8 The dynamics of the Laguna garment cluster

‘If localities are on the march, it is [...] to the tune of globalizing forces in the organization of production – a process in which territorial integrity is far from guaranteed.’ (Amin & Thrift, 1992, p. 574)

Chapter 2 pointed out that entering into export markets may put firms, or indeed entire clusters, in LMICs on dynamic learning curves. As was also explained, the ability to learn and adapt and to develop effective and proactive business strategies is of decisive importance for LMIC manufacturers who want to maintain or improve their position within international export networks. These issues may be especially relevant to garment manufacturers in La Laguna because they are feeding into the dynamic, volatile and fiercely competitive US garment market.

This chapter explores the response of the Laguna cluster and its individual firms to the window of opportunity embodied in the cluster’s recently developed export links to the US garment market. In more practical terms, this chapter examines whether any upgrading has taken or is currently taking place in La Laguna. It provides an insight into upgrading efforts and their practical results and, thus, into the ability of garment firms in La Laguna to latch on to the export market and evolve in accordance with the demands of that market.

The first section of this chapter presents a brief review of the strategic position of companies in the region as perceived by local entrepreneurs. The subsequent sections explore changes in products and processes, which are aspects of what Schmitz and Knorringa (2000) called ‘upgrading within production’. Section 8.4 shifts attention to the extension of company capabilities along the chain. Here the focal point is on the efforts of local companies to evolve from assemblers into full-package producers or even further, ‘beyond production’, into an ODM or OBM role. Section 8.5 moves on to focus on labour strategies employed by local garment companies. Faced with an increasingly tight urban labour market, firms’ strategies are focused on securing a sufficiently large, affordable labour force in various ways. Section 8.6 synthesises the most important changes in the geography of garment production in La Laguna. The last section deals with the most recent geographical reconfiguration phases in the GVC.

8.1 Dynamics and strategies

Learning and upgrading efforts and results will be the topic of subsequent sections. First, though, this section presents the opinion of local entrepreneurs concerning the position of their firms and the challenges facing them. How do local entrepreneurs evaluate the position of their company against the background of a changing and dynamic industry? From their viewpoint, what changes need to be made for local companies to secure a better position in the future? The answers to these questions are summarised in Appendix III; the answers give an indication of the entrepreneurs’ assessment of their company’s position in relation to the wider competitive environment. Later, the assessment of local entrepreneurs will briefly be compared
to actual changes in order to understand the influence of local entrepreneurs on actual changes and to assess their market awareness.

At the time of the survey, garment firms had experienced years of rapid growth: on average, firms indicated that they had grown by 35% since 1997; especially small and very large companies indicated exceptionally explosive growth in both volume and value of sales. Though most were positive about their future development and predicted that these growth rates would continue, many also believed that at some point growth limits would be reached. ‘Where are we going the get the workers needed for continued growth?’ was a question that appeared to be constantly on the mind of entrepreneurs. Also, there appeared to be an early realisation that attention would have to be shifted to consolidation and to qualitative aspects rather than quantitative growth. The first signs of a shift of attention to efficiency and the need to increase efficiency became noticeable. They are hardly reflected in the trends presented here, but became more clear after the turn of the century and especially after the downturn in local production in 2001-2002 (see Appendix IV).

Even though many different perspectives and opinions come to the fore in this type of self-diagnosing questions, the main trends are clear (see Appendix III). Noteworthy is that many garment companies see labour as both the most important current weakness of their company and a serious threat to its position in the future. It is likewise clear that many companies seek their main competitive opportunity outside the cluster, in a direct and stable business relationship with a buyer in the US (see also Chapter 7). Finally, most companies stress good and consistent product quality as the current basis of the strong competitive position of their firm and the cluster at large.

Between the different types of companies – foreign-owned, locally-owned and various size-classes – few differences in self-diagnosed strategic positions can be identified. This is somewhat surprising. It indicates the strange contrast between cluster-wide familiarity with abstract industry trend terminology and the lack of translation or partial translation of these trends into practical measures and strategies. This is most evident in the subcontracting echelons of the cluster, where entrepreneurs are not directly exposed to market demands and appear to have trouble in accurately positioning themselves in relation to these demands and general shifts therein. For example, a number of local garment SMEs identified the development of a company brand, the establishment of a direct business relationship with a US buyer and engaging in full-package production as their company’s main business opportunity. Although some SMEs may have a strategy aimed at achieving these goals, these ideas are mostly an indication of a cluster-wide rhetoric of where the cluster as a whole should be headed and bear little relation to the position, strategies and opportunities of SMEs. As will be discussed later in this chapter, these challenges are confronting the largest companies in the region – indeed, they indicate this to be the case – but for most SMEs they are at best a matter for the very long term.

Despite an apparent tendency of a group of local companies to mirror popular local opinion or rhetoric in their answers, rather than sticking to a strict and accurate assessment of their company and its position in the industry, a few interesting patterns may be distilled. For example, in relation to competitive strength, smaller companies refer overwhelmingly to the quality of their products. By contrast, large and very large companies appear to take adequate quality levels for granted and more frequently mention aspects such as punctual delivery,
flexibility and human resource policy as their principal strengths. A similar difference can be noted in the area of company weaknesses: smaller companies are preoccupied mostly with the negative effect of high labour turnover rates, while several very large companies cite internal organisational problems as their principal weakness. These differences appear to indicate that larger companies are more aware of the demands of the market and may also be more responsive to these demands.

Local entrepreneurs were also asked to rate their companies’ business relationships with a number of broadly defined actors on the basis of their relative importance for the company and its competitive position. Figure 8.1 presents the answers to this question: it shows that labour and the company-labour relationship is perceived as highly important by most local industrialists. It should be clear that the high ranking of labour is not based on positive grounds; as noted above and in previous chapters, rising labour cost, limited availability and high labour turnover rates worry garment entrepreneurs in La Laguna. In contrast to the general concern about labour, ratings for the other relationships varied considerably from company to company. In general – and confirming a pattern noted in Chapter 6 –, relationships with government and public-private organisations and with financial institutions were perceived as problematic and were rated on negative grounds. Linkages with suppliers of material inputs and clients were rated because of their importance to the further development of the firm.

Finally, one of the most striking general observations about the local entrepreneurs’ assessment of their own company is that many appeared to find these strategic questions troublesome. A first indication of their doubts is the high non-response rate on these particular questions. While this might be explained by the sensitive nature of the information, it appeared more an indication of limited market awareness and limited ability to assess the competitive position of the firm. This applies especially to the identification of opportunities and threats, where as many as 25% of the respondents either gave no answer or gave an answer that appeared highly unrealistic. The apparent limited strategic vision of a considerable proportion of the local entrepreneurs may be explained by a number of factors, such as the short history of many of the factories, the limited experience of their owners/managers and the incessant wave of new challenges facing them. As may be expected, this applies especially to SMEs, which generally have only indirect access to the market and relevant information. However, with the general exception of the managers of most very large companies, few entrepreneurs communicated a clear strategic vision for their company and an understanding
**Box 8.1: A clash with fashion**

Why are many local manufacturers hesitant with regard to fashion? Why did they initially try to avoid producing fashion jeans?

To local manufacturers, the production of fashion embodies much more than just the simple attachment of a pocket over the side seam. Essentially, the introduction of fashion is a switch from the long-time production of a single product – in which variation is limited to size, fabric types and possibly the shape of the back pocket – to producing a constantly changing mix of smaller batches of different types of bottoms. This means that the production process needs to be made more flexible and some of the automated machinery can no longer be used as extensively and efficiently as before.

In fact, the entire company needs to be made more flexible: in some cases operators need to be trained to do different operations, sewing lines need to be adapted to a new style, and, not unimportantly, owners and managers need to accept the fact that the days of predictability and long-term planning are over. The production of garments with a higher fashion content may entail not only an increase in the number and complexity of operations, but also changes in machinery, in production planning and organisation and possibly also in business mentality. Especially this last factor is difficult and until 1999 entrepreneurs commonly complained about clients who gave them ‘too much fashion’ or came up with styles that were ‘impossible to produce’. Many were not immediately ready to accept the new rules of the game and some keep hoping for bulk orders of standard jeans, even if for lower-end clients. Also, many try to hold on to a small volume of basics in combination with more complicated styles. In the beginning, local manufacturers reacted to fashion by over-charging. As a local industry watcher mockingly observed when carpenter jeans were introduced in La Laguna: ‘they [local contractors] want US$1 for every extra operation’.

The local hesitance and inflexibility met with little understanding from US buyers, whose view was summarised as follows by one of them: ‘a hem is still a hem, a waistband still a waistband. Believe me, it doesn’t cost more to produce fashion pants. I don’t see the problem.’ This observation may be correct from a strict production technical point of view, but this does not appear to be the root of the problem in La Laguna. To understand the local attitude it needs to be viewed in relation to the short history of the cluster, the limited experience of many local garment entrepreneurs, dependency on US buyers and the resulting market unawareness. After the turn of the century it was clear that most local contractors had adapted to the increased demand for fashion and have come to see it as an inescapable fact of life. In fact, a few are quick to identify new trends in order to try to introduce them under their own label onto the regional market. Some have done so with success.

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**Figure 8.2: Relative importance of types of denim products, La Laguna**

![Pie chart showing relative importance of denim product types]

Source: Baseline survey, 1998-1999
of their market. Most relevant in this respect is the question how this may impact the developmental dynamic of the cluster as a whole. The following sections present changes in products, processes, chain position and labour strategies during the late 1990s in La Laguna. These changes are related to strategies of local firms and the role played by other actors.

8.2 Making better things
One of the most common ways in which a company or a cluster of companies can change or improve its competitive position is to change its products. Unsurprisingly, making more sophisticated products or product upgrading has received considerable attention in the academic literature on learning and firm upgrading strategies (Egan & Mody, 1992; Gereffi, 1999; Humphrey & Schmitz, 2000). Product upgrading is generally reflected in increased unit values. In the wearing apparel industry, the production of more complicated garments (i.e. garments with a higher fashion content) may be an important product upgrading strategy. Manufacturers can also produce higher quality garments or improve buyer service through product diversification.

Types of products: fashion content
Chapter 1 discussed how, in line with changes in the clothing market at large, fashion invaded the denim segment in the 1990s. Chapter 5 briefly mentioned that there have been shifts in the types of jeans produced in La Laguna: fashionisation has been making inroads in the Laguna jeans cluster since the late 1990s. Using 1998-1999 survey data, Figure 8.2 shows that approximately 40% of locally produced garments are basic five-pocket jeans and the rest are a combination of more fashion- and/or season-sensitive bottoms. The importance of these latter, generally more complicated garments is the result of what is locally perceived as a small product revolution involving especially the ‘carpenter jeans’ of the late 1990s. Fashion volumes produced in the cluster have grown and most companies produce at least a combination of basic and fashion jeans. While basic five-pocket jeans continue to be highly important, sandblasted jeans, ‘whiskered’ jeans, low-waist jeans and many other popular models are now being produced in La Laguna, and in increasingly large volumes.

As explained in Chapter 4, garment companies in the region are contractors: they produce what is being demanded, according to the specifications of their US buyers. Most do not have any design capability of their own. Thus, fashion trends are followed, not driven or even shaped, by manufacturers in La Laguna. The main driver behind the increasing fashion content of locally produced garments is the market, or the way in which US buyers interpret customer demand and translate it into market trends. In fact, to some extent, the introduction of growing volumes of fashion jeans initially took local entrepreneurs – many of whom had limited experience in the industry and little understanding of the market – by surprise. Their amazement at the new trends underlines distance to or follower position vis-à-vis the market. This is also reflected in the initial local resistance to fashion (see Box 8.1). As a regretful, local manager put it in 1999: ‘The days of the basic five-pocket jeans are over. Nobody can do just five-pockets anymore.’ These regrets were widely shared throughout the cluster, but the fashionisation trend was fairly quickly recognised as both inevitable and irreversible. Local attitudes to fashion changed and since the turn of the century, local producers appear to take pride in the complicated garments they make.
Notwithstanding progress in the area of fashion content, in a wider perspective changes in La Laguna may be relatively small. No significant side-steps out of the narrow segment of denim bottoms and casuals have been made; hardly any jackets, shirts or other types of tops are produced in the Comarca, let alone such products as high fashion women’s wear. In general, local entrepreneurs do not see product diversification as a viable strategic option to limit vulnerability and strengthen the competitive position of local firms. In 2000 one of the board members of CNIV pointed out that the ability to supply a collection of garments would greatly enhance the cluster’s competitive position. So far, however, little concrete progress has been made in this area. Product diversification out of blue jeans requires a more proactive, strategic business attitude than merely responding to the changing demand of buyers for fashion jeans, for example, which as discussed above is locally perceived as a very big change. Limited progress in the area of product diversification may again point to local inability or unwillingness to develop such an attitude – an inflexibility that is hard to understand in isolation from the historically developed narrow orientation towards jeans.

Product quality
Garment quality is clearly an important issue for local entrepreneurs. As mentioned above (see also Appendix III), many producers view product quality as the most important competitive strength of their company. This does not mean product quality is taken for granted; in fact, it features prominently in local business strategies. Almost 50% of local entrepreneurs stated that the main focus of their company’s strategy was on product quality. When asked whether the company had developed a strategy to improve quality levels, 97% answered that they had done so. Figure 8.3 shows the concrete measures that local companies have taken with regard to improvement of the quality of their products.

These data largely reflect the local quality improvement strategies implemented in the late 1990s. The local concern with quality is not surprising: quality is one of the main requirements of garment buyers, and until the late 1990s the prevailing quality control measures in the cluster were rudimentary. Most companies apply typically Taylorist processes and channel production through traditional sewing lines of highly specialised sewing-machine operators. This leads to inflexibility and high in-process inventories. Quality-related concerns are assigned a place – physically as well as figuratively – at the end of the sewing lines, where auditors inspect a random sample of finished garments. Before and after finishing, garments are measured against the quality specifications issued by the buyer. In Chapter 1 it was noted how in this system defective work may accumulate in in-process inventory for a long time.

Figure 8.3: Measures implemented to improve product quality

Source: Baseline survey, 1998-1999

<table>
<thead>
<tr>
<th>0</th>
<th>5</th>
<th>10</th>
<th>15</th>
<th>20</th>
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<tr>
<td>more supervision in sewing lines</td>
<td>0%</td>
<td>5%</td>
<td>10%</td>
<td>15%</td>
<td>20%</td>
<td>25%</td>
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<tr>
<td>employee training</td>
<td>0%</td>
<td>5%</td>
<td>10%</td>
<td>15%</td>
<td>20%</td>
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<tr>
<td>application of external system</td>
<td>0%</td>
<td>5%</td>
<td>10%</td>
<td>15%</td>
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<td>ISO-9000</td>
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Source: Baseline survey, 1998-1999
without being detected, and mistakes may affect a large number of garments. Clearly, this type of post-production quality control system poses great risks. These risks are borne by the contractor: enforcement of minimum quality standards by buyers is strict, and substandard or inconsistent quality may be penalised severely. Faulty lots of garments can be rejected or only accepted on the condition that the manufacturer will pay the ‘charge-backs’ or reductions in price associated with the repair of the garments.

For the end of the 1990s the survey shows a clear local push for a change in the prevailing quality control methods with the aim of improving product quality and reducing quality risks. The two measures taken by most companies (training of personnel and increased supervision in the lines) do not testify to a rigorous approach, however. Quality control is still integrated into the production process in a rather haphazard way. There is talk in the cluster of total quality management principles and even of Japanese management methods, but truly integrated quality control throughout the process is seldom found in factories in the region. In other words, control and supervision may be tightened but the process itself is not changed.

Nevertheless and despite the non-revolutionary natures of the measures, they are important. Their results are hard to measure, but the continued sourcing from the region by a number of important US buyers indirectly testifies to the fact that quality levels in La Laguna are satisfactory. Indeed, improvements in quality levels have been inferred from the new buyers that have started to source from La Laguna (see Bair & Gereffi, 2001); the previous chapter showed these to be highly demanding, especially in terms of quality. However it was also noted that they source from a select group of companies, so it appears overly hasty to infer cluster-wide high-quality standards from their presence.

8.3 Making things better

Managing a giant

As mentioned earlier, several local giants identified the internal organisation of the company as their principal weakness. Most of these companies have grown explosively since 1994 and as a consequence at the turn of the century they were faced with urgent challenges in the area of production organisation: accurate planning and logistical control. Their strategy of rapid output growth through constant expansion of the company and its workforce put serious strains on their internal planning and control departments. A manager of one of the largest local companies illustrates the situation as follows:

‘[...] 1999 was the worst. We had accepted so many orders and we needed to involve so many local subcontractors that we completely lost track. We did not know how far advanced some orders were, whether they were almost out of the sewing lines or not... In fact, in some cases we did not know where batches had gone, to which subcontractor.’

She also mentioned the lessons learned from this episode:

‘This was really bad. We decided to no longer just accept all the orders. We cannot again exceed our own in-house production capacity by such large margins. Thus, we intend to manage smaller volumes at peak times and at the same time, continue to expand our business [by buying local factories and expanding capacity of some of our own factories].’
While this manager was referring to an extreme situation, around the turn of the century several of the local giants were facing the challenge of retaining or even gaining control over their production organisation. Until then, there had been an abundance of business opportunities and these companies had been scrambling to expand business fast enough to keep up with the demand growth. By the late 1990s, these companies needed to enhance their internal organisation in order not only to improve their planning and logistics and to safeguard their relationships with buyers, but also to improve efficiency, which until then had received comparatively little attention. Several local giants expected continued capacity expansion in coming years but indicated that they aimed for only minimal growth of their workforce. To increase efficiency a few local companies, very large companies but also smaller ones, began to experiment with changes on the shop floor.

**Shop-floor production organisation**

In general, one of the most striking features in the Laguna regions is the overall high standard of the export facilities, especially those of the larger companies that export directly. There are numerous horror stories concerning terrible, exploitative labour conditions in garment sweatshops. Such conditions are not found in La Laguna. Most export factories provide a clean and safe working environment for their employees. As most factories started off as export factories, they were built to provide sufficient light, air-conditioning, ventilation, toilets and emergency exits. Factories that did not have these basic conditions have begun to provide them. Many of the improvements in the facilities are instigated by the buyers who want to enforce a minimum standard of working conditions throughout their networks (see Annex 2). As control over the networks increased and more buyers are now insisting on the certification of subcontractors in their networks, also subcontractors have had to adjust their facilities and policies.

As mentioned, in La Laguna the most common way to organise the production process is through traditional sewing lines. This is somewhat surprising since the disadvantages associated with the sewing line system are common knowledge: high in-process inventories, long throughput time, inflexibility and vulnerability to bottlenecks (Chapter 1; see also Bailey, 1993). Production in sewing lines is also directly affected by the absenteeism of operators or the training associated with high turnover rates. Given the high labour turnover rates in the cluster and the general push for quick response and flexibility in the industry, sewing lines are clearly not an ideal production system for producers in La Laguna. As mentioned in Chapter 1, a more suitable way to organise production has already been developed: production centred on ‘modules’ or ‘cells’. The advantages of reorganising production around smaller teams of operators are generally accepted and information on the main characteristics and principles is accessible. Yet, in the Laguna region in the late 1990s, traditional sewing lines were still by far the most common way to channel production on the shop floor. This may be due to the fact that many local entrepreneurs had until then been preoccupied with trying to keep up with, for example, demand growth and quality standards. It may also be due to doubts regarding the suitability to the local production environment, especially because of the perceived inability of Mexican workers to engage in teamwork (see Chapter 6). Furthermore, in the new systems sewing operators would be given more responsibility, thereby putting pressure on the hierarchic, compartmentalised and sharply demarcated task division that exists in the Taylorist sewing lines.
Despite general doubts about changes in the production system on the shop floor, one progressive company in the region was viewed with interest in the cluster: this very large company had implemented a module-type system on its shop floor. It had redesigned the shop floor in order to facilitate teamwork and to stimulate team spirit and work ethic among its operators. The system seemed to be successful, partly because it allowed the company to introduce a competitive element onto the shop floor; for example, the ‘lions’ module tried to beat the productivity record set by the ‘bees’ module, as data on productivity, absenteeism and faulty garments related to each module were pinned up on company notice boards. In addition, wages were directly based on the number of finished garments and were above the average in the region. The organisation of the shop floor was embedded in a company strategy which, more than in other companies in the region, was centred on operators and labour conditions (see Box 8.5).

Although industrialists in the region are aware of the existing alternatives and their advantages, and have heard of the approach of the above-mentioned firm, few are willing to take the risk of adopting them (and failing). Very few other local companies have adapted or modernised the processes on the shop floor. Manufacturers that did make changes did so in a much more limited way. Most had organised their finishing department around modules or cells and were satisfied with the results, but uninterested in applying reorganisation elsewhere in their factory.

In general, manufacturers are sceptical about the acclaimed results and fearful of the risks of what they perceive as a radical change in the production process. Risks are commonly related to the difficult labour situation in the region, where any change affecting the operators represents a potential threat of unrest and loss of personnel. The perception of Mexican culture or idiosyncrasy, which is believed to be unconducive to teamwork and team spirit, feeds the scepticism of the results of these systems once they have been implemented. Risk avoidance is the main obstacle for a thorough reorganisation of the garment production process in La Laguna. The limited experience of many industrialists may be at the root of this behaviour.

It therefore is hardly surprising that buyers played an active role in the diffusion of the module system in 1999. At that time this type of transformation was adopted by a small number of local companies, on the express recommendation by buyers. In fact, one of the buyers went as far as to make the rearrangement of the production process by its contractors a prerequisite for the continuation of the business relationship (see Box 8.2). However, buyers are not the only catalysts for reorganisation of the production process. The local offices of SECOFI and Bancomext (through the local CNIV) were quite active in offering local SMEs, who as discussed in the previous chapter often do not have a direct relationship with a US buyer, the opportunity to hire industry consultants at a reduced fee, subsidised by Bancomext. Through this program (called ‘COMPITE’), local garment contractors could have their facility and shop floor evaluated and improved. Consultants suggest improvements and offer practical support in their implementation. Although changes did not necessarily involve the introduction of modules, in most cases they did entail a reshuffling of the shop floor in the direction of teamwork and the reduction of throughput times and in-process inventories, all of which are characteristic of the modular system. Only a small number of companies in the region took advantage of the COMPITE offer. All of them enjoyed positive results in terms of productivity and efficiency gains.
Besides changes in the production system on the shop floor, investment in new technology is considerable in La Laguna. Although costs can be high, investment is seen as an easier and less disruptive way to improve production efficiency compared to rearranging the shop floor.

Production technology
Over all, local entrepreneurs stress technological investment as a major ingredient of their business strategy. When asked about the planned introduction of changes in the production organisation or the introduction of new technology, 64% of the local companies expressed their intention to introduce one or both such changes. When asked which measures would be taken, 55% prioritised investment in the automation of certain operations and 30% indicated that they wanted to make changes on the shop floor; the remaining 15% had other intentions or did not yet know what changes would be made. As indicated in Figure 8.4, the main aim of intended changes was to increase efficiency.

The high priority assigned to investments in automatic machinery as a means to achieve increased efficiency is somewhat surprising. Instead of a response to the challenges and demands of the new competition era of rapid response and flexibility (see Best, 1990; Malecki, 1994; Chapter 1), automation and the limited flexibility associated with it is to some extent typical of the old, mass-production times. By the late 1990s already some of the most up-to-date machinery was found in the region. Besides new individual sewing machines, very large

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**Box 8.2: Practical guidance by a buyer**

One of the companies most actively pushing its contractors for organisational change is El Paso-based Savane, formerly Farah and since 2000 owned by Tropical Sportswear International (TSI) in Tampa, Florida. Savane – which has ample contracting experience in the Dominican Republic with contractors that used modules – pushed its contractors in La Laguna to switch from sewing lines to the modular system. The company offered its contractors practical help and support during the transition process. Two of Savane’s engineers were put at the full disposal of the contractors. For several weeks these engineers studied the production organisation on the contractors’ shop floors and then designed modules to suit the circumstances of each individual contractor, their machine park and operators. In addition to the technical input, the engineers aided in the implementation thereof by providing information to both management and workers and by supporting the practical retraining of the employees. Since modular production has a significant impact on the position and responsibilities of workers, all sewing operators were prepared for the coming changes. To this end, videos of modules in action in the Dominican Republic were shown, and discussion meetings and workshops with personnel were organised.

Despite the aid and expertise provided by the buyer, some of the local contractors displayed a passive or even negative attitude towards the changes. This negatively affected the commitment of the operators and hampered the transition. When Savane terminated the sourcing relationship with most of its contractors, some immediately reverted to lines, others stuck with the modules. One contractor stopped working for Savane and switched to another buyer as soon as the modules were up and running.
and highly modern laser cutting machines, spreading machines, pocket-setters and even semi-robotised washing departments had been bought.

Besides efficiency gains, contractors in the Laguna region appear to have an ulterior motive for the introduction of new technology: reducing labour input, especially in certain critical operations, is seen as a viable way to improve the quality and to maintain that quality. The quality concern is of increasing importance as turmoil on the local labour market is translated into high turnover rates, which have a negative effect on the consistency of product quality. Thus some companies choose to invest in highly sophisticated sewing equipment as well as in the automation of some of the operations to prevent quality problems.

The acquisition of highly modern and very expensive machinery is an option only for the large and very large companies in the region. Even between the largest companies in the region there is variation in the level of technological upgrading they engage in. Between medium-sized companies there is an even larger variation in the priority assigned to, as well as in the capital available for investment in technology. Small companies engage least in technological upgrading. Not only is semi-automatic machinery beyond the reach of most SMEs, but even the basic sewing machinery in smaller companies is often old and outdated. The cost of investment in technology is the most important barrier, as access to credit is limited. This is especially true for SMEs, which as a consequence have to rely on the intra-cluster, ‘hand-me-down’ system. The sale of machinery from large to smaller companies through this mechanism generally does not allow small companies to catch up with technology. However, it does appear to prevent them from lagging behind even further over time.

Besides changes in the area of technology and shop-floor organisation of production, there are other ways to improve the production processes. Implementation of general, internationally standardised and certified procedural standards, such as ISO 9002, is one of the ways in which companies in the region can try to ‘do the same things better’. In La Laguna very few local manufacturers are certified under ISO 9002. There is no general interest amongst the companies to strive for such certification and very few buyers require it.

8.4 Towards full-package production: local-level obstacles and success

Besides improvements in products and processes, Chapter 2 discussed an upgrading strategy which features prominently in GVC studies: upgrading along the value chain, in the direction of full-package production. Especially in studies of the Mexican garment industry, full-package
production – or, more specifically, the transition from pure assembly work performed by traditional maquiladoras to full-package production – is receiving much attention (see Chapter 3; Gereffi & Bair, 1998; Gereffi & Martínez, 2000; Bair & Gereffi, 2001; Gereffi et al., 2002b). The development of full-package capabilities is seen as a potentially potent lever for regional economic development. It is associated with capital investment, technological upgrading, increase in domestic ownership, higher profits accruing to Mexican actors in the value chain and favourable changes in the labour scene. In short, full package is believed to be the way to go for local manufacturers as well as to provide a strong stimulus for local economic development. This section aims to shed light on company strategies with regard to full-package production, or upgrading based on a more limited extension of company capabilities along the value chain.

As mentioned earlier, all necessary ingredients for putting the package together are present in or are close to La Laguna: there are denim mills in Parras and Torreón, suppliers of all sorts of trim, an industry-specific infrastructure and a wide array of support services in La Laguna. As NAFTA has eliminated pre-existing limitations on the local integration of the production process, have production phases and activities shifted from the US to Mexico? And, who is the local organising agent? Does a shift of production activities to La Laguna mean that specialist cutting rooms and laundries are being set up, or are local companies moving from pure assembly to a more all-round, possibly full-package position in production networks? Table 8.1 shows the command of local companies over the value chain in the late 1990s.

First and foremost, Table 8.1 reveals that the local capabilities of all exporting companies in the region are limited strictly to manufacturing processes. This pattern directly confirms the noted status of La Laguna as a contracting cluster. Non-manufacturing activities such as design and marketing are undertaken outside the region.

With regard to the pattern of the various types of companies, it is clear that small garment companies are most limited in their scope. As expected based on the subcontracting patterns discussed in the previous chapter, they are almost without exception pure assemblers. The situation is more complex and varied for the medium-sized companies, all of which are
involved in assembly, and most also in the procurement of trim and in finishing of the final garments. Many do not have their own cutting room or laundry and need to rely on other companies, either buyers or local companies, for the completion of the process. Large companies on average have a slightly more extensive command over the production chain, especially the pre-assembly stages: many have a cutting room and a few buy fabric, at least for part of their total production. There is a comparatively large capability gap between the large and the very large companies in the region, as the latter are by far the most well-rounded and have the most extensive command over the production chain. All local giants are engaged in the procurement of trim and in cutting, assembly and finishing, and most also buy fabric and have a laundry. Many use their all-round capabilities for the production of full packages. For many FDI companies, local integration of the production process is limited: pre-assembly activities are in most cases not undertaken in the facilities in La Laguna but are centralised in their US facilities. In some cases, the shift of these processes to Mexico may be just a matter of time. Finishing is done locally, and most foreign-owned jeans manufacturers also have laundries in the region. Bearing in mind the local linkages patterns outlined in the previous chapters, the general pattern of increasing command over the value chain with larger company size in Table 8.1 does not constitute a great surprise.

For a more detailed understanding of how command over the production chain is translated into various positions in bi-national production networks, Table 8.2 synthesises the functional position of companies in the GVC.

Table 8.2 illustrates that La Laguna can longer be typified as a pure assembly cluster as many local companies also perform non-assembly activities. Most noteworthy in relation to the upgrading discussion outlined in Chapter 3 is the fact that several companies in La Laguna have developed the capability to produce full packages. Though the number of full-package producers may appear small, it is a significant development, certainly when one bears in mind the recent status of La Laguna as a pure assembly bulwark and the tremendous changes needed for the switch from assembler to full-package supplier. Furthermore, the development has not halted: there is a local push amongst the large local firms for more full-package production. Some new companies are striving to develop full-package capability and those that already have it are expanding their full-package volumes at the expense of assembly or CMT work.

Table 8.2: Functional position of manufacturers in production networks

<table>
<thead>
<tr>
<th>Position/activities</th>
<th>No. of companies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pure assembly</td>
<td>33</td>
</tr>
<tr>
<td>Assembly and finishing</td>
<td>9</td>
</tr>
<tr>
<td>Assembly, laundry and finishing</td>
<td>5</td>
</tr>
<tr>
<td>CMT</td>
<td>5</td>
</tr>
<tr>
<td>CMT and laundry</td>
<td>6</td>
</tr>
<tr>
<td>Mix of CMT and full package</td>
<td>9</td>
</tr>
<tr>
<td>Other</td>
<td>6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>73</strong></td>
</tr>
</tbody>
</table>

Source: Baseline survey, 1998-1999
Even though ‘full package’ has become a buzzword in La Laguna, the development of local full-package capabilities is a selective and incremental process. Table 8.1 shows that only very large local companies have the command of the value chain, that is necessary for full-package production. Indeed, without exception full-package export producers belong to the group of local giants. However, not all very large local companies produce full packages: even amongst the local giants there are manufacturers that do not put the package together. Developing full-package capability requires not only extending command over production activities in the pre- and post-assembly stage of the production chain, but also the development of new capabilities in such areas as logistics, financial management and planning. Another essential change lies in the ownership of the products: in a contracting situation, the contractor alters products owned by his clients, but full-package manufacturers own the product they produce from the moment they buy fabric and trim until the moment they sell the finished product to their clients. For most manufacturers in La Laguna, this is a true paradigm shift, with two major implications that are only indirectly related to the mastering of new parts of the production chain.

First, the shift of ownership leads to larger overall risks as well as a time risk: the manufacturer is not entirely sure he will sell his production until it is received by the client, nor does he know when he will sell. Second, for the manufacturer, financial management becomes more complicated and more important because of the large amounts of capital involved, and because of time lapses between payments to be made and payments to be received in almost every step of the production process. Mexican manufacturers are generally treated as US suppliers and are paid 60, 90 or even 120 days after garment delivery, which for most local firms is a large gap to bridge financially. On top of that, many manufacturers carry the inventory for their clients. In doing so, they have a very large amount of unproductive capital tied up in warehouses. Thus, even for larger companies full packages are a challenge as cash flows need to be balanced and faulty production leads to tremendous losses (see Box 8.3). Small wonder, then, that the process has been incremental: full-package manufacturers in the region started by producing small volumes of full packages in combination with the bulk of their work, which consisted of assembly of CMT contract work. As they gained experience they expanded the share of full packages at the expense of other work, and by the turn of the century had succeeded or were striving to make full packages the mainstay of their business. As a result of this development, a conservative estimate of local full-package production for 1999 is approximately 35% of the cluster’s total production.

The combination of tedious learning processes, the very large amount of liquid financial means needed, the risk involved and the financial planning over very long time spans prevents many smaller local manufacturers from entering the full-package arena. Clearly, most companies cannot put the package together. Six companies produce half-packages (cutting, assembly, trim and laundry) but most have not made so much progress. This is clearly illustrated by the limited capabilities of local subcontractor SMEs, most of which do pure assembly. They do not have the financial resources or the access to credit needed for full packages, half-packages or even the procurement of trim. Also, in their subordinate position in local networks, they do not receive any incentives to develop beyond pure assembly. On the whole, the local move towards full packages is a process with selective and exclusionary traits. This is related to the preferred route to full-package production of the Laguna cluster: full-package production is undertaken by single companies that expand their in-house capabilities. The alternative route – developing intra-cluster cooperative linkages between specialist cutting rooms, assemblers and laundries –
The only exceptions are a few manufacturers with tight family linkages who employ these linkages and the laundry and/or cutting capacities of factories of family members to complete the package.

Why do manufacturers go to the trouble of developing full-package capabilities? In the eyes of many local manufacturers, assembly work or maquilas is – despite quality and delivery time challenges – a fairly straightforward way to make good profits. Then why make life more complicated?

The shift to full-package production in La Laguna is largely a response to real and expected changes in demand. The pressure on very large local manufacturers to develop full packages is considerable. Changes in the US apparel market for garments, most notably the direct involvement of retailers and marketers in sourcing (see Chapter 1 and 3), play a significant role in pushing factories towards full-package production. Designer and private label marketers –

Box 8.3: A spin-off: trade in seconds and rejected lots

The production of garments always leads to the production of seconds (garments with serious defects), as well as of rejected lots, viz. batches of garments that were not sold because of late delivery or a dispute between manufacturer and client. Depending on the reason for rejection and the type of arrangement with the buyer, rejected garments are taken back by the buyer, are sold as they are or are rid of labels, brand name buttons, et cetera. Alternatively, they may be marked as seconds and sold with original labelling. Since the market for these types of goods, which are cheap, is much larger in the US than in Mexico, in the case of La Laguna this trade generally intermediates between local manufacturers and US clothes wholesalers such as ‘Ross dress for less’.

Recently, the trade in seconds has received a strong impetus from changes in the garment industry in La Laguna in the following manners:

- The fashionisation of formerly more standardised garments means that many of the garments produced now are more complicated than the ones produced a few years ago. The number of possible mistakes and defects has increased as a consequence.
- The introduction of full packages, and the consequent shift of ownership from client to manufacturer, has somewhat diminished the propensity for buyers to accept faulty garments or late deliveries.

In practice this means an increase in the total volume of seconds and rejected lots, especially at times of low sales. Essentially, production mistakes are still made and there is no reason to believe there has been dramatic improvement or deterioration in this area in La Laguna. Rather, the increase in seconds trading appears to be a result of a combination of the above-mentioned aspects. Unlike many other industrial products, for garments quality control is hard to objectivise. In the words of a local manufacturer: ‘If you want to find a defect or mistake in a garment, you’ll find it.’ Fashion, with its higher number of operations, increases the potential number of defects. Also with full-package production, buyers have no capital invested in the garments until the garments have passed the auditing and are bought. In this situation, rejection represents a loss of sales rather than a loss of sales and capital.

Recently, US buyers have been trying to prevent or limit the sale of their rejected garments in discount stores by prohibiting their sale or by keeping it in their own hands.

has not been taken. The only exceptions are a few manufacturers with tight family linkages who employ these linkages and the laundry and/or cutting capacities of factories of family members to complete the package.
neither of which have production capacity of their own – are sourcing from La Laguna. Designers pay higher prices than mass merchandisers and are thus attractive clients. Local manufacturers in pursuit of these higher-end buyers have to be able to offer full-package production. The resulting demand pull is strong, also because the quest for full-package contractors is spreading to other buyers (such as Sara Lee and Levi Strauss) that are shifting their core-business from manufacturing to design and marketing (see also Chapter 1). Many large manufacturers recognise the full-package development as inevitable in the long term and a few have already developed full-package capability.

However, not all local firms (not even all very large firms) are acting upon the full-package trend. As discussed in the previous chapter, shifts in the strategic focus of US buyers are not always directly translated into a demand for local full-package production. Through the incorporation of intermediary firms into production networks or the centralisation of certain activities (such as input procurement or cutting), buyers still allow for producers with more limited capabilities. The presence of these types of networks in La Laguna goes some way towards explaining the region’s hesitant and partial shift to full-package production by providing alternatives, which in a short-term perspective may be more appealing. One manufacturer in the region pointed out that the margins on several activities beyond assembly were not as high as on assembly (on cutting and input procurement, for example, margins are comparatively small) and therefore he saw no immediate point in undertaking such activities. Other manufacturers also said that they are not willing to face more trouble in undertaking new activities in exchange for smaller margins on these activities.

In general, at the turn of the century, the development of local full-package capabilities was still a challenge for the garment industry in La Laguna. The potential of successful, large local companies to develop into original brand manufacturers or even original design manufacturers is at best something for the long term, especially since only few companies are marketing their own branded garments in the regional or national market, and the understanding of the US market is limited. Meanwhile, the relative importance of full packages is likely to increase and this may have important implications for local SMEs. As increasing shares of the industry’s total production are channelled through large full-package companies, SMEs face the risk of becoming locked in as subordinated assemblers to these companies. As discussed in the previous chapter, this not only puts them in a vulnerable, dependent position but may also limit their learning and upgrading potential.

8.5 Labour strategies

The previous sections have discussed local progress in the areas of product and process upgrading. In the area of product upgrading, local progress is mostly a response to or a reflection of changes in demand. In line with patterns described by Hobday (1995) and Schmitz and Knorringa (2000), the role of local firms has been larger in the area of process improvements. With regard to process improvement, a combination of company-internal strategies and external impulses – from buyers and in some cases support from public organisations -has brought about the noted results.

However, at the beginning of this chapter labour and company-labour relations were highlighted as the main concerns of garment companies in the region. It is in the area of labour-related strategies that local companies have been especially proactive. A variety of
dynamic changes have materialised and a number of distinct business strategies formulated. The principal ones will be presented here.

8.5.1 Labour strategies in the urban core
As explained, even with the incorporation of large rural labour reserves, during the boom of garment production in the region, the growth in demand for skilled labour constantly outpaced its supply. Local companies were faced with recruitment difficulties and high labour-turnover rates soon became a disincentive to investment in the on-the-job training of workers. Moreover, the recruitment of more specialised shop-floor personnel as well as of administrative and managerial personnel became problematic. Since garment production in La Laguna is overwhelmingly concentrated in the urban core, these problems are most acute in the cities.

Faced with the acute need to fill orders and a generally limited return on investment on training in an environment of high labour turnover, a few companies in the region have ‘solved’ the shortage of skilled labour by turning to less agreeable, if not unethical measures. Labour poaching is not uncommon and affects all companies in the region. The most easy and common poaching method is to send employees to wait at the gates of the competition. At closing time, when all the workers flow out into the streets, they are offered slightly higher wages if they come and work for the competitor. Employees with experience in certain operations and supervisors (the popularity of the latter is due to the fact that their relationship with a large number of sewing operators may be close enough for these operators to accompany their supervisor to the new company). But poaching can take several other, and sometimes quite extreme, forms (see Box 8.4).

It is difficult to assess the number of companies that engage in labour poaching, but it is clearly causing problems and irritation amongst industrialists in the region, and in some cases damages inter-firm relationships. While apparently only few companies undertake poaching on a structural basis, it appears to be an emergency option for a larger group of companies. The problem is that labour poaching (pirateaje as it is called locally) is a very quick and effective way to avoid continuous investment in the on-the-job training of operators. Without engaging in direct poaching aimed at specific companies or workers, some companies in the region are trying very hard to attract experienced personnel from anywhere they can. In their efforts they may stimulate regional labour mobility. For example, most vacancies advertised in the local newspaper list all benefits and amenities, but companies have also been reported to award their operators with a 100 peso bonus for bringing in a new operator. The impetus on labour mobility resulting from these types of measures is obvious.

Companies that engage in poaching and those plagued by high turnover rates point to the vicious circle that has been created and now forms the basis for continued poaching practices. All are trying to avoid investing in the training of operators, because ‘other companies are stealing workers anyway’ and thus the easiest way out is to contract experienced operators. Attempts to stop poaching, both collectively through CNIV (see Chapter 6) and on a more small-scale basis, have been unsuccessful.

Companies are developing other labour strategies aimed at improving their attractiveness to employees or otherwise retaining or attracting them: for example, more than 50% of the garment companies indicated that they are paying higher wages and offering better benefits in an effort to win their employees’ loyalty. Especially in the area of fringe benefits companies are
Box 8.4: Negative strategies: labour poaching

1. Bus kidnap

The problems of labour turnover and competition for skilled workers in the region have driven industrialists to undertake rather drastic poaching measures. The most extreme story heard was the following:

One day the bus that transports the workers of a medium-sized factory in Gómez Palacio from the nearby villages to and from work did not arrive at the normal time. At first, the owner did not worry and blamed the road works on the Periférico or possibly a punched tire. As time went by, however, and the bus still did not arrive, she decided to phone the police to ask whether any accidents had been reported. When they told her that no accidents had been reported she was reassured, but even more puzzled about what could have happened. All morning there was no news of the bus or the workers. At midday the owner finally found out what had happened: one of her workers arrived at the factory and told her that somewhere along the way to the factory, a man had got on the bus. He had paid the driver and the workers a small amount of money, and then the bus was driven to the factory he owned where the workers were expected to work for him.

2. HR management

Illustrative of active engagement in and open recognition of labour poaching in the region is the fact that twice during an interview with an HR manager the manager in question received a phone call from a colleague inquiring about missing employees. In both case, after assuring the colleague that his missing employees were not there, the manager started an open discussion about wages and benefits:

- ‘No, te lo juro, aquí no están. (No, I am telling you: they are not here.)
- Además, no andamos necesitando gente para la sala de corte. (What’s more, we do not need personnel for the cutting room.)
- ¿Ya has hablado a Azul y Verde? (Have you tried Azul and Verde?)
- Y no? y a Rojo? (They are not there? And in Rojo?)
- Pero si no es mucha indiscrecia: dijeme cuánto les pagas. (Okay, I don’t mean to pry, but how much are you paying them?)
- ¿Y de beneficios? (And in benefits?)
- Pues andas por debajo. Si, en Azul les pagan igual, pero ahí tienen un 100% de subsidio en la comida. (Well, you are below the going rate. Yes, they pay the same in Azul, but there they fully subsidise the meals)
- Sí, pero en Rojo pagan X pesos. Pues yo tampoco sé como lo hacen, pero parece que sí es cierto. (Yes, but in Rojo they pay X pesos. Well I don’t know how they do that, but apparently that’s what they pay.)'

When asked about these phone calls and more specifically about inter-firm labour poaching, the managers admitted that during ‘emergencies’ or when ‘necessary’, company personnel would go out to the villages or neighbourhoods where the workers lived in order to try and convince them to switch companies and start working for them. The current general wages paid to specialist workers are common knowledge, but even at the specific company-level, information flows relatively freely. The competition therefore has a good idea of what it needs to offer in order to convince the workers in
Box 8.5: On the positive side: fringe benefits and more

Both scorned and admired by local peers, Siete Leguas is one of the companies in the Laguna region that is most actively designing a company-internal HR strategy aimed at maintaining stability in its labour force. In fact, within its general business strategy, HR management appears to have an exceptionally high priority. As a result of this focus, it is one of the few very large Mexican-owned companies in the region to have significantly reduced both turnover and absenteeism rates. According to data provided by the company, turnover is stable at 2% a month and absenteeism lies around 1%. To achieve these low rates, the company has dedicated a lot of time and effort to improving labour relations, most notably the improvement of the installations and labour conditions, the implementation of a self-designed modular system, the subsequent upward adjustment of wages and the broadening of the range of fringe benefits and activities offered and organised. Among benefits and activities offered are:

- medical attention
- transportation
- a diner-style company canteen serving a variety of dishes free of charge
- obligatory as well as extra holidays
- Christmas bonuses/gifts
- funeral expenses for workers’ direct family members
- musical band
- study opportunities
- celebration of birthdays
- Catholic service (once a month)
- sports tournaments
- choir
- dance classes
- soccer team
- compulsory collective aerobics (daily)
- compulsory collective hoisting of the flag (daily)
being increasingly creative when it comes to offering new opportunities and activities to their employees. Many of the companies in the region now have a soccer field (where the company’s team trains for the CNIV soccer competition and tournament) and a Christmas party (posada) organised by the company, as well as a company group of Guadalupanas for the 12 December celebrations. Some companies have even extended their efforts far beyond these activities (see Box 8.5).

By the end of the 1990s, most medium-sized and all large and very large companies were engaged in bidding against each other in the areas of wages and/or fringe benefits. The effectiveness of these measures and their importance relative to other measures such as poaching or automation are hard to measure or even estimate. It is equally impossible to generalise about the strategies implemented by different types of companies. Over all, each company appears to, within its individual limits, focus on new incentives.

There are two general ways in which local companies may try to get around the local labour shortage or minimise its impact on productivity and cost. The high-road reaction to the tight labour market and the resulting turnover and absenteeism problems is to take technological and organizational measures to minimise their impact on production levels. As shown above, this is not the general reaction of local firms. A limited number of companies are implementing company-internal measures, or changes in the organisation of the production process on the shop floor in an attempt to alleviate the negative effects of high turnover and absenteeism rates. Alternatively, companies can follow a more low-road, evasive strategy by investing outside the region in locations with a larger and cheaper labour reserve. In this way they can escape from the local labour market situation.

8.5.2 The involvement of the rural labour force

As the downturn in agricultural employment in La Laguna coincided with the initial phases of the garment boom, the rural population has been involved in the garment industry since the early stages of the boom. Initially, both intra-regional migration as well as commuting were largely unorganised undertakings, set in motion by individual rural dwellers in search of employment. Most commuters came from settlements in the immediate surroundings of the cities and assumed the cost and time involved in their daily travelling themselves. Many of these rural-urban commuters were garment workers; others were cleaners or housemaids.

This pattern changed when the prolonged garment boom resulted in a tight urban labour market for un- and semi-skilled labour. From then on, local manufacturers had to actively scout the regions’ rural hinterland for personnel to fill their factories and production orders. By the end of the 1990s, almost the entire daily flow of commuters was being organised, controlled, coordinated and provided by urban garment manufacturers. Twice a day they send buses to pick up and deliver employees to the rural towns, villages and ejidos. Although not traceable in statistical data, these commuter flows are readily observable in daily life in the region. There also are no statistical data on the distances covered by commuters, but interviews with local HR managers suggest that commuting flows have increased both in volume and in geographical extension. During the late 1990s, more people as well as people from population centres further removed from the urban node – sometimes as far away as a 90-minute drive – became involved in this. Illustrative of the importance of intra-regional commuting is the local estimate that as many as 170 buses transport inhabitants from San Pedro (an hour’s drive away)
to the urban core. Over the course of the years commuter flows have not only grown and extended but also diversified to include men and especially youngsters.

Besides exerting a rural-to-urban pull on the rural population, industrialists have also side-stepped the tight urban labour market by establishing garment factories in rural areas. As mentioned in Chapter 4, during the 1990s several urban manufacturers as well as foreign-owned garment TNCs invested in garment factories in the rural hinterland of the Laguna region. Most of these investments were new arrivals to the region or company expansions. Instead of closing down factories in the cities and opening new ones in the towns and villages, urban and rural factories function next to each other. Over all, therefore, the dispersal of garment factories over the rural areas has hardly affected the growth of the industry in the cities. Nor has it had a great impact on the general concentration of wealth and opportunities in the cities or the importance of urban garment factories as sources of employment for the region as a whole. Migration to the cities and especially rural-urban commuting remain important features within the region. In fact, during the 1990s intra-regional commuting intensified significantly, though possibly less so than would have been the case in the absence of rural garment factories.

8.6 Geographical shifts in garment production
Alongside changes in the areas of production technology and organisation in the past decade, there has been a change in the geography of garment production in La Laguna. Indeed, spatial changes have been quite dramatic considering the short time period under consideration. In the late 1980s and even into the early 1990s, garment production in the region was by and large an urban affair. Nowadays this is less so: over the past decade approximately eighty garment factories have been established throughout the rural areas of the region. Together, these factories employ an estimated 10,000 workers, which amounts to approximately 15% of the total workforce in the garment industry. This section examines the intra-regional spatial dynamic of the industry and its implications for the rural areas.

The dispersal of garment production into the rural areas is based largely on the coinciding interests of the rural population, state governments and garment entrepreneurs. Over all, garment production in the rural areas is not the result of an endogenous rural industrialisation process driven by rural laguneros. The majority of rural factories are owned by entrepreneurs with garment companies in the cities or by foreign investors. As will be discussed below, even the cooperative factories, formally communally owned by rural inhabitants, were not established on the initiative of these inhabitants.

The abundant supply of labour at a relatively low cost in the rural areas is the main reason for investing in rural factories. Instead of bringing workers to the jobs – and paying for their transportation, as the majority of urban factories do – a rural factory brings jobs to the workers. Competition for workers, though not completely absent in the countryside, is much less fierce than in the cities. Also, the absence of local job alternatives helps to keep turnover and absenteeism rates down. The villages, ejidos and ranchos in La Laguna, with their effectively captive labour force, provide the labour-related conditions many garment companies are looking for.

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Meanwhile, the state government of Coahuila has stimulated the establishment of rural garment plants in an attempt to alleviate rural poverty and to stem migration flows. While Durango does not have a clear policy with regard to investment in its rural municipios, in Coahuila state support for the garment plants has taken several forms. Firstly, within its promotion efforts for the state as a whole, SEFOMEC actively promotes the rural area of the Laguna region as a location for garment factories. In its efforts, SEFOMEC builds on the reputation of the region as a garment production centre and on the abundant supply of cheap labour in the areas surrounding the cities. Secondly, the state offers fiscal and other incentives (e.g. reimbursement of training costs) to investors on a case-to-case basis. Thirdly, the state provides basic infrastructure ‘from the nearest main road infrastructure up to the factory gate’ for investors in the rural areas, where infrastructure is either lacking or of inferior quality.

Figure 8.5: Location and year of establishment of rural garment factories

Source: Baseline survey, 1998-1999; Fieldwork, 2000
Figure 8.5 illustrates the diffusion of garment production over the rural hinterland of La Laguna between the late 1980s and 1999. It shows a concentration of factories in and around the towns of San Pedro, F.I. Madero and Matamoros, and in the areas just south of Cd. Lerdo. Another striking phenomenon is the location of some factories at a very great distance away from the urban node. The factories in Nazas, Rodeo and Gral. Simón Bolivar can only be reached after a drive of about two hours, and the same applies to factories in Viesca, northern San Pedro and Tlahualilo. Furthermore, these factories are very isolated from other factories and even basic infrastructure, including telephone lines and sewer system. It is also remarkable that there is no clear pattern connecting the location of the factories and the year of establishment. Although a gradual dispersal from urban to peri-urban to rural locations may be expected, the actual pattern is much more diffuse.

Types of factories
Rural factories can be roughly divided into three separate groups: foreign-owned factories, subsidiaries of locally owned urban-based companies, and collectively owned factories (cooperativas). Foreign-owned factories located outside the three major cities tend to be located in the cabezas municipales of La Laguna-Coahuila. These plants are concentrated in or just outside Matamoros, F.I. Madero and San Pedro. Their locational preference is based on a combination of labour market considerations and infrastructural requirements. Their on average large scale of operation (180-700+ employees) means they require access to a sufficiently large labour reserve. Furthermore, infrastructural requirements for the operation of these large plants are relatively high, especially for those factories that do not have an office or other facility in the conurbation, rendering establishment in a small village or ejido an unfeasible option. Also, because of unfamiliarity with the region their choice of location is more easily influenced by state agencies promoting the rural area and providing industrial infrastructure precisely in the cabezas. Some of the foreign-owned factories are located in the industrial parks in Matamoros and San Pedro in Coahuila (see also Chapter 4). Others are scattered on the outskirts of town, often physically separated from the town.

The majority of locally owned plants are subsidiaries of very large companies based in the urban area of La Laguna. Rural subsidiaries are spread more or less equally over the states of Durango and Coahuila. They are further removed from the central urban node and are not confined to the cabezas, but are also located in smaller villages and ejidos. Their factories are relatively large, on average only a little smaller than the foreign-owned factories. The local origin of their capital, however, results in a distinct geographical location pattern compared to foreign-owned plants. The fact that they have urban headquarters and other production facilities means that the quality of some types of infrastructure, most notably telecommunications, can be less critical. Also, they are familiar with the area and do not rely on the information and promotion offered by the state government. The geographical pattern resulting from these considerations is more dispersed than the concentrated pattern of foreign-owned plants.

In line with the historical communal ownership of the villages, a considerable number of rural plants are cooperatives, owned and managed by the ejidatarios. Some cooperatives are new and resemble the locally owned rural subsidiaries in their layout, size and activities; others are located in former hacienda buildings or houses. Plant infrastructure and machinery of the cooperativas are owned by the ejidatarios. Depending on the arrangement, credits may be linked to
an exclusive business relationship with a contractor in the conurbation. This cooperative model was promoted on the basis of its potential advantages. Firstly, it can be argued to foster local entrepreneurial spirit and management capabilities. Secondly, it allows workers/owners to share profits – which may lead to more commitment, lower turnover rates and higher productivity. Finally, collective ownership ties in directly with the ejido structure that used to govern small-scale agriculture in the region, which may ease the transition from agriculture to industry.

Cooperative factories are located in ejidos, most of them in isolated locations far removed from the urban node; others are located in neighbouring municipios just outside the region. In many cases, urban entrepreneurs looking for subcontractors take the initiative for the construction of a cooperative plant and select appropriate ejidos for the project. In these cases, two considerations play a decisive role in the site selection: the size of the local, largely captive,
labour force in these isolated communities and the limited distance from major roads. This is reflected in the locational pattern shown in Figure 8.6, which illustrates the location of the various types of garment factories in the rural municipios of the Laguna region.

**Spatial implications**

In relation to the geography of the region, the most striking impact of the dispersal process is the apparent reinforcement of the rural settlement hierarchy (see also van Dooren, forthcoming). Not only is there a clear difference in service levels between the urban core of Torreón, Gómez Palacio and Cd. Lerdo and the rural municipalities, but also within the rural municipalities themselves there is a well-being gap between the towns/cabeceras and the rural villages, ejidos and ranchos. This gap appears to be widening partly due to the fact that in the cabeceras the garment boom may function as a lever for further local economic development while development on the basis of garment production in the villages and ejidos remains limited.

The outer appearance of especially the larger towns in Coahuila is changing: basic industrial infrastructure has been developed, mainly through the earlier mentioned industrial parks, and the quality and accessibility of road, sanitary and telecommunication infrastructure in general have also improved. New employment opportunities in the garment industry – be it in the urban or in the rural factories – have had a positive impact on household incomes, which is becoming noticeable in the towns. Based on an increase in the purchasing power of their population, the larger towns in the region, such as Matamoros and San Pedro, are able to retain to some extent their position as service centres for their rural hinterlands. Services are mostly commercial in nature; most notably, the number of shops and the types of products on offer have grown over the past years. Business services have also gained in importance, partly due to local businesses providing services to the garment industry. Not only has some of the construction work been done by local businesses, but catering and the transport of personnel are often also contracted from local entrepreneurs. Local informal businesses have also benefited; especially local people selling sodas and home-made sandwiches (lonches) at the factory gates are doing good business.

The larger towns of La Laguna-Coahuila have been revived with the establishment of the garment factories through the directly created employment opportunities as well as through some local multiplier effects (Otten, 2002). However, contrary to the hopes and expectations of the state government these improvements have not changed the existing migration patterns (see Box 4.3) or prevented them from worsening. Rather than evincing the insignificance of the development in the cabeceras it may be evidence of the severed link between migration and structural elements pushing out-migration. As pointed out by Zoomers (1986), persistent migration to the US-Mexican border may be very difficult to influence, as it has become a matter of course within the general context of family migration and the persistent attraction of the American dream. In La Laguna, as in other parts of Mexico, migration is no longer directly caused by structural push.

By comparison, the impact of rural factories in the villages and ejidos is often limited to one small factory and much of the income leaks away to larger towns and cities. Here, the garment factories are perceived as a mere drop in the ocean: while they are commonly the only sizeable local employment creator, the development impetus resulting from them is very limited. Thus, the existing rural service level hierarchy between towns, villages and ejidos may steepen as the
Box 8.6: Rural garment factories in the Comarca Lagunera

For each of the three different types of rural factories introduced above, a real-life case will be presented here.

1. A big player in town

As mentioned, the municipio of F.I. Madero accommodates a number of garment factories, one of which is a factory of the US sportswear contractor Major League (or Liga Mayor, as it is called locally). The plant is located just outside the town, in a rancho called Jaboncillo that can be reached via a good quality, specially constructed branch off the main road. Liga Mayor’s F.I. Madero plant has 450 employees and produces about 60,000 sweaters or pants a week.

The headquarters of the company are in Tellico Plains, TS, and US sewing facilities are located in the same town and in Jasper, GA. The company is a contractor for a number of very large branded sportswear manufacturers in the US, while the plant in La Laguna produces pants and sweaters for only one of these clients. The intra-company division of labour is such that it accommodates the more labour-intensive products (hooded sweatshirts, placket shirts, etc.) in the Mexican plant, while the more standardised and automated products stay in the plants in the US. The customer of Liga Mayor takes care of all pre-assembly activities and contracts out only the assembly. Cut-piece goods are delivered by the customer directly to the Liga Mayor plant, where the garments are assembled and then sent back to the US.

The company thought F.I. Madero a suitable location for the Mexican plant, because at the time of its establishment in 1994, the town had a population of about 20,000 inhabitants and a high unemployment rate. The fact that there were other garment companies in the region meant that there was some availability of experienced employees. Liga Mayor does not work with subcontractors in the region. Caterers and security guards are contracted locally, but few other supply linkages are maintained within the cluster.

2. Rural subsidiaries of an urban-based local company

Three subsidiaries of a local giant in Torreón are located in a small village about 60 km southwest of the urban area. All three are dedicated exclusively to assembly activities. Plant no. 1 has 120 employees and was opened in December 1988; plants nos. 2 and 3 both have 500 employees and were opened in October 1995.

The company that owns these rural factories was one of the first to choose rural locations for its assembly factories, and did so based on labour supply and cost considerations. The production organisation displays a very clear division of labour between plants and more specifically between urban-based and rural-based plants. The company has a very large cutting room, located in an industrial park in Torreón, where it does the cutting for all of its production. In addition, embroidery, accessories (warehousing and logistics), finishing and laundry are done in urban production facilities. Furthermore, in 1999 the company started centralising ‘special operations’ and small parts assembly in a separate area, the Area Común of the urban cutting facility. Once in complete operation, the area will be operated in three shifts, so as to be able to fully exploit the centralisation and automation of the attachment of accessories, decorations and special pockets. The Area Común supplies all the company’s assembly subsidiaries, which means that the assembly done in rural facilities is largely final assembly. The reason for the shift of small parts and special operations is an expected increase in efficiency of production.
3. A rural cooperative: Coronel Ilisario Prometeo

The ejido Coronel Ilisario Prometeo is located in the state of Durango at a distance of about 80 km from the urban node of La Laguna. It was one of the first cooperative plants to be established in the rural area and was opened in 1993 with credits provided by Bancomext. 26 cooperative plants in and outside the region work under the same or similar agreements for the same client company. The case of Coronel Ilisario Prometeo is illustrative of the vast majority of these cooperatives.

The cooperative is collectively owned by ejidatarios living in Coronel Ilisario Prometeo; however, the initiative for its establishment came from the local garment company, which currently is the cooperative’s only client. Using the Bancomext loan, the ejidatarios invested in the physical infrastructure of the plant and in the machinery, while the local garment company initiating the development stood surety for the investment. In exchange for the temporary (i.e. until the debt has been paid off) monopoly on the production capacity of the cooperative, the client company provides work, necessary inputs and support in areas of quality control, management, production techniques and training. Payments received for the garments produced are administered by the cooperative and used to pay for all operational/business costs and to pay off the loans. Initially the agreement between ejido and garment company was to last for four years, during which time the ejido was to repay its debts from the profit it made by producing garments.

In day-to-day practise, however, the Coronel Ilisario Prometeo cooperative has encountered a number of serious drawbacks and problems, related to high turnover rate, the mediocre logistics of the client-company, low unit prices and frequent changes of styles. Despite the expected lower turnover rate, based on the co-ownership and the lack of local employment alternatives, the cooperative has been plagued with a continuous very high turnover rate. Almost all employees of the plant are very young (under 20; the majority is 16 or 17 years of age). According to the plant manager, they work in the factory for a short while and then migrate, sometimes to the urban area of the region, but in most cases to the border or to the US, where many have family. Another problem is dependency on the client company for the delivery of inputs. Planning of deliveries does not always go smoothly. Since deliveries are made once a week and the plant is located a long way from the urban area, a missing input may lead to a one-week delay. In the case of a critical input, the plant may even have to close for a couple of days. Other problems related to the relationship with the client company are the low prices paid per garment and the frequent change of styles.

Because of these problems, the cooperative has not been able to operate profitably. Worse still, instead of paying off the loans, it has been accumulating debts (which have been taken over by the client company, to which payments are now made). As a consequence it has been working under the arrangement since 1993 and no change is foreseen for the near future. The ejidatarios rarely share in the profits, simply because most of the time there is nothing to share. There also is no or only very little money to invest in the repair, replacement or upgrading of the machinery and equipment, and this is likely to hamper the ejidatarios further development as an independent factory once they pay off their old debt (if they ever manage to do so, that is).
economic impact is deepest and widest in the towns, where most factories are located, most employment is generated and some multiplier effects can be noted, while hardly any change has taken place in the small villages and ejidos.

8.7 The bi-national value chain and La Laguna’s position in it
As NAFTA phased out the production-sharing regulations that had shaped the US-Mexico garment trade for almost three decades, it freed Mexican assembly contractors from a tight-fitting corset. The late 1990s were an especially important period for Mexican wearing apparel manufacturers. In the liberalised trade environment, the lower Mexican labour cost and the control and flexibility incentive of integration of the production process in one geographical location became ever more compelling, leading to shifts in the value chain. Towards the turn of the century, the cutting and finishing nodes of the manufacturing process were increasingly being shifted to Mexico. This section shifts attention away from local firms and focuses on extra-regional value chain linkages. It attempts to provide a broad insight into the actual geographical configuration of the late 1990s bi-national value chain within which La Laguna is positioned.

Soon after the passage of NAFTA duties on laundry were eliminated. In reaction, independent as well as company laundries were built and existing laundries expanded their capacity. Within a couple of years most jeans produced in La Laguna were finished and laundered in a local laundry.

A few activities further downstream of finishing and laundry have been shifted, and other activities in the post-assembly stage are beginning to be performed in La Laguna. Activities such as packaging and the printing of barcodes and price tags are being undertaken in the region. In the area of distribution, comparatively little local progress has been made. Even though US buyers are increasingly penetrating the Mexican market [see Mendoza et al., 2002], the distribution of their products is still largely concentrated in the US. Many, especially the larger, companies carry the inventories for their clients. They do so mostly from warehouses located on the US side of the border from where they feed into the distribution system of their buyers. True store-to-store distribution and inventory control was in the late 1990s one step too far for local companies.

With regard to cutting, shifts were not immediate; cutting rooms remained in the US for a comparatively long time. The first reason for the lagging geographical adjustment of cutting to the new rules is that it is a crucial job and in the Laguna region in the late 1990s there were still very few specialist cutters. In addition, before the phasing out of duties on cutting, several of the large and very large companies in the region had opened up a combined office/warehouse/cutting room in El Paso. As the labour component in the cost of cutting in relation to other parts of the manufacturing process is low, the facilities were used for a number of purposes and highly skilled cutters in El Paso were not hard to find, these companies did not have immediate, urgent incentives to move their cutting room closer to their sewing facilities, especially since much of the fabric was still bought in the US. Instead, they took their time to train cutting-room personnel and to set up a local cutting room and then gradually shifted cutting from El Paso to La Laguna. A third and final reason for the delayed arrival of cutting rooms to La Laguna is the position of US-based intermediary firms. In the pre-NAFTA period, these firms had found a competitive niche not only in the coordination of US demand and Mexican supply, but also in the performance or coordination of those
manufacturing activities that under 807 regulations were confined to the US. Many intermediaries have their own input procurement department and cutting room, and sometimes also finishing facilities. Even after the passage of NAFTA, these intermediaries held on to their cutting facilities in the US where they centralised the cutting for all or most of their contractors. A specialist garment transporting company dedicated to garment transport between La Laguna and El Paso confirms this pattern. By 1999 still 70% of the material transported by the company from El Paso to La Laguna was cut fabric.

Upstream from cutting, some progress has also been made towards further local integration. As discussed in the previous chapter, the industry-specific supply infrastructure has expanded greatly and most companies that have a direct business relationship with a US buyer buy their trim items at suppliers located in the region. As more companies are beginning to produce full packages, the pre-assembly activities of pattern making and certainly the production of markers (see Figure 1.2) has also begun to shift to Mexico.

By the very late 1990s, the configuration of the bi-national garment value chain was as illustrated in Figure 8.7.

The phased geographical reconfiguration of the bi-national garment value chain that has resulted from integration of the production process in the cluster largely follows the expected pattern (see Chapter 3; van Dooren & Verkoren, 1998). However, the reconfiguration process has not halted, but has also taken on an intra-regional dimension.
Intra-regional division of labour

As mentioned, intra-regional disparities in labour availability and cost are the principal reasons for establishing rural garment factories in the La Laguna. Of the companies that have a rural factory, 88% mentioned the greater availability of labour or the lower wages in the countryside as the main reason for establishing a rural factory. Extending the relocation trends illustrated in the NIDL theory for higher levels of scale (see Chapter 2) would lead one to expect the majority of rural factories to be dedicated to the most labour-intensive part of the production process: assembly. Table 8.3 illustrates the production function of rural garment factories in La Laguna. It shows the expected pattern: rural factories, irrespective of their ownership structure, are overwhelmingly dedicated to pure assembly. Virtually all foreign-owned rural factories are fully US-owned and can be typified as classical maquiladoras: they are relatively large factories dedicated to pure assembly and most have hardly any local production linkages. Locally-owned multi-plant companies generally use their plants to physically separate various nodes of the production chain. As a rule of thumb, they locate sewing plants in the rural areas and, if applicable, they keep the cutting room and laundry in the cities. Similarly, rural cooperatives, despite their formally independent status, are often assigned only one production activity and this is usually pure assembly.

The narrow assembly focus of rural factories is in contrast to the increasingly wide array of production activities carried out by very large garment companies in the cities. This indicates a deep urban-rural division of labour, where activities that are more capital- and skill-intensive and that enjoy economies of scale are performed in the cities, while highly labour-intensive activities are increasingly being located in rural areas. This pattern is based on the combination of both the specific requirements of the various stages of the production process as well as the characteristics or comparative advantages of the urban versus the rural area. In essence, labour-intensive sewing plants are well suited to tap into the relatively cheap, rural labour pools. This has given rise to a geographical differentiation of areas within the region on the basis of the productive specialisation of factories located in them. Connecting this pattern to the value chain sketched above, it gives rise to the incorporation of this geographical shift along the lines as illustrated in Figure 8.8. This addition to the chain is warranted also because, as pressure on the cluster increased after the turn of the century, the tendency to relocate assembly from the urban core to the rural area or even to locations outside the region increased (see also Appendix IV).

Table 8.3: Main functions of rural factories, per type of factory

<table>
<thead>
<tr>
<th>Types of production facilities/activities</th>
<th>Rural subsidiaries of urban factories</th>
<th>Cooperatives</th>
<th>FDI facilities</th>
<th>Vicinity of La Laguna (rural)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cutting</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Assembly</td>
<td>33</td>
<td>14</td>
<td>11</td>
<td>9</td>
</tr>
<tr>
<td>Cutting &amp; assembly</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Laundry &amp; finishing</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total no. of plants, based in or directly linked to La Laguna</td>
<td>38</td>
<td>14</td>
<td>12</td>
<td>10</td>
</tr>
</tbody>
</table>

Source: Baseline survey, 1998-1999; Fieldwork, 2000
Most rural factories depend on intra-company or network relationships with other manufacturers for the completion of the production process. The geography of these productive linkages differs slightly between the various types of factories. For locally-owned subsidiaries as well as for cooperatives, the geography of productive linkages is predominantly local in orientation. Despite formal differences in ownership structure, the position of both these types of rural factories in relation to the local cluster is largely similar. Both are part of a single, tightly controlled and coordinated production network centred on one large local manufacturer that carries out pre- and post-assembly processes in urban production facilities. This urban-rural division of labour gives rise to a material flow of cut-piece goods into and a flow of assembled ‘raw’, unfinished garments out of the rural areas, the logistical coordination over which is centralised in the urban node.

In contrast, for several rural FDI facilities, their rural assembly plant is the only factory in the region. Thus for these companies there is no intra-company, intra-regional division of labour. Inter-company division of labour is also rare: rather than working with local cutting rooms or laundries in Torreón, Gómez Palacio or Cd. Lerdo, these companies receive cut fabric from and ship unlaundered garments to their own production facilities in the US. Most of their productive linkages are extra-regional in orientation. A few foreign-owned companies in the region have plants in the cities as well as in the rural area. In these cases, the intra-company division of labour resembles that of locally owned factories: the rural factories do the assembly, and the urban factories take care of pre- and post-assembly processes.

8.8 Summary and conclusions

This chapter has shown that during the 1990s in La Laguna both the products produced and the processes applied for their production have undergone significant changes, and in many cases these changes have constituted improvements.
In line with general trends in the market discussed in Chapter 1, there has been a broad shift in the nature of garments produced in the cluster, away from mass-produced, standardised commodity jeans, to mass-produced fashion jeans. This shift in product composition can be understood as a necessary, inescapable adaptation to market demand and a precondition for securing a position in export networks to the US. Diversification outside the denim segment remains limited to the few basic items noted in Chapter 5 and is not part of local companies’ product strategies. However, effort is being put into achieving higher and more consistent product quality.

Concern with the organisation of production in local companies appears to be of a recent date. From the early days on, expansion of production capacity has been high on the agendas of local entrepreneurs and was mostly achieved by opening new factories, adding new sewing lines and hiring more workers. By the end of the 1990s, this strategy’s limits became apparent through a tight local labour market, higher wages and other costs as well as shrinking profit margins. Furthermore, especially in the case of several very large companies, a lack of effective control over the organisation of production was hampering the further development of companies. Just before the turn of the century, an increased awareness of the need to become more efficient became noticeable in the cluster. Practical measures remain limited, however. Only a few companies have implemented changes on the shop floor to improve efficiency and quality control, shorten throughput times and limit the impact of personnel turnover.

Many companies in La Laguna have responded to NAFTA liberalisation by extending company capabilities beyond pure assembly. With the exception of SME subcontractors, the cluster as a whole has moved away from pure assembly work. However, still few companies are able to produce full packages and those that do generally combine full packages with more limited assembly or CMT export work. Full-package producers are very large companies. Generally, the smaller the company, the more limited its capabilities. On the whole, government and public-private organisations play a limited, indirect role in firm- or cluster-level upgrading processes. Buyers, who coordinate and control bi-national production networks and mediate between the market and the firms in the Laguna cluster, have played an important role in the changes in products, but also in process improvements. Through setting standards and formulating demand, they have steered the development and the upgrading of their contractors and the cluster as a whole. In a number of cases the involvement of buyers with changes on the shop floor of local factories has even been direct and hands-on.

The apparently passive role of local entrepreneurs with respect to some of these issues contrast with their active stand in relation to securing a stable workforce. Concerns and strategies with regard to labour have been on the local agenda since the early 1990s when the explosive growth of the garment cluster has brought to the fore a negative side of clustering: tightening of the local labour market, rising wages and high turnover rates. Firms’ strategies are focused on securing a sufficiently large, affordable labour force and the dispersal of garment production to the region’s rural areas points to a tendency to scout for cheaper, stable labour (with no or limited employment alternatives).

How can these patterns be related to the literature on upgrading and local learning?

First of all, learning in La Laguna is hardly a collective process. The low-trust character of the cluster and the lack of stable, trust-based linkages or ties that cut through it (see Chapter 6), have hampered collectivization of learning. More importantly, in relating the findings to the GVC-perspective, it appears to be because ‘learning from global buyers’ (Schmitz & Knorringa, 2000; Gereffi, 1999; see also Chapter 7) plays such an important role that many local companies
are largely excluded from information and upgrading impetuses. Especially local producers that have a direct relationship to branded manufacturers or designers/marketers find themselves in a position to learn and take advantage of the expertise of these buyers. The previous chapter showed that the networks of these buyers are concentrated on the cluster’s larger – if not largest – producers and suggested this might be detrimental to the development of local subcontractors. This chapter confirms these ideas: local subcontractors do not have direct access to the knowledge and experience of buyers and it is not, or only to a limited extent transmitted to them by their local client. Thus the participation of the Laguna cluster in the US-Mexico garment commodity chain has not put the cluster as a whole on a dynamic learning curve. It has put some firms on such curves (pushing them to improve and learn), but others have been largely left behind, which has contributed to a process of polarization within the cluster.

Secondly, the question remains whether the local learning that does occur is fast and pervasive enough for the cluster to keep up with, let alone get ahead of the game. It is hard to shake off the image of local entrepreneurs absorbed in past and present challenges in an industrial environment that is focused on and speeding towards the future. Little of the upgrading that has taken place has really enhanced the region’s unique competition strength: its geographical location and potential to become the Quick Response source for the US garment market. EDI does not connect local factories to their buyers, no UPS has been installed in any of the local factories and sewing lines were only hesitantly converted to modules. Flexibility, service and Quick Response have not been the priorities of local entrepreneurs. Furthermore, business and upgrading strategies throughout the cluster are remarkably similar to each other, but also to those followed by or prescribed to garment producers in other parts of the world. Local firms all appear to be following the same general, well-known path to competitiveness. This is reminiscent of Porter’s competitive ‘rat race’ introduced in Chapter 2 and casts doubts on the mid- to long-term developmental outcome of La Laguna’s upgrading process. All in all, it is unlikely that the upgrading undertaken so far will lead to a repositioning of the Laguna region (or even some of its firms) vis-à-vis its peers in the global market.

In addition, there are some indications that there is no general desire amongst local garment entrepreneurs to engage in upgrading processes. This finding serves as a warning against the tendency of upgrading and learning literature to take the desire amongst industrialists to engage in upgrading for granted. The initial involvement of local garment firms (many of which without prior experience in the garment industry) as pure assemblers in the production networks of US buyers appears to have stunted their entrepreneurship by breaking their link to the market, requiring limited expertise and vision and by rewarding that with fairly large profit margins. Starting from this position, in the short- to medium-term upgrading – especially upgrading in the direction of full packages – is a lot of trouble for no extra reward. Without direct incentives or pressure many local entrepreneurs will not leave their current comfortable position to secure their survival in the future.

In other words, policies that limit garment suppliers in LMICs to a starting position as pure assembler may have a paralyzing effect on the entrepreneurial spirit of these suppliers. Moreover, near future perspectives with regard to the international policy environment also discourage upgrading by local producers: the integration of garments in WTO rules in 2005 is widely believed to cause a massive shift of production away from high-cost locations such as Mexico towards China and other truly low-cost countries.
The limited desire to engage in upgrading in La Laguna underlines Dolan and Tewari’s general observation on the importance of extra-chain aspects for the desire and capacity to upgrade (as quoted in section 2.2.3 of this study). It is also exemplary of the disruptive effect international policy measures have had on garment producers and production at different levels of scale – i.e. in La Laguna and in other locations across the globe.

In light of the above it may hardly be surprising that troublesome ‘high road’ strategies are often applied in combination with well-tried ‘low road’ strategies. The intra-cluster division of labour discussed in the last part of this chapter points to the continuing cost pressures due to international price competition and confirms the tendency of garment production, including in La Laguna, to respond to such pressures by moving to new and cheaper locations. It underscores the still footloose nature of parts of the production process. It is noteworthy that especially low road strategies were immediately intensified – and geographically extended to regions in South Mexico, Central America and even Asia – in reaction to the pressures of diminishing demand, experienced after the turn of the century (see Appendix IV). While it may offer some short term relief, it is a dead-end road to competitiveness in the longer run, as there will always be cheaper production locations. The cluster’s recent crisis and comparatively slow recovery, discussed in Appendix IV, appear to validate these doubts.

The above-mentioned uncertainties and general vulnerability that come from La Laguna’s participation in bi-national production networks and its general narrow orientation on exports to the US could be counterbalanced by engaging more in the domestic market. Reform and stimulation of the domestic market is just one way in which government policies could support the development of Mexican industries.

Notes

1 This may also be due to a gap between a researcher’s questions/tools and the reality of LMIC entrepreneurs. This is especially the case with regard to the owners of the smaller firms, who – as one put it – were ‘just making a living’.

2 Detailed quality specifications issued by buyers – spelling out the construction and quality requirement of each style in great detail – accompany the more complex garments. Each style’s construction characteristics are given, detailing such aspects as number of stitches per inch, types of stitches and seams, exact positioning of parts of the garment in relation to other parts, as well as the buyer’s tolerance (i.e. the level of mistakes or faults that are acceptable).

3 The geographical proximity of the region to the US may play a role here as it facilitates tighter and direct control on the part of buyers. Intra-cluster competition for labour has also played a role in improving labour conditions.

4 The gains in terms of quality and consistency associated with automation lies in the fact that consistency is no longer dependent on the operator and will not be affected by the personal circumstance of the operators nor by a switch between operators. These labour-related considerations are especially important in a production environment characterised by high turnover rates, such as La Laguna.

5 The cost of some of the machinery is quoted by some companies as the main reason for using them 24 hours a day by working in shifts.

6 This places Mexican manufacturers in a disadvantageous position compared to Asian suppliers: the latter generally receive a letter of credit against which they are paid upon shipment of the garments.

7 One of the reasons for this problem is that at the company level all HR-related policies and relations have a personal component. This makes it very difficult to evaluate the causes and consequences of the problems mentioned.
The garment industry is considered especially suitable for a rural location, because of its minimal infrastructural requirements, the non-polluting nature of the production process and its intensive use of non- or low-skilled labour.

A very small number of locally owned rural factories are independent producers whose only production unit is located in the rural area. Their number is too small for them to be discussed as a group, but they are included in the figures and maps.

Cutting rooms and laundries require skilled labour and also have more specific infrastructural requirements. Industrially skilled labour is a problem in the rural areas, where the limited employment experience of the population is geared towards agricultural work. In the case of laundries, a good water supply and drainage system is needed. This is not normally available in the rural area, where many ejidos still draw water from wells or norias. Both cutting and laundry equipment need specific, expensive parts as well as maintenance by a specialised mechanic. These can only be found in the urban node of La Laguna where all the support infrastructure (such as suppliers and industry-specific services) is located. Finally and very importantly: both processes – especially when automated – enjoy economies of scale and the quality of both is of decisive importance for the quality of the final product.

Cutting rooms and laundries are thus most suitably located in the cities, a fact illustrated by the data in the table.

In spite of the apparently limited numerical significance of 15% of the total number of garment workers employed in rural factories (Gereffi et al., 2002b).

Moreover, rural garment factories have not brought what was hoped for in terms of regional development. The arrival of garment factories in villages and ejidos was mostly a matter of ‘too little, too late’ for it to reverse the rural exodus (see Chapter 5) or to reduce the urban-rural divide and spark a process of rural development.
Appendix III
Positioning garment companies in relation to their competitive environment

Figure III.1: Auto-evaluation on the competitive position of local garment firms

Source: Baseline survey, 1998-1999
Appendix IV
Evidence of a crisis in La Laguna

Most of the field research for this study was performed in 1998-2000, when the surveys were carried out and most of the interviews were held. The results of these research efforts are presented in this study. In the years covered by this study, despite the noted vulnerabilities and growing pains of the cluster, the growth of the local industry was phenomenal. However, this changed in 2001. In the early months of that year, the first signs appeared of an impending crisis for the Laguna cluster: local newspapers reported layoffs and the closure of local garment SMEs, including several factories in the rural areas of the region. This pattern continued through the summer and became dramatically worse after the terrorist attacks of 9/11 and the ensuing economic uncertainty in the US. In apparent confirmation of the Mexican saying ‘When the US has the flu, Mexico gets pneumonia’, garment production in the Comarca Lagunera collapsed as soon as US consumers started to hesitate and reduce their spending.

While it was not possible to carry out a new survey, a brief interview round was carried out at the beginning of 2002. This provided insight into the impact of the crisis, local reactions to it and ways the cluster and its firms were coping with it. The following is a summary of the most important aspects of the crisis in the Laguna cluster.

The slow-down of the US economy has inflicted many casualties in La Laguna, as companies of all sizes, in local as well as foreign ownership, were hit hard. The impact was most severe for the most vulnerable echelon of the cluster, the subcontractor SMEs, many of which closed down completely. However, large companies and the local giants were not spared: many were forced to shut down some of their factories and to dramatically reduce their workforce as production on average shrank to approximately 25-30% of the maximum production capacity reached in 2000. In some cases, the impact of the crisis on large companies was more dramatic, as the example of the companies introduced in Chapters 5, 6 and 7 illustrates. Casolco – which was commonly ranked amongst the very large leaders of the cluster, or at least as approaching that status – went out of business a few months after the crisis set in. The owner of Roman – another fairly prominent company in the cluster – absconded in order to escape his huge debts and the impossibility of repaying them in the context of long-term depressed demand from the US.

One night, without notifying his workers, partners or suppliers, he emptied the factory, packed all the best sewing machines in a large truck and disappeared from La Laguna. Others, like Lajat, however, had accumulated more of a financial cushion for bad times and managed to hang on – but only by their fingernails and by accepting any order, even for the most difficult and complicated styles. Most of the subcontractors were forced to close down, many went out of business and only some reopened when the worst of the crisis was over and recovery began. The medium-sized, large and very large contractors with direct relationships with US buyers looked for work everywhere. They often failed to find any, but on the whole they were able to secure just enough to stay in business with a minimal capacity and workforce.
Contrary to the experiences recorded for clusters in crisis in Brazil (Schmitz, 1999), India (Knorringa, 1999) and Pakistan (Nadvi, 1999), and even for a shoe cluster in Central Mexico (Rabellotti, 1999), in La Laguna the 2001 crisis did not give rise to initiatives for stepping up inter-firm cooperation. While the nature of the crisis – which was rooted in a generally depressed market, rather than in more successful competitors or a mismatch between local capabilities and market demands – may have something to do with it, the local socio-cultural environment appears to have been an insurmountable barrier to cooperation (see Chapter 6). Representatives of the local CNIV intensified their lobby for support and understanding from the IMSS (to temporarily suspend payments), Bancomext and other organisations, including governmental ones. Most of their activities were defensive, and while representative of general cluster-wide sentiments, they were not based on a broad or even massive mobilisation of garment entrepreneurs. Most entrepreneurs were too busy trying to find work and save their businesses to look beyond these immediate concerns and to cooperate with local peers. However, the local and social embeddedness of local garment entrepreneurs was fully exploited as a relief system, for example by bartering garment batches at a time when most local firms had limited or no cash flow. Such survival strategies were more easily employed based on the embeddedness of the cluster, its firms and interrelations.

For individual firms that survived the crisis, the experience appears to have provided a strong impetus to the upgrading activities started but not completed before the crisis. The years of trying to catch up with continuous demand growth by adding new sewing lines and more workers without focusing on measures to improve production efficiency ended with the crisis. From it emerged leaner firms that had implemented efficiency improving measures, such as transforming sewing lines into module-type production units, automating key operations and generally reducing labour input to the minimum. Especially in FDI facilities and in several of the local giants, the focus on efficiency was evident.

With regard to the cluster, individual firms’ strategies during and after the crisis have contributed to a sharpening of the existing intra-cluster hierarchy. During the first months of 2001, when faltering demand caused problems amongst subcontractor SMEs, forcing several to go out of business, a few local giants decided to take over the facilities, machinery and workforce of these SMEs. This was seen as an immediate and comparatively easy way to expand production capacity. After the crisis, when demand started to recover, local giants attempted to fill their factories as quickly as possible. In their attempts they were willing to accept small order sizes as well as low prices. They are reported to have undercut not only the price quotations of other local contractors but also the indicated prices of the buyers.

The garment workforce was the most direct and all-round victim of the crisis. First, many garment workers lost their job in 2001. At the height of the crisis, 30,000 garment workers were estimated to be out of work. Many of these workers were not formally laid off, but indirectly forced to quit their jobs, as their employers stopped providing transportation services. Especially for workers living in a far-off rural area, arranging their own transportation was too complicated and too expensive. They lost their jobs and on top of that had no right to the compensation they would have been entitled to had they been fired. A visit to various rural towns and villages confirmed that there were no employment alternatives available locally: as noted in Chapter 4, the absorption capacity of the agricultural sector is limited and most rural
garment factories were either closed completely or working at much reduced capacity. All rural cooperatives were closed for at least a couple of months, and some for more than six months. The population in the ejidos that had cooperative garment factories reported that the lack of employment opportunities was pushing especially young males to temporarily migrate to the border. In the cities there was wide recognition of the crisis and the massive layoffs, but few officials or entrepreneurs expressed concern for the unemployed. Continued investment in the region was seen to predestine the region’s prosperous future, and many of these urban informants thought the unemployed would return to what they had been doing before the garment boom: being a housewife or working in the informal sector (the enormous number of taxis driving around confirmed the latter trend). Alternatively, it was suggested, some might find work in the newly built malls. The garment workers who were not laid off also suffered. The crisis affected their income almost immediately, as firms responded to the situation by cutting costs, which included wages and benefits. There was a general downward pressure on wages, some factories suspended payments temporarily, while other firms lowered wages by 100-200 pesos and cancelled bonuses and benefits.

Of course, these events need to be seen in the context of the cyclical nature of the world economy as well as that of the garment business. There will be a recovery and there is no reason to believe that all garment production will disappear from La Laguna in the coming years. However, a full recovery is unlikely and local estimates are that the local capacity will have to be reduced to 50-65% of its former level. This is also foreseen at the national level. In fact, the recovery of the Mexican garment industry in 2002 was less complete and slower than that in other countries (Haisley, 2002; Reforma, 2003; EU, 2003).

Despite the above and despite the expected negative effects of NAFTA liberalisation in food processing and agriculture in the form of increased import penetration from the US, the urban area of La Laguna, especially Torreón, is bustling and booming. The economic downturn in the US economy and its direct impact on the Mexican border region, the Mexican export sector and the Mexican economy in general have apparently not affected the region. Investments from the US in chains such as Wal-Mart, Office Depot, Home Depot and HomeMart have transformed the conurbation, giving it a more modern appearance. The expansion of Mexican stores such as Gigante and Soriana has been impressive, as has the construction of new luxury hotels and the opening of a number a large, new car dealerships. The two large, modern shopping malls opened in 2001 also fit into the picture of Torreón as a booming, modern, prosperous city. Such investments are based on long-term expectations concerning the economic growth of the region. However, in La Laguna in 2002, they were startling because of the absence of a link between them and the local economy. In general, the physical appearance of the cities does not correspond with the true state of the local economy, which appears better reflected by the insides of both malls: they are almost always empty. Furthermore, the malls can also been seen as symbols or warning signs of the large, growing and increasingly dominant position of US business interests and investment capital in the region, in some cases at the expense of local businesses.

Notes

1 Recently there have even been rumours and newspaper articles about the possible construction of a Disney amusement park in the region. While this may make one smile at the fortune-telling talents of Fidel Castro – who
not too long ago typified northern Mexico as a Disneyland – it also poses more serious questions concerning the
development of the Laguna region.