘... one effect of the ongoing globalisation is that many previously localised capabilities and production factors become ubiquitous. What is not ubiquitous, however, is the non-tradeable/non-codified result of knowledge creation – the embedded tacit knowledge – that at a given time can only be produced in practice. The fundamental exchange inability of this type of knowledge increases its importance as the internationalisation of markets proceeds.’

Overall, the current research preoccupation with learning and upgrading paints a positive picture with regard to learning and developmental prospects, also for LMICs and their firms. Firms are widely assumed to strive for upgrading and to be open to learning. A general recipe for securing and even improving one’s position in the global economy, its value chains and production networks, may not have been agreed upon yet, but appears to be well on its way. However, there is still limited empirical evidence with regard to these processes in concrete LMIC contexts.

Furthermore, there is great academic interest in the success stories of upgrading, but comparatively limited attention has been paid to exclusion and the failure to upgrade. This carries the risk of oversimplification and overestimation of the prevalence of upgrading processes. Again, this may apply most directly to upgrading processes in LMIC environments that rely on vertical chain-based linkages for upgrading stimuli. Gibbon (2000) and Hudson (1999), for example, stress that upgrading and the success of certain suppliers is accompanied by the exclusion and failure of others. Schmitz and Humphrey (2000) acknowledge the difficulties and limitations of upgrading when they ask: ‘if upgrading is so easy, why is it not more pervasive in LDCs?’ While noting the discrepancy between the academic discussion and LMIC reality, they do not go into it in depth.

A more extensive critique of the ‘learning paradigm’ has been developed by Hudson (1999), who argues that inequality is inherent to the capitalist system: capitalist development is driven by competition and the search for profit, and must remain uneven. As a consequence, not all firms or regions can be successful learners:

‘... a post-mass production, post-Fordist world of specialized regional economies, all on their own successful learning trajectories, and all winning, is not a feasible option within the social relations of capitalism. Equally, a post-mass production, post-Fordist world of product-specialized high volume production regional complexes, all producing just-in-time and in one place in their unique niche in the global market-place, is not a feasible option. There may be some cases in which some regions ‘win’ by following one or other of these strategies, but there will be many more that ‘lose’, either failing in the attempt or doomed to failure by the success of others.’ (Hudson, 1999, p. 70).

2.4 Conclusion

This chapter presented a number of different network-based approaches that can be used for the analysis of industrial development processes at various levels of scale. The main concern of the GVC approach is with processes at higher (global or national) levels of scale, and places great emphasis on governance mechanisms transmitted through vertical, inter-firm linkages. Cluster studies, on the other hand, tend to focus on horizontal inter-firm linkages at the local or regional level that are characterized by a beneficial combination of competition and cooperation.
Rather than summarising the main attributes, merits and problems of these approaches, this last section emphasises that both perspectives offer valuable contributions for the study of clustered LMIC firms wanting to operate or already operating in export markets, through their incorporation into GVCs. For an understanding of how clustered firms in GVCs may engage most effectively in upgrading processes in order to enhance their competitive position, insights from both approaches need to be combined. The crux of this type of study appears to lie in achieving a greater understanding of the interplay between intra-chain governance and the local or regional institutional environment’s ability to diffuse and generate relevant knowledge. So far, there is limited empirical evidence with regard to the interplay between these processes in exporting LMIC clusters.

Humphrey and Schmitz (2000) have set out the principal aims for this kind of research by highlighting the most relevant questions and hypotheses. In proposing general patterns with regard to the penetration of or repositioning in export markets by LMIC clusters, Humphrey and Schmitz (ibid.) revisit the cluster typology put forward above (see Figure 2.2). They propose that product and process upgrading as well as marketing upgrading (i.e. improving the position in the [export] market) in SME or ‘Marshallian’ clusters require joint action. Institutions such as a local technology institute or an export consortium for example need to be actively involved for upgrading to occur (ibid., pp. 20-21). In hub-and-spoke clusters, dominant large firms generally take on the role of upgrading pioneers, by undertaking in-house R&D activities or by penetrating new export markets.

Furthermore, irrespective of their internal structure, LMIC clusters are mostly incorporated into quasi-hierarchical chains, characterised by tight governance exercised by buyers over their suppliers. Based on evidence from the shoe cluster in the Brazilian Sinos Valley, Humphrey and Schmitz conclude that governance in quasi-hierarchical chains is most effective with regard to product and process upgrading. However, their main hypothesis (ibid., p. 23) is that functional upgrading may be limited. Suppliers in LMICs incorporated into such chains may move into new, non-strategic functions, but fail to occupy the strategic functions at the extremes of the chain, viz. product development and marketing. In other words, it may well be very difficult for LMIC suppliers to assume an ODM or OBM export role. This heightens their risk of being replaced by other suppliers who are striving to appear on the ‘radar screens’ of global buyers, especially because these buyers continuously scout for better or cheaper suppliers.

With regard to firms in LMICs, the critical questions concern which local advantages, peculiarities or specialisations will allow them to compete successfully, and how their success can be prolonged and sustained through learning and upgrading processes. For the regions that house these firms and clusters, the critical question is how they can use their incorporation into GVCs as a lever for regional economic development (ILO, 1998; van Dooren & Smakman, 2001).

Later chapters of this study will address these issues for the case of the Laguna cluster. In the analysis of production networks, the attention will be focused primarily on participant firms, their roles and their economic relations (both vertical and horizontal) with other firms in the network. Where relevant and possible, intra- and extra-firm network relations will also be included.
Notes

1 R&D efforts aimed at the further automation of garment production have, however, not been abandoned. On the contrary, Audet (1996) finds that the USA, Japan and the EU are engaged in a competitive race, aimed at developing applied automated assembly systems for the garment industry. He also notes, however, that even if a breakthrough were to be achieved, application of new technologies would most probably be limited, due to the decline in batch sizes and the prevalence of small garment factories.

2 Production networks occupy a fairly prominent position in GCC/GVC literature. In fact, GVCs are seen as ‘sets of interorganizational networks clustered around one commodity or product...’ (Gereffi, 1994, p. 2). The GVC approach can be seen as a network approach (Dicken et al., 2001). However, in the development of the GVC perspective all attention has been focused on governance, and many of the social and spatial embeddedness nuances of the network perspective have remained underdeveloped.

3 Essentially these ‘new’ approaches represent a revival - and adaptation – of the filière concept applied by French economists during the 1960s. In the Dutch economic literature of the same era, the filière also figured fairly prominently but was referred to as ‘produktiekolom’. The concept assigned a central role to the material aspect of production and remained mainly neutral and descriptive. The filière was not strictly defined, but filière studies share the use of a chain of production activities as a tool and delimitation of the scope of their study (Raikes et al., 2000; Lenz, 1997).

4 With regard to the geography of GCCs, criticism has centred on two issues. Firstly, GCC studies focus overwhelmingly on nations within the mental framework of industrialized countries versus LDCs, and pay no or only limited attention to the dynamics at intermediate levels of geographical scale. In most studies, the GCC hardly ever touches down to examine the dynamics in and its interaction with its local footholds. Secondly, the connection between geography and GCCs remains underdeveloped. Lenz (1997, p. 29) aptly explains the complex relationship between geography and the filière: ‘das Filiere-Konzept ist dabei ohne expliziten Raumbezug, d.h. räumlichen Aspekt sind kein ausdrücklicher Gegenstand des Ansatzes... Eine Gleichsetzung der Begriffsinhalte von ‘Segment’ bzw. ‘Standort’ is nicht möglich. Dennoch hat jede Filiere gewissermassen ‘automatisch’ auch eine räumliche Struktur, da die Segmente bzw. die Elemente, die die Segmente ausmachen im Raum, d.h. an einem Standort vorhanden sind.’ Similar observations apply to the territoriality of GVCs.

5 Several authors resist the presumed dual structure of chain governance consisting of two exhaustive ideal-types, representative of capital- and labour-intensive industries in general and indeed, of all industries (Dicken et al., 2001; Gibbon, 2001, Sverrisson, 2001; Raikes et al., 2000). They call for theoretical underpinnings that will help explain the differences more systematically, and point to national variation in governance of the same sector (Smith et al., 2002; Gibbon, 2000) as well as to industries lacking strong control by a dominant firm or for industries with a different governance structure (Gibbon, 2001). Others feel the definition of governance applied in most GCC to be too narrow, as extra-chain governance, or ‘regulation’, should be taken into consideration in GCC analyses (Smith et al., 2002; Vargas, 2001; Whitley, 1994, 1996; McCormick, 2001).

6 Several scholars of economic and industrial development issues have recently joined forces in an attempt to further the theoretical advancement of the GCC (see Gereffi et al., 2001, for their research agenda). Through the use of the new value chain terminology they set themselves apart from the theoretical problems associated with the GCC (see Leslie & Reimer, 1999; Raikes et al., 2000; Dicken et al., 2001) whilst paving the way for its further academic development (Gereffi et al., 2001; see also Smith et al., 2002). Kaplinsky (2000, p. 9) gives another reason for his preference for the term ‘value chain’ when addressing economic development issues: ‘...‘global commodity chain’ suffers because the word commodity implies the production of undifferentiated products in processes with low barriers to entry. The problem with this [...] is that the search for sustainable income growth requires producers to position themselves precisely in non-commodity, high barriers to entry activities in the value chain.’

7 The meaning given to the term governance in this context may cause some confusion. In studies – such as the one at hand here – focusing on industrial economics or industrial development, governance generally refers to the way in which industrial production is organised and controlled. In development studies in general, governance and...
especially ‘good governance’ are central notions. In the latter strand of literature, they refer more specifically to political processes and the way in which they are organised and carried out (Nijenhuis, 2002).

8 In this situation, buyers’ segmentation strategies may still give rise to (or allow) upgrading in suppliers, by switching from producing a brand in the lower-end market segments to a higher-end brand or label, owned by the same buyer.

9 Lall (1991) has shown that this upgrading sequence may not be as straightforward as is often believed. LMIC manufacturers encounter great difficulties, especially in marketing.

10 This breakaway is particularly informative in relation to evidence on downgrading processes taking place in clusters that are becoming incorporated into the value chains of global buyers. Amin and Thrift first noted the early stages of such a process in the Sta. Croce shoe cluster in Italy. Recently, Rabellotti’s study of the Brenta shoe district has also shown that ‘side-stepping’ or even downgrading may be a viable strategic option (Rabellotti, 2001).

11 This point has been stressed by Visser (1996) as well as Atzema and Boschma (2002), amongst others. As Visser points out, in much of the industrial district literature, the research objects are presupposed from the outset of the research. This appears in some cases to defy the purpose of the research.

12 For decades now, SMEs in developing countries have been recognised as the main employment creators, but oftentimes their competitiveness, especially outside local markets, and growth was observed to be limited. Visser (1996) provides an extensive overview of both internal and external factors that constrain the competitiveness of small firms. He stresses the particularly detrimental impact of external constraints based on, amongst other things, biased policies, limited access to markets and financial resources (ibid., pp. 36-37; see also Verkoren, 1990). As a result of these constraints, SMEs in developing countries appeared stagnant, displaying limited growth potential.

13 It is important to note that advancing from an incipient to a mature cluster status cannot be taken for granted. Not all clusters necessarily progress and enhance their capabilities sufficiently to ‘mature’. Altenburg and Meyer-Stamer (1999) point to the large number of stagnant ‘survival clusters’ of struggling micro- and small-scale firms in LMICs, and Park (1996, p. 487) has pointed to the disappearance or decline of many clusters in traditional industries in LMICs.

14 See van Westen (2001) for an overview of the origin and development of the embeddedness concept.

15 Thus sociocultural environments rich in social capital and concomitant trust, norms and values stimulate the social embedding of inter-firm and other relationships.

16 Low-road strategies are focused on price reductions and based primarily on the squeezing of labour cost. Labour-intensive industries such as the garment industry are particularly notorious for their low-road competitive tendencies, but in other industries in mature stages of the product lifecycle, pressures to lower costs in order to retain market share also commonly culminate in low-road strategies.